Progression of Service Quality Concepts

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Abstract- The main objective of this paper is to review various service quality concepts and identify its implications to past and future business situations based on the review of literature. Few of quality models reported between 1982 and 2001 and their significances are analyzed in this paper. Each of them has its own characteristics and reservations when it comes to service implementation. It varies from service to service, business to business, organization to organization and management to management. The models are compared in terms of its competitive advantage. The development of literature in the field of service quality has been improving and given an insight to managers, researchers and practitioners to take it to next level. It gives a new direction and dimension to make it rich and even more superior. This paper finally explores new ways in the service quality research and practical effectiveness of delivering quality service to increase customer satisfaction, customer retention and profitability of a firm.

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Progression of Service Quality Concepts

Abdul Khader D. ° & Dr. C. Madhavi °

Abstract - The main objective of this paper is to review various service quality concepts and identify its implications to past and future business situations based on the review of literature. Few of quality models reported between 1982 and 2001 and their significances are analyzed in this paper. Each of them has its own characteristics and reservations when it comes to service implementation. It varies from service to service, business to business, organization to organization and management to management. The models are compared in terms of its competitive advantage. The development of literature in the field of service quality has been improving and given an insight to managers, researchers and practitioners to take it to next level. It gives a new direction and dimension to make it rich and even more superior. This paper finally explores new ways in the service quality research and practical effectiveness of delivering quality service to increase customer satisfaction, customer retention and profitability of a firm.

Keywords: service quality, customer satisfaction, SERVQUAL, service delivery, SERVPERF, dimensions, and concepts.

I. Introduction

Service quality is probably one of the most talked subjects in the area of research and business. The service quality has been an emerging issue for many firms to focus and major area of attention to gain a distinct advantage in the market. Only few companies realize the importance of service quality in the business and many are not. Recent research reveals that about 20 to 25 percent of customers deflect after experiencing just one bad service quality. Quality service is the need of the hour and there is no alternative or short-cut for it.

Service quality concepts have been developing since late 1970s, as a result of numerous studies and practical approaches proposed many practitioners, managers, and researchers owing to its significant impact on business performance, customer satisfaction, loyalty, and most importantly the profitability of the firms (Leonard and Sasser, 1982; Parasuraman et al., 1984; Cronin and Taylor, 1992; Teas, 1993; Griffin, 1995; Zeithaml and Bitner, 1996; Gitomer, 1998; Lasser et al., 2000). Enormous research and field-set activities on the service quality and its structure led to the development of strong base for the researchers, practitioners and business managers alike to make it further enriching.

The service quality can be defined as an overall judgment of a customer towards difference between expectations of service and perceived service (Zeithaml et al., 1988). The service quality models have been developed and discussed by many researchers. In fact, an inherent difficulty in the implementation service quality strategy was observed by many researchers; service quality is an elusive construct that is difficult to define and measure (Rathmell, 1966; Crosby, 1979; Garvin, 1983; Parasuraman et al., 1985, 1988; Brown and Swartz, 1989; Carman, 1990). Development of first service quality model could be traced way back in 1982, developed by Grönroos. The Grönroos service quality model or the Nordic Model has been adopted and applied by many researchers since then to develop the service quality concepts in various service industries and it is termed to be the base for subsequent research developments. This paper makes an attempt to identify a new way and integration of previous service quality concepts into futurisic research base. Notably, the importance relationships between service quality, customer satisfaction, customer retention, and re-purchasing behaviors of customers remain largely untapped to date. This will be critically assessed at the later part in the paper.

II. Conceptual Background

a) The origins of service quality theory: The strong base for research

According to business practices in Japan, word ‘Kaizen’ means change for better. Masaaki Imai (1986) opined that Kaizen strategy is the single most improvement concept in Japanese management – the key to improvement. Kaizen means improvement and in the context of service quality it is ongoing improvement involving everyone – top management, managers, and workers. It was first practiced in Japanese businesses after the World War II. The practice of utilizing quality improvement found to be traced in Japan even before 1970s and Second World War led to industrial revolution in Japan. The foundation of service quality concept bases around perceived service, expected service, and service delivery. This paper will attempt to discuss the possibilities beyond these three constructs. Early development of service quality theories (Grönroos, 1982; Parasuraman et al., 1984) are based on the disconfirmation paradigm applied in the physical goods literature (Cardozo, 1965; Howard and Seth, 1969; Olshavsky, Miller 1972; Oliver, 1977, and Crosby 1979).
This proves that quality service results from a comparison of perceived with expected performance, as it is reflected in Grönroos service quality model (1982, 1984). Grönroos identifies two service quality dimensions, functional service quality – how the service delivered and technical service quality – outcome of the service transaction, or what the customer gets in the service encounter.

The disconfirmation paradigm is also the basis for Parasuraman, Berry and Zeithaml (1988) SERVQUAL model which explains service quality as the difference between the perceived and expected service. Whereas as SERVQUAL model has five dimensions – Tangibles, Reliability, Responsiveness, Assurance, and Empathy, Grönroos (1982) proposes two dimensions – Technical service quality and Functional service quality, some argue that it has three dimensions, i.e. image. Brown and Swartz (1991) service quality model views the service quality as difference between expected and delivered service (Qi = Ei –Di) and uses ten quality dimensions defined by Parasuraman et al., (1985) – they are Tangibles, Reliability, Responsiveness, Competence, Courtesy, Credibility, Security, Access, Communication, and Understanding the customer. The Three-component model suggested by Rust and Oliver (1994), proposes three dimensions – service product, service delivery, and service environment. Subsequently, Cronin and Taylor (1992) suggests SERVPERF model which uses Parasuraman et al., (1988) five dimensions of SERVQUAL model. Cronin and Taylor argued the SERVPERF scale can measure customers’ perception of service and firm’s performance, hence it is found to be useful on the performance-based measures of service quality.

III. Need for the Present Study

In today’s complex market situations, service quality has become more important than ever before and many companies focusing to find new ways and approaches to improve service quality. The focus areas for the firms changing rapidly from service to service, business to business, and business is no more product or service-centric rather it is becoming customer-centric. During past three or four decades business scenarios changed drastically with the levels of customer expectations are also going up. Some of the key aspects that affect the service quality in business are:

- Easy accessible and comfortable customer environment
- Active digital presence and engagement
- Professional and personalized customer attention
- Committed management – setting standards, goals, and controls
- Hiring right people, coaching, guiding, developing, and rewarding
- Integrated and customer oriented service processes
- Buy-in: Clear understanding of customer perceptions and expectations
- Easy access of information
- Two-way communication
- Empowering and engaging people

Educating being like well-wisher rather than typical seller, increasing active use of IT in business transactions, making more information available for customers, identifying bottlenecks that hindering customer satisfaction and fixing them spontaneously are some of the factors for business managers to develop in order to keep them at the competitive advantage to make service quality more phenomenal.

IV. Basis for Better Service Quality

a) The managing only is not enough

Measuring is essential to manage; it is difficult to manage if performance is not appraised. Performance appraisal, acknowledgement, recognition, and rewarding are the best tools to keep the staff energized. Whereas hiring right people at right job are foremost important, providing training and development opportunities to enhance skills and knowledge also equally important.

b) Setting goals and objectives

Performance can be easily assessed when there are goals and objectives put in place. Providing time to time feedback on the progress of achievement will alert to make corrective measures.

c) Empowering with limits of authority

Empowerment is given with the levels of responsibilities; everyone will not have a same level of empowerment across the organization and it depends on the role of what each individual does.

d) Know your customers well

Understanding each customer’s specific needs, his preferences, and expectations are essential in delivering customized and personalized service.

e) Know your competitors’ activities and factors as well

Factors such as market research, knowing competitors activities and their distinction to customers to be studied and firm should keep its position on the top in order to be competitive and successful.

f) Lead from front

In order to be a leader in the business, one must take initiative and lead from the front and everyone will follow.

g) Team work makes big difference

Working together is way better than working alone. Make team members work with team-spirit and it gives fruitful results.
Motivate to be innovative
Motivation leads to innovation and innovation brings quality. Creating such culture makes everybody’s life easier and good.

Think long-term, outside the box a big picture
Thinking long-term perhaps outside the box brings changes and changes inevitably create new ideas and success.

V. Framework for Literature Review
Sasser e t a l. (1978) defined the factors that raise the level of service quality such as security, consistency, attitude, completeness, condition, availability, and training of service providers. Besides this, physical quality, interactive quality, and corporate quality also affected the service quality level (Lehtinen and Lehtinen, 1982). Grönroos (1984) was first to develop service quality model and measured perceived service quality based on the test of qualitative methods. Technical quality, functional quality, and corporate image were used in the model as the dimensions of service quality. Service quality is one of the broader subjects in the context of its definitions, dimensions, models and measurement methods.

Service quality has been one of the frequently studied topics in the field of service marketing literature. Following the introduction of the SERVQUAL model (Parasuraman et al., 1985), many researchers have attempted to develop and refine its structure and conceptualizations (Carman, 1990; Cronin and Taylor, 1992; Teas, 1993; Rust and Oliver, 1994; Dabholkar, Thorpe, and Rentz, 1996; Brady and Cronin, 2001). Much of the research studies to date have focused on measuring service quality using either SERVQUAL model (Parasuraman et al., 1985) or The Nordic Model (Grönroos, 1984). Subsequent service quality conceptualizations and generalizations proved to be that service quality is a multi-dimensional or multi-attribute construct (Cronin and Taylor, 1992; Grönroos, 1990; Parasuraman et al., 1985, 1988). However, there was no common conclusion that of general agreement as to the nature and content of the service quality dimensions or attributes.

Several researchers studied this at various levels, on different perspectives, and using different methodologies. Author of this paper adopts analytical review of literature for the few service quality service models proposed. There are various aspects that affect overall service quality, this paper attempts to cover and review following perspectives identified in six service quality models:
- Possibility of integration of automated system for the service quality measurement
- Limitations of measurement of service quality and dimensions
- Proposal of modification for the future research studies
- Suggestion for the improvement of service quality concepts and dimensions
- Identification of factors affecting service quality

VI. Service Quality Models
There have been few dozen of service quality models produced so far and only handful models are discussed in detail by practitioners and researchers on how they are effective and their significance in service implications. The present study is an attempt to review few service quality models in the context of changed business conditions, appraise the models for the present conditions and propose future modifications in the anticipation of changing business conditions. The models are presented in a sequential order; it is covering title, brief discussion, model structure and critical observations of the model. The next part examines findings and evaluation of these and models and proposals for the future studies are outline in the later part.

a) The Nordic Model (Grönroos, 1984)
Grönroos model, also known as The Nordic model (1982, 1984) explains the perceived service quality is “the outcome of an evaluation process where the customers compare their expectations with service they have received”. The author identified three components, namely: technical quality, functional quality, and the image (Figure 1). Functional quality represents how the service is delivered; that is, it defines customer’s perceptions of the encounters that take place during service delivery. Technical quality reflects the outcome of the service transaction, or what customer receives in service experience. Image is an important part for the service firms to adopt and link between technical quality and functional quality of service, such as traditional marketing activities, external influence by traditions, ideology, and word-of-mouth activities.
b) **SERVQUAL model (Parasuraman et al., 1985, 1988)**
Parasuraman, Zeithaml and Berry’s (1985, 1988) GAP and SERVQUAL propose that service quality is an overall judgment of a customer towards difference between expected and perceived service. They developed a SERVQUAL model based on 5 gap analysis and 5 service quality dimensions. The gap analysis outlined as detailed below (Figure 2):

**Gap 1–Knowledge Gap:** Customer’s expectation and Management perception Gap

**Gap 2–Standards Gap:** Management’s perception and Service quality specifications Gap

**Gap 3–Delivery Gap:** Service quality specifications and Service delivery Gap

**Gap 4–Communications Gap:** Service delivery of service and External communications

**Gap 5–Expectation & Perceived Gap:** Perceived service and expected service Gap

Gap model then further refined in their SERVQUAL model, Parasuraman et al., (1988) that devised 5 dimensions and each dimension has certain scaled items in the questionnaire (Table 1) and it has total 22 items in the questionnaire to identify the difference between perceived and expected service.

**Table 1**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>No. of Items in Questionnaire</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>4</td>
<td>The appearance of physical facilities, equipment, personnel, and communication materials</td>
</tr>
<tr>
<td>Reliability</td>
<td>5</td>
<td>The ability to perform the promised service dependably and accurately</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>4</td>
<td>The willingness to help customers and to provide prompt service</td>
</tr>
<tr>
<td>Assurance</td>
<td>4</td>
<td>The knowledge and courtesy of employees and their ability to convey trust and confidence</td>
</tr>
<tr>
<td>Empathy</td>
<td>5</td>
<td>The provision of caring, individualized attention to customer</td>
</tr>
</tbody>
</table>
According to SERVQUAL model, the service quality is a function of perception and expectation and can be formulated as:

\[ Q_i = P_i - E_i \]

Where:
- \( Q_i \) = Overall service quality
- \( P_i \) = Perceived service quality, and
- \( E_i \) = Expected service quality

Figure 2: Gap analysis model

Source: Parasuraman et al. (1985)

Whereas as SERVQUAL model widely known as an American service quality model, Grönroos model known to be as a European service quality model.

c) Performance only model, SERVPERF (Cronin and Taylor, 1992)

Cronin and Taylor (1992) argued that that the conceptualization and operationalization of service quality model, SERVQUAL (Parasuraman et al., 1985, 1988) are inadequate measure of the relationship between service quality, customer’s satisfaction, and purchase intentions. In addition, Brow and Swartz (1989), Crosby (1979), Garvin (1983), and Rathmell (1966) confirmed that service quality is abstract and difficult to measure.
Cronin and Taylor (1992) reviewed and analyzed a performance model based on the SERVQUAL (Parasuraman et al., 1985, 1988) measurement which was supported by Mariz et al., (1975), Churchill and Surprenant (1982). Findings of Hawes and Rao (1985) supported SERVPERF construct and they argue that it can measure customers’ perceptions of service firm’s performance. Statistical test conducted by Cronin and Taylor (1992) proves the significance of SERVQUAL affects in two industries (banking and fast food) out of four but SERVPERF (Figure 3) was effective in all four industries chosen (banking, pest control, dry cleaning, and fast food).

![Figure 3: Performance only model (SERVPERF)](source: Cronin and Taylor (1992))

d) Evaluated performance and normative quality model (Teas, 1993)

Teas (1993) pointed out that the SERVQUAL expectations measure and normative expectations are similar to the ideal standard in the literature. He argued that the ideal standard can be interpreted in two views; the ideal point specified in classic ideal point models and a feasible ideal point. However, he argued that the SERVQUAL P-E measurement specification is not compatible with either the classic ideal point or a feasible ideal point. In addition, he identified problems concerning the operationalization of the service expectation concept.

In his paper, he proposed evaluated performance model (EP model) and normative quality model (NQ model). The EP model incorporates the classic ideal point concept into a perceived quality model while the NQ model integrates the classic ideal point concept with the SERVQUAL revised expectation concept. The results of an empirical study indicated that the criterion and construct validity of the EP model was higher than the concurrent and construct validity of both the SERVQUAL and NQ model.

e) The three-component model (Rust and Oliver, 1994)

Rust and Oliver (1994) offer three component model which was comprised of three components, namely, service product (technical quality), service delivery (functional quality), and service environment as shown in figure 4. This model did not provide conceptualization, but evidence was found in supporting similar models in retail banking (McDougall and Levesque, 1994) and healthcare service quality samples (McAlexander et al., 1994).

Rust and Oliver's (1994) view that the overall perception of service quality is based on the customer's evaluation of three dimensions of the service encounter: (1) the customer-employee interaction (i.e., functional quality; see Grönroos 1982, 1984), (2) the service environment (see Bitner 1992), and (3) the outcome (i.e., technical quality; see Grönroos 1982, 1984). Given the growing support for revisiting Grönroos seminal conceptualization (e.g., Bitner 1990; Lassar, Manolis, and Winsor 2000; Mohr and Bitner 1995; Oliver 1997; Rust and Oliver 1994) and the recent evidence that the service environment affects service quality perceptions (e.g., Baker 1986; Bitner 1990, 1992; Spangenberg, Crowley, and Henderson 1996; Wakefield, Blodgett, and Sloan 1996), a framework that incorporates these three dimensions was justified.
f) The multi-level model (Dabholkar, Thorpe, and Rentz, 1996)

Dabholkar, Thorpe, and Rentz (1996) identify and test a hierarchical conceptualization of retail service quality that proposes three levels: (1) customers' overall perceptions of service quality, (2) primary dimensions, and (3) sub-dimensions (Figure 5). This multi-level model recognizes the many facets and dimensions of service quality perceptions. In other words, retail service quality is viewed as a higher-order factor that is defined by two additional levels of attributes.

Dabholkar et al., (1996) view that service quality perceptions are multilevel and multi-dimensional. Carman (1990) was perhaps the first to note that customers tend to break service quality dimensions into various sub-dimensions. Dabholkar et al., (1996) argued that the SERVQUAL model has not been fully applied to measure the service quality of retail stores. The authors developed a 28-item scale (Customer perception – p1 to p28, as shown in figure 5), retaining 17 items from SERVQUAL model and developed another 11 items to measure customer’s perception of retail service quality. The retail service quality model consists five main dimensions, namely, physical aspects, reliability, personal interaction, problem solving, and policy. Further, there are six sub-dimensions under physical aspects, reliability, and personal interactions. Sub-dimensions such as appearance and convenience fall under physical aspects; reliability includes promises and doing it right, and inspiring confidence and courteous help are under interactions.

![Figure 4: The Three-component model](image_url)

Source: Rust and Oliver (1994)
g) Third-order factor model (Brady and Cronin, 2001)

Brady and Cronin (2001) developed third-order factor model which comprises three primary dimensions, namely, interaction quality, physical environment quality, and outcome quality. Each has three sub-dimensions each and nine in total: attitude, behavior, and expertise from the first sub-dimension group under interaction quality. Ambient conditions, design, and social factors from the second sub-dimension group physical environment quality. The last sub-dimension group under outcome quality is waiting time, tangibles, and valence (Figure 6). They used a seven-point Likert scale from to measure the consumers’ attitudes towards the items under the dimensions. All variables were analyzed and tested by factor analysis.

This model is similar to the three-component model of service quality which was developed by Rust and Oliver (1994). The interaction quality component and the outcome quality component are similar to the functional quality and the technical quality of Nordic model developed by Grönroos (1982, 1984). According to Bitner’s (1990) study, perception of service quality is affected by the service environment which is one of the crucial dimensions of Brady and Cronin’s (2001) model. Similarly, Martinez C. et al., (2007) used this model in their empirical research for measuring perceived service quality in the transport service industry and they emphasized this hierarchical conceptualized and multidimensional model was a combining of Rust and Oliver model (1994) and Dabholkar et al.’s hierarchical multi-level model (1996).

Figure 5: The multi-level model

Source: Dabholkar, Thorpe, and Rentz (1996)

(Note: p1, p2…p28 are customer perception level in 28-item scale to measure customer’s perception of retail service quality).

Notes: Items P1-P28 as given in Appendix 2. All dimensions and sub-dimensions are correlated among each other but this is not depicted in the diagram for the sake of clarity.

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VII. Research Findings

Analysis of the service quality models, their key findings, and limitations are provided in the table 2. The Nordic model, SERVQUAL model and SERPERF model can be tested in different types of services whereas other four are limited to certain service industries only and need to be generalized for different service environments.

Table 2

<table>
<thead>
<tr>
<th>S N</th>
<th>Service Quality Model</th>
<th>Key Findings</th>
<th>Applications</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Nordic Model (Grönroos)</td>
<td>Service quality bases on technical quality, functional quality, and corporate image of the firm under consideration</td>
<td>Different types of services</td>
<td>The model does not explain on how to measure technical and functional quality</td>
</tr>
<tr>
<td>2</td>
<td>SERVQUAL Model</td>
<td>The model is an analytical tool and capable to assist a firm to identify service quality factors from the customer perception and expectation point by using five service quality dimensions</td>
<td>Different types of services</td>
<td>The model does explain on how to measure perceived and expected service quality level of customer</td>
</tr>
<tr>
<td>3</td>
<td>SERVPERF (Performance only model)</td>
<td>This model uses quality dimensions of SERVQUAL</td>
<td>Different types of services</td>
<td>This model is revised version of SERVQUAL and authors claim that it can even measure performance of a firm as well</td>
</tr>
<tr>
<td>4</td>
<td>Teas Model (Evaluated performance and normative quality model)</td>
<td>This model uses quality dimensions of SERVQUAL</td>
<td>Retail stores</td>
<td>Quantitative relationship between evaluated performance model (EP model) and normative quality model (NQ model) need to be established</td>
</tr>
<tr>
<td>5</td>
<td>The three-component model</td>
<td>This model comprised of three service quality components, namely, service product, service delivery, and service environment</td>
<td>Applicable to few service industries</td>
<td>Overall perception of service quality is based on the customer’s evaluation of three dimensions of the service encounter: the customer-employee interaction, the service environment, and the outcome</td>
</tr>
</tbody>
</table>

(Note: R = a reliability item, SP = a responsiveness item, E = an empathy item).
VIII. Research Conclusions

In summary, researchers generally have adopted one of two service quality conceptualizations. The first is the “Nordic” perspective (Grönroos, 1982, 1984) which defines the dimensions of service quality comprising functional and technical quality. The second, the “American” perspective (Parasuraman et al., 1985, 1988), uses the terms that describe service encounter characteristics. That is, service quality is defined by either or all of a customer’s perception regarding (1) an organization’s technical and functional quality; (2) the service product, service delivery, and service environment; or (3) the reliability, responsiveness, empathy, assurances, and tangibles associated with a service experience. When assessed collectively, the SERVQUAL model appears to be distinct from the others because it uses terms that describe one or more determinants of a quality service encounter. Although the SERVQUAL dominates the literature, a consensus has not evolved as to which, if either, is the more appropriate approach. However, implications of SERVQUAL and Nordic constructs do not give clarity across the service industries and results are limited when applying either five or three service quality dimensions.

Cronin and Taylor (1992) argued that service quality is antecedent of customer satisfaction which has significance on purchase intentions. They further state that customers don’t always buy best quality service, they might instead purchase on the basis of their assessment of value of service. Beside this, they pointed out that their research has two objectives. First, the conceptualization and operationalization of service quality (SERVQUAL) is inadequate. The SERVQUAL scale is based on Parasuraman et al., (1985, 1988) gap theory which suggests that the difference between customers’ expectations about the performance of types of service providers and their assessment of the actual performance of a specific firm within that type drives perception of service quality. Their second objective was to examine the relationships between service quality, customer satisfaction, and purchase intentions.

IX. Some New Thoughts for Future Research

Service quality and customer loyalty are widely recognized as key influence factors in formation of customers’ purchase intentions in the service business environments. In recent research on service quality, scholars have argued that the relationship between service quality and customer loyalty is an issue which requires both conceptual and empirical elaboration through replication and advancement of current knowledge. Focus on the enrichment of a scale for measuring service quality by linking with service loyalty dimensions is essential for researchers to develop base for future studies.

Owing to the importance of service quality that can lead to customer loyalty and re-buy intentions (stressing purely service side of business – intangible goods), author proposes an extension of SERVQUAL (Parasuraman et al.) service quality model with six service dimensions instead of five. Retaining 5 dimensions of SERVQUAL as it is and adding sixth, Buy-in dimension that will enable to meet customer perception, expectations and bond to the brand, service or to firm (Table 3). Each service dimension will have corresponding 4 questions in a 24-item scale questionnaire. Firms need to focus on a more systematic way to satisfy customers’ needs and manage post-purchase phase so as to create customer loyalty and an effective tool of word-of-mouth marketing approach to gain competitive advantage.
The importance of developing and maintaining enduring relationships with customers of service business between service quality delivery, customer loyalty, and re-buy intentions of customers’ is ongoing study in the marketing literature. A key challenge for researchers is to identify and understand how managerially controlled antecedent variables affect important relationships between service quality, customer loyalty, and re-buy intentions of customers.

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