Introduction

Defining service quality and its components in a form that is actionable in the workplace is an important endeavour that an organisation should not take lightly. Without a clear and unambiguous definition, employees will be left with vague instructions on improving service quality within the workplace. The result will be that each employee will be left to form and act upon his or her own definition of quality which, more often than not, may be incomplete or inaccurate. Fortunately, there are researchers such as Grönroos (1983), Lehtinen and Lehtinen (1982), and Parasuraman, Zeithaml and Berry (hereafter referred to as PZB) (1985) who are working to uncover the factors that determine service quality and to provide a number of actionable tools that a marketer can use to gauge his or her firm’s performance.

This paper will review and analyse the literature on service quality, particularly those that delineate its components as well as those that provide links to behavioural intentions. It will also critically analyse SERVQUAL, a survey tool put forth by PZB based on their findings, and show that it is an inadequate tool for measuring service quality. The paper is organised into four sections. First, it will present the dimensions of service quality. Second, it will delineate the tributary gaps that contribute to the customer gap. Third, it will present two of the competing survey tools that are being used in the industry today. Finally, this paper will present possible future directions of the service quality literature.

The Dimensions of Service Quality

Many scholars agree that service quality can be decomposed into two major dimensions (Grönroos, 1983; Lehtinen and Lehtinen, 1982). The first dimension is concerned with what the service delivers and is referred to by PZB (1985) as “outcome quality” and by Grönroos (1984) as “technical quality”. The second dimension is concerned with how the service is delivered: the process that the customer went through to get to the outcome of the service. PZB (1985) refer to this as “process quality” while Grönroos (1984) calls it “functional quality”. However, while PZB (1985) and PZ (2006) confirmed these distinctions, they often confusingly use “service quality” when they mean “service process quality.” Thus to avoid any
further confusion a distinction will be made between “service process” and “service outcome”. Whenever the word service is used, it should be taken as the total service which is a combination of process and outcome. Likewise, service quality shall be used to refer to the totality of process quality and outcome quality.

PZ define service quality as “the degree and direction of discrepancy between customers’ service perceptions and expectations” (2006). Thus if the perception is higher than expectation, then the service is said to be of high quality. Likewise, when expectation is higher than perception, the service is said to be of low quality.

Realising that there was not enough literature to produce a rigorous understanding of service quality and its determinants, PZB (1985) conducted an exploratory investigation to formally delineate service quality. Their investigation was composed of interviews with executives from four types of service businesses (i.e. retail banking, credit card, securities brokerage, and production repair and maintenance) as well as a number of focus groups composed of individuals who have recently received services from those businesses. One of the results of this investigation was the identification of ten determinants of service process quality. PZB (1985) listed them as follows:

- RELIABILITY involves consistency of performance and dependability.
- RESPONSIVENESS concerns the willingness or readiness of employees to provide service.
- COMPETENCE means possession of the required skills and knowledge to perform the service.
- ACCESS involves approachability and ease of contact.
- COURTESY involves politeness, respect, consideration, and friendliness of contact personnel (including receptionists, telephone operators, etc.).
- COMMUNICATION means keeping customers informed in language they can understand and listening to them. It may mean that the company has to adjust its language for different consumers—increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice.
• CREDIBILITY involves trustworthiness, believability, honesty. It involves having the customer’s best interests at heart.

• SECURITY is the freedom from danger, risk, or doubt.

• UNDERSTANDING/KNOWING THE CUSTOMER involves making the effort to understand the customer’s needs.

• TANGIBLES include the physical evidence of the service.

In a later paper, PZB (1988) found certain overlaps among the dimensions and shortened the list into five dimensions. This new list retained tangibles, reliability, and responsiveness while competence, courtesy, credibility, and security were combined into a new dimension called assurance. Access, communication, and understanding the customer, on the other hand, were placed under a common dimension called empathy. Thus the dimensions are now known as follows:

• **Assurance** - Knowledge and courtesy of employees and their ability to inspire trust and confidence

• **Empathy** - Caring, individualized attention the firm provides its customers.

• **Reliability** - Ability to perform the promised service dependably and accurately.

• **Responsiveness** - Willingness to help customers and provide prompt service.

• **Tangibles** - Appearance of physical facilities, equipment, personnel, and communication materials.

In their 1988 revision, PZB claim that these five dimensions are generic and consistent across different types of services by stating that there was “consistent factor structure...across five independent samples.” However, basing this conclusion on a small sample raises doubts on its validity. Buttle (1996) found serious concerns with the number of dimensions as well as their consistency in different contexts. Carman (1990), after conducting a research which involved testing the five dimensions in services other than those that were used by PZB, warns that “while the PZB items provide a start for item development, all items need to have validity and reliability checks before commercial application.” Carman (1990) further states that the
dimensions may have been over-generalised 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. Peter et al. (1993) also suggest that the overlap between responsiveness, assurance, and empathy was understated by PZB in their original study. Woo and Ennew (2005), meanwhile, found that in business services markets, the dimensions were completely different. Thus, at its best, the five dimensions should only be considered as a starting point rather than a tool that can be immediately used in the field.

In their papers, PZB (1985, 1988) and PZ (2006) consistently refer to the list as determinants or dimensions of service quality. However, it appears, from their definition of each dimension that they are only referring to process quality rather than total service quality. Woo and Ennew (2005) confirm this finding when they stated that PZB’s work on service quality dimensions and the subsequent SERVQUAL tool (discussed in a later section) seemed to neglect technical quality altogether and focus mostly on the functional side. Furthermore, Richard and Allaway (1993) clearly state that the dimensions of service quality as it is described by PZB totally neglects technical quality. Parasuraman, in a later work specified that “service” and “services” mean different things (1998). Services (plural), according to him, refer to the intangible core product that a business provides to the firm. In contrast, service (singular) refers to the supplement that accompanies the core offering. Essentially, he uses services to refer to outcome quality, while service to refer to process quality. Because of this poor choice of words, Parasuraman only added further confusion.

Assuming that a better set of words has been selected by PZB, the fact that their model is focused only on process quality still remains. Asubonteng, McCleary, and Swan (1996), on the other hand, defend PZB’s model by stating that because outcome quality is difficult to evaluate for any service, customers will often rely on other characteristics of the service to determine its quality. That is, they will rely on the process quality to determine or make an approximation of the total service quality. Unfortunately, Asubonteng, McCleary, and Swan did not provide any empirical data to confirm this. Their claim that outcome quality is difficult to evaluate for “any service” is flawed and some examples that disprove their statement easily come to mind. Consider the case of a machine shop that is involved in providing machine
repair services to business and individual customers. After the service has been
provided, the customer is able to measure outcome quality by comparing the outcome
against the specifications it provided to the machine shop before the start of the
service. In another case, this time a plumbing service where a homeowner has
requested the plumber to repair a leaking faucet, the homeowner is able to measure
the quality of the outcome by checking if the faucet is still dripping. Apart from this,
Richard and Allaway (1993) found that PZB’s model—measuring only process
quality—was less reliable than another model that measured both process and
outcome quality. Thus, PZB’s five dimensions of service quality, while useful as a
starting point, is an inadequate tool for measuring a firm’s total service quality.

The Gaps Model of Service Quality

Other than identifying the gap between expected service and perceived service,
PZB also identified four other tributary gaps that originate from the provider’s side.
These gaps were described as follows:

<table>
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<th>Table 1 The Four Provider Gaps (PZB 1988)</th>
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<tr>
<td><strong>Gap 1</strong></td>
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<td>This gap is said to occur when what customers expect are not the same as what management thinks the customers expect.</td>
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<td><strong>Gap 2</strong></td>
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<td>This gap exists when customer service standards are not aligned with management’s findings of the customer’s expectations.</td>
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<td><strong>Gap 3</strong></td>
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<td>This gap is a result of actual service performance not meeting the set performance standards.</td>
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<td><strong>Gap 4</strong></td>
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<td>This gap occurs when the organisation’s external communication about its service quality does not match the actual service performance.</td>
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PZB (1985) and PZ (2006) also provided a diagram to illustrate how these four
gaps interacted with one another and with the customer gap. Unfortunately, they were
not very clear about the purpose of some of the interconnecting lines between the
boxes. To clarify, the gaps are limited to the solid lines with double-headed arrows.
The dotted lines, on the other hand, represent the direction of influence. For example
the company’s perceptions of consumer expectations influences service standards.
Likewise external communication influences the customer’s perceived and expected
service. Finally, the line that connects external communications with service standards may be taken to mean that they must be coordinated with one another.

**Figure 1** Gaps Model of Service Quality (PZB 2006)
SERVQUAL

PZB, in their 1985 paper, identified the need for a tool that puts into operation the five dimensions and gaps model of service quality. They later followed this up in their 1988 paper with a survey tool named SERVQUAL. The tool is divided into five major categories and labelled according to the five dimensions of service quality as identified by PZB. Within the categories, four or five items are listed, totalling twenty-two. Each item must be answered by the customer two or three times depending on the format being used. The two-column format asks for the customer’s expected performance and his or her perception of the company’s performance under each item. Under this format, the customer has to answer a total of forty-four questions. The three-column format adds a third question that asks for the customer’s expected minimum service performance, thus increasing the number of questions to a total of sixty-six. The disadvantage of asking this many questions is that it can potentially lead to respondent fatigue which can negatively affect the quality of the data. Carman (1990) states that because of SERVQUAL’s long list of questions “it is operationally difficult to follow the PZB procedure for collecting and analyzing these data.”

One observation of PZB’s SERVQUAL tool is that, while the criteria for judging are embodied by the five dimensions of service quality and are therefore fixed, the scales of each criterion may change from time to time depending on certain factors such as the mood and past experience of the individual being interviewed. For example, a person who is used to five-star hotels will find a four-star hotel of lower quality while a person who has never been to a five-star hotel will find a four-star of high quality. This is one weakness of this market research tool. Perhaps a way around it is to spread the survey across a diverse sample of the market and across various time periods to mitigate the effect of unrelated events that can affect the perception of a group of people. The problem with this, however, is that it can increase the survey cost. Carman (1990) also recognised the possibility that the customer’s familiarity with the service can also play a role in setting his or her expectations. Thus his suggestion involves measuring the customer’s level of familiarity with the services and to differentiate in that dimension among customers. While this seems like sound advice, it still does not make up for the scenario where a user, after having
experienced a service of low quality, has lowered his expectations of future service encounters. The result might be that management will mistakenly interpret the SERVQUAL scores in the next testing period as a signal that their service quality has increased when, in fact, it is only the customer’s expectation that decreased. This shortcoming has been identified by other critics such as Buttle (1996). Unfortunately, it has not been addressed by PZB to this day.

According to PZB (1985) and PZ (2006), reliability always emerged as the most critical dimension of service process quality. Boulding et al. (1993) also confirms this finding. However, because PZB (1985), PZ (2006) and Boulding et al. (1993) neither tested these finding across a wider set of service industries as well as across different segments of each industry the validity of their claim is questionable. O’Connor et al. (1993) reported that reliability was not a significant contributor to customer satisfaction in his research. Meanwhile, Woo and Ennew (2005) indicate that, in their research on service quality in business services markets, “social exchange” which roughly maps to the empathy dimension of PZB’s model, was found to be more important. Fornell et al. (1996) also confirms Woo and Ennew’s findings by stating that empathy had a greater impact on perceived quality than reliability. Thus while reliability may be an important dimension in some businesses, particularly the ones studied by PZB, it may not always be the case in other industries or in other market segments. Asubonteng, McCleary, and Swan (1996) recommend that firms who do not fall under the business types that PZB investigated should conduct further research to find out the dimensions relevant to the service they provide. Unfortunately, it may not always be the case that businesses have the necessary resources to conduct such a research.

SERVPERF

Critics such as Cronin and Taylor (1992) have responded to the work of PZB stating that SERVQUAL and the underlying gaps model are conceptually wrong. Likewise, Buttle points out how “SERVQUAL fails to draw on established economic, statistical and psychological theory” (1996). These scholars state that the literature’s hesitance to treat perceived service quality as an attitude is one of the key reasons why the theory is difficult to put into operation. In their 1988 work, PZB stated that
service quality is “…similar in many ways to an attitude.” Cronin and Taylor (1992) on the other hand, found in their research that service quality is indeed an attitude. Further, they provide findings illustrated in the following conceptual equations:

\[
\begin{align*}
\text{ATT} & = f(\text{EXP}) \quad (1) \\
\text{PSQ} & = \text{ATT} \quad (2) \\
\text{SAT} & = f(\text{PSQ}) \quad (3) \\
\text{PI} & = f(\text{SAT}) \quad (4)
\end{align*}
\]

Oliver (1980) states that an individual’s attitude is a function of his or her own expectations (eq. 1). Cronin and Taylor (1992) confirm this statement through literature review and empirical data. They further demonstrate that perceived service quality is, in fact, an attitude (eq. 2). Satisfaction, on the other hand, is a function of perceived service quality (eq. 3). Their results also show that satisfaction determines purchase intention (eq. 4). Cronin and Taylor also state that it is satisfaction—not perceived service quality—that has a significant effect on purchase intention. For example, if a customer, who is indifferent towards Starbucks, were to have coffee there and found it a very satisfying experience, the probability of him or her coming back would be high.

Based on these findings, Cronin and Taylor (1992) proposed a tool they call SERVPERF (See Appendix A) as a replacement for SERVQUAL. They state that “the performance-based scale developed (SERVPERF) is efficient in comparison with the SERVQUAL scale.” In reality though, SERVPERF is merely a subset of SERVQUAL. That is, it only measures the perceived service process performance and disregards expected service process level. The rationale for doing so is because a) measuring the customer’s expected service level before the service is rendered is not always possible, leaving the firm to measure it instead at the end of the service and b) measuring the expected service level after the service has been rendered is inaccurate as the customer’s expectation, by then, has already been biased by the service rendered. Apart from removing the distortions caused by measuring expectations, SERVPERF also shortens the questionnaire from a maximum of sixty-six down to just twenty-five, thus reducing the likelihood of respondent fatigue.
On the other hand, a number of questions also arise regarding the validity of Cronin and Taylor’s findings. Customer satisfaction and perceived service quality are entirely different constructs, where the former is an evaluation based on a specific transaction while the latter is a general assessment developed over a period of time (PZB 1994). Since SERVPERF is designed to measure customer satisfaction, and SERVQUAL is designed to measure perceived service quality, is it correct to compare the two? PZB (1994) believe that it is not a valid comparison and point out that Cronin and Taylor’s paper is questionable at best in its conceptual, methodological/analytical, and practical aspects. They further state that Cronin and Taylor’s work “seem to discount prior conceptual work in the SQ literature” (PZB 1994).

Future Directions

At present, there is still no consensus among scholars on how to measure service quality perceptions. Brady and Cronin (2001) state that “work on service quality can best be described as divergent.” Even so, SERVQUAL remains to be the dominantly used model for evaluating service quality (Woo and Ennew 2005) despite it being highly criticised by scholars such as Buttle (1996) and Cronin and Taylor (1992). From a managerial perspective, however, one might ask about the relevance of the debate between customer satisfaction and perceived service quality. If they have an effect on a customer’s buying behaviour, then would it not be better if they were both measured? A recent empirical study by Brady et al. (2005) has attempted to answer such a question. In their paper, they found that service quality, customer satisfaction, and product value all had a direct effect on behavioural intentions. Thus, they have effectively rendered the debate on which is a better construct for predicting behavioural intentions as irrelevant. From their findings, they produced what they call a comprehensive model which they found to provide a more accurate representation of the firm’s quality of service. Surprisingly, their ‘comprehensive model’ produced a survey questionnaire with only thirteen questions (See Appendix B). While their work is fairly new and rebuttals and reviews are yet to be made available, the model they propose shows promise and its future development will be worth monitoring.


Appendix A: SERVPERF

Performance

The following set of statements relate to your feelings about XYZ ______. For each statement, please show the extent to which you believe XYZ ______ has the feature described by the statement. Placing a seven on the line means you strongly agree that XYZ has that feature, and a one means you strongly disagree. You may use any of the numbers in the middle as well to show how strong your feelings are. There are no right or wrong answers—all we are interested in is a number that best shows your perceptions about XYZ whether you use this service or not.

1. XYZ _____ has up-to-date equipment 1 2 3 4 5 6 7
2. XYZ _____’s physical facilities are visually appealing 1 2 3 4 5 6 7
3. XYZ _____’s employees are well dressed and appear neat. 1 2 3 4 5 6 7
4. The appearance of the physical facilities of XYZ _____ is in keeping with the type of service provided. 1 2 3 4 5 6 7
5. When XYZ _____ promises to do something by a certain time, it does so. 1 2 3 4 5 6 7
6. When you have problems, XYZ _____ is sympathetic and reassuring. 1 2 3 4 5 6 7
7. XYZ _____ is dependable. 1 2 3 4 5 6 7
8. XYZ _____ provides its services at the time it promises to do so. 1 2 3 4 5 6 7
9. XYZ _____ keeps its records accurately. 1 2 3 4 5 6 7
10. XYZ _____ does not tell its customers exactly when services will be performed 1 2 3 4 5 6 7
11. You do not receive prompt service from XYZ _____ employees 1 2 3 4 5 6 7
12. Employees of XYZ _____ are not always willing to help customers. 1 2 3 4 5 6 7
13. Employees of XYZ _____ are too busy to respond to customer requests promptly. 1 2 3 4 5 6 7
14. You can trust employees of XYZ _____.
   1 2 3 4 5 6 7
15. You can feel safe in your transactions with XYZ ____’s employees.
   1 2 3 4 5 6 7
16. Employees of XYZ _____ are polite.
   1 2 3 4 5 6 7
17. Employees get adequate support from XYZ _____ to do their jobs well.
   1 2 3 4 5 6 7
18. XYZ _____ does not give you individual attention.
   1 2 3 4 5 6 7
19. Employees of XYZ _____ do not give you personal attention.
   1 2 3 4 5 6 7
20. Employees of XYZ _____ do not know what your needs are.
   1 2 3 4 5 6 7
21. XYZ _____ does not have your best interests at heart.
   1 2 3 4 5 6 7
22. XYZ _____ does not have operating hours convenient to all their customers.
   1 2 3 4 5 6 7

Other Measures

The following set of statements relate to your feelings about XYZ _____. Please respond by circling the number which best reflects your own perceptions.

23. In the next year, my use of XYZ _____ will be
   Not at all Very frequent
   1------2------3------4------5------6------7
24. The quality of XYZ _____’s services is
   Poor Excellent
   1------2------3------4------5------6------7
25. My feelings towards XYZ _____’s services can best be described as
   Very Unsatisfied Very Satisfied
   1------2------3------4------5------6------7
### Appendix B: Comprehensive Model

#### Service Quality

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<td>1.</td>
<td>Their employees offer the personal attention I need from them</td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
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<td>2.</td>
<td>The behaviour of their employees instils confidence in me</td>
<td>1----2----3----4----5----6----7----8----9</td>
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<td>3.</td>
<td>Their employees are courteous</td>
<td>1----2----3----4----5----6----7----8----9</td>
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<td>4.</td>
<td>I receive enough individual attention from their employees</td>
<td>1----2----3----4----5----6----7----8----9</td>
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#### Value

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<td>5.</td>
<td>Their products are an excellent value</td>
<td>1----2----3----4----5----6----7----8----9</td>
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<td>6.</td>
<td>At this organization, you get a great deal for your money</td>
<td>1----2----3----4----5----6----7----8----9</td>
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<td>7.</td>
<td>What I get from this organization, and its cost, makes it a great value</td>
<td>1----2----3----4----5----6----7----8----9</td>
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#### Satisfaction

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<td>8.</td>
<td>I am satisfied with the service I receive from the organization</td>
<td>1----2----3----4----5----6----7----8----9</td>
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<td>9.</td>
<td>I am happy with the service I receive from the organization</td>
<td>1----2----3----4----5----6----7----8----9</td>
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<td>10.</td>
<td>I am delighted with the service I receive from the organization</td>
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#### Behavioural Intentions

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<td>11.</td>
<td>I would classify myself as a loyal customer of this organization</td>
<td>1----2----3----4----5----6----7----8----9</td>
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<td>12.</td>
<td>If asked, I would say good things about their organization</td>
<td>1----2----3----4----5----6----7----8----9</td>
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<td>13.</td>
<td>I would recommend their organization to a friend</td>
<td>1----2----3----4----5----6----7----8----9</td>
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