Measuring Service Quality for Strategic Planning And Analysis in Service Firms

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Abstract

The following study demonstrates that service quality assessment using importance-performance analysis may be a more useful strategic management tool than the gap measures recommended by the authors of the SERVQUAL scale. An example from the health care industry highlights the utility of the proposed method for purposes of strategic decision making.

Introduction

The economic base of the United States is increasingly service oriented. In fact, 70% of the United States economy is involved in services, not including the three-fourths of manufacturing activities that represent support services (Collier, 1992). Several authors (e.g. Quinn, 1992a, 1992b; Drucker, 1992; Quinn, Doorley, & Paquette, 1990) have suggested that as U.S. society becomes more information driven and service based, corporations will have to revise their traditional approaches to strategic management. For example, Quinn states that "....a strategy built around core intellectual or service competencies provides both a rigorously maintainable strategic focus and long term flexibility" (Quinn, 1992b:50).

Paralleling the recognition of the importance of service activities is a growing awareness that strategic management must be approached from a framework of quality assessment and enhancement (Quinn, 1992a; Dobyns & Crawford-Mason, 1991; Roth, 1992). Therefore, it is apparent that quality issues are becoming critical aspects for the strategic management of service firms. In spite of this recognition, however, very little research in the strategic management field to date has been directed toward the issue of service quality assessment.

The current study overcomes this gap in the literature by assessing the state of the art in service quality assessment in social science research. The discussion begins with a review of the alternative techniques that have emerged for assessing the quality of services provided by firms. Of particular interest will be a discussion of the SERVQUAL scale (Parasuraman, Zeithaml, and Berry, 1988), a proposed measurement instrument for service quality measurement that purports reliability and generalizability across unique service settings, as some strategy scholars (e.g. Quinn 1992a, Stank 1993) have recently embraced this scale. Second, the emerging literature concerning the validity and utility of the SERVQUAL scale for measuring service quality is presented. This emerging literature calls into question the efficacy of the SERVQUAL scale as a valid or reliable basis for strategic decision making. The third section presents an empirical study that advances the notion of importance-performance analysis as a framework for overcoming many of the identified difficulties implicit with the SERVQUAL scale *while affording the ability to still use the measurement instrument.* In other words, a technique is proposed that allows managers to use the SERVQUAL survey and still gain reliable and valid information for strategic decision making despite its identified limitations. The final section presents and discusses the managerial and research implications of the reported study.

Alternatives for Assessing Service Quality

It has long been held that brand names are valuable assets which project an image of quality and reliability. However, there is evidence that this relationship may not hold for service firms (or for service activities of manufacturing firms) as brand names have not been found to be reliable indicators of service quality or customer behaviors relating to perceived quality (Fox & Day, 1988). Beyond brand name, manufacturing firms frequently have large, externally generated data bases upon which to compare their own performance with the performance of competitors (e.g. Valueline, PIMS, or J.D. Power Surveys). However, there currently exists no

such external databases specific to service firms (Kennedy, 1986). Similarly, many manufacturing firms employ reverse engineering or "bench marking" as a means of comparison, but service activities do not lend themselves readily to these forms of analysis because of their inherent intangible nature.

Another option for service firms to use in assessing quality involves the development of customer survey instruments to measure quality and quality changes on an ongoing basis. Quinn (1992a) pointed out that the achievement of this objective has traditionally been hampered by the lack of standard tools for measuring the outputs of service firms. He further recommended the use of a recently-developed survey instrument called SERVQUAL for measuring customer perceptions of service quality. However, we identify some recent research on the SERVQUAL scale that should be considered prior to its introduction into strategic management research designs, curricula, and practices.

SERVQUAL Scale Development

Parasuraman, Zeithaml, and Berry (1985) initially reviewed the literature on quality assessment and concluded, in short, that service quality can neither be conceptualized nor measured by relying on traditional theories concerning the quality of goods. These authors reached three primary conclusions from their literature review and a series of focus groups: (1) service quality is more difficult to evaluate than the quality of goods, (2) service quality results from the comparison of actual service performance with the level of expected service, and (3) service quality perceptions involve the process of service delivery as well as the outcome.

Parasuraman, Zeithaml, and Berry (1988) extended these arguments by proposing that service quality is a construct that is similar to an attitude and related, but not equivalent, to consumer satisfaction.[1] Based on this distinction, Parasuraman, Zeithaml, and Berry (1988) propose that service quality should be operationalized as a comparison between (a) the expectations a consumer holds for a class of service providers and (b) the relative performance of the firm on specific attributes related to quality assessments (see equation [1]). Thus, the theory underlying the SERVQUAL scale suggests that the service quality construct forms as the result of the following relationship:

$$\text{Service Quality} = f(\text{Performance} - \text{Expectations}) \quad (1)$$

Based on this model, Parasuraman, Zeithaml, and Berry (1988) developed and proposed the SERVQUAL survey instrument as a reliable, valid, and generalizable way to measure the service quality construct. The original SERVQUAL survey was comprised of a set of twenty-two paired expectations/performance items (for a total of forty-four items) which purported to capture the domain of service quality. Based on an exploratory factor analysis, these authors suggested that the domain of service quality can be conceptualized as comprised of five dimensions: tangibles, reliability, responsiveness, assurance, and empathy [see Parasuraman, Zeithaml, and Berry, (1988) for a comprehensive discussion of their scale development procedures and definitions of their proposed factors; see Appendix A of the current discussion for definitions of these dimensions].

In a subsequent publication Zeithaml, Parasuraman, and Berry (1990) extended the SERVQUAL methodology to include importance measures[2] for each gap comparison. That is, the original SERVQUAL item pairs captured difference scores, or gaps, between consumer perceptions of actual performance and consumer expectations of how the performance "should be". The item pairs represented the five dimensions previously identified by Parasuraman, Zeithaml, and Berry (1988). However, these dimensions were not weighted in terms of the relative importance that the service firm's consumers attach to them. Zeithaml, Parasuraman, and Berry (1990) thus proposed an additional series of items which captured the importance consumers placed on each of the dimensions of service quality captured by the SERVQUAL scale, or:

$$\text{Service Quality} = (\text{Perceptions} - \text{Expectations}) * \text{Importance} \quad (2)$$

Equation [2] represents the weighted form of service quality measurement using the SERVQUAL scale. The creators of the SERVQUAL technique suggest that service firms can first capture difference scores for each of the 22 items in the (five dimensional) domain of service quality which can then be treated as either weighted or unweighted indices. These individual factor scores can be summed-and-averaged into the five dimensions of quality. Finally, an overall service quality score can be attained by summing and averaging the five factor scores.

The SERVQUAL scale has been used in a plethora of service environments, including recreational services (Crompton and Mackay 1989, Hamilton 1989, Mackay and Crompton 1988), health care (Brown and Swartz 1989; Woodside, Frey, and Daly 1989), and general services environments (Berry and Parasuraman 1991; Bolton and Drew 1991a, 1991b; Gronroos 1990; Heskett, Sasser, and Hart 1990; Zeithaml, Parasuraman, and Berry 1990). Thus, consistent with Quinn's (1992a) presentation, it does not appear an exaggeration to suggest that the SERVQUAL technique has been the dominant exemplar in service quality research.[3]

However, in spite of the popularity enjoyed by the SERVQUAL scale, a number of recent studies have questioned the efficacy of Parasuraman, Zeithaml, and

Berry's (1985, 1988) conceptualization of the service quality construct, and consequently, the SERVQUAL methodology itself, as an appropriate operationalization of service quality. The following section examines the growing body of evidence criticizing the SERVQUAL methodology.

Criticisms of the SERVQUAL Scale

Carman (1990) attempted one of the first efforts to replicate the development of the SERVQUAL scale. Carman reported reasonable internal consistency among the items identified by Parasuraman, Zeithaml, and Berry (1988), but concerns over how the items aligned along the five dimensions implicit in the SERVQUAL theory. Thus, Carman appears to be one of the first to identify the possibility that the SERVQUAL scale may not exhibit the purported five-factor structure across all service industries, and further questioned the expectations and perceptions gap model which underlies the SERVQUAL scale. Several subsequent studies have pointed to the unstable nature of SERVQUAL's factor structure as only one of a number of limitations inherent in practical applications of the scale.

Babakus and Boller (1992) specified a number of methodological shortcomings of the SERVQUAL technique. These authors attempted to replicate the development of the SERVQUAL scale within the utility industry and concluded that conceptualizing and operationalizing service quality as a five-dimensional construct was not supported in their study. In fact, Babakus and Boller suggested that the SERVQUAL scale appears to be essentially unidimensional and that the expectations items do not appear to add to the explained variance of the operationalization. Babakus and Boller further suggested using an alternative survey-item format which captures both expectations and perceptions in single items (e.g., better than/worse than scales).[4] Third, Babakus and Boller cautioned researchers and practitioners against using negatively-worded items in any survey instruments attempting to operationalize the service quality construct. Finally, these authors concluded that the reliability and validity of the SERVQUAL technique (not the survey items per se) appear suspect and consequently called for further research into the appropriate conceptualization and operationalization of the service quality construct. That is, while the items themselves appear to capture the domain of the service quality construct, the reliability and validity of the ***combined*** items appeared suspect (see Babakus and Boller 1992 for comprehensive discussions of the foundations for their conclusions).

Brown, Churchill, and Peter (1993) also investigated the reliability and validity of the methodology used in the SERVQUAL scale. These authors specifically addressed the use of the disconfirmation format as the appropriate operationalization of the service quality construct in addition to examining the psychometric properties of the SERVQUAL scale. Brown, Churchill, and Peter argued that calculating the reliability of difference/gap scores, as proposed by Parasuraman, Zeithaml, and Berry (1988) in the development of SERVQUAL scale, requires a special-case formula. The essence of their argument is that the expectation and perception items in the SERVQUAL scale are suspected to be highly correlated, leading to attenuation of the reliabilities of these components. A decrease in the reliabilities of the component scores leads to a decrease in the reliabilities of the difference scores. Thus, low measurement reliability in the difference scores creates the *appearance* of discriminant validity[5] simply because low measurement reliability tends to attenuate correlations between constructs. The SERVQUAL design may be particularly susceptible to this phenomenon. In fact, these authors further suggested that scales utilizing difference scores (such as SERVQUAL) typically do not demonstrate discriminant validity from their components, calling into question the construct validity[6] of such scales.

Brown, Churchill, and Peter (1993) also investigated the possibility of variance restriction in the SERVQUAL scale data. The authors argued that, since the expected level of service (i.e., expectations) will almost always be higher than the perceived level of actual service (i.e., perceptions), the variance of the difference scores is restricted. The results of their study bear out these concerns empirically. The authors concluded that the reliability and validity of the SERVQUAL data is suspect, variance restriction is apparent in the SERVQUAL data, and the dimensionality of the SERVQUAL scale does not appear to replicate across industries. Ultimately, these authors concluded that the service quality construct appears best operationalized simply by measures of service firm's actual performance (i.e. perceived performance only without expectations).

Cronin and Taylor (1992) provided a comprehensive study which investigated the conceptualization and operationalization of the service quality construct and the relationships between service quality, consumer satisfaction, and purchase intentions. Based on a multi-industry sample of consumer data, Cronin and Taylor assessed which of four competing models nested within the SERVQUAL instrument most effectively predicted consumers' overall perceptions of service quality: (1) unweighted SERVQUAL, (2) importance-weighted SERVQUAL, (3) the unweighted performance subscale of the SERVQUAL scale (which they term SERVPERF),[7] and (4) importance-weighted SERVPERF. The results of their study indicated that the unweighted performance-only measures (SERVPERF) consistently outperformed any of the other competing models in service environments. That is, the

SERVPERF scale explained more of the variation in consumer perceptions of service quality than the other models as measured by the R^2 statistic. Moreover, the addition of importance weights did not appear to contribute to the variance explained in consumers' perceptions within the subscale of performance only, similar to the findings of Carman (1990) for the complete scale.

These results have called into question the use of expectations/perceptions gap scores which form the basis of the SERVQUAL scale (see equation [1]). Further, Cronin and Taylor's (1992) findings relative to the merits of using importance weights as multipliers of performance cast suspicion on the practice of using importance-weighted measures of service quality as proposed by Zeithaml, Parasuraman, and Berry (1990). In addition, Cronin and Taylor were unable to identify a stable factor structure in the SERVQUAL data. These authors ultimately argued, consistent with the argument of Babakus and Boller (1992) and Brown, Churchill, and Peter (1993), that the SERVQUAL and SERVPERF scales should be treated as unidimensional scales.

Cronin and Taylor (1992) suggested that the problems inherent in the SERVQUAL technique can be traced to the conceptual model underlying the scale. In short, the apparent instability of the data is primarily caused by a hesitancy to treat service quality as an attitude, as opposed to *like an attitude*. Cronin and Taylor argued that the result of this hesitancy is the practice of conceptually distinguishing service quality from satisfaction, while simultaneously using the disconfirmation of expectations to measure service quality perceptions. The problem is that the disconfirmation of expectations paradigm has historically been used in measures of satisfaction and not service quality (c.f., Cronin and Taylor 1992; Oliver 1980, 1993; Peterson and Wilson 1992; Westbrook 1987; Westbrook and Oliver 1991). In short, strategic decision makers and strategy researchers who employ SERVQUAL and its scoring algorithm appear to be essentially capturing a measure more closely related to consumer satisfaction than service quality.[8]

In a follow-up study aimed at overcoming many of the criticisms discussed herein, Parasuraman, Zeithaml, and Berry (1991) presented a reassessment of the SERVQUAL technique. They attempted to replicate their original scale development in three industries, two of which were not considered in the original scale development. Based on their results, the authors recommended eliminating negatively-worded items and cautioned that the five-factor structure implicit in the SERVQUAL scale may not be completely generalizable across service settings. However, the authors maintained that their proposed expectations/perceptions gap model remained an appropriate basis for operationalizing the service quality construct. We suggest that the weight of the literature would seem to indicate otherwise.

To summarize, a number of questions have been raised concerning the gap model which underlies the SERVQUAL scale. However, the authors of the current research suggest that data captured using the SERVQUAL scale may still prove useful, however, in an alternative methodology. That is, the controversy in the literature does not revolve around the validity and reliability of the individual expectations, performance, and importance subscales per se. Rather, the bulk of the controversy concerns the reliability and validity of the *combined* scales. In other words, the gap scores and their manipulation are the basis of the problem.

This leads to the question of what to do with quality information once it has been captured using the SERVQUAL scale. We suggest that strategic decision makers can gain valuable information from the proper use of the information derived from the importance and performance subscales. Specifically, the SERVQUAL scale items can be placed on an importance-performance (Martilla and James, 1977) grid, which will then identify areas in which strategic redeployment of resources may be warranted to improve service quality. This suggestion forms the basis for the proposed research discussed in the following section.

The Research Study

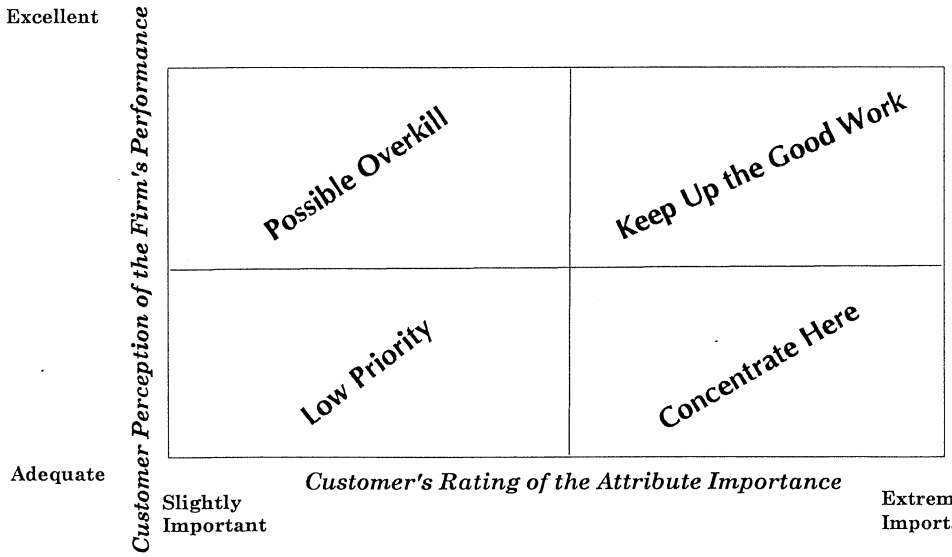
The following study investigates the efficacy of performance-importance maps as a managerially relevant way to use service quality data derived from the SERVQUAL scale. Importance-performance analysis (Martilla and James, 1977), like SERVQUAL, maintains that quality is a function of customer perceptions of performance and the importance of the attribute. However, customer expectations are not included in importance-satisfaction analysis because customers "expect" uniformly high levels of service (Brown, Churchill, & Peter, 1993). Thus, the importance a customer places on any given service attribute is a principal dimension of importance-performance analysis, rather than expectations.

The second dimension of consequence in importance-performance analysis is firm performance. This dimension is nothing more than the customer's perception of the firm's service performance, which is also captured by the SERVPERF scale recommended by Cronin and Taylor (1992). We suggest that responses to these importance and performance items can be mapped through an importance-performance analysis. A generic importance-performance matrix is shown in figure 1.

Importance-performance analysis has been demonstrated in the marketing literature and applied to

Figure 1

Matrix for a Generic Importance-Performance Analysis



Adapted from: Martilla, J.A. and J.C. James. "Importance-performance analysis," Journal of Marketing, January 1977, page 78.

various service industries, including retirement communities (Hawes, Kiser, & Rao, 1982), banking (Swinyard, 1980), and health care (Hawes & Rao, 1985). In addition, the importance-performance model has been found to be conceptually valid and a powerful technique for identifying service quality areas requiring remedial strategic actions (Sethna, 1982). Furthermore, importance-performance assessment provides clear direction for action, identifying areas where scarce resources should be concentrated. Lastly, importance-performance mapping is adaptable to a variety of service settings and measurement techniques (Hemmasi, Graf, & Nielsen, 1992). However, none of the applications of importance-performance mapping discussed above used an empirically derived, standardized list of relevant, valid indicators of service quality. It is the marriage of the analysis framework offered by importance-performance mapping with the identification of valid service quality measures put forth in the SERVPERF instrument that holds the promise of an integrative methodology useful to both strategic management researchers and practicing executives. Matching importance items for the SERVPERF scale can then be combined with the performance perception items for use in an importance-performance analysis, as described in the following example.

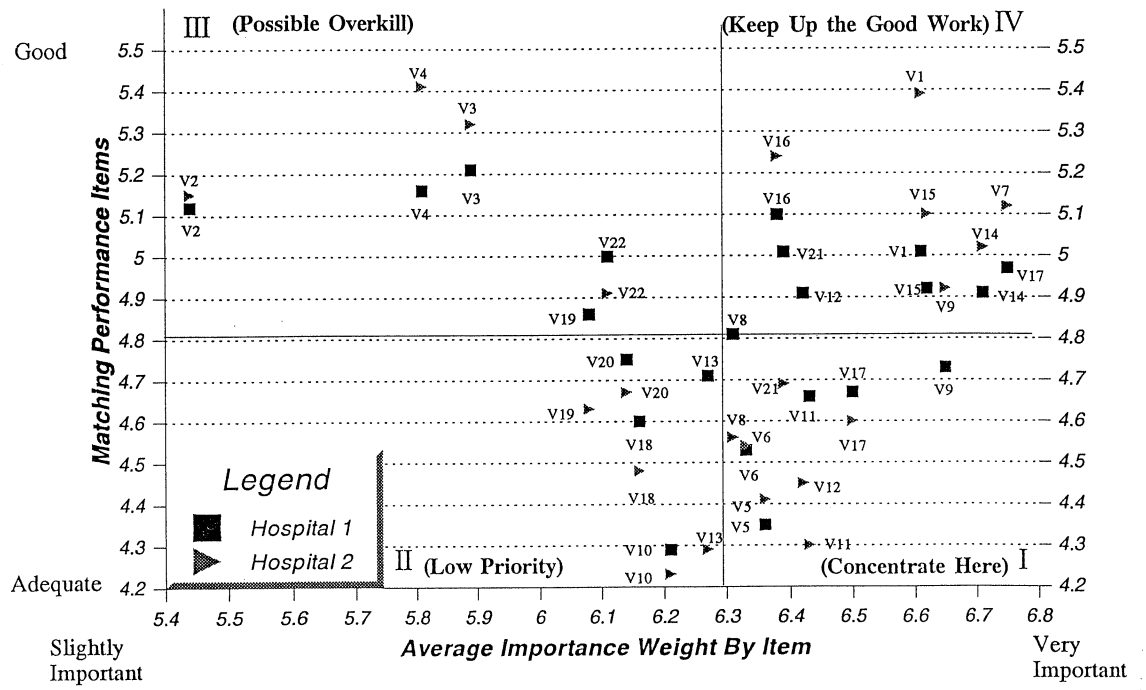
The Study

Data used for the normative example were gathered from consumers of hospital services. The performance and importance scales were adapted to the health care industry and used to capture consumer perceptions of two local hospitals in a medium-sized city located in the southeastern United States (see Appendix A). The city chosen for analysis appeared particularly appropriate as a representative health services setting because the city contains only two hospitals: a not-for-profit regional medical center (n=126 consumer participants) and a for-profit general medical/surgical hospital (n=101 consumer participants). A total of 227 usable surveys (e.g., fully completed) were collected by trained interviewers via personal interviews conducted in a large regional mall. Respondents were queried prior to participation in the research project to ensure that they had visited the local hospital they assessed in the survey within the last six months. A comparison of demographic indices revealed no statistically significant differences between the obtained sample and the demographic characteristics of the local community.

Figure 2 presents the results of the Importance-Performance mapping analysis exemplified in the health services setting. The X-axis represents the averaged importance weights for the twenty-two importance items as they related to the two hospitals under investigation. The basis for averaging the importance measures derives from evidence suggesting that service attributes which consumers deem important appear to be industry specific, whereas perceptions of service performance are likely to be firm specific (Bopp, 1990). The data collected in the current example support this conclusion, as the average variation among importance perception scores between the two hospital samples was only 7.5%.

Figure 2

Performance/Importance Map



The Y-axis represents the performance scores obtained using the performance subscale. The item plots in Figure 2 for Hospital 1 refer to the for-profit general medical/surgical hospital, and the items for Hospital 2 refer to the not-for-profit regional medical center.

The four quadrants in Figure 2 are formed based on the mean scores of the importance and performance ratings. The mean importance rating for the pooled data was 6.30 The mean performance ratings were 4.83 for Hospital 1 and 4.79 for Hospital 2. We suggest that strategic decision makers and researchers can benefit from two types of information implicit in the four quadrants. The first type of information concerns how the firm is delivering quality in areas consumers deem important. The second type of information extends the analysis to capture these perceptions relative to the competition.

We begin our discussion of these two types of information by directing readers to Quadrant I *(Concentrate Here)* in Figure 2. This quadrant represents those areas consumers deem particularly important, yet perceive the firm as only providing adequate service quality. The data captured in Quadrant 1 suggest that both hospitals are perceived as providing less than optimal service in terms of items V5 (keeping promises), V6 (appearing sympathetic and reassuring), V8 (timely provision of services), V11 (providing prompt services), V12 (willingness to help customers), V13 (responding to customers promptly), and V17 (organizational support of the employees). In other words, the two firms are perceived as performing relatively equally poorly in terms of V5, V6, and V17. However, Hospital 2 appears to be performing much better than Hospital 1 on items V8 (timely provision of services) and V11 (receiving prompt service). In fact, Hospital 2 rated significantly better in terms of item V9 (accurate records). Conversely, Hospital 1 appears to have the edge in terms of items V12 (willingness to help customers) and V21 (having the interest of customers at heart). The interpretation of these results suggests that managers of Hospital 1 should direct resources toward enhancing the level of responsiveness, but should pay particular attention to increasing the reliability of their services. Hospital 2 appears to suffer from the same service deficiencies, although slightly greater attention appears necessary in improving the level of responsiveness to the customer throughout the organization.

Quadrant II *(Low Priority)* identified those areas where the firm is performing adequately on issues the

customer judges as less important relative to other dimensions of service. Items V10 (keeping customers informed), V13 (responding promptly to customer requests), V18 (individualized attention), V19 (providing personal attention), and V20 (knowing the needs of the customers) are all represented in Quadrant II. The two hospitals are perceived quite similarly in terms of items V10, V13, and V20. However, Hospital 1 appears to have the edge in terms of consumer perceptions of their performance along items V13 and V19. This advantage may be of little strategic importance because customers place little relative importance on these issues.

Quadrant III (*Possible Overkill*) identifies those areas where the firm is performing quite well but the consumer does not perceive it as important relative to other service attributes. Items V2 (visually appealing facilities), V3 (neat, well dressed employees), V4 (appearance of physical facilities), and V22 (convenient operating hours) are identified in Quadrant III for both hospitals. This result is particularly interesting as Zallacco and Joseph (1991) identify how hospital administrators have traditionally emphasized facilities management in the provision of hospital services. In fact, the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), a primary accrediting body for many of the hospitals in the United States, contains an entire section on Plant, Technology, and Safety Management. The results of the current analysis suggest that patients may not fully appreciate efforts directed toward tangible areas of hospital management (outside of safety and health considerations). Managers of these hospitals should carefully monitor the allocation of resources toward tangible hospital characteristics beyond meeting minimum safety and cleanliness considerations. The excess resources would be better directed toward those characteristics identified in Quadrant I (*Concentrate Here*).

The final quadrant is identified as *Keep Up the Good Work* and represents those areas where the firm is excelling in areas consumers perceive as very important. In the example presented here, items V1 (up-to-date equipment), V7 (dependable), V14 (trustworthy employees), V15 (safe care), and V16 (polite employees), are all portrayed in Quadrant IV. The interpretation of items in this quadrant is that both hospitals are doing a good job of hiring competent staff and supporting the provision of medical care with appropriate technology. Given the historical technical orientation of medical professionals (Starr, 1982), this result is not surprising. The implication is that continued resources should be directed toward solidifying a position of technological competence in communication with constituencies. However, the results of the importance-performance mapping indicate that technological competence is not enough in the perceptions of the consumers. Rather, managers should also direct necessary resources toward improving perceptions of reliability and responsiveness, or the caring, non-technical aspects of health service, in order to move the items located in Quadrant 1 (*Concentrate Here*) into the fourth quadrant (*Keep Up The Good Work*). Having achieved this end, a primary managerial use of the importance-performance maps would be to 1) monitor the maintenance of an essentially void Quadrant I, 2) identify specific areas where competitors might become vulnerable in terms of providing service quality (i.e. competitor ratings falling in the first quadrant, and 3) scan customer groups for potential shifts in the needs and wants of the market environments.

Summary and Conclusions

The weight of the evidence supports Quinn's (1992a) call for considering service quality as a fundamental component of strategic decision making for service firms. However, we caution strategic managers and researchers to consider the previously presented evidence prior to using the SERVQUAL methodology to assess service quality. Specifically, the evidence suggests that the SERVQUAL methodology does not appear to be an appropriate conceptualization or operationalization of the service quality construct. The primary reason is the inadequacy of the expectations/performance gap model which underlies the conceptual development of the SERVQUAL scale. In other words, there appears to be an abundance of evidence suggesting that the theory underlying the SERVQUAL framework is inappropriate (c.f., Babakus and Boller 1992; Brown, Churchill, and Peter 1993; Cronin and Taylor 1992, 1994; Teas 1993, 1994). Rather, service quality, at least from a strategic management perspective, appears more appropriately identified through the type of importance-performance analysis we have demonstrated herein, which can be based on the importance and performance items proposed herein based on the SERVPERF scale. In other words, the survey items themselves in the SERVQUAL scale are not questioned, rather, what is questioned is what to do with the information once you have captured it. Therefore, future research and instrument development in the area of service quality assessment and strategic management could begin by testing the application of importance-performance modeling across a variety of service industries.

A minor limitation of the current research concerns the application of the proposed method to a single service setting as opposed to assessing the generalizability of the proposed method across multiple service industries. While previous studies have assessed the efficacy of performance-importance maps in alternative service industries (c.f., Hawes and Rao 1985; Hawes, Kiser, and Rao 1982; Hemmasi, Graf, and Nielsen 1992; Martilla and James 1977; Sethna 1982; Swineyard 1980), we encourage strategists to remain aware of the growing literature suggesting that models of consumer decision

making often vary across settings and evolve over time (c.f., Bitner and Hubbert 1994; DeSarbo et al 1994).

Suggestions for Future Research

"Value" has also recently been identified as a construct that is intimately related to service quality and consumer satisfaction (Holbrook 1994, Taylor 1993). Critical to this relationship is the interactive nature of the "price" variable. Future research may consider examining the utility of price as a third dimension of service quality may prove useful as well, since service quality is intuitively a function of importance, performance, and price (Morris & Fuller, 1989). Since price is a competitive weapon largely within a firm's control (Porter, 1980), consideration of price-----performance---- importance relationships, or service value, should lead to a better understanding of service quality.

Importance-performance analysis should also be expanded to include multidimensional scaling methodologies. Such research development should revolve around attempts to identify importance centroids within industries or service types which represent the ideal level of service from the customer's perspective. Performance locations can then be located in multidimensional space, and firms can be rated on their distance from the importance centroid. In this way, firms can be compared to each other and distance measures can be operationalized into research designs investigating the strategic importance of service quality.

Executives and scholars engaged in strategic management research are encouraged to recognize the importance of both service firms and the quality of their services as U.S. companies endeavor to compete internationally. Importance-performance analysis using data collected from the items contained in the SERVPERF scale may provide a first step in understanding the nature and importance of service and service quality from a strategic perspective. ❧

*****Notes*****

1. An attitude can be defined as an overall tendency to respond consistently favorably or unfavorably toward an object (Lilien, Kotler, and Moorthy 1993). Oliver (1993) suggests that satisfaction can be defined as related to the level of fulfillment associated with an exchange relationship.
2. Salience, or importance for purposes of the current discussion, is defined by Lilien, Kotler, and Moorthy (1992, p. 88) as "...;that is, they (i.e., attributes) must be the ones that are considered important by consumers and the ones on which the various brands or products are perceived to differ."
3. The SERVQUAL model and survey instrument was the only service quality exemplar in the social science academic literatures until 1992 when Cronin and Taylor proposed the SERVPERF method as a means of reconciling the SERVQUAL survey items with emerging service quality theory. Since then, two new models have emerged competing for paradigmatic status in service quality measurement. The first is Teas' (1993) evaluated performance (EP) and normed quality (NQ) framework. The second is DeSarbo et al's (1994) conjoint-based model of service quality measurement. However, independent validation of Teas' and DeSarbo's models have yet to emerge in the literature and are therefore excluded for purposes of the current discussion. However, the theory underlying Cronin and Taylor's (1992) SERVPERF method has been independently supported in recent works by Babakus and Boller (1992), Brown, Churchill, and Peter (1993), Oliver (1993a), and Rust and Oliver (1994). Interested readers are also directed to a recent discussion of these issues in the marketing literature (c.f., Cronin and Taylor 1994; Parasuraman, Zeithaml, and Berry 1994; Teas 1994). Therefore, while we advocate the use of the SERVPERF framework for purposes of measuring service quality perceptions based on the weight of the evidence in the emerging literature, the recency of the introduction of the SERVPERF framework has not yet allowed diffusion into wide-spread use for purposes of strategic decision-making. The method proposed herein capitalizes on the benefits of the SERVPERF method over the (increasingly discredited) SERVQUAL model.
4. This format of better than/worse than scales to operationalize consumer satisfaction is empirically validated by Westbrook and Oliver (1991). Specifically, these authors demonstrate the efficacy of single-item measures of disconfirmation over paired expectation/perception items.
5. McDaniel and Gates (1993, p. G-3) define discriminant validity as, "The lack of association among constructs that are supposed to be different."
6. McDaniel and Gates (1993, page G-2) define construct validity as, "The degree to which a measurement instrument represents and logically connects, via the underlying theory, the observed phenomenon to the construct."
7. Cronin and Taylor (1992) coin the term SERVPERF to refer to the twenty-two item perceptions-of-performance portion of the SERVQUAL scale. That is, SERVPERF refers only to the perceptions items in the expectations/perceptions pairings. Thus, SERVPERF differs from SERVQUAL in that SERVPERF does not assess gap scores because the expectations portion of the pairings is not included.
8. Taylor (1994) recently identifies the pervasive practice in social science literatures of treating service quality and satisfaction as synonymous constructs. However, he concludes that the weight

of the evidence in the emerging literature supports the alternative position that these constructs are indeed unique and should thus be distinguished in efforts to measure either one. The point we attempt to make here is that the SERVQUAL scale appears to do a poor job of distinguishing "service quality" from "satisfaction" in what is being measured. Rather, following Taylor (1994), we take the alternative position that survey instruments of both service quality and satisfaction should distinguish these two construct (i.e., either measure one or the other, but not both).

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Appendix A

The five dimensions of service quality proposed by Parasuraman, Zeithaml, and Berry (1988) implicit in the SERVPERF and Importance scales:

1. ***Tangibles*** (items V1 to V4)- physical facilities, equipment, and appearance of personnel.
2. ***Reliability*** (items V5 to V9)- ability to perform the promised service dependably and accurately.
3. ***Responsiveness*** (items V10 to V13)- willingness of help customers and provide prompt service.
4. ***Assurance*** (items V14 to V17)- knowledge and courtesy of employees and their ability to inspire trust and confidence.
5. ***Empathy*** (items V18 to V22)- caring, individualized attention the firm provides its customers.

(SERVPERF Scale for Performance)

1-------2-------3-------4-------5-------6-------7
Strongly Strongly
Disagree **Agree**

____ V1. XYZ has up-to-date equipment.
____ V2. XYZ's physical facilities are visually appealing.
____ V3. XYZ's employees are well dressed and appear neat.
____ V4. The appearance of the physical facilities of XYZ is in keeping with the type of service provided.
____ V5. When XYZ promises to do something by a certain time, it does so.
____ V6. When you have problems, XYZ is sympathetic and reassuring.
____ V7. XYZ is dependable.
____ V8. XYZ provides its services at the time it promises to do so.
____ V9. XYZ keeps its records accurately.
____ V10. XYZ does not tell its customers exactly when services will be performed. **(neg.)**
____ V11. You do not receive prompt service from XYZ employees. **(neg.)**
____ V12. Employees of XYZ are not always willing to help customers. **(neg.)**
____ V13. Employees of XYZ are too busy to respond to customer requests promptly. **(neg.)**
____ V14. You can trust employees of XYZ .
____ V15. You can feel safe in your transactions with XYZ 's employees.
____ V16. Employees of XYZ are polite.
____ V17. Employees get adequate support from XYZ to do their jobs well.
____ V18. XYZ does not give you individual attention.**(neg.)**
____ V19. Employees of XYZ do not give you personal attention. **(neg.)**
____ V20. Employees of XYZ do not know what your needs are. **(neg.)**
____ V21. XYZ does not have your best interests at heart. **(neg.)**
____ V22. XYZ does not have operating hours convenient to all their customers. **(neg.)**

(Matching Importance Items)

1-------2-------3-------4-------5------6-------7
VERY VERY
UNIMPORTANT **IMPORTANT**

____ V1. Up-to-date equipment
____ V2. Physical facilities that are visually appealing.
____ V3. Employees that are well dressed and appear neat.
____ V4. Physical facilities that appear to be in keeping with the type of service provided.
____ V5. When something is promised by a certain time, doing it.
____ V6. When there is a problem, being sympathetic and reassuring.
____ V7. Dependability.
____ V8. Providing service by the time promised.
____ V9. Accurate record keeping.
____ V10. Telling the customer exactly when the service will be performed.
____ V11. Receiving prompt service.
____ V12. Employees who are always willing to help customers.
____ V13. Employees who are not too busy to respond to customer requests promptly.
____ V14. Employees who are trustworthy.
____ V15. The feeling that you are safe when conducting transactions with the firm's employees.
____ V16. Employees who are polite.
____ V17. Adequate support from the firm so employees can do their job well.
____ V18. Individual attention.
____ V19. Employees who give you personal attention.
____ V20. Employees who know what your needs are.
____ V21. A firm which has your best interests at heart.
____ V22. Convenient operating hours.