

Note

A NOTE ON THE MEASUREMENT OF SERVICE QUALITY—A (FRIENDLY) CRITIQUE OF STANK

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Introduction

Theodore Stank's (1993) recent article in the *Journal of Business Strategies* offers a timely discussion of the importance of quality as a strategic tool within service industries. We emphatically agree with his argument that improving service quality is an effective way to gain competitive advantage through differentiation. We also applaud his suggestion that quality must be consistently and effectively measured from the customer's perspective. Stank should also be commended for suggesting that service firms should consider service quality feedback prior to making resource allocation decisions within the context of strategic planning. In short, we are delighted to see that the special needs of service firms are receiving attention within the strategy literature and that quality of service is being discussed in strategic terms instead of being narrowly treated as a marketing construct.

Because we believe there to be a chronic shortage of illuminating discussions of strategies for service firms, (including quality assessment), we are reluctant to criticize one of the few service quality/service strategy articles published in a strategy journal. Therefore, we wish to emphasize the adjective "friendly" in the title to this note. We do not wish to detract from the importance of service quality in developing strategies for service firms. However, we feel management educators, strategy researchers, and strategic decision makers should be aware of the rapidly evolving literature and research on service quality assessment which calls into question the foundations of the SERVQUAL (Parasuraman, Zeithaml, and Berry 1985; 1988; 1991) scale which forms the basis of Stank's recommended method.

The SERVQUAL scale (Parasuraman, Zeithaml, and Berry 1985; 1988; 1991; hereafter referred to as PZB) was devised and promoted as a generalizable instrument for measuring service quality across a variety of service industries. The logistics service quality measurement tool proposed by Stank (1993) is based largely on the SERVQUAL scale, with minor adaptations tailored to the nuances of the logistics setting. Thus, it would appear that many of the criticisms being leveled at the SERVQUAL scale in the emerging literature apply equally to the logistics service quality instrument offered by Stank. In the following section, we will attempt to present a summary of those criticisms, and will then offer some suggestions for future directions in service quality assessment.

Summary of Findings Regarding the SERVQUAL Scale

The theory upon which the SERVQUAL scale is based was developed through exploratory focus-group research conducted by PZB (1985, 1988). From these focus-group interviews with consumers and managers, PZB concluded that customers bring some prior expectation of firm performance to a service encounter, and then compare their perceptions of the firm's actual performance with this preconceived expectation. This comparison of expected performance to perceived performance, termed expectancy disconfirmation, forms the basis of service quality within the SERVQUAL methodology advocated by PZB. Expectancy disconfirmation and its relationship to service quality are depicted in Equation 1.

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

The crux of equation [1] is that service quality is a function of the gap between perceptions of performance and expectations of performance. When perceptions of performance meet or exceed expectations, positive service quality is perceived. When perceptions of performance are less than or equal to expectations, poor quality service is perceived.

Therefore, in order to measure service quality using equation [1], both perceptions of performance and expectations of performance must be captured. Some strategy scholars (e.g. Quinn 1992; Stank 1993) have recently recommended the SERVQUAL scale (c.f., PZB 1988) as a survey instrument that purports to serve this purpose with broad generalizability and reliability across alternative service settings. In other words, consistent with PZB (1988), these strategists would argue that the SERVQUAL scale can and should be generalizable to alternative service settings such as logistics service quality. However, a number of emerging studies are questioning the use of the SERVQUAL scale as a basis for measuring service quality.

Criticisms of the Conceptual Arguments Underlying the SERVQUAL Model

The first major criticism of the SERVQUAL scale was reported by Cronin and Taylor (1992). Cronin and Taylor present an empirical analysis demonstrating that the $\text{Perceptions}_{\text{Performance}}$ measures alone in equation [1] explain more of the variance in overall service quality perceptions than does the entire expectancy disconfirmation equation. Since a single variable from the SERVQUAL formula explains more variance in service quality perception than does the derivative of that formula, one can only conclude that the theoretical foundations of the SERVQUAL scale appear flawed. (At the risk of oversimplifying the argument, if one assumes that k is a function of $i+j$, but i explains more of k 's variance than does $i+j$, then one must assume that $i+j$ has no theoretical based relationship to k).

Specifically, Cronin and Taylor (1992) argue that the expectancy disconfirmation model was inappropriately generalized by PZB from the *consumer satisfaction* literature (c.f. Oliver 1980) to explain *service quality* perceptions and suggest the simplified relationship described in equation 2 as a more appropriate model of service quality.

$$\text{Service Quality} = f(\text{Perception}_{\text{Performance}}) \quad [2]$$

Subsequent research appears to support this argument, although readers should be aware that the debate in the literature is ongoing. Oliver (1993a), who developed the original expectancy disconfirmation model in 1980, recently reviewed the service quality and consumer satisfaction literature and concluded that *service quality* perceptions are separate from *consumer satisfaction* judgments along at least three dimensions (also see Patterson and Johnson (1993) for a similar discussion reaching similar conclusions,

- 1) the domains of *service quality* and *consumer satisfaction* are different (i.e., they are conceptually different things). Service quality is best considered a long-term attitude reflecting service superiority or excellence while consumer satisfaction is a transitory judgment reflecting fulfillment.
- 2) *service quality* perceptions can develop in the absence of personal experience whereas *consumer satisfaction* requires personal experience.
- 3) *service quality* perceptions appear to be antecedents to *consumer satisfaction* judgments (i.e., quality – satisfaction).

Taylor (1993) extends these arguments by developing a model of consumer decision making that reconciles the emerging evidence concerning the conceptual domains of the relevant constructs. Taylor suggests that prior to personally experiencing a service provider, initial service quality perceptions can be based on communication influences and vicarious experiences through friends, relatives, and coworkers. However, once a person has a personal experience, service quality becomes an aggregate representation of the summed influences of their previous service quality attitudes and their most recent satisfaction judgment from a service encounter (see equation 3).

$$\text{Service Quality}_{t+1} = f(\text{Service Quality}_{t-1}, \text{Satisfaction}) \quad [3]$$

These models are at odds with the most recent SERVQUAL conceptualization. That is, the original authors of the SERVQUAL scale have maintained their support for the expectancy disconfirmation model of service quality in spite of the growing arguments against the model. Zeithaml, Berry, and Parasuraman (1993) recently present a response to the growing criticisms of the conceptual underpinnings of the SERVQUAL scale. Here the authors modify their original position by suggesting that **both** consumer satisfaction judgments and service quality can form from the expectancy disconfirmation process. Importantly, there is no empirical evidence to date supporting this attenuated position.

However, there is empirical evidence to support other models that do not appear reconcilable with the gap model. For example, Teas (1993) recently assesses the SERVQUAL scale and concludes from a comprehensive empirical analysis that the gap formulation recommended by PZB appears to exhibit questionable validity. Indeed, in a recent article on service quality by one of the original authors of the SERVQUAL scale report results that they themselves suggest appear inconsistent with the gap model (Boulding, Kalra, Staelin and Zeithaml 1993).

The satisfaction literature similarly appears to support the argument that expectancy disconfirmation should not be used in service quality measurement. Oliver (1993b) presents a compelling empirical analysis of consumer satisfaction which demonstrates that consumer satisfaction judgments result from the influences of both expectancy disconfirmation and (positive and negative) affect. We suggest that the weight of the evidence supports the position that expectancy disconfirmation belongs in models of consumer satisfaction and not service quality. Equation [4] presents the model of consumer satisfaction empirically validated by Oliver (1993b).

$$\text{Consumer Satisfaction}_{t+1} = f(\text{Affect}_t, \text{Disconfirmation}_t, \text{Quality}_{t-1}) \quad [4]$$

Thus, the emerging literature and empirical evidence do not support the gap model advocated by Parasuraman, Zeithaml, and Berry for service quality measurement (i.e., SERVQUAL). Rather, the evidence supports the position that service quality should be measured by perceptions of service-firm performance only (see [2]), while satisfaction is unique from service quality and best modeled as equation [4].

This may lead one to wonder whether Expectations_{Performance} are at all useful from a managerial or research perspective. We suggest that they are, however, only as a unique construct. Boulding et al (1993) have recently presented evidence that consumers' expectations of what service firms should and will provide exerts a positive influence on subsequent service quality judgments. This suggests that while the gap measures advocated by PZB, and by extension Stanks, may not be useful, expectations and perceptions of performance evaluations can contribute to a better understanding of consumer decision-making processes when treated as unique constructs.

Empirical Criticisms of the SERVQUAL Scale

The psychometric properties of the SERVQUAL survey instrument have also recently been criticized by a number of authors. Cronin and Taylor (1992) were the first to point out that the generalizability of the SERVQUAL scale appears suspect. Specifically, Cronin and Taylor (1992) found that the factor structure underlying data collected using the SERVQUAL scale varies across service settings. This led Cronin and Taylor (1992) to suggest that the individual scales for expectations and performance perceptions be treated as unidimensional scales and summed-and-averaged in analysis.¹

Babakus and Boller (1992) empirically assessed the psychometric properties of the SERVQUAL scale and report findings that support the conclusions of Cronin and Taylor (1992). Specifically, these authors also found that the dimensionality of service quality data captured using the SERVQUAL instrument appears to depend on the type of services under investigation. Babakus and Boller additionally found that the practices of using mixed-word item wording and the general use of gap measures should be approached with caution.

Brown, Churchill, and Peter (1993) recently report an additional assessment of the psychometric properties of the SERVQUAL scale and also report serious problems from their analyses. First, higher reliabilities are found with the performance-based measures

of service quality than the gap-based measures advocated in SERVQUAL (c.f., Cronin and Taylor 1992). Second, the SERVQUAL items failed to achieve discriminant validity from its component parts. Third, the SERVQUAL scale items tend to exhibit variance restriction. Finally, the distribution of SERVQUAL scores are reported as non-normal in their study. Readers interested in further exploring these issues are directed to a recent debate in print concerning the relative merits of these models (c.f., Cronin and Taylor 1994; Parasuraman, Zeithaml, and Berry 1994; Teas 1994).

A final note concerns the use of importance weights in models of service quality. Stank argues that the addition of importance weights is important for measuring logistics service quality. However, we ask that strategic decision makers take care to ensure that the data support this call in their own specific setting. Cronin and Taylor (1992) present evidence that not only do importance weights fail to contribute to the explained variance in many service settings, they can actually reduce one's ability to explain variations in service quality perceptions.

Recommendations for Future Research

A number of recommendations are apparent for consideration by strategists. First, researchers should identify as a high priority the identification of reliable and valid sets of scale items that can serve as measures of service quality and satisfaction in models of organizational strategy. A fundamental challenge in achieving this end will be achieving discriminant validity between the measures. Second, research investigating the antecedents and outcomes of service quality from a strategic perspective appears warranted. Third, ascertaining if there are perceived differences between the internal and external constituencies of the organization's service quality should be investigated. The impact of these differences, if any, can then be assessed relative to such important constructs as leadership, organizational culture, and firm performance.

Summary

The preceding discussion attempts to inform strategic managers and researchers of the rapidly evolving literature concerning the service quality and consumer satisfaction constructs. We take the position that dialogue and interdisciplinary efforts enhance our understanding of shared problems in the social sciences. We support Stank's (1993) call for using consumer service quality judgments in strategic decision-making processes and hope that this discussion enhances these actions.

Clearly, strategic management must be approached from a quality enhancement framework (Quinn 1992; Drucker 1992) for all firms, including service organizations (Nayyar 1992). This suggests the need for quality assessment tools designed for use within the service setting. The SERVQUAL scale as recommended by Stank (1993) represents a noble start in the right direction, but strategists should be aware that the weight of the evidence suggests that it is not adequate in its current form and method. We caution both researchers interested in service quality and service firm executives to be fully aware

of what they are (and are not) getting when they use the SERVQUAL method of service quality assessment.

Endnote

¹ Cronin and Taylor (1992) in effect suggest using these two set of items as indices rather than as factor-based scales. The difference is that an index is an exact linear combination of observed items. The dimensionality of the items of an index used as an observed variable is not relevant.

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