understanding of the features/characteristics of service in order to develop and justify diverse strategies used in marketing services.

The most basic distinguishing characteristic of services is **intangibility**. Because services are performances or actions rather than objects, they cannot be seen, felt, tasted or touched in the same manner in which goods can be sensed (Zeithaml et al. 1985). The intangible nature of service is argued to be one of the fundamental characteristics of service which differentiates services from goods (Bateson 1979). **Heterogeneity** reflects the potential for high variability in service delivery (Zeithaml et al. 1985). The quality and essence of service can vary from producer to producer, from customer to customer and from day to day. Given the very nature of services, each service offering is unique and cannot be exactly repeated even by the same service provider. While products can be mass produced and be homogenous the same is not true of services. **Inseparability** of production and consumption involves simultaneous production and consumption of services. Where goods are first produced, then sold and then consumed, services are first sold then produced and consumed simultaneously (Regan 1963). The fourth characteristic of services highlighted in the literature is **perishability**. Perishability refers to the fact that services cannot be saved, stored, resold or returned. Because services are performances that cannot be stored service businesses frequently find it difficult to synchronize supply and demand (Zeithaml et al. 1985). Onkvisit & Shaw (1991) suggest that services are “time dependent” and “time important” which make them very perishable.

### 2.1.2 Quality

The concept of quality, though very fundamental to businesses, has not been devoid of confusion. There are a number of ways in which quality is defined and conceptualized by various researchers. The word quality means different things to people according to the context. “Quality is an unusually slippery concept, easy to visualize yet exasperatingly difficult to define”: Garvin. The lack of consensus over the meaning of quality stems primarily from the divergent perspectives and vantage points used to view the ideal.
Many experts sought to define quality using their unique perspective. Some of them define quality as follows:

- “Quality is conformance to requirements”: Crosby (1979)
- “Quality is zero effects- doing it right the first time”: Parasuraman et al. (1985)
- “Quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs”. American Society of Quality Control (ASQC).
- Quality in a product or service is not what the supplier puts in, it is what the customer gets out and is willing to pay for. Drucker & Peter (1985)

According to David A. Garvin (1988) common perspectives on quality include. The transcendent view of quality is synonymous with innate excellence: a mark of uncompromising standards and high achievement. It argues that people learn to recognize quality only through the experience gained from repeated exposure. The product-based approach defines quality objectively. Quality is a function of a specific and measurable variable. The manufacturing-based approach focuses on conformance to internally developed specifications that often are driven by productivity and cost containment goals. User-based definitions start with the premise that quality lies in the eyes of the beholder. These definitions equate quality with maximum satisfaction. This subjective, demand-oriented perspective recognizes that different customers have different wants and needs. Value-based definitions define quality in terms of value and price. By considering the trade-off between performance and price, quality comes to be defined as “affordable excellence.” The User–based definitions of service quality has received considerable attention from researchers.

A product or service is considered of quality when it fulfills customer’s expectations. Goods being tangibles, made up of objectively quantifiable attributes or ingredients, permits objective measurement of quality. Objective quality refers to the technical superiority or excellence of a product against measurable and verifiable standards. However, difficulties arise when, one tries to define quality in services based on the same discrepancy concept, because service characteristics differ from product characteristics.
Service quality is more difficult to measure objectively than product quality as service characteristics include intangibility, heterogeneity, and inseparability of production and consumption of services. These characteristics make service quality an abstract and elusive construct.

2.1.3 Service quality

Significant research and managerial effort is devoted to improving service quality. While researchers are in agreement on the importance of service quality in a firm, the theory and practice of service quality has not reached a consensus. The foundation of service quality theory lies in the product quality and customer satisfaction literature.

Service quality is defined by various authors in different ways:

<table>
<thead>
<tr>
<th>Author</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Lewis &amp; Booms (1983)</td>
<td>Service quality is a measure of how well the service delivered matches customer expectations. Delivering quality service means conforming to expectations on consistent basis”.</td>
</tr>
<tr>
<td>Gronroos (1984)</td>
<td>Outcome of an evaluation process, where the consumer compares his/her expectations with the service he/she perceives he/she has received.</td>
</tr>
<tr>
<td>Parasuraman et al. (1985)</td>
<td>Service quality as a function of the magnitude and direction of the gap between expectation and perception of the performance received.</td>
</tr>
<tr>
<td>Bitner et al. (1994)</td>
<td>Service quality as the consumer’s overall impression of the relative inferiority/superiority of the organization and its services.</td>
</tr>
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Early conceptualizations were based on disconfirmation paradigm (Gronroos 1982, 1984; Parasuraman et al. 1985). Gronroos (1982, 1984) developed a model in which contends
that consumer compare a service they expect with perceptions of the service they receive in evaluating a service.

This study is based on the disconfirmation paradigm of service quality. Positive disconfirmation was introduced by Olshavsky & Miller (1972) and continued as Olson & Dover (1975) analysed the effects of positive and negative disconfirmation as compared to evaluation under condition of accurate expectations. The concept of “disconfirmation” is described as the perception of a product’s performance compared to pre-purchase expectations (Oliver 1977). The assumption is that consumers acquire cognitive expectations of the most probable level of products performance. The extent to which these expectations are met determines the perceived disconfirmation experience. If perceived performance exceeds expectations, disconfirmation is said to be positive. If perceived performance falls short of expectations, disconfirmation is said to be negative. Thus confirmation is the mid-point of disconfirmation paradigm (Oliver 1977). In general the literature shows that disconfirmation plays a major role in the determination of satisfaction level (Oliver 1980; Swan & Trawick 1981). Conceptually as positive disconfirmation increases, satisfaction level increases and as negative disconfirmation increases, satisfaction level decreases (Oliver, 1980). Swan & Trawick (1981) introduced a disconfirmation model of expectations and satisfaction in a retail setting. They concluded that consumer satisfaction depends upon how expectations are confirmed or disconfirmed and in turn could predict consumer intentions for purchasing or seeking the service.

The disconfirmation paradigm is also the basis for Parasuraman et al. (1985, 1988) SERVQUAL model. Many researchers have contributed to the theory and concepts of service quality measurement, in different ways. However, the credit for conceptualization and measurement of service quality goes to Parasuraman et al. (1985, 1988 & 1990). Their research drew both academic and practitioner interest in service quality and served as a framework for further empirical research in this area. Parasuraman et al. (1985) defines service quality as a function of the magnitude and direction of the gap between expectation and perception of the performance received.

1. Service quality is more difficult for the consumer to evaluate than goods quality

2. Service quality perceptions result from a comparison of consumer expectations with perceptions of actual service performance.

3. Quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the process of service delivery.

According to Parasuraman et al. (1985), customers evaluate service encounters and the process of service delivery to form perceptions of service quality. Their study probed into quality issues using focus groups of customers in four services—retail banking, credit cards, security brokerage besides product repairs and maintenance. Based on their study, it was found that consumers clearly supported the notion that the key to ensuring good quality is meeting or exceeding what consumers expect from the service. It was clear to us that judgments of high service and low service quality depend on how customers perceive the actual service performance in the context of what they expected. Therefore service quality, as perceived by customers, can be defined as the extent of discrepancy between customers, expectations or desires and their perceptions (Parasuraman et al. 1985, 1988, 1990).

2.2 Service Quality Models

2.2.1 GAP Model (Parasuraman et al.1985)

The researchers across the world have identified number of models on service quality. Parasuraman et al. (1985) developed a service quality model based on exploratory
investigation of gap between consumers and service providers. They identified five potential discrepancies or gaps associated with the delivery of service:

GAP 1: Customer expectations – management perception gap: the difference between management perceptions of customer expectations and actual customer expectations;

GAP 2: Management perception- service quality specification gap: the difference between understanding the customer expectations and development of service quality specifications;

GAP 3: Service quality specifications-service delivery gap: the difference between service quality specifications and actual service delivery;

GAP 4: Service delivery- external Communications Gap: the difference between actual service delivery and what is communicated about the service to consumers and

GAP 5: Expected Service- Perceived gap: the difference between customer expectations and customer perceptions.
This gap analysis formed the basis of the model summarizing the nature and determinants of service quality as perceived by consumers. Service quality as perceived by the consumer depends on the size and direction of Gap 5 which, in turn depends on the nature of the gaps associated with the design, marketing and delivery of services—Gap 5= f { Gap 1, Gap 2, Gap 3, Gap 4; Parasuraman et al. 1985). According to the Gap model, consumer assessment of service quality results from a comparison of service expectations with actual performance (Parasuraman et al. 1885, 1988, 1993). The entire
approach was developed on the tenet that customers form expectations of performances on the service dimensions, observe performance and later form performance perceptions. To evaluate quality of service, consumers compared the services they received with the services they expected prior to the service encounter. Quality in services is held in the eyes of the customer and therefore called as perceived service quality. The consumer’s perception of service depends on the nature of discrepancy between the expected service (ES) and the perceived service (PS). When ES>PS, perceived quality is less than satisfactory; ES=PS, perceived quality is satisfactory; and ES<PS, perceived service quality is more than satisfactory (Parasuraman et al. 1985).

When Parasuraman and his colleagues first developed the model in 1985, their exploratory investigation consisted of in-depth interviews of 37 executives in four nationally recognized service firms and 12 consumer focus groups. The initial results, based on qualitative research, yielded 10 dimensions of service quality that included tangibles, reliability, responsiveness, competence, courtesy, credibility, security, access, communication and understanding the customer (Parasuraman et al. 1985).

- **Reliability** involves ability of the firm to perform the promised service dependably and accurately.
- **Responsiveness** concerns the willingness and readiness of employees to help customers and provide prompt service.
- **Competence** means possession of the required skills and knowledge to perform the service
- **Courtesy** involves politeness, respect consideration and friendliness of the contact personnel
- **Credibility** involves trustworthiness, believability, honesty of the service provider
- **Access** involves approachability and ease of contact
- **Communication** means keeping customers informed in language they can understand and listening to them
- **Understanding the customer** involves making the effort to understand customers and their needs
• **Tangibility** includes physical evidence of the service - appearance of physical facilities, equipment, personnel and communications material

• **Security** is the freedom from danger, risk or doubt

These ten dimensions and their descriptions served as the basic structure of the service quality domain from which items were derived for the development of measurement scale. Further empirical study (Parasuraman et al. 1988) resulted in a Multiple-item scale, named ‘SERVQUAL’ , which measures service quality based on five dimensions, viz. tangibles- the physical facilities, equipment and appearance of personnel; reliability- the ability to perform the promised service dependably and accurately; responsiveness-the willingness to help customers and provide prompt service ; assurance- the knowledge and courtesy of employees and their ability to inspire trust and confidence and empathy- the caring, individualized attention the firm provides its customers. SERVQUAL is a two part instrument, with 22 items measuring expectations of customers and 22 similarly worded items measuring perceptions or experiences of customers to measure service quality. Each quality dimension can be quantified by obtaining measures of expectations and perceptions of performance 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.

SERVQUAL is designed as a diagnostic instrument to assess the strengths and weaknesses of a service provider, in terms of various service dimensions. Three dimensions- tangibles, responsiveness and assurance have four items each and the other two dimensions- reliability and empathy have five dimensions each. Parasuraman et al used SERVQUAL with service companies in banking, credit cards, product repairs, insurance and telephones. The component and total reliability of SERVQUAL was found to be consistently high across all four samples. The overall patterns of factor loadings are remarkably similar across the four independent sets of results. The distinctiveness of SERVQUAL’s five dimensions was further supported by relatively low inter-correlations among the five factors. The SERVQUAL instrument was judged to have content validity by examining the extent to which the items represented the construct’s domain.
Convergent validity was tested by comparing SERVQUAL scores with Overall quality scores. The strength and persistence of the linkage between Overall Q scores and SERVQUAL scores across four samples offer strong support for its convergent validity.

Following this work by Parasuraman and his colleagues numerous research studies were conducted to validate and verify the five dimensions (Babakus & Mangold 1992; Bowers et al. 1994; Carman 1990; Cronin & Taylor 1992; Teas 1993; Brown et al. 1993). Babakus & Mangold (1992) used SERVQUAL to evaluate the quality of services that discharged patients had experienced during their hospitalization. The researchers concluded that some modification should be made in the instrument because of the uniqueness of hospital services. The negatively worded statements and a 5-point likert response format were adopted instead of the original 7-point scale. Carmen (1990) suggested through their empirical research that stability of the SERVQUAL dimensions is impressive, but the PZB dimensions are not completely generic. Carmen (1990) indicated that although the number and identification of factors are quite similar across settings, the applicability of an individual item to the factor to which it was expected to belong is far less stable. Based on their research, it is recommended that items on seven or eight of the original ten PZB dimensions be retained until factor analysis shows them to be unique (Carmen 1990). The researcher also suggested that the SERVQUAL needed to be customized by adding items or changing the wording of items.

### 2.2.2 Other measurement models of service quality

This literature review mentions only few of the most widely used models of service quality measurement.

Gronroos (1984) suggested that a firm in order to compete successfully must have an understanding of consumer perception of the quality and the way service quality is influenced. Managing perceived service quality means that the firm has to match the expected service and perceived service to each other so that consumer satisfaction is
achieved. The author identified three components of service quality, namely: technical quality; functional quality; and image. Technical quality is the quality of what consumer actually receives as a result of his/her interaction with the service firm and is important to him/her and to his/her evaluation of the quality of service. (2) Functional quality is how he/she gets the technical outcome. This is important to him and to his/her views of service he/she has received. (3) Image is very important to service firms and this can be expected to built up mainly by technical and functional quality of service including the other factors (tradition, ideology, word of mouth, pricing and public relations).

A service quality gap may exist even when a customer has not yet experienced the service but learned through word of mouth, advertising or through other media communications (Brogowicz et al. 1990). Thus there is a need to incorporate potential customers’ perceptions of service quality offered as well as actual customers’ perceptions of service quality experienced. The model of service quality suggested by Brogowicz et al. (1990) considers three factors, viz. company image, external influences and traditional marketing activities as the factors influencing technical and functional quality expectations.

Cronin & Taylor (1992) view service quality as a form of attitude representing a long run overall evaluation. They argued on the framework of Parasuraman et al. (1985), with respect to conceptualization and measurement of service quality and developed performance only measurement of service quality called SERVPERF by illustrating that service quality is a form of consumer attitude and the performance only measure of service quality is an enhanced means of measuring service quality. They argued that SERVQUAL confounds satisfaction and attitude. They stated that service quality can be conceptualized as “similar to an attitude”, and can be operationalized by the adequacy-importance model. In particular, they maintained that Performance instead of “Performance-Expectation” determines service quality.

Dabholkar (1996) proposed two alternative models of service quality for technology-based self-service options. Self-service is becoming popular day by day owing to high
cost of labor in service deliveries. The attribute model is based on what consumers would expect from. It is based on cognitive approach to decision making, where consumers would use a compensatory process to evaluate attributes associated with the technology based self service option in order to form expectations of service quality. The overall affect model is based on the consumers’ feeling towards the use of technology. In both the models expected service quality would influence intentions to use technology-based self-service option.

Spreng & Mackoy (1996) attempts to enhance the understanding of the constructs-perceived service quality and consumer satisfaction. This model is modification to Oliver’s (1993) model. The model highlights the effect of expectations, perceived performance desires, desired congruency and expectation disconfirmation on overall service quality and customer satisfaction. These are measured through set of ten attributes of advising (convenience in making an appointment, friendliness of the staff, advisor listened to my questions, the advisor provided accurate information, the knowledge of the advisor, the advice was consistent, advisor helped in long-range planning, the advisor helped in choosing the right courses for career, advisor was interested in personal life, and the offices were professional).

Sureshchander (2002) postulated that service quality is based essentially on five dimensions namely: (1) Core service or service product, (2) Human element of service delivery, (3) Systematization of service delivery- non-human element. (4) Tangibles of service (services capes), (5) Social responsibility. The operationalisation of the instrument is based on the performance-based approach proposed by Cronin & Taylor (1992). A seven-point Likert scale (1, very poor; 7, very good) can be used for all items to ensure high statistical variability among survey responses. The authors suggested that, the dimensions and the items are highly flexible, in the sense that the items can be modified to suit any service category, and it is hoped that the present research work will help other researchers and practitioners to use the instrument as a tool so as to measure the level of customer perceived service quality in the various service organizations, e.g. finance (banking, non-banking financial institutions and insurance), construction, travel,
health care, education and hotels. The instrument can also be used as a good predictor of customer satisfaction when measured in the context of multiple experiences of customers with the service organizations.

2.3 Critical Evaluation of SERVQUAL

2.3.1 Arguments against SERVQUAL

Although the SERVQUAL model has greatly contributed to the literature on service quality, it has been criticized. Generally, critics have questioned the multidimensional nature of the instrument, psychometric properties, applicability as a generic scale and the feasibility of SERVQUAL as a framework in measuring service quality.

Some of the theoretical and empirical criticisms of the scale can be summarized as follows:

*Gap Score*

The first issue raised by lot of researchers involves the appropriateness of the perceptions-expectations gap conceptualization, which is the basis of the SERVQUAL Scale. The use of gap score to measure perceived service quality as difference between customer perception and expected service does not actually capture the cognitive evaluation process of the customer. The concept and operationalisation of the “gap score” have been questioned by many researchers. Brown et al. (1993) investigated the SERVQUAL scale and concluded that there are serious problems in conceptualizing service quality as a difference score. The use of a “gap score” is said to be a poor choice as a measure of psychological construct (Van Dyke et al. 1999) because there is little evidence that customers actually assess service quality in terms of perception-minus-expectations scores (Peter et al. 1993; Buttle 1996). Moreover, the validity of the operationalisation of the “gap score” has been questioned because such scores are unlikely to be distinct from their component scores (Brown et al. 1993). Any gap score should be directly measured to yield a better outcome (Van Dyke et al. 1999). Revisiting the conceptual foundations of the SERVQUAL model provides some insight into the
conflicting results. Origins of SERVQUAL can be found in the writings of the disconfirmation model widely adopted in the customer satisfaction literature (Oliver 1977, 1980 a, 1981). Oliver proposes that consumers make “better than expected / worse than expected” (disconfirmation) judgments on the basis of a comparison of product performance to expectations in the determination of customer satisfaction. Though conceptually consumers can make arithmetic or calculated comparisons between expectations and performance, Oliver (1981) argues that they may not because of measurement failure or effort or because the relevant performance dimensions cannot be quantified. Cronin & Taylor (1992) observes: ‘Researchers have attempted to differentiate service quality from customer satisfaction, even while using the disconfirmation format to measure perceptions of service quality.... This approach is not consistent with the differentiation expressed between these constructs in the satisfaction and attitude literatures’. The disconfirmation-based service quality measurement scale is inappropriate and it was suggested that service should be measured as an attitude (Cronin & Taylor 1992). Babakus and Boller (1992) found the use of a gap approach to service quality measurement ‘intuitively appealing’ but suspected that the difference scores do not provide any additional information beyond that already contained in the perceptions component of the SERVQUAL scale. They found that the dominant contributor to the gap score was the perceptions score because of a generalized response tendency to rate expectations high.

Customer Expectations

Parasuraman et al. (1988) defined expectations as “desires or wants of consumers, i.e. what they feel a service provider should offer rather than would offer” (emphasis added). The expectations component was designed to measure “customers’ normative expectations” (Parasuraman et al. 1990), and is “similar to the ideal standard in the customer satisfaction/dissatisfaction literature” (Parasuraman et al. 1991). The concept of “expectations” has been criticised for being loosely defined and open to multiple interpretations (Teas 1993, 1994). According to this critique, expectations have been variously defined as “desires”, “wants”, “what a service provider should offer”, “the level
of service the customer hopes to receive”, “adequate service”, “normative expectations”, and “ideal standards”. Teas (1993a) found these explanations somewhat vague and have questioned respondents’ interpretation of the expectations battery in the SERVQUAL instrument. He believes that respondents may be using any one of six interpretations (Teas 1993b): (1) Service attributes importance. Customers may respond by rating the expectations statements according to the importance of each. (2) Forecasted performance. Customers may respond by using the scale to predict the performance they would expect. (3) Ideal performance. The optimal performance; what performance “can be”. (4) Deserved performance. The performance level customers, in the light of their investments, feel performance should be. (5) Equitable performance. The level of performance customers feel they ought to receive given a perceived set of costs. (6) Minimum tolerable performance. What performance “must be”. Each of these interpretations is somewhat different, and Teas contends that a considerable percentage of the variance of the SERVQUAL expectations measure can be explained by the difference in respondents’ interpretations. Carman (1990) agreed that expectations are important and the service marketers need to collect the information about them. But from their empirical study they concluded that there appear to be serious problems with the value of the expectations battery as proposed by Parasuraman et al. (1988) and the ability to administer it.

**Difference scores: psychometric problems**

Brown et al. (1993), Peter et al. (1993), Edwards (1995) and Van Dyke et al. (1997) have criticised SERVQUAL’s interpretation of service quality in terms of difference scores, on the grounds that the subtraction of scores from two separate measurements to create a new variable, which is then used in subsequent data analysis, can lead to several psychometric problems affecting reliability and discriminant validity and can lead to spurious correlations and variance restriction.

The calculation of difference score in SERVQUAL measure leads to several psychometric problems. Difference score measures often demonstrate poor reliability, primarily because any positive correlation between the component scores attenuates the
reliability of the resulting difference score. It means as the reliability of either component score decreases or the correlation between the component scores increases, the reliability of the difference score itself increases. When two responses are taken from the same respondent and then subtracted to form a measure of the third construct, only rarely the difference score components will not be positively correlated (Brown et al. 1993).

The use of difference score can also lead to two potential problems with discriminant validity. Recall that discriminant validity refers to the degree to which measures of theoretically unrelated constructs do not correlate too highly with one another— that is the extent to which SERVQUAL has five distinct dimensions. The common problem relates to how the reliability of measures affects discriminant validity. Low measure reliability attenuates correlations between constructs. Thus a measure with low reliability may appear to possess discriminant validity simply because it is unreliable. Since difference scores are usually less reliable than non-difference score measures, they can be particularly affected by this phenomenon (Brown et al. 1993). The other problem which is unique to difference scores and other linear combinations concerns the degree to which the difference score measure can be discriminated from one or both of the component measures used to obtain the difference. In theory difference is supposed to represent a construct that is distinct from the constructs represented by its component measure. In practice though, the difference will highly correlated with, at least one of the component measures. Since difference score measures will not typically demonstrate discriminant validity from their components, their construct validity is questionable.

Another common problem with difference scores is variance restriction, which occurs when one of the component scores used to calculate the difference score is consistently higher than the other component. Wall & Payne (1973) for example emphasis that there is ample evidence that when two people respond to “what is desirable” in comparison to “what there is now,” they seldom rate the former lower than the latter. Such in the case with SERVQUAL; the expected or desired level of service is almost always higher than the perceived level of actual service (Brown et al. 1993).
Predictability

Most studies have found a poor fit between service quality as measured through SERVQUAL scale and the overall service quality measured directly through a single-item scale (Babakus & Boller 1992; Babakus & Mangold 1989; Carman 1990; Finn & Lamb 1991; Spreng & Singh 1993). Cronin & Taylor (1992) found that SERVPERF measure explained more of the variance in the overall measure of Service quality than did SERVQUAL. The ability of a scale to explain the variation in the overall service quality (measured directly through a single-item scale) was assessed by regressing respondents’ perceptions of overall service quality on its corresponding multi-item service quality scale (Jain and Gupta, 2004). Adjusted $r^2$ values clearly point to the superiority of SERVPERF scale for being able to explain greater proportion of variance in the overall service quality than SERVQUAL. Efficacy of perceptions-based and disconfirmation-based service quality scales were examined from respondents representing different birth countries and the results have shown that the perceptions-based service quality scale better explains variations of customer satisfaction (Nam 2008). The perceptions component outperforms SERVQUAL in predicting behavioral intentions also (Brown et al. 1993).

Dimensionality

SERVQUAL’s five dimensions are not universal and number of dimensions and their stability comprising service quality depends on the context in which it is used. The items do not load on to the factors as proposed by the researchers and there is a high degree of inter-correlation between the five SERVQUAL dimensions. Carmen (1990) suggested through their empirical research that stability of the SERVQUAL dimensions is impressive, but the PZB dimensions are not completely generic. Carmen (1990) indicated that although the number and identification of factors are quite similar across settings, the applicability of an individual item to the factor to which it was expected to belong is far less stable. These dimensions are not so generic that users of these scales should not add items on new factors they believe are important in the quality equation. It has been also
suggested that the factor-loading pattern in a number of studies indicates a weakness in terms of convergent validity because several of the SERVQUAL items had the highest loadings on different dimensions from those in SERVQUAL (Babakus & Boller 1992). They further suggested that the dimensionality of service quality may depend on the type of industry being studied. Cronin & Taylor (1992) suggested from their study on four types of service firms that the five component structure proposed by Parasuraman et al. (1988) for their SERVQUAL scale is not confirmed in any of the research samples. Brown et al. (1993) suggested from their empirical research that the dimensionality of SERVQUAL did not replicate.

Cronin & Taylor (1992) and Brown et al. (1993) proposed an alternative explanation and suggested a uni-dimensional construct of service quality. The authors suggested that all the items loaded predictably well on single factor and service quality is in fact unit-dimensional construct and certainly not a five dimensional one. The five dimensions of SERVQUAL failed to construct a service quality measurement because of the inter-correlations among them and the SERVQUAL is uni-dimensional rather than a five-dimensional construct (Babakus & Boller 1992). However, this is not corroborated by a more recent study by Llosa et al. (1998). While their study failed to find evidence that the 22 items of SERVQUAL cause respondents to think in terms of the five service quality dimensions as defined by Parasuraman et al. (1988), the results also do not confirm other researchers’ assertions of uni-dimensionality.

**Applicability across industries**

Parasuraman et al. (1988) purposed that the instrument has been designed to be applicable across a broad spectrum of services. However, it was considered more appropriate by many researchers to do more replication and testing of the SERVQUAL dimensions and measures before accepting it as a valid generic measure of perceived service quality. The validity of the items and dimensions of the SERVQUAL instrument have been questioned by many researchers. Carmen (1990) had to use 14 additional items and dropped 13 items of the original items in the factor analysis stage of his study on four
industries. Brown et al.(1993) also suggested that the original SERVQUAL scale do not completely cover the service quality dimensions of Banking Industry. Dabholkar et al. (1996) argued that service quality in retailing is different from any other service, and developed the Retail Service Quality Scale (RSQS) for measuring retail service quality. The RSQS has a five dimensional structure of which three dimensions comprising of two sub-dimensions each. In an empirical research, it was reported that the five factor structure in SERVQUAL does not hold up in the context of Indian banks (Angur et al. 1999). These studies emphasized the difficulty in adapting SERVQUAL instrument across service industries and suggested the use of industry specific measures of service quality.

2.3.2 Arguments for SERVQUAL Construct

When the SERVQUAL scale was developed by researcher’s aim was to provide a generic instrument for measuring service quality across a broad range of service categories. Rust and Oliver (1994) noted that the SERVQUAL instrument captured the crux of what service quality might mean, i.e. a comparison to excellence in service by the customer.

- Parasuraman et al. (1993) agrees with Brown et al. (1993) that reliability of a scale operationalized as the difference between two measures will be low when correlation between the perceptions and expectations is high and when the reliabilities of perceptions and expectations are low. However, they argued that the reliability issues are not likely to be serious threat when the construct being operationalized is an expectation-minus-perception difference score. The expectation component of SERVQUAL is a general measure and pertains to customers normative standards i.e. the service levels customers believe excellent companies in a sector must deliver (Parasuraman et al. 1993). The perceptions component on the other hand, pertains to customer’s perceptions of a given company’s service within the sector. As such there is no conceptual reason for a customer’s general evaluation standards to be co-related with his or her company specific assessments. Any observed correlation between the two may be merely
an artifact of both measures appearing on the same instrument. In fact correlations between expectations and perceptions are low (Parasuraman et al. 1988 and Brown et al. 1993). Moreover, the empirical studies of Parasuraman et al. (1988, 1991) and Brown et al. (1993) have demonstrated high reliabilities for two components- perceptions and expectations of SERVQUAL.

- **Discriminant validity may be inflated if the measure has as low reliability. But this problem is unlikely to be serious in case of SERVQUAL, as the reliability of difference score formulation of SERVQUAL has been shown to be consistently high (Parasuraman et al. 1988 and Brown et al. 1993). Difference score measure will lack discriminant validity because it will be correlated with its two components (Brown et al. 1993). Parasuraman (1985) defines service quality is a function of the discrepancy between customer the former expectations and perceptions, implying that the former construct is necessarily related to the other two. Hence inferring poor discriminant validity of difference score of SERVQUAL on basis of its correlation with its components is inconsistent with the definition of discriminant validity.**

- **Brown et al. (1993) raises concern on restriction of variance of the difference scores at higher level of service quality due to high mean value and low standard deviation of expectation component relative to the perception component of SERVQUAL. This problem of variance restriction can have an impact, only in the case of multivariate analysis. And even when used in multivariate application such as regression analysis, variance restriction is likely to be serious only when the difference score measure is used as a dependent variable. As far as using SERVQUAL for diagnostic purpose is considered, variance restriction is not relevant (Parasuraman 1993).**

- **If Performance (P) is measured alone, respondents will mentally compute P–E regardless, using their own vague notions of E, in order to deliver their response**
While it is the maximally attainable score of 5 on a 5-point scale that presumably is serving as a reference point in the case of the SERVPERF scale, it is customer expectation for each of the service area that is acting as a yardstick under the SERVQUAL scale. The SERVQUAL scale does not point to managerial intervention as long as perceived performance equals or exceeds customer expectations for a service attribute. However, the SERVPERF scale, will suggest the need for managerial intervention because the perceived performance level is less than the maximally attainable value of 5. The customer perceptions of performance are above their expectation level, so there is no justification in further trying to improve the performance in this area. The customers are already getting more than their expectations; any attempt to further improve the performance in this area might drain the owner of the resources needed for improvement in other critical areas (Jain & Gupta 2004). Between the two scales, therefore, the SERVQUAL scale stands to provide a more pragmatic diagnosis of the service quality provision than the SERVPERF scale (Jain & Gupta 2004). The incorporation of expectation scores provides richer information than that provided by the perception-only scores thus adding to the diagnostic power of the service quality scale. Even the developers of performance-only scale were cognizant of this fact and did not suggest that it is unnecessary to measure customer expectations in service quality research (Cronin & Taylor 1992). When one is interested simply in assessing the overall service quality of a firm or making quality comparisons across service industries, one can employ the SERVPERF scale because of its psychometric soundness and instrument parsimoniousness. However, when one is interested in identifying the areas of a firm’s service quality shortfalls for managerial interventions, one should prefer the SERVQUAL scale because of its superior diagnostic power. Moreover, when one is interested in both the objectives—(1) accurately diagnosing service shortfalls and (2) explaining the variance in related variables, the difference score can be used for the former while the perceptions component alone can be used for the latter (Parasuraman et al. 1993).
• Measuring expectations and perceptions separately also allows managers to better understand the dynamics of customer’s assessment of quality over time (Parasuraman et al. 1993). For example, if SERVQUAL scores for certain item have declined significantly from one period to another, service providers can assess whether it is due to higher expectation, lower perceptions or both. This information is neither available in performance only scale nor when performance relative to expectation are measured on the same scale.

• Addressing the issue of universal applicability, Parasuraman et al. (1991), states that, the SERVQUAL items represent core evaluation criteria that transcend specific companies and industries. The SERVQUAL items are the basic “skeleton’ underlying service quality and as much as possible it must be used in its entirety. While minor modifications in the wording of items to adapt them to a specific setting are appropriate, a deletion of item could affect the integrity of the scale and cast doubt on whether the reduced scale fully captures service quality. The SERVQUAL scale can be supplemented with context specific items when necessary. Carman (1990) states that the dimensions may have been over-generalized and suggests that some items of the ten dimensions that were no longer explicitly stated in the five dimensions be retained until further factor analysis shows that they really are not unique.

• In response to the issue related to the increased questionnaire length, Parasuraman et al. (1991), suggested reduction in the questionnaire length by using just one list of the SERVQUAL items and placing the expectations and perceptions rating scales in two columns adjacent to the list.

Parasuraman et al. (1993) acknowledged that P scores alone do outperform gap scores (P–E) in terms of the prediction of overall evaluations of service and behavioural intentions. But raised an important trade-off question: “Is the increased ability of the P scores alone to explain variance worth the potential loss of richer more accurate
“diagnostics for improving service quality?” Parasuraman et al. (1994) explain that using ‘perceptions-only’ is appropriate if the research purpose is to measure variances in some dependent construct: while, ‘perceptions-minus’ measurement is appropriate when the research purpose is to diagnose accuracy of service short-falls and use this information to allocate resources to improve SQ. Moreover Lam & Woo (1997) found that the performance items are subject to instability even in a one week test-retest interval. This finding casts doubt on the usefulness of the SERVQUAL performance only items to measure service quality. In the mean time, ‘even in its present state, SERVQUAL is a helpful operationalisation of a somewhat nebulous construct’ (Buttle 1996). The impact of SERVQUAL in the domain of service quality measurement is widely accepted, and although few of its claims remain disputed (Smith 1995) it should be noted that even its major critics acknowledged its popularity (Brown et al. 1993; Cronin & Taylor 1992; Teas 1994). An alternative with the same level of general appeal and market dominance is yet to be produced.

2.4 Service quality measurement

The review of literature here covers a few of the theoretical and empirical studies to show the present status of the research on service quality in banking and insurance sector.

2.4.1 Measuring Service Quality in Banking Sector

The financial services sector has undergone significant changes and become globally competitive over the past decade. Though the business growth moderated during economic slowdown and banking system world over crumbled, the Indian banking Industry came out with a strong performance and continued to display underlying strength. According to Mckinsey and company whitepaper on Indian Banking 2010, one of the challenges arising from demographic changes in age profile and household income will be consumer’s increasing demand on enhanced institutional capabilities and service
levels from banks. Secondly with increased interest in India, competition from foreign banks will only intensify.

The study by Minjoon & Shaohan (2001) aimed to provide insights into service quality in the context of emerging internet banking. The objective of the research was to identify what customers perceive to be the key dimensions of internet banking service quality. The critical incident technique was utilized in this study to uncover the key dimensions. In selecting appropriate critical incidents of service encounter, the authors used the following four criteria, as suggested by Bitner et al. (1990). A critical incident of service encounter should – involve customer-firm interactions via online tools; be very satisfying or dissatisfying from the customer point of view; be a discrete episode; and have sufficient detail. After deleting the unqualified comments, 532 incidents were obtained for further analysis. The original data of critical incidents yielded 45 nodes, which were further refined into 17 service quality dimensions that can be classified into three broad categories: customer service quality, online systems quality and banking service products quality. Their study recommended that to strengthen competitiveness in market, banks should focus on the following key dimensions: (1) Customer service quality: responsiveness; reliability and access; (2) Online systems quality: ease of use; and accuracy; (3) Banking service product quality: product variety/ diverse features.

Prabhakaran and Satya (2003) developed an insight into various service attributes in banking sector. They identified attributes, which forms the evaluation criteria to perceive service dimensions. The service dimensions used for the study were based on the SERVQUAL scale. The study also examines the weight age given to each attribute by the clients and the assessment of various bank based on these attributes. The product chosen within banking was housing loans. Exploratory research was carried out to find various attributes, which go into defining service dimensions. The study has been confined to the city of Bangalore. The focus has been on the clients who are already availing housing loans from the banks. The questionnaires were administered personally and statistical techniques were used to analyze the data collected. The researcher has given five
important attributes to explain the dimension of reliability and of those dependability and accuracy were considered as two important attributes. The researchers also suggested that there is a fair degree of association between reliability and responsiveness; reliability and tangibility; empathy and responsiveness; empathy and tangibility; and assurance and reliability.

The research was an empirical assessment of service quality, particularly the relative importance of functional service quality dimensions and outcome service quality dimension in the Indian banking sector (Awasthi and Dogra, 2005). The measurement instrument used in the study to capture service quality contains 27 Likert-type items. It contained functional quality items from SERVQUAL (Parasuraman et al. 1996). Depth interviews were conducted with representatives of the target population to elicit items for outcome quality. The instrument has three column measurement format that generates two types of scores. Measured scores of perception, minimum expectation and desired expectation through survey and the computed gap scores of measure of service adequacy (perception minus minimum expectation) and measure of service superiority (perception minus desired expectation). The scale was pre-tested twice before being used. Multiple stage sampling procedure was used to collect data. The final sample consisted of 131 usable questionnaires. The primary data was collected by personally administering the questionnaire. Evidence of convergent validity was examined through simple correlation with the independently measured overall quality score. Corresponding correlations with independently measured overall value score were used for observing discriminant validity. Five dimensional model was not supported by factor analysis, as most items do not load into their a-priori categories. Items load into different factors and many items have significant cross-loadings above 0.40. The service quality dimensions had internal consistency however outcome quality could not establish convergent validity and discriminant validity conclusively. The results support the multidimensional structure of service quality. Though some service quality dimensions were found to be similar to the ones posited in five dimensional model, the model as such was not supported in banking services. Outcome quality does not help explain more variance in overall service quality,
which was incongruent with the proposition that outcome quality dimension would emerge to be the important dimension. Reliability was found to be the vital dimension in customers’ perception of service quality.

The aim of the study was to establish the critical determinants of automated service quality by including those attributes of each main banking delivery channel that were currently assessed by existing service quality instruments and those attributes that were currently overlooked in the automated service quality literature (Mohammad Al-Hawari et al. 2005). Subsequently, this paper proposed a conceptual model of automated services quality, as perceived by customers, with specific emphasis on the banking service sector.

The survey instrument consisted of 22 items which were identified through a comprehensive review of the automated service and service quality literature. Prior to empirical testing, the instrument was refined through an expert panel of marketing academics and researchers. This study was conducted in two stages. Stage one involved a pilot study which was conducted to refine the test instrument. Specific issues addressed were question ambiguity; the refinement of the research protocol and the confirmation of scale reliability. Stage two involved the distribution of 600 surveys to a random sample of people from the general public. Only respondents who used at least one of the bank automated services were accepted in this sample. A mall intercept method was used to administer the survey which was collected via face-to-face interviews. Respondents were asked to give their perception of the quality level of automated banking services on a seven point Likert scale ranging from 1 indicating very poor to 7 indicating very good. A total of 442 useable surveys were collected with 158 rejections, which gave a response rate of 74 per cent. The surveys also encompassed service quality evaluations from ten different banks, credit unions and building societies within Queensland. The interviews were conducted in a number of different cities in different malls. The instrument was divided into five main sections. Each section represented a group of items measuring a particular factor. The proposed comprehensive model was empirically validated by perceptual data collected. All of the proposed five factors of customer perceptions of automated banking service quality had exhibited strong uni-dimensionality, reliability, convergent, discriminant, and criterion-related validity. Moreover, the CFI and the other
criteria indices for the overall model had also been found to exceed the obligatory requirements. Consequently, it was accepted that the automated service quality in banks can be conceptualized as a five-factor structure consisting of: ATM service quality, telephone banking service quality, internet banking service quality, core service quality and price quality.

In another empirical study, by Sudhahar & Selvam (2006), a perceptual map on the set of retail banks in India is drawn through a multivariate non parametric technique called Correspondence Analysis (CA). Based on the review of service quality literature, the SERVQUAL image measurement for this study adopted the highly revised format of the questionnaire developed by Allred and Addams (2001). The scale contained 15 items to measure service quality. But unlike the original scale, the researchers used “pick any-tick any” method instead of the rating scale. The correspondence analysis was performed on the data collected from all the 363 respondents and it revealed that a total number of 3 dimensions account for the 100% variance. However the objective of CA is to reduce the set of data into a two-dimensional map, it was proposed to find out the amount of variance explained by these two dimensions. The cumulative percentage of variance explained amounts to 96.5 % for both the dimensions, leaving only 3.5 % for the third dimension, which was quite negligible and hence dropped from further analysis. The association of different service attributes to selected banks for both the dimensions taken together is better revealed through correspondence map. It is clear that SBI is closely associated with reliability, credibility and security. The ICICI bank is closely attached with attributes such as competency, courteousness, communication, empathy and treatment of customers whereas HDFC bank on attributes like accessibility, tangibility, need-fulfillment and responsiveness. In another work of the same researchers, they applied the Human-Societal Element Model developed by Sureshchander et al. (2001a, b and 2002a) to measure the customer perceived quality. Sudhahar and Selvam (2007) suggested that their research work strives to bring to light some of the critical determinants of service quality that have been overlooked in the earlier models. The
researcher proposed a revised comprehensive model and an instrument framework for measuring customer perceived quality.

**Vanniarajan & Anbazhagan (2007)** made an assessment of the SERVPERF scale in the Indian retail banking. Further, the relationship between these service quality factors and overall assessment of customer’s bank is investigated. The important discriminant service quality factors among the public sector, private sector and co-operative banks are also examined. Data were collected through a survey among the borrowers of consumer loans in public, private and co-operative banks in Madurai. A systematic random sampling technique was adopted and all the customers were personally interviewed using a structured questionnaire. Their study identifies four dimensions – reliability, responsiveness, assurance and tangibles – which form the domain of customer’s evaluation of search quality in the financial services industry. The results indicate that the customer’s perception on the service quality factors in private sector banks are higher than in the public sector and co-operative banks. The significantly influencing service quality factors on the overall attitude towards retail banking are the reliability and assurance. The most important discriminant service quality factor among private and public sector bank is ‘responsiveness’ whereas among the public sector and cooperative banks, it is ‘tangibles’. In the case of private and co-operative banks, the important discriminant service quality factors are reliability and responsiveness. These findings suggest that bank managers should be cognizant of service quality factors and their relations with the appropriate contingent variables. A highly contentious issue examined in this paper relates to the SERVPERF scores of service quality construct. The results indicate service quality of retail banking as critical to customer’s satisfaction and these key areas provide important directions for bank marketers to implement relationship marketing strategies. The perceived service quality components namely reliability and responsiveness have the most impact on customer’s satisfaction in retail banking. Therefore, while maintaining service quality, the reliability and responsiveness are still important. Banks must be aware these potential impacts and design appropriate strategy to satisfy its customers.
Safakli (2007) measured service quality of commercial banks towards Small and Medium Sized Enterprises (SMEs) using SERVQUAL model developed by Parasuraman, Zeithaml and Berry. The research applying Non-probability convenience sampling towards the owners/managers of SMES operating in versatile sectors was conducted, completing 227 questionnaires. The questionnaire used in the study is comprised of four parts. Part A contained questions on demographic profile, Part B included expectations of respondents, Part C was on importance attached to each of the five service quality dimensions and Part D, similar to Part B, contained perceptions of respondents to measure the service quality. The basic analysis and tests utilized in the study include frequency and percentage analysis, “one-sample t test”, “independent-samples t tests”, “paired-samples t tests”, “One-Way ANOVA test” and “reliability analysis”. The results showed that expectations are greater than performance, then perceived quality is less than satisfactory and a service quality gap materializes. Even though SERVQUAL score for item 4 is negative, according to “paired samples t test” means of perception and expectation do not differ significantly at the $p<.05$ ($p>.05$). For the remaining 21 items banks fall short of expectations significantly. Based on the quality dimensions empathy has the highest negative SERVQUAL scores. In other words, compared with other factors, satisfactory level of emphatic behavior is lower. In regards to the quality improvement, the most important dimension to which highest rating (27.63 percent) is assigned is reliability. This dimension is followed by assurance and responsiveness respectively. In this respect, empathy having the highest negative SERVQUAL score is the least important dimension. When these relative importances of quality dimensions are considered as weights, highest negative SERVQUAL score passed from empathy to reliability. Furthermore, the difference between total weighted SERVQUAL score (-0.64197) and total un-weighted SERVQUAL score (-0.65328) do not seem noteworthy.

The goal of the study was to identify the dimensions of customer perceived service quality in the Indian retail banking sector (Pal, Choudhury, 2008). The authors reinforced the fact that service quality is a complex and multidimensional construct. A modified SERVQUAL was used, with deletions of items from the original and addition
of other items. For the study, the responses were gathered from customers of four major banks in the retail banking industry of India. Five branches for each bank were randomly selected and questionnaires were self-administered to customers within the branches of bank. A total of 2400 customers were contacted and the overall response rate was 18.75%. The questionnaire for the measurement of customer-perceived service quality followed the basic structure of the SERVQUAL instrument as developed by Parasuraman et al. (1991), and consisted of two sections: expectation section and perception section. A modified SERVQUAL scale, containing 15 items were used to measure service quality in this study. Feedback from the managers in each of the participating banks who reviewed confirmed that the modified SERVQUAL had face validity. Reliability for the scale was tested using Cronbach alpha (0.70 was considered acceptable). Factor analysis of the collected data, revealed a 4-factor solution and the 15 items were reconfigured into four dimensions, namely – customer-orientedness, competence, tangibles and convenience. The authors suggested that, a recurring feature in the empirical studies, which have analysed and used SERVQUAL, is the wide variety of empirical factor structures obtained. These vary primarily in the number of interpretable factors, which consistently differ from the five factor structure reported by Parasuraman et al. (1988). In this study it was primarily due the modified scale and also as the context (Indian Retail Banking sector) was also different. The authors also suggested that with the changing trends in marketing, new aspects of service quality can be included in further research. The contribution of this research has also been in terms of its methodology. As in this research, a new technique-TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) has been used to evaluate, compare, and rank the performance of the banks by considering the performance of the banks along the various service quality factors obtained from the factor analysis.

Amin & Isa (2008), in an attempt to measure service quality perceptions in Islamic banking sector suggested six dimensions from their study. From the study reliability was the key driver of service quality, followed by empathy, tangible, responsiveness, assurance and compliance respectively and each dimension has a positive significant relationship with Islamic banking service quality. Reliability had the highest regression
It means that Muslim and non-Muslim customers are looking for banks that provide services at the promised time, are able to solve problem and cooperative, and offer a wide range of products and services. This result is consistent with Parasuraman et al. (1988, 1991) in that reliability was found to be the most important factor to service quality.

Nam (2008), proposed a service quality measurement scale suitable for international retail banking. The specific research objective of this study was to compare efficacy of perceptions-based and perceptions-minus-expectations-based measurement scales in explaining service quality in international banking and to propose necessary service quality dimensions in the chosen industry. Based on the argument that a number of researchers have suggested that samples representing similar characteristics may be more relevant than random samples for theory testing studies (Calder, Phillips & Tybout, 1981); the authors selected comparative sample from two countries. Various graduate-level business school students who have relatively more bank-related services experiences than undergraduate students are targeted from two countries (U.S and South Korea). A total of 224 respondents fulfill their participation. The researcher used SERVQUAL’s 22 items and eight bank specific items were additionally incorporated as suggested by Jun & Cai (2001). These additionally included items consist of two access items, one ease-of-use, two financial products and three on-line services. First Exploratory Factor Analysis (EFA) was performed, and necessary procedures were followed to justify a meaningful service quality dimension creation and for identifying items associated within the dimensions. Second, reliability test of the factor analysis was assessed to ensure whether items initially classified by the factor analysis were reasonably well allocated to the assigned dimensions. Finally Confirmatory factor analysis (CFA) was executed to ensure whether these purification processes have created statistically meaningful results. While conducting EFA, items were screened using the criteria of (1)loading values over 0.4; and (2) one dimension’s loading value being significantly distinguished (150% greater than loading from other components) from other dimensions. From the above criteria, six items cut off from dimensional association.
Reliability test of factor analysis resulted in the elimination of one more item from the original measurement scale. Based on Confirmatory factor analysis using AMOS, the author suggested a 4 dimensional, 23 items construct for service quality. Items from the original five SERVQUAL dimensions appear to be condensed in the rest of three other service quality dimensions. The tangibles dimension keeps its distinctive characteristics in international banking and appears as the Appearance dimension in this research. The Helpful Employees dimension is created by a combination of the responsiveness and the empathy in the SERVQUAL dimensional clarification. The Trustworthiness emerged as a result of fusing the reliability and the assurance dimensions. As suggested by Carman (1990) it is found from their research that the number of service quality dimensions could vary depending on the nature of the industry and cultural context. The inconsistency of service quality dimensions could partly be due to inter-correlated dimensional characteristics of the service quality dimensions.

Khan et al. (2009), evaluated the service quality of internet banking (i-banking) services in India from customer’s perspective. To determine the dimensions of i-banking and their relationships with the overall service quality, a questionnaire survey was conducted. The questionnaire was finalized using focus group discussion with ten i-banking user and a detailed discussion with the managers of four banks including public sector, private sector and foreign banks. Customers with at least one year of experience in i-banking in India are identified by visiting retail branches/ATM branches of different banks across the country. The data was collected from a sample of 1143 customers using internet as a medium. Based on principal component extraction method with varimax rotation, factor analysis identified 26 items under seven quality dimensions, viz. reliability, accessibility, user-friendliness, privacy/security, efficiency, responsiveness and fulfillment. The two sample hypothesis testing revealed that gender is hardly a bias for use and evaluation of service quality of i-banking in most of the cases across various categories of customers. A valid mathematical model was proposed to assess relationship between the overall service quality and various dimensions using regression analysis. The results suggested that the relationship is more or less statistically significant at 95% confidence level.
(\(p < 0.05\)). Also, the adjusted \(R^2\) value is 0.61, which indicates that the relationship is statistically significant. Five dimensions namely reliability, accessibility, user-friendliness, efficiency and responsiveness are statistically significant \((p < 0.05)\). In addition, the responsiveness dimension has the greatest influence on overall service quality followed by reliability and accessibility. However, two dimensions privacy/security and fulfillment are not statistically significant, indicating further improvement in these dimensions.

Haque (2010), in his study effectively delineates empirical evidence on the attitudinal differences of Malaysian customers’ toward Islamic banking services. As the competition among the banking service providers rose rapidly, concerns on customers’ attitudinal behaviors in the banking markets virtually became the focus of academic and field researches. The results of this study were encouraging in numerous perspectives. In this study, gender is a measurable variable and the findings provide straight forward application in the decision-making process of Islamic Banking services. Findings further indicate that males seem to exhibit greater positive attitude toward Islamic banking, relative to female. This is one of the first efforts to show how the Malays, Chinese and Indians differ in terms of attitudes toward Islamic bank. The author suggest that it is also necessary that the government and, as well as, the Islamic banking authorities will take action plans directed toward spreading the culture of Islamic banking via specialized courses and organized seminars as in the case of traditional banking. This would catalyze the power of the financial structure besides incrementing the fullest capacity of the Islamic banking system and boosting its future growth and development.

The study by Othman and Oven indicates that it is important for Islamic banks to put cultural differences at the front when adopting SQ, and suggests a new model to measure SQ called CARTER which is based on 34 items. The questionnaire was originally prepared in English and then translated into Arabic by using the back-translation method with great assistant from an expert who is fluent in both languages. Five hundred surveys were distributed to customers and only 360 were returned to the researcher. Customers
were contacted in their offices, houses and in the front offices of the head office of KFH and its 22 branches. The sample reflects the life stage of KFH customers (gender, age, education, income, marital status, nationality, occupations, and place of work). The proposed framework was based on the SERVQUAL model and the author had added the Compliance with Islamic law dimension to complete the picture of Islamic banking SQ dimensions (CARTER). CARTER model includes a 34-item instrument that was customized for the Islamic bank. Each item was surveyed directly on the five point Likert scale starting at 1- not important, 2- somewhat not important, 3- neutral, 4- somewhat important and 5- very important. To assist in further testing the validity of this model, three questions were added to the survey regarding overall satisfaction, personal contact with Kuwait Financial House (KFH) staff and satisfaction with quality service. Coefficient alpha was calculated to measure the reliability of the survey that based on internal consistency (Peter, 1979). Coefficient alpha for the model showed very high reliability (0.95) and the alpha for CARTER dimensions were also high (0.70, 0.81, 0.79, 0.89, 0.77 and 0.79 respectively). KFH’s customers were asked about the importance of proposed quality items model. Respondents, in essence, ranked the CARTER dimensions by rating the importance for each item and their satisfaction and dissatisfaction with overall services and quality. They were particularly consistent in their assessment because they clearly judged Compliance, Assurance and Responsiveness as; the most important while Tangibles, Reliability and Empathy were the least important KFH’s customers placed more emphasis on the Compliance dimension (3.95 average scale): because 93 per cent of them said that it is important for KFH to run on Islamic law principles. The findings also showed that the CARTER model to measure SQ in the Islamic banking industry is valid and had been judged by KFH’s customers who fairly proved its highly significant importance for the bank.

2.4.2 Measuring Service Quality in Insurance Sector

**Siddiqui & Sharma (2010):** The study strives to develop a valid and reliable instrument to measure customer perceived service quality in life-insurance sector. A conclusive cross-
sectional descriptive research design was used to study the service quality structure and its key dimensions in life insurance sector. The survey instrument was a SERVQUAL type questionnaire relevant to insurance industry, which consisted of 26 statements for both expectations and perception scores, regarding various aspects of service quality. These service quality aspects were identified by a detailed exploratory identification process. This included five focus group discussions (with 40 life insurance policyholders); eight in-depth interviews (three with branch managers and five with agents of various life insurance companies). Quota (multi stage) and shopping mall intercept sampling schemes have been employed for data collection from 868 respondents (policyholders). Exploratory factor analysis of perception and expectation scores (separately) yielded a six dimensional instrument comprising of assurance, personalized financial planning, competence, corporate image, tangibles and technology is suggested. The results of Analytical Hierarchy Process (AHP) highlight the priority areas of service improvement and reveal that not all dimensions contribute equally to overall expectations of service quality in life insurance context i.e. there is a hierarchy of service quality factors in this industry. The study indicates that among the various service quality dimensions in the life insurance industry, assurance is the most important determinant of service quality, followed by personalized financial planning, competence, corporate image, tangibles and technology, in that order.

The purpose of this paper by Ahmad & Sungip (2008), was to evaluate customers’ general expectation and perception of insurers in terms of services offered at the insurance service counter (ISC). Other than that, this paper also examined the relationship between the demographic factors and SERVQUAL mean score. The study utilized the survey approach. The sample consisted of 319 respondents. The purpose of this research project is to determine the importance of five service quality dimensions from the customer viewpoints. In this study, the respondents were asked to evaluate 56 items( 28 each on perception and expectation) using the rating of a seven-point scale worded positively in short statements The result shows huge gap for reliability, responsiveness and empathy, which reliability shows highest gap between customers’ perception and
expectation. This research illustrates reliability emerged as the most critical determinant of SERVQUAL measure for service quality. The other dimensions (tangible, responsiveness, assurance and empathy) appear important but reliability dominates.

The aim of the study of Bala & Sandhu (2011) was to measure customers’ perception towards life insurance service quality by applying a framework developed by Sureshchandar et al. (2001). Using non-probabilistic convenience sampling technique, 450 customers were approached personally at their work places and residence, which resulted in 337 usable questionnaires. Based on the qualitative research, a modified scale containing 52 items was used to measure perceived service quality. Computation of Cronbach alpha values resulted in the reduction of 52 item customer perception scale to 42 items. The performance only measure of this scale was then Factor analyzed using the Principal Component method with Varimax rotation. The findings demonstrate a seven-factor construct (consisting of 34 items) representing Proficiency; Media and presentations; Physical and ethical excellence; Service delivery process and purpose; Security and dynamic operations; Credibility; and Functionality. To assess the overall effect of the instrument on service quality and to determine the relative importance of the individual dimension of the generated scale, Multiple Regression Analysis has been performed. The adjusted R2 of 0.143 (p=0.000) indicates that 14.3 percent of variance in overall service quality is predicted by the service quality dimensions. Further the results also indicate that Proficiency; Physical and ethical excellence; and Functionality appeared to be significant predictors (p < 0.05) of overall service quality.

The main objective of the study by Upadhyaya & Badlani (2011) is to see the factor affecting service quality which ultimately leads to customer satisfaction of life insurance customer in India. The research design chosen for this study is descriptive research design. The questionnaire was administered through mail and in person to 300 respondents. The researcher got reply from 206 respondents (68.7%) The data was collected by using the convenience sampling technique. Statements related to service quality dimensions were based on past literature. The questionnaire developed was
reviewed by professionals, experts and trained personnel in order to increase the validity and reliability of questionnaire and response. Further the questionnaire developed by the researcher was pre tested on 30 respondents. The basic dimensions were borrowed from SERVQUAL scale and additional items were incorporated making it a 34 item measurement scale. Factor Analysis helps to extract nine factors, viz., Pricing, Employee Competence, Product & Service, Technology, Physical Appearances, Trust, Service Delivery, Advertising and Service Management from variables. Research scholar used Principal Component Analysis (PCA) method for factor extraction taking those factors only whose values are greater than 0.5 for the purpose of interpretation.

Gayathri (2005): The study focused on comparing service quality dimensions for major insurance service providers in India and to relate SERVQUAL scores with customer satisfaction. It was found that LIC score consistently lower in all the five dimensions and TATA scored high in all the dimensions. A study of correlation matrix indicates a high degree of correlation between reliability, responsiveness and empathy. To relate customer satisfaction with SERVQUAL dimensions, multiple regression equations were developed. Assurance, Empathy and Reliability are the three important dimensions, which affect the satisfaction levels on insurance companies.

2.4.3 Measuring Service Quality in Other Industries

In order to get a better insight into the concept of measurement of service quality, few studies in other industries were also reviewed. This section helped in the process of conceptualization of service quality and development of research framework for this study.
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<td>Methodology</td>
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<td>Findings</td>
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<tr>
<td>Seth et al. (2008)</td>
<td>Cellular Mobile Service Sector</td>
<td>31-item scale, survey, 225 responses</td>
<td>Reliability Analysis, Factor analysis, Regression Analysis</td>
<td>Seven dimensional 30-item scale was developed, Regression model of overall service quality with service quality dimensions was significant ($t=7.217$, $p=0.000$)</td>
<td></td>
</tr>
<tr>
<td>Ross (2008)</td>
<td>Retail (mart-type stores, banks, restaurants)</td>
<td>Adapted SERVQUAL, Questionnaire survey, 782 customers</td>
<td>Reliability analysis, Factor analysis</td>
<td>Proposed five-factor structure of service quality was roundly unsupported. Two-factor structure for restaurants and mart, three-factor structure for banks</td>
<td></td>
</tr>
<tr>
<td>Chavadi &amp; Kokatnur (2008)</td>
<td>Fast food outlets</td>
<td>Adapted SERVQUAL, survey, 125 responses</td>
<td>Descriptive statistics, Chi-square analysis</td>
<td>Highest gap exist for assurance and empathy, Association between age and preference is proved ($p&lt;0.05$)</td>
<td></td>
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<tr>
<td>Chang et al. (2002)</td>
<td>Airline Industry</td>
<td>22 SERVQUAL and 8 additional items; survey; 643 samples</td>
<td>T-test</td>
<td>SERVQUAL scale was identified as more appropriate measure in comparison to SERVPERF scale</td>
<td></td>
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<tr>
<td>Singhla &amp; Singh (2008)</td>
<td>Hotel Industry</td>
<td>36-item scale, survey, 70 samples</td>
<td>Factor analysis, T-test</td>
<td>Seven dimensions were identified, tangibility and responsiveness are considered most important dimensions.</td>
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</tr>
</tbody>
</table>
2.5 Customer Satisfaction

2.5.1 Defining Customer Satisfaction

The concept of customer satisfaction has been used by consumer behaviour and marketing researchers. Researchers consider customer satisfaction as a part of consumer behaviour whereas service providers treat it as a focal point for designing successful marketing strategies. Customer is a part of company assets, and customer satisfaction will direct influence the revenue of a company (Fornell 1992). Therefore, to maximize customer satisfaction is a goal for a company to pursue. However, there are quite a lot of the customer satisfaction definitions but there is no standard one.

In the service literature, Oliver (1980) explained that customer satisfaction entails the full meeting of customer expectation of the products and services. Satisfaction is the consumer’s evaluation of a product or service meeting their needs and expectations. Customer satisfaction or dissatisfaction (CS/D) is a function of the disconfirmation arising from discrepancies between prior expectations and actual performance (Oliver 1980). Andreassen (1995) defines customer satisfaction as “the accumulated experience of a customer’s purchase and consumption experiences”. Klaus (1985) defines satisfaction as “the customer’s subjective evaluation of a consumption experience based on some relationship between the customer’s perceptions and objective attributes of the product”. Kotler (2001) defines Satisfaction “as a person’s feeling of pleasure or disappointment resulting from comparing a product’s perceived performance (or outcome) in relation to his or her expectation” (Kotler 2001). In the same line of thought, satisfaction can be defined “as an attitude-like judgment following a purchase act or series of consumer-product interactions” (Lovelock 2001). Despite the fact that the definition varies, the common factor is that satisfaction is a post-consumption evaluative judgement (Westbrook & Oliver 1991).

Most studies are based on the theory that the confirmation or disconfirmation of pre-consumption product standards is the essential determinants of satisfaction. So, in a
service context, the model argues that customers have certain service standards in mind prior to consumption (their expectations), observe service performance and compare it with their standards, and then form satisfaction judgments based on this comparison. If the performance falls short of expectations, the customer is dissatisfied. If the performance matches the expectations, the customer is satisfied. If the performance exceeds expectations, the customer is highly satisfied or delighted (Parasuraman et al. 1988b; Kim et al. 2007; Gunderson et al. 1996). In respect of the customer satisfaction measurement, generally, there are two general conceptualizations of satisfaction, namely, transaction-specific satisfaction and cumulative satisfaction (Boulding et al. 1993; Jones & Suh, 2000; Yi & La 2004). Transaction-specific satisfaction is a customer’s evaluation of his or her experience and reactions to a particular service encounter (Cronin & Taylor 1992; Boshoff & Gray 2004), and cumulative satisfaction refers to the customer’s overall evaluation of the consumption experience to date (Johnson et al. 1995). In respect of the customer satisfaction measurement, Oliver (1997) assumed that it would be better to reflect the reality of customer satisfaction by evaluating overall customer satisfaction, and let the research subjects to weight the attributes themselves.

2.6 Behavioural Intentions

The important issue for the continuous success of a firm is its capability to retain existing customers. Evidence has shown that cost of acquiring new customers is usually higher than retaining the existing ones. As compared to service quality and satisfaction, intended behaviour is more closely related to actual behaviour and offer richer diagnostic value. Thus behavioural intentions are helpful indicators for management to better know, whether the customer will remain with or defect from the company (Parasuraman et al. 1996).

2.6.1 Defining behavioural intention

Intentions are subjective judgments about how a person will behave in the future and usually serves as dependent variables in many service research and satisfaction models (Boulding et al. 1993). Zeithaml et al. (1996) proposed a multi-dimensional model of
behavioural Intentions, which suggested that favourable behavioural intentions include elements such as saying positive things and recommending the service to others, repurchase intentions, paying a price premium to the company, and expressing loyalty. Behavioral intentions can predict actual customer behavior when behavioral intentions are appropriately measured (Ajzen & Fishbein 1980). Previous researchers have conceptualized favourable behavioural intentions as returning to the same site of purchase and recommending the company or service to others (Parasuraman et al. 1996; Parasuraman et al., 1988). Butcher (2005) agreed that repurchase intention is regarded as a sound service outcome that is measurable. Evidence also has shown that customer satisfaction and service quality perceptions affect consumer intentions to behave in positive ways, like praising the firm, preferring one company over others, increasing their volume of purchases or agreeably paying a price premium (Zeithaml & Bitner, 2000).

2.7 Service Quality and Related Constructs

2.7.1 Service Quality and Customer Satisfaction

In the services literature, strong emphasis is placed on relationship between service quality and customer satisfaction and whether they are distinct constructs (Parasuraman et al. 1985, 1988; Bitner 1990; Bolton & Drew 1991; Cronin & Taylor 1992; Taylor & Baker 1994). Some researchers contend that service quality and customer satisfaction measure the same thing (Spreng & Singh 1993) while it is basically accepted by majority of the researchers that the two concepts are fundamentally different in terms of their underlying causes and outcomes (Parasuraman et al. 1985, 1988; Bitner, 1990; Bolton & Drew, 1991; Cronin & Taylor 1992; Boulding et al. 1993; Spreng & Mackoy 1996). A review of the emerging literature suggests that there appears to be relative consensus among marketing researchers that service quality and customer satisfaction are separate constructs which is unique and share a close relationship (Cronin & Taylor 1992; Oliver1993). Rust & Oliver (1994) proposed that perceived quality and satisfaction differ in two ways: perceived quality is a more specific concept based on product and service
features, whilst satisfaction can result from any dimension (e.g. loyalty, expectations). In addition, perceived quality can be controlled to a certain degree by a company whilst satisfaction cannot. Bitner & Hubert (1994) demonstrated that customer satisfaction results from individual and global transactions, whereas service quality involves a general impression of the superiority or inferiority of the service provider and the services. So, it can be said that satisfaction is generally viewed as a broader concept while service quality assessment focuses specifically on the dimensions of services.

Assuming that both constructs are distinct, the next logical question relates to the order of occurrence of these constructs in consumer’s mind (the causal link). Some researchers and academics described customer satisfaction as an antecedent of service quality (Bitner 1990; Bolton & Drew 1991) whereas others have counter-argued by proposing service quality as an antecedent of customer satisfaction (Parasuraman et al. 1985, 1988; Cronin & Taylor 1992; Taylor & Baker 1994; Teas 1994). Several researchers have found empirical evidence for this model wherein customer satisfaction is a consequence of service quality (Anderson & Sullivan 1993; Spreng & Mackoy 1996). To summarise, although there is conflicting evidence, the bulk of the literature tends to support satisfaction as an outcome of service quality (Cronin & Taylor 1994; Parasuraman et al. 1994; Taylor & Baker 1994; Teas 1994). Thus, service quality is an important input to consumer satisfaction and it is expected that the higher the perceived quality of a product, the higher the consumer satisfaction.

**Proposition:** Service Quality has a positive effect on customer satisfaction

### 2.7.2 Behavioural Intention, Service Quality and Customer Satisfaction

Generally speaking, the relationship between service quality and behavioural intentions is positive. High service quality leads to favourable behavioural intentions while low service quality leads to unfavourable behavioural intentions. Many researchers have found this positive relationship between service quality and repurchase intention (Anderson et al. 1994; Cronin & Taylor 1992; Oliver 1980; Bitner 1990).
al. (1993) study the authors illustrate that the more positive the customer perceived the service quality, the more likely it is that he or she will return to the service. Another set of studies discussed the relationships between customer satisfaction and purchase intentions, and empirically tested for positive relationships between customer satisfaction and purchase intentions (Anderson et al. 1994; Cronin & Taylor 1992; Fornell 1992; Oliver 1980; Swan & Oliver, 1989).

There is also evidence to suggest that it is the satisfaction of the customer that ultimately determines their future intentions and behaviour towards the service (Taylor & Baker 1994). Similarly, McDougall & Levesque (2000) proposed a causal path, with perceptions of service quality influencing feelings of satisfaction, which in turn influenced future behavioural intentions of customers. Dabholkar et al. (2000) also found that customer satisfaction strongly mediated the effect of service quality on behavioral intentions. The data used in their study were systematically randomly collected from 397 churches. A test of discriminant validity revealed that the construct of service quality was different from the construct of customer satisfaction. The result of regression analysis in structural equations modeling supported their proposition that customer satisfaction had a stronger effect on behavioral intentions than service quality did (Dabholkar et al. 2000). Similarly, relationships between service quality through satisfaction to repurchase intentions of customers were reported by Cronin and Taylor (1992), and Patterson & Spreng (1997). Cronin & Taylor (1992) examined the causal relationships among service quality, customer satisfaction, and purchase intention. Each variable was measured by one item. There were 660 usable questionnaires randomly collected from customers of four types of businesses in the southeastern United States: banking, pest control, dry cleaning, and fast food. The results of correlation analysis have suggested that (1) service quality was an antecedent of consumer satisfaction, (2) service quality had less effect on purchase intentions than did consumer satisfaction, and (3) consumer satisfaction had a significant effect on purchase intentions. So we can say, though indirectly their research also hints at the possible mediating effect of customer satisfaction. Chumpitaz & Swaen (2003) suggested from their research that some dimensions of service quality have a
direct influence on intentions to repurchase and recommend, whereas in case of other dimensions, customer satisfaction acts as an mediating variable.

To summarize, the main issue is whether the direct effect of SQ on BI (i.e. SQ → BI) is significant or not in the context of financial services. In other words, will satisfaction fully mediate the impacts of SQ on BI (i.e. SQ → SAT → BI)? This leads us to proposition:

**Proposition: Customer satisfaction mediates the influence of service quality on behavioural intentions.**

2.7.3 Empirical studies on relationship between service quality and customer satisfaction and behavioural intentions.

The given table contains summary of research findings of some of the research studies on service quality, customer satisfaction and behavioural Intentions.
<table>
<thead>
<tr>
<th>Research Study</th>
<th>Variable studied</th>
<th>Methodology</th>
<th>Major Findings</th>
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</thead>
<tbody>
<tr>
<td>Amin, Isa (2008)</td>
<td>Service quality and customer satisfaction</td>
<td>Questionnaire survey, 440 sample</td>
<td>The standardized regression weight of Islamic banking service quality to customer satisfaction was significant (p = 0.000, α = 0.01) with parameter estimates (0.799).</td>
</tr>
<tr>
<td>Arambewela &amp; Hall (2006)</td>
<td>Service quality and customer satisfaction</td>
<td>Questionnaire survey, 185 sample</td>
<td>SERQUAL constructs had an impact on student satisfaction. Formative satisfaction and customer satisfaction were significant, positive, and direct antecedents of satisfaction and repatronage intentions (r = 0.537, p &lt; 0.01 and r = 0.822, p &lt; 0.01, respectively).</td>
</tr>
<tr>
<td>Chang et al. (2006)</td>
<td>Service quality and customer satisfaction</td>
<td>Questionnaire survey, 185 sample</td>
<td>Significant correlation was observed between dimensions of service quality and customer satisfaction (p &lt; 0.01).</td>
</tr>
<tr>
<td>Bei &amp; Chiao 2001</td>
<td>Service quality and customer satisfaction</td>
<td>Questionnaire survey, 495 respondents</td>
<td>Perceived service quality is positively related to satisfaction (at α = 0.01 with a t value 3.09).</td>
</tr>
<tr>
<td>Chang-Hsiu Yen et al. (2006)</td>
<td>Service quality and customer satisfaction</td>
<td>Questionnaire survey, 185 sample</td>
<td>Significant correlation was observed between dimensions of service quality and customer satisfaction (p &lt; 0.01).</td>
</tr>
<tr>
<td>Yap Sheau Fen &amp; Kew Mei Lian</td>
<td>Service quality, satisfaction and Repurchase Intention</td>
<td>Questionnaire Survey, 377 restaurant patrons</td>
<td>Service quality had a positive relationship with customer satisfaction (r = 0.486, p &lt; 0.01); Service quality and satisfaction had a positive influence on repatronage intentions (r = 0.537, p &lt; 0.01 and r = 0.822, p &lt; 0.01). Service quality had a positive relationship with customer satisfaction.</td>
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Table 2.3 Research on Service Quality, Satisfaction and Behavioural Intentions
<table>
<thead>
<tr>
<th>Research Study</th>
<th>Variable studied</th>
<th>Methodology</th>
<th>Major findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chumpitaz and Swaen (2003)</td>
<td>Service quality and customer satisfaction</td>
<td>Survey, 4006 airline passengers</td>
<td>Service quality dimensions have a direct and positive influence on customer satisfaction</td>
</tr>
<tr>
<td>Kuang Chi, et al. (2008)</td>
<td>Service quality, Satisfaction and Behavioural Intention</td>
<td>Computer network survey, 190 persons</td>
<td>Service quality has no significant direct effect on customer satisfaction and behavioural intentions. Customer satisfaction had a positive and significant direct effect on both satisfaction and behavioural intentions.</td>
</tr>
<tr>
<td>Tsiotsou (2005)</td>
<td>Service quality, satisfaction and Purchase Intention</td>
<td>Survey, 204 university students</td>
<td>Perceived service quality have significant effect on consumer’s overall satisfaction and purchase intentions. It explained 44% and 15.7% of the variance in satisfaction and purchase intentions respectively.</td>
</tr>
<tr>
<td>Sureshchander et al. (2002)</td>
<td>Service quality and customer satisfaction</td>
<td>&quot;Personal contact&quot; approach, 277 responses</td>
<td>Service quality and customer satisfaction vary significantly with respect to five factors, proving that they are indeed two different constructs. The correlations are also reasonably high at a significance level of 0.01.</td>
</tr>
<tr>
<td>Arora et al. (2011)</td>
<td>Service quality and Customer Satisfaction</td>
<td>Personal contact</td>
<td>The results of stepwise regression analysis using four service quality dimensions (based on EFA) as independent variables indicated that only two dimensions - reliability and service interaction are main predictors of customer satisfaction (R²=0.641).</td>
</tr>
</tbody>
</table>
2.8 Chapter Summary

This chapter presented the relevant literature regarding the conceptualization and measurement of service quality, and the relationship of service quality to related constructs such as satisfaction and behavioural intentions. This chapter critiques measurement scales used to measure service quality and served as the foundation for the development of the hypothetical model proposed in this the next chapter.