CHAPTER TWO

THEORETICAL FRAMEWORK AND PAST RESEARCH

Definition of Services

Before understanding the concept of service quality, the concept of services must first be understood. By any definition, service is first a process. Whereas goods are objects, services are performances. It is mostly agreed that services have the following four characteristics - intangibility, heterogeneity, inseparability of production and consumption, and perishability.

Intangibility

The fundamental difference, between goods and services, universally cited by authors (Bateson 1977; Berry 1980; Lovelock 1981; Rathmell 1966, 1974; Shostack 1977a) is intangibility. Because services are performances, rather than objects, they cannot be touched, tasted, smelled, or seen (Berry, Bennett and Brown 1989, p. 24). Intangibility, according to Bateson (1979) is the critical goods-services distinction from which all other differences emerge.

Heterogeneity

Services vary. Because they are performed - by human beings - services are difficult to standardize (Berry, Bennett and Brown, 1989, p. 24). Heterogeneity in service output is a particular problem for labour intensive services, like in the financial services where personalised services are very important. Many different employees may be in contact with an individual customer, raising a problem of consistency of behaviour (Langeard et al. 1981; Marshall, 1985; Gronroos, 1990). Consistency of behaviour from service personnel is difficult to assure because what the firm intends to deliver may be entirely different from what the consumers receive (Booms and Bitner, 1981).

Inseparability of Production and Consumption

This involves the simultaneous production and consumption which characterise most services (Carman and Langeard, 1980). Whereas goods are first produced, then sold and then consumed, services are first sold, then produced and consumed simultaneously (Regan 1963). Since the customer must be present during the production of many services, inseparability "forces the buyer into intimate contact with the production process" (Carman and Langeard 1980, p. 8). Inseparability also means that the producer and the seller are the same entity, making only direct distribution possible in most cases (Upah 1980) and causing marketing and production to be highly interactive (Gronroos 1978).

Perishability

Services cannot be saved (Bessom and Jackson 1975; Thomas 1978). Because services are performances that cannot be stored, service businesses frequently find it difficult to synchronize supply and demand (Zeithaml, Parasuraman and Berry 1985b). If a service is not used when available, the service capacity is wasted (Berry, Bennett and Brown 1989).

These characteristics - especially the first three - pose quality challenges unique to services. The invisibility of services places a burden on tangibles associated with them (for example, service facilities or the appearance of service personnel) to convey the proper "quality message". The labour-intensity of most services makes the pursuit of excellent service an ongoing adventure in even the best-managed companies. The inseparability of service production and consumption means the customer often visits the "service factory" - and experience firsthand the good, the bad, and the ugly that may be present in the environment.

Definition of Financial Services

Financial services differ from other kinds of services in that depository institutions can create money and can accept balances as a form of payment (Moebs, 1986). These two unique characteristics affect price and can be used to the advantage of financial services pricers. Kloman (1989) gives an extremely broad definition of financial services which includes the following:

*Taking deposits or holding funds in a fiduciary capacity;
*Lending funds or promising to lend funds in the future (credit);
*Giving financial advice and counsel;
*Making markets for a variety of financial instruments;
*Selling or purchasing securities or financial instruments;
*Transferring funds (physically or electronically);
*Ceding or accepting financial or timing risks (underwriting);
*Investing funds;
*Accepting or purchasing valuable property or financial services.

Conceptualisation of Quality and Perceived Quality

Prior to the conceptualisation of service quality, several other related constructs will be discussed first. Two important related constructs are quality and perceived quality.

Concept of Quality

Quality is an illusive and indistinct construct. While the substances and determinants of quality may be undefined, its importance to firms and consumers is unequivocal. Research has demonstrated the strategic benefits of quality in contributing to market share and return on investment (Anderson and Zeithaml 1984; Phillips, Chang and Buzzell 1983) as well as in lowering manufacturing costs and improving productivity (Garvin 1983).

Efforts in defining and measuring quality have come largely from goods sector. According to prevailing Japanese philosophy, quality is "zero defects - doing it right the first time." Crosby (1979) defines quality as "conformance to requirements." Garvin (1983) measures quality by counting the incidence of "internal" failures (those observed before a product leaves the factory) and "external" failures (those incurred in the field after a unit has been installed).

Quality in a service is the difference between the service provided and what a customer expected. It is relative and defined in terms of what each customer expects. The customer, not the server, defines quality. The traditional definition of quality for manufactured products, "conformance to specifications", suggests objective measures defined by the manufacturer, is a concept quite inappropriate for most services (Heskett, Sasser, and Hart 1991).

Garvin (1988) uses five principal approaches to define quality: the transcendent, product-based, user-based, manufacturing-based, and value-based.

I. Transcendent.

According to transcendent view, quality is synonymous with "innate excellence". It is both absolute and universally recognizable, a mark of uncompromising standards and high achievement. An implicit assumption is that there is something timeless and enduring about works of high quality, an essence that rises above changes in tastes or style.

II. Product-Based.

Quality is viewed as a precise and measurable variable. Differences in quality thus reflect differences in the quantity of some ingredient or attribute possessed by a product.

III. User-Based.

Individual consumers are assumed to have different wants or needs, and the goods that best satisfy their preferences are the ones they regard as having the highest quality (Corwin 1968). This is an idiosyncratic and personal view of quality, and one that is highly subjective.

IV. Manufacturing-Based.

Virtually all manufacturing-based definitions identify quality as "conformance to requirements" (Crosby 1979). Once a design or a specification has been established, any deviation implies a reduction in quality. Excellence is equated with meeting specifications and with "making it right the first time".

V. Value-Based

Quality is defined in terms of costs and prices. Thus, a quality product is one that provides performance or conformance at an acceptable price or cost (Broh 1961).

Therefore, Garvin (1988) concludes that quality remains maddeningly illusive. Garvin also identified eight dimensions of quality as a framework for analysis: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality.

Construct of Perceived Quality

Perceived quality is the consumer's judgment about an entity's overall excellence or superiority (Zeithaml 1987). It differs from objective quality (as defined by Garvin 1983, and Hjorth-Anderson 1984). It is a form of attitude, related but not equivalent to satisfaction, and results from a comparison of expectations with perceptions of performance (Parasuraman et al. 1988a).

Perceived quality versus objective quality. Researchers (Garvin 1983; Dodds and Monroe 1984; Holbrook and Corfman 1985; Jacoby and Olson 1985; Zeithaml 1987) have emphasised the difference between objective and perceived quality. Holbrook and Corfman (1985) note that the conceptual meaning distinguishes between mechanistic and humanistic quality: "mechanistic (quality) involves an objective aspect or feature of a thing or event; humanistic (quality) involves the subjective response of people to objects and is therefore highly relativistic phenomenon that differs between judges" (Parasuraman et al. 1988a).

Garvin (1983) discusses five approaches to defining quality, including two that refer to objective quality, product-based and manufacturing-based, and one that parallels perceived quality (Zeithaml 1987). In fact, one of the dimensions of quality described by Garvin (1983) is perceived quality. Garvin explains that consumers do not always possess complete information about the attributes of

a product or a service. Frequently, indirect measures are the only basis for comparing brands. A product's durability, for example, can seldom be observed directly; it must usually be inferred from various tangible and intangible aspects of the product. In such circumstances, cues and other signalling devices become important for drawing inferences about quality (Cox 1967). Images, advertising, and brand names - perceptions of quality rather than the reality itself- can be critical. Reputation is in fact one of the primary contributors to perceived quality (Garvin 1983).

Quality as attitude. Researchers (Olshavsky 1985; Parasuraman et al. 1985b) view quality as a form of overall evaluation similar to attitude. Holbrook and Corfman (1985) concur that quality acts as a relatively global value judgment. Regardless of the type of service, consumers used basically similar criteria in arriving at an evaluative judgment about service quality. These criteria seem to fall into 10 key categories which are labelled "service quality determinants" (Parasuraman et al. 1985b).

Quality versus satisfaction. Perceived service quality is a global judgment, or attitude relating to the superiority of the service, whereas satisfaction is related to a specific transaction. The two constructs are related, in that incidents of satisfaction over time result in perceptions of service quality (Parasuraman et al. 1988a).

Expectations compared to perceptions. Researchers (Sasser, Olsen and Wyckoff 1978; Gronroos 1982; Lehtinen and Lehtinen 1982; Parasuraman et al. 1985b) support that service quality, as perceived by consumers, stems from a comparison of what they feel service firms should offer with their perceptions of the performance of firms providing the services. Perceived quality is therefore viewed as the degree and direction of discrepancy between consumers' perceptions and expectations (Parasuraman et al. 1988a).

Conceptualisation of Service Quality

Service quality discussed in writings by Gronroos (1982), Lehtinen and Lehtinen (1982), Lewis and Booms (1983), Sasser, Olsen, and Wyckoff (1978), Parasuraman, Zeithaml and Berry (1985b) and others suggest three underlying themes:

- Service quality is more difficult for the consumer to evaluate than goods quality.
- Service quality perceptions result from a comparison of consumer expectations with actual service performance.
- Quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the process of service delivery.

Service Quality More Difficult to Evaluate

The consumer employs many tangible cues to judge quality, when purchasing goods. In services, fewer tangible cues exist. In most cases, tangible evidence is limited to the service provider's physical facilities, equipment, and personnel (Parasuraman et al. 1985b).

In the absence of tangible evidence, consumers must depend on other cues to evaluate quality. McConnell (1968), Olander (1970), and Zeithaml (1981) have suggested that price becomes a pivotal quality indicator where other information is absent. The intangible nature of services makes it difficult for a firm to understand how consumers perceive services and service quality (Parasuraman, Zeithaml and Berry 1985b).

Quality Is a Comparison between Expectations and Performance

Researchers concur that service quality involves a comparison of expectations with performance. Service quality is a measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis (Lewis and Booms 1983).

Smith and Houston (1982) claims that there is a relationship between satisfaction with services and confirmation or disconfirmation of expectations. Their

research is based on the disconfirmation paradigm, which maintains that satisfaction is related to the size and direction of the disconfirmation experience where disconfirmation is related to the person's initial expectations (Churchill and Suprenaut 1982).

Quality Evaluations Involve Outcomes and Processes

Sasser, Olsen and Wyckoff (1978) discussed three different dimensions of service performance - levels of material, facilities, and personnel - implying that service quality involves more than outcome. It includes the manner in which the service is delivered.

Gronroos (1982) postulates that there are two types of service quality - technical quality and functional quality. Technical quality involves what the consumer is actually receiving from the service, whereas functional quality involves the manner in which the service is delivered.

Lehtinen and Lehtinen (1982) identifies three quality dimensions, physical quality, corporate quality and interactive quality, used in the interaction between a customer and elements in the service organisation to produce service quality. They also differentiated between the quality associated with the process of service delivery and the quality associated with the outcome of the service (Parasuraman et al. 1985b).

Past Studies and Research on Service Quality

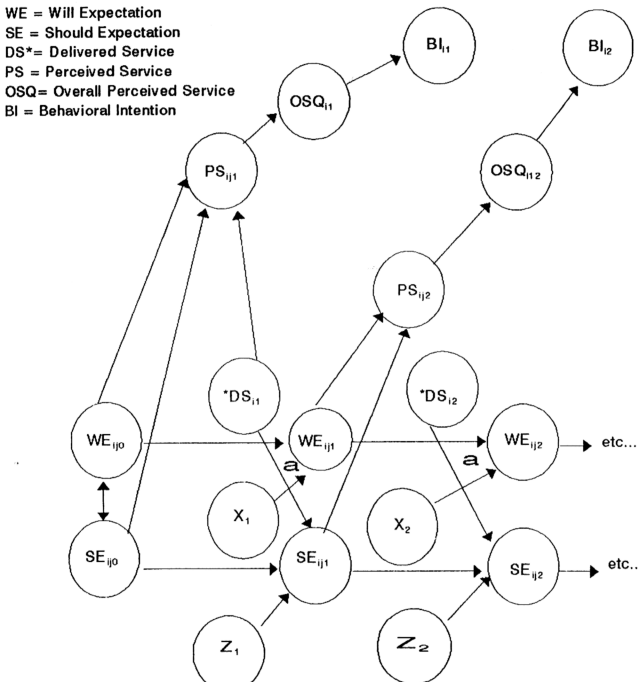
Using a Bayesian-like framework, Boulding, Kalra, Staelin, and Zeithaml (1993) developed a behavioral process model of perceived service quality (Fig 2.1). Perceptions of the dimensions of service quality are viewed to be a function of a customer's prior expectations of what ***will*** and what ***should*** transpire during a service encounter, as well as the customer's most recent contact with the service delivery system. These perceptions of quality dimensions form the basis for a person's overall quality perception, which in turn predicts the person's intended behaviours.

First, this model was tested with data from a longitudinal laboratory experiment. Then a method was developed for estimating the model with one-time survey data, and the model was reestimated using such data collected in a field study. Empirical findings from the two tests of the model indicated, among other things, that the two different types of expectations have opposing effects on perceptions of service quality and that service quality perceptions positively affect intended behaviours.

Moore and Schlegelmilch (1994) does a brief synopsis of service quality research to date. According to them, a variety of contributions attempts to define and model service quality (Parasuraman et al. 1988a, 1988b; Lewis and Booms 1983; Brown and Swartz 1989; Gronroos 1982; Gronroos

Figure 2.1

A DYNAMIC PROCESS MODEL OF SERVICE QUALITY



*This relationship holds only if $*DS_{ijt} > SE_{ijt-1}$

Source: Boulding, Kalra, Staelin and Zeithaml (1993), "A Dynamic Process Model of Service Quality: From Expectations to Behavioural Intentions," Journal of Marketing Research, (February), 12.

1984; Lehtinen and Lehtinen 1982; LeBlanc and Nguyen 1988; Parasuraman et al. 1990). Although there are considerable variations in the literature in terms of modelling service quality, all contributions are based on the premise that quality perception stems from a quality evaluation exercise during which consumer expectations are compared with actual service performance. Moore and Schlegelmilch evaluates and compares two formal models of service quality.

Nordic School

The concept developed under this school is closely linked with research conducted by Gronroos who argues that perceived service quality is primarily dependent on two variables: expected service and perceived service. Based on the findings of Swan and Combs (1976), Gronroos sees perceived service quality being influenced by a technical and a functional dimension. Technical quality represents the material content of the buyer-seller interaction process, ie. what the consumer receives during the interaction. The functional quality dimension refers to the way in which technical quality is transferred to the customer, ie. how the customer receives a service. Together technical and functional quality dimensions form the primary constituents of corporate image which is also influenced, though to a lesser degree, by external factors and traditional marketing activities. In turn, company image is said to influence consumer expectations of service.

Gronroos (1984) attempted to determine the relative influence of the technical and functional dimension on the perception of service quality. Using a sample of 219 Swedish service firm executives, he showed that functional quality is considered to be more important to the perceived service than the technical quality, provided that the latter quality dimension reaches a satisfactory level. The findings also indicate that by delivering a high level of functional quality, service firms may compensate for temporary problems with the technical quality.

Areas of concern in Gronroos (1984) study were biasness arising from the sample being drawn from a population of Swedish service firm executives who had participated in a marketing seminar, and the survey being confined to only Sweden, a country-specific bias.

Gap Analysis School

Additional insights into the concept of service quality was provided by Parasuraman et al. (1985b). On the basis of research conducted with executives and clients of four types of service industries (retail banking, credit card, securities brokerage and product repair and maintenance), they recognise that "a key set of discrepancies or gaps exist regarding executive perceptions of service quality and the tasks associated with service delivery to customers. These gaps can be major hurdles in attempting to deliver a service which consumers would

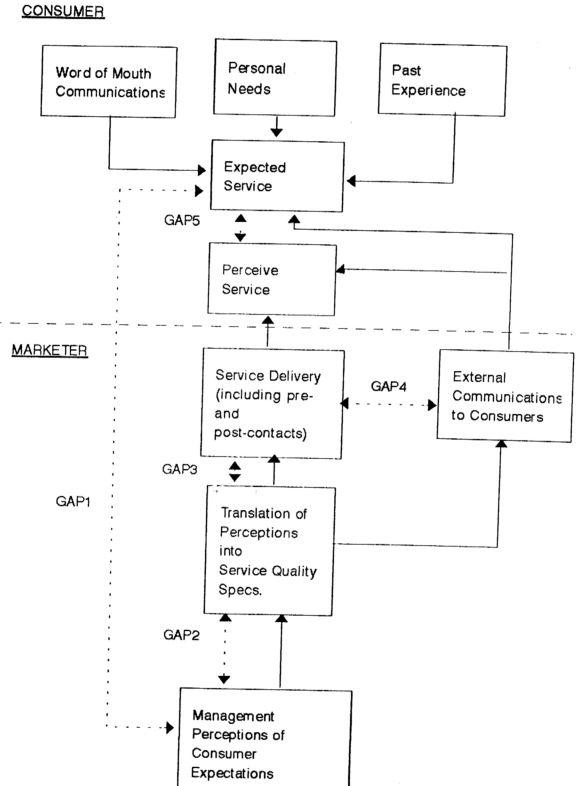
perceive as being high quality. The gaps can be subdivided into those on the marketer and consumer sides. Figure 2.2 illustrates the service model proposed by Parasuraman et al. (1985b).

The research by Parasuraman et al. (1985b) also suggested that "service quality determinants" used by consumer do not vary substantially across service industries and can be classified into 10 key categories: tangibles, reliability, responsiveness, competence, courtesy, credibility, security, access, communication, and understanding the customer.

Moore and Schlegelmilch (1994) points out two areas of concern which emerged with respect to the Gap Model. The first relates to its generalisability. Although the industries under investigation represented a cross section which vary along key dimensions used to classify services (Lovelock 1980; Lovelock 1983), an empirical verification of the model in the industrial service setting is still outstanding. The second concern relates to its applicability to different levels of an organisational hierarchy. To date, gaps relating to the marketer's side have been investigated in the context of executive perceptions only. However, should perceptional discrepancies between different levels of management or types of employees exist, the variables causing these should be identified and some means of measuring them

FIGURE 2.2

CONCEPTUAL MODEL OF SERVICE QUALITY



Source: Parasuraman et al. (1985a), "A Conceptual Model of Service Quality and Its Implication For Future Research," Journal of Marketing, 49 (Fall), 44.

should be devised (Moore and Schlegelmilch 1994). Carman and Jackson (1990) concurred with the findings and pointed out that too little emphasis has been placed on researching the interaction between customers, employees, and managers when investigating gaps in service delivery.

The service encounter frequently is the service from the customer's point of view. Bitner, Booms and Tetreault (1990), using the critical incident method, collected 700 incidents from customers of airlines, hotels, and restaurants. The incidents were categorized to isolate the particular events and related behaviours of contact employees that cause customers to distinguish very satisfactory service encounters from very dissatisfactory ones. They find that with proper employees' response, dissatisfactory encounters due to failure of the delivery system can be transformed into satisfactory encounters.

Current Practices in Measuring Quality and Replication Studies Using SERVQUAL Measurement Scale

Parasuraman et al. (1985b) made a substantial contribution to the understanding of the concept of service quality and the factors influencing it by identifying four gaps occurring in the organisation that can cause quality problems. These gaps are on the service provider's side and can impede the delivery of service that customers perceive to be of high quality.

Gap 1: Difference between consumers' expectations and the management's perceptions of consumers' expectations.

Gap 2: Difference between management's perceptions of consumers' expectations and service quality specifications.

Gap 3: Difference between service quality specifications and the service actually delivered.

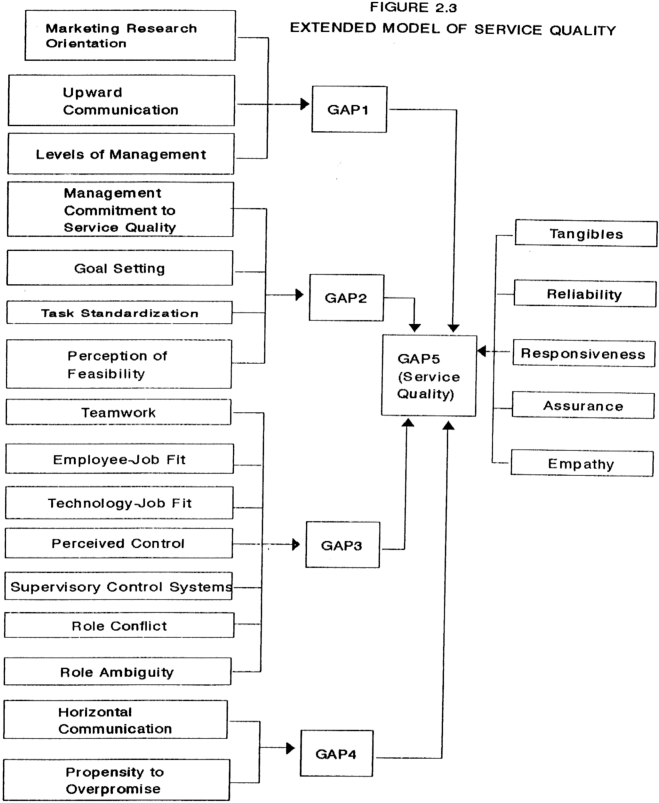
Gap 4: Differences between service delivery and what is communicated about the service to consumers.

These quality problems cause a fifth gap, which is the difference between consumers' expectations of service and the perceptions of the service quality received. Thus, the fifth gap depends on the size and direction of the four gaps associated with the delivery of the service quality on the marketer's side (Lim 1992).

Parasuraman et al. (1988b) developed an extended model of service quality (Figure 2.3) in order to understand why it is difficult to deliver consistently good service. They identified a reasonably exhaustive set of factors potentially affecting the magnitude and direction of the four gaps on the marketer's side. Most of these factors involve communication and control processes implemented in organisations to manage employees. Other factors involve consequences of these processes (e.g. role ambiguity and role conflict) that affect the delivery of service quality. Based from the 1988 study, Parasuraman et al. propagates that it is possible to recast the conceptual service quality model developed in their 1985 study (Figure 2.2) in the form of a structural equations model wherein perceived quality (gap 5) is the unobservable dependent variable and the four gaps on the marketer's side (gaps 1-4) are the unobservable independent variables.

Subsequently, Parasuraman et al. (1988a; 1988b) developed a multi-item scale for measuring customer perceptions of service quality in service and retailing organizations known as SERVQUAL. The exploratory research of Parasuraman et al. (1985b) revealed that the criteria used by consumers in assessing service quality fit 10 potentially overlapping dimensions: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding the customer, and accessibility. These 10 dimensions served as the basic

FIGURE 2.3
EXTENDED MODEL OF SERVICE QUALITY



Source: Zeithaml, Berry and Parasuraman (1988), "Communication and Control Processes in the Delivery of Service Quality" Journal of Marketing, 46.

structure of the service-quality domain from which items were derived for the SERVQUAL scale.

Parasuraman et al. (1988a) generated 97 items representing various facets of the 10 service-quality dimensions which formed the initial item pool for the SERVQUAL instrument. Each item was recasted in two statements - one to measure expectations about firms in general within the service category being investigated and the other to measure perceptions about the particular firm whose service quality was being assessed. Roughly, half of the statement pairs were worded negatively, in accordance with recommended procedures for scale development (Churchill 1979). A seven-point scale ranging from "Strongly Agree" (7) to "Strongly Disagree" (1), with no verbal labels for scale points 2 to 6, accompanied each statement (scale values were reversed for negatively worded statements prior to data analysis). The expectation statements were grouped together and formed the first half of the instrument. The corresponding perception statements formed the second half (Parasuraman et al. 1988a).

The above 97-item instrument was subjected to two stages of data collection and refinement. The first stage focused on: (1) condensing the instrument by retaining only those items capable of discriminating well across respondents having differing quality perceptions about firms in several categories, and (2) examining the

dimensionality of the scale and establishing the reliability of its components. The second stage was primarily confirmatory in nature and involved re-evaluating the condensed scale's dimensionality and reliability by analysing fresh data from four independent samples. Some further refinement occurred in this stage.

This procedure resulted in a refined scale (SERVQUAL) with 22 items spread among five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. The last two dimensions (i.e. assurance and empathy) contain items representing seven original dimensions - communication, credibility, security, competence, courtesy, understanding customers, and accessibility - that did not remain distinct after the two stages of scale purification. Therefore, while SERVQUAL has only five distinct dimensions, they capture facets of all ten originally conceptualised dimensions (Parasuraman et al. 1988a).

Parasuraman et al. (1988a) proposed that each quality dimension can be quantified by obtaining measures of expectations and perceptions levels for service attributes relevant to each dimension, calculating the difference between expectations and perceptions of actual performance on these attributes, and then averaging across attributes (Lim 1992).

Despite the popularity of the SERVQUAL scale to measure service quality, several analysts have suggested that the measure has serious shortcomings that limits its usefulness. Carman (1990) argues that SERVQUAL needs to be customised to the service in question in spite of the fact it was originally designed to provide a generic measure that could be applied to any service. This may mean adding items or changing the wording of items. He also suggests that more dimensions than the five currently found in SERVQUAL are needed, that the item-factor relationships in SERVQUAL are unstable, and that the measurement of expectations is a problem.

Babakus and Mangold (1989), on the other hand, suggest that the SERVQUAL items represent only one factor rather than five. Using confirmatory factor analysis procedures and the LISREL model, Finn and Lamb (1991) find that the SERVQUAL measurement model is not appropriate in a retail store setting. They conclude that retailers and consumer researchers should not treat SERVQUAL as an 'off the shelf' measure of perceived service quality. Much refinement is needed for specific companies and industries.

Parasuraman et al. (1991) did a follow-up study in which they refined SERVQUAL and replicated it in five different customer samples: one telephone company, two insurance companies and two banks. The study confirmed the usefulness of the SERVQUAL scale as an instrument with good

reliability and validity and broad applicability. Parasuraman et al. (1991) stressed that SERVQUAL should be used in its entirety as much as possible so as not to affect the integrity of the scale and cast doubts whether a reduced scale fully captures service quality.

Brown et al. (1993) described several potential problems with SERVQUAL's conceptualization of service quality using difference scores. They offered and empirically compared an alternative approach to the measurement of the service quality construct. Brown et al. examined three psychometric problems associated with the use of difference scores to measure service quality: reliability, discriminant validity, and variance restriction problems. Another problem with SERVQUAL that arose during the empirical investigations is that its dimensionality did not replicate. While Parasuraman et al. (1988a) identified five dimensions of service quality, the factor analysis done by Brown indicated that the 22-items might represent a unidimensional construct instead. They also explored a non-difference score conceptualization of the same facets of service used in the SERVQUAL measure and found it to display better discriminant and nomological validity properties. They also raised concerns whether a scale to measure service quality can be universally applicable across industries.

Cronin and Taylor (1992) investigated the conceptualisation and measurement of service quality and the relationships between service quality, consumer satisfaction and purchase intentions. They concluded that the SERVQUAL conceptualisation is flawed as it is based on a satisfaction paradigm rather than an attitude model. They presented empirical and literature support that service quality should be measured as an attitude. The authors suggested that the current conceptualisation and operationalisation of service quality (SERVQUAL) are inadequate and therefore developed and tested a performance-based alternative to the SERVQUAL measure called SERVPERF. The SERVPERF scale is said to outperformed SERVQUAL scale as it explains more of the variation in service quality than SERVQUAL. However, the study confirmed that perceived quality leads to satisfaction as proposed by Parasuraman et al. (1988a). Finally, the study revealed that satisfaction appears to have a stronger and more consistent effect on purchase intentions than does service quality.

Teas (1993) examined the conceptual and operational issues associated with the "perception-minus-expectations" (P-E) perceived service quality model. His examination indicated that the P-E framework is of questionable validity because of a number of conceptual and definitional problems involving the conceptual definition of expectations, theoretical justification of expectations

components of the P-E framework, and measurement validity of the expectations (E) and revised expectations (E*) measures specified in the published service quality literature. The authors examination of the P-E service quality model indicated a number of problems, particularly in respect of the conceptual and operational definitions of expectations (E) and revised expectations (E*) components of the model. These problems create ambiguity concerning the interpretation and theoretical justification of the P-E perceived quality concept. On the basis of these problems, an evaluated performance (EP) model and a normed quality model of perceived quality were developed and, along with the P-E model, empirically tested. The results of his qualitative assessment of SERVQUAL expectations (E) and revised expectations (E*) indicated that the measures lack discriminant validity with respect to concepts of attribute importance, performance forecasts and classic attribute ideal points. This suggested a considerable portion of the variance in the SERVQUAL expectations measures may be caused by respondents' misinterpretation of the questions rather than to different attitudes or perceptions. However, the author also found similar discriminant validity problems in the ideal point measure used to operationalise the EP perceived quality model. The results of criterion and construct validity tests indicated that when compared to the SERVQUAL P-E and normed quality frameworks, the EP framework is characterised by greater concurrent and construct validity. The author proposed

that though his findings indicated that the EP model may be more valid than the P-E model and the normed quality (NQ) model, more theoretical and empirical testing should be done to further examine which framework is more valid and useful.

Parasuraman et al. (1994) in respond to concerns raised by Cronin and Taylor (1992), emphasised that their research provides strong support for defining service quality as the discrepancy between customers' expectations and perceptions. Parasuraman et al. (1988a) commented that Cronin and Taylor (1992) seemed to have discounted prior conceptual work in the service quality literature (Gronroos 1982; Lehtinen and Lehtinen 1982; Sasser, Olsen, and Wyckoff 1978) as well as more recent research (Bolton and Drew 1991a, b; Parasuraman et al. 1991) that supports the disconfirmation of expectations conceptualisation of service quality (Parasuraman et al. 1994). According to Parasuraman et al. (1994), Cronin and Taylor's (1992) use of Bolton and Drew (1991b, p. 383) article as support for their claim that "the marketing literature appears to offer considerable support for the superiority of simple performance-based measures of service quality" is surprising and questionable. Moreover, a second citation that Cronin and Taylor (1992) offer to support this contention (Mazis, Ahtola, and Klippel 1975) is an article that neither dealt with service quality nor tested performance-based measures against measures incorporating

expectations (Parasuraman et al. 1994).

Parasuraman et al. (1994) contends that every argument that Cronin and Taylor (1992) made was on the basis of their empirical findings to maintain that the SERVQUAL items form a unidimensional scale is questionable. Cronin and Taylor (1992) conclusion that SERVPERF has better validity than SERVQUAL and suggestion that the proposed performance-based measures provide a more construct-valid explication of service quality because of their content validity and the evidence of their discriminant validity is unwarranted because SERVQUAL performs just as well as SERVPERF on each validity criterion that Cronin and Taylor (1992) used.

Parasuraman et al. (1994) comments that the operationalisation and testing of the structural model used in the study by Cronin and Taylor (1992) to examine the interrelationships among service quality, consumer satisfaction and purchase intentions suffered from several serious problems. The use of a single-item scales to measure service quality, consumer satisfaction and purchase intentions fails to do justice to the richness of these constructs. A single-item overall service quality measure may be appropriate for examining the convergent validity and predictive power of alternative service quality measures such as SERVQUAL, it is, however, inappropriate for testing models positing structural relationships

between service quality and other constructs such as purchase intentions, especially when multi-item scales are available. Moreover, a comparison of results in the study conducted by Cronin and Taylor (1992) revealed several serious inconsistencies and interpretational problems that reiterate the inadequacies of their measures and structural model test. From a practical standpoint, the SERVQUAL is preferable to SERVPERF. The superior diagnostic value of SERVQUAL more than offsets the loss in predictive power (Parasuraman et al. 1994).

Cronin and Taylor (1994) in response to the issues raised by Parasuraman et al. (1994) commented that the SERVPERF conceptualisation represents just one of a number of recent challenges to the SERVQUAL-based normal science exemplar of service quality (Babakus and Boller 1992; Babakus and Mangold 1992; Boulding et al. 1993; Carman 1990; Olliver 1993). It is important to note that the emerging literature largely has supported the emerging performance-based paradigm over the disconfirmation-based SERVQUAL paradigm.

In response to issues raised by Teas (1993), Parasuraman et al. (1994) acknowledges that the P-E specification is problematic only for certain types of attributes under certain conditions. According to Parasuraman et al. (1994), as Teas (1993) discussion suggests, this specification is meaningful if the service

feature being assessed is a vector attribute - that is, one on which a customer's ideal point is at an infinite level. The P-E specification could be problematic when a service attribute is a classic ideal point attribute - that is, one on which a customer's ideal point is at a finite level and therefore, performance beyond which will displease the customer (e.g. friendliness of a salesperson in a retail store). However, the severity of the potential problem depends on how the expectations norm E is interpreted. Teas (1993) offers two interpretations of E that are helpful in assessing the meaningfulness of the P-E specification: a "classic attitudinal model ideal point" interpretation and a "feasible ideal point" interpretation (Parasuraman et al 1994). Parasuraman et al. (1994) also commented that although the results from Teas' (1993) content analysis of the open-ended responses are sound and insightful, his interpretation of them is open to question. Parasuraman et al. (1994), based on a key notion embedded in Teas' (1993) suggestion that both service quality and consumer satisfaction can be examined meaningfully from both transaction-specific as well as global perspectives, propose a transaction-specific conceptualisation of the constructs' interrelationships and a global framework reflecting an aggregation of customers' evaluations of multiple transaction.

Teas (1994) response to Parasuraman et al. (1994) focuses on the validity of the discussions in Parasuraman

et al. (1994) on theoretical issues outlined by Teas (1993) with respect to the SERVQUAL P-E model, Parasuraman et al. (1994) assessments of the Teas (1993) evaluated performance (EP) and normed quality (NQ) models, and the theoretical merit of the SERVQUAL "mixed-model" which Parasuraman et al. (1994) argued reduces the problem associated with the original SERVQUAL P-E model and represents an alternative to the models specified by Teas (1993).

The fact that Parasuraman et al. (1994) acknowledges that the P-E SERVQUAL model is problematic under certain conditions is sufficient to challenge the original SERVQUAL P-E specification (Teas 1994). Teas (1994) commented that the fact that Parasuraman et al. (1994) focus much of their response on the development of a "mixed-model" designed to deal with the problems suggests that the problems are considered by Parasuraman et al. (1994) to be severe enough to address. Teas (1994) also comments that the argument used by Parasuraman et al. (1994) that the 22 SERVQUAL items are likely to be considered by respondents as vector attributes inappropriately mixes theoretical and operational issues. According to Teas (1994), the theory should be used to justify the measures. The measures should not be used to justify the theory. Furthermore, researchers have used items other than the 22 SERVQUAL items when measuring the service expectations (E) concept (Bolton and Drew 1991; Brown and Swartz 1989).

Teas (1994) comments that the criticisms by Parasuraman et al. (1994) of the Teas (1993) EP model are unfounded because they are based on an incorrect assumption that the EP model is limited by a restrictive classic ideal point. Furthermore, the "vector-versus-classic ideal point" issue does not differentiate the "mixed-model" from the Teas (1993) EP model. Parasuraman et al. (1994) SERVQUAL "mixed-model" is merely a more complicated, restrictive re-expression of the Teas (1993) NQ model (Teas 1994).

There were four applications of the SERVQUAL scale in this region, two in Malaysia and two in Singapore. In Malaysia, Lim (1992) conducted a study on service quality based on the consumer perception of the banking sector. Her study extracted four dimensions of service quality in the commercial banks instead of five dimensions (Parasuraman et al. 1988a). The four factors were technical service, personal attention and responsiveness, security, and appearance and courtesy. In her study, the nature of the four dimensions derived differ from the five dimensions in the study by Parasuraman et al. (1988a). The tangibles and reliability dimensions are combined to form technical service factor. The second factor, personal attention and responsiveness is a combination of the responsiveness and empathy dimensions in Parasuraman et al. (1988a) study, while the security factor in her study is the assurance dimension in Parasuraman et al. (1988a)

study. The fourth factor, appearance and courtesy is not found in the original study by Parasuraman et al. (1988a).

Another study in Malaysia by Low (1995) applies the SERVQUAL instrument developed by Parasuraman et al. (1988a) to measure service quality in KTMB. The study is confined to measure the unweighted and weighted SERVQUAL scores, identify the dimensions of service quality and identify the importance of the dimensions. The study identified five dimensions of service quality namely tangibles, reliability, responsiveness, assurance and empathy. However, two of the dimensions, responsiveness and empathy, are found to be inadequately explained by the items extracted.

Kaura (1993) and Ow (1994) in their study on the measurement of service quality differ from Lim (1992) study in that they had attempted to assess the overall level of service quality as perceived by the respondents in their study. In their study, they attempt to measure SERVQUAL score for the five dimensions. the average SERVQUAL scores and the weighted average SERVQUAL score. Kaura (1993) found that the overall rating of the members of KRGH is high and that the members are generally satisfied with the quality of service provided. Ow (1994) study aim only to apply the SERVQUAL instrument to a local organisation and interpret the results as indicated.