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Abstract

Focuses on one of the most widely used service quality measurement scales, SERVOVA and looks at some of the areas of concern which have recently been raised regarding its viability as a comprehensive measurement tool for the service industry as a whole. While acknowledging the significant contribution that this model has made, it is suggested that it does not go far enough - the dimensions of SERVQUAL do not adequately address some of the more critical issues associated with the assessment of individual services. Having carried out citation analyses of both the 1985 and 1988 versions of SERVOUAL, it can be shown that although there is a plethora of published work in the marketing and retail sectors about its applicability, relatively little empirical work has been carried out in other service sectors. Indeed, more than one-quarter of all published papers where SERVQUAL was a major theme, appear to have severe reservations about this scale. In place of the SERVQUAL scale, a model which takes the form of a hierarchical structure - based on three main levels of attributes - pivotal, core, and peripheral (P-C-P) is proposed. This P-C-P model has the ability to span any service sector since what is proposed is a skeletal framework within which to consider respective services. The authors are currently in the process of using this model for the empirical analysis of the quality of information which is provided by government bodies to the business community. The results of their empirical study will form the subject matter of the next paper in this series. This is, therefore, largely theoretical in nature with the emphasis on a critical appraisal of the existing models in the service quality arena and it also describes the authors' own model to encourage discussion and debate among researchers, perhaps allowing them to make further refinements to their proposed model.

Introduction

The management and evaluation of service quality - both financial and non-financial - is assuming increasing importance throughout the world for a number of reasons. As the American Nurses Association puts it succinctly: "A profession's concern for the quality of its service constitutes the heart of its responsibility to the public". Second, the service sector has become the major growth industry during the latter part of this century, and, according to one estimate, it constitutes around 67 per cent and 71 per cent of the GNP of Canada and the USA respectively. Given the rapid growth in the service industry, improving service quality is of paramount importance to all organizations. Unfortunately, because of a lack of research, no reliable, universal yardstick has yet been established for the objective measurement of service quality. Third, a large number of services are provided by government bodies which constitute a major drain on financial resources, and, consequently, accountability and obtaining value for money, (in other words good quality service), have become issues of major concern. For example, in the UK the monitoring of quality is firmly on the political agenda, particularly with the publication of the Citizen's Charter by the Prime Minister. Needless to say, in the corporations of the 1990s, quality, and indeed service quality, is coming to be viewed as the "major strategic variable in the battle for market share" and "excellence of service is the critical corporate priority". Indeed, one of the strategic routes seen to be the answer in gaining a competitive edge has been through an increased concentration on customer satisfaction courting and delighting the customer through a focus on service quality. Expressed simply, companies providing high service quality as perceived by their customers, tend to be the most profitable companies. On the other hand, poor service has been identified as the primary reason why customers switch to competitors

General characteristics of services

Service is a critical management art still in its infancy, and evidence suggests that service organizations generally lag behind their manufacturing counterparts when it comes to embracing total quality management and continuous improvement strategies. This may be largely attributable to the inherent characteristics which are more commonly associated with services, namely the inseparability of production and consumption, the intangible nature of services, their perishability and their heterogeneity. Also, because of their impermanence, a customer can only refer back to his/her memory for future review of the experience. The extant service quality literature constantly refers to these characteristics (see for example and it is these same characteristics which typically make services more difficult to evaluate than goods and certainly present unique quality problems and challenges.

Another unique aspect of services is that both service personnel and consumers have a role to play in the "production and delivery processes";

when it comes to service, people do it all. They design it, they deliver it, they buy it.

Services are consumed at the same time as they are produced, with the consumer playing an integral part as the whole process unfolds. In many services, the consumer is required to contribute information and/or effort before the service transaction can take place. And so, service productivity and quality depend not only on the performance of the service providers' personnel, but also on the performance of the consumer. Further, as the relationship the consumer has with the organization continues to widen, anyone who interacts with the consumer is in a position to jeopardize or enhance that same relationship. This in turn leads to the problem of standardization, which means that service quality can vary from one situation to another even within the same organization, making quality control in a service industry exceptionally difficult. A related issue, which has so far been glossed over, or, perhaps overlooked in the literature, is the degree and nature of involvement of the customer in the delivery process. Depending on the sector, we might say that, services can have short-, medium- or long-term physical, emotional or mental impacts on the consumer. For example, in a hospital situation, an operation - which is a service - is performed on the "customer" - that is, the customer becomes a "physical object" on which the service is carried out. Clearly these characteristics will have some bearing on the delivery of service quality and it is therefore, wrong, merely for the sake of convenience, to hang all services on the same, single peg.

Definitions of service quality

Service quality need be neither illusory nor elusive, it can be measured and the elements which cause problems can be pinpointed and rectified.

This appears to be a very naïve viewpoint, and finds little or no support in the service quality literature. Indeed, many researchers would take the opposite view, that service quality is an elusive concept and there is considerable debate in the literature about how best to conceptualize this phenomenon. An all-embracing definition of service quality is notoriously difficult to produce.

Parasuraman et al. described it as:

the ability of the organization to meet or exceed customer expectations. Customer expectations may be defined as the "desires and wants of consumers" i.e. what they feel a service provider should offer rather than would offer.

Definitions of service quality, therefore, focus on meeting the customers' needs and requirements, and how well the service delivered matches the customers' expectations of it. In recent years, greater emphasis has been placed on the need to understand the role of expectations, given the fact that consumers' expectations of quality are increasing and people are becoming more discerning and critical of the quality of service that they experience. Gone are the days when the consumer was merely a passive recipient in the whole service process. Expectations are, "pre-trial beliefs about a product or service"; most consumers enter a service encounter with some form of expectations, ranging from the ill defined in unfamiliar situations to well defined in familiar situations. Whether or not these expectations are met will have a significant bearing on perceived service quality. Perceived service quality can therefore be defined as the discrepancy between what the customer feels a service provider should offer (i.e. expectations) and his/her perceptions of what the service firm actually offers. Peters, in Lewis, suggests that,

the consumer perceives service in his/her own unique, idiosyncratic, end-of-the-day, emotional, irrational and totally human terms...there is no such thing as fact or reality. There is only what the customer thinks is reality

In effect, perceptions are reality as far as the customer and service quality are concerned.

Conceptual service quality models

In an effort to understand the main concepts incorporated under the umbrella of service quality better, many conceptual quality models have been postulated. Obviously, service quality research has given the customer perspective a predominant role and these quality models have centred on measuring the gap between customer expectations and experiences as a determinant of satisfaction. However, despite the wealth of information which can be gleaned from these various service quality models (for a review of the main models see Dotchin and Oakland), we still lack substantial knowledge as to how consumer evaluations of a particular service are really formed. Much of this recent research has been carried out within the framework of the Service Quality Gap Model of Parasuraman et al.. This conceptual framework has made a substantial contribution to our understanding of the concept of service quality and the factors that influence it, by identifying four "gaps" which can occur in organizations. According to Parasuraman et al., a gap represents a significant hurdle in achieving a satisfactory level of service quality. This model is more of a diagnostic tool, which if used properly should enable management at all levels to identify service quality short-falls systematically. Since this model is externally focused it has the potential to assist management in identifying pertinent service quality factors from the perspective of the customer. These "gaps" can cause quality problems and it is these quality problems which give rise to a fifth gap - the difference between the customer's expectations of the service and his/her perceptions of the service that is actually received. The authors have defined this difference as Service Quality. In this respect, perceived service quality is the disconfirmation or disparity i.e. the mismatch, between the consumer's expectations and perceived service performance.

Without doubt, conceptual service quality models are useful in so much as they provide an overview of the factors which have the potential to influence the quality of an organization and its service offerings. They facilitate our understanding and can help organizations to clarify how quality shortfalls develop. However, they are almost invariably simplified versions of reality. They can be misleading in that they tend to suggest that there are simple relationships between complex phenomenon, and that systems operate by rules of cause and effect. However, human behaviour significantly affects the quality of an organization and its offerings, and this is more evident in service organizations.

Dimensions of service quality

It would be impossible to ensure service quality without first determining the salient aspects that are incorporated under this term. Again, this poses some difficulty and many possible attributes have been put forward in an attempt to capture the true meaning of service quality. Sasser et al. list seven service attributes which they believe adequately embrace the concept of service quality. These include:

- security confidence as well as physical safety;
- consistency receiving the same each time;
- attitude politeness and social manners;
- · completeness ancillary services available;
- · condition of facilities;
- availability access, location and frequency; and
- training.

On the other hand, Gronroos, believes that service quality is made up of three dimensions, that is the "technical quality of the outcome", the "functional quality of the encounter", and the "company corporate image". Lehtinen and Lehtinen also believe that service quality comprises three dimensions. These they define as the Physical Quality i.e. products and/or services, Corporate Quality, i.e. the company image, and Interactive Quality, where the dimensions of quality originate in the interaction between the consumer and the service organization. They also argue that in examining the determinants of quality it is necessary to differentiate between quality associated with the process of service delivery and quality associated with the outcome of service, judged by the consumer after the service is performed. Johnston et al. identified 15 dimensions of service quality which they categorized as Hygiene Factors, i.e. those factors which are expected by the customer and if they are not delivered will cause dissatisfaction; Enhancing Factors which will lead to customer satisfaction, but if they are not delivered will not necessarily lead to dissatisfaction; and Dual-Threshold Factors, where failure to deliver will cause dissatisfaction, but when delivered above a certain threshold, will enhance customer's perceptions of service and lead to satisfaction. This idea is similar to research put forward by Cadotte and Turgeon who investigated the key factors in guest satisfaction in the hotel industry, focusing on complaints and compliments, together with features which they label "dissatisfiers" which earn complaints if present, but no compliments if absent, and "satisfiers" which earn compliments if present, but no complaints if absent. Therefore, they believe that it is vital for organizations to identify elements of service which are potential satisfiers and/or dissatisfiers. Parasuraman et al., offer the most widely reported set of service quality dimensions. They suggest that the criteria used by consumers that are important in moulding their expectations and perceptions of delivered service fit into ten dimensions:

- tangibles;
- reliability;
- responsiveness;
- · communication;
- credibility;
- · security;
- · competence;
- courtesy;
- · understanding/knowing the customer; and
- access

These were subsequently condensed into five dimensions of service performance known as SERVOUAL:

- tangibles;
- reliability,

- responsiveness;
- · assurance; and
- · empathy.

to which Gronroos added a sixth dimension - recovery.

With the plethora of different definitions of service quality perhaps Babakus and Boller are correct in saying that service quality may be, "an umbrella construct with distinct dimensions" although, there is as yet no real consensus as to what these dimensions might be.

The advent of SERVQUAL

In 1985, Parasuraman et al. developed the SERVQUAL instrument (refined in 1988, 1991 and again in 1994), for the measurement of service quality. It has become one of the most renowned in the service quality domain.

The five SERVQUAL dimensions...are a concise representation of the core criteria that customers employ in evaluating service quality. As such it is reasonable to speculate that consumers would consider all five criteria to be quite important

It was developed to measure perceived service quality as the key output variable and in its finalized form it has 22 pairs of Likert-type scales. The first 22 items are designed to measure customer expectations of service for a particular service industry ("expectations"), while the remaining 22 are intended to measure the perceived level of service provided by a particular service organization ("perceptions"). Service quality is then measured by calculating the difference in scores between the corresponding items (i.e. "perceptions" minus "expectations"). However, it is limited to current and past customers, because respondents need to have some knowledge and experience of the organization in order to be able to complete the scale.

In the first instance, Parasuraman et al. administered SERVQUAL to four nationally known firms; a bank, credit-card issuer, appliance repair and maintenance firm, and, a long-distance telephone company, but they propose that SERVQUAL

has been designed to be applicable across a broad spectrum of services. As such, it provides a basic skeleton through its expectations/perceptions format encompassing statements for each of the five service-quality dimensions. The skeleton, when necessary, can be adapted or supplemented to fit the characteristics or specific needs of a particular organisation.

On first glance, it would therefore seem that this scale is very versatile and could be used to define/measure/monitor service quality in any setting. Indeed Parasuraman *et al.* describe it as, "a concise scale whose items would be meaningful to a variety of service settings".

This general approach to measuring service quality has great intuitive appeal and has been widely used by researchers; in a variety of service settings. Although the gap between expectations and experience is widely considered to be the primary source of service quality problems, it is not clear how the evaluation of expectations and experiences occur.

The role of expectations in a measuring scale

Since there is so much disagreement in the literature concerning the theoretical nature of service quality, it is inevitable that this is carried through into the development of tools designed to measure service quality. The question of measuring expectations is bound up in the whole debate stemming from the inherent differences in service quality and customer satisfaction and the causal relationship between the two. There is agreement among researchers that expectations serve as reference points in a customers' assessment of service performance. In our view, expectations govern, and, to a certain extent, enable us to formulate rather than determine our perceptions. In other words, the mental processes involved in shaping our perceptions automatically make an adjustment for the gap that exists between our expectations and our actual experience of a service. Therefore, the logic behind the measurement of service quality as an arithmetic difference between expectations and perceptions is questionable. Let us look at this issue using an example. Suppose we had asked a consumer to rate his/her perception of a particular service on a scale from 1 to 7. He/she gave a rating of 5. The question we should now address is: "How or why did this person decide on the rating 5?" We suggest that s/he compared his/her expectations with his/her actual experience of the service and did a "mental calculation" to arrive at the figure 5. This being the case, perhaps a more appropriate scale for measuring service quality is the one proposed by Webster et al. (-2 much less than I expected, to +2 much more than I expected etc.).

Another flaw with the separate measurement of expectations and perceptions, as mentioned above, is the necessity for prior knowledge of the service one is asked to evaluate. Obviously, once a person has experienced the service and is satisfied with it, his expectations for the next encounter will be higher. How would one measure expectations, which, for all practical purposes, is a "moving goalpost"? Indeed, there is much debate about how best to incorporate expectations into service quality measurement and the empirical usefulness of expectations in terms of their explanatory power SERVQUAL and other satisfaction studies have attempted to measure expectations at the same time as perceptions. According to Carman there is little if any theoretical evidence to support the notion of the P-E Gap, as the basis for measuring service quality. Indeed Cronin and Taylor believe that there is considerable support for the "superiority of simple performance based measures of service quality" without the need to incorporate expectations into the measurement scale. They put forward the SERVPERF model which they believe better reflects long-term service quality attitudes than SERVQUAL, and does not include the measurement of expectations. Boulding et al. also found that their "results were incompatible with...the gap formation for service quality. Instead, we find that service quality is directly influenced only by perceptions of performance". However, Parasuraman et al. hypothesize that service quality measurements which incorporate customer expectations provide richer information than those techniques that focus on perceptions alone. SERVQUAL, they suggest, may be more superior in pinpointing areas of deficiency within a company than any of the suggested alternatives: "the superior diagnostic value of SERVQUAL more than offsets the loss in predictive power". However, recently Parasuraman et al. have concluded that, "formally assessing the practical usefulness of measuring expectations and the trade-offs involved in doing so is a fruitful avenue for further research". They also accept that there is a need for comparative studies which evaluate the "paired-item difference-score formulation" of SERVQUAL with direct formulations that use single items to measure customers' perceptions relative to their expectations. And so the debate continues.

General applicability of servqual: citation analysis

Parasuraman et alcontinue to maintain that SERVQUAL is, "a concise scale whose items would be meaningful to a variety of service firms", and the interest and impact that this work has had on the service sector continues to increase each year,

Thus, as of June 1995, there were 130 citations including seven self-citations of Parasuraman et al's 1985 paper (found in 59 different journals), and 81 citations including six self-citations of the 1988 paper (found in 37 different journals). However, if we examine the pattern of citations (see Appendix 1 and 2) this notion of general applicability of SERVQUAL does not appear to be supported with any degree of conviction. Citation analyses of both the 1985 and 1988 SERVQUAL versions show that the plethora of all published work in this area can be found in the marketing and retailing sectors. Indeed, almost 37.7 per cent of all articles which make a reference to the 1985 version, and 39.5 per cent that refer to the 1988 version, can be found in just three journals, all of which relate to these two areas. This is hardly surprising since Parasuraman et al.'s pioneering work focused predominantly in these sectors. We would suggest that the use of SERVQUAL as a means of measuring service quality throughout the marketing and retailing sectors may have been tested with some degree of success, but this may not be the case for other service industry sectors. While we do not dispute the fact that the marketing function is relevant to all organizations irrespective of service sector, we must question whether SERVOUAL can be effective in assessing the levels of service quality in other service industries such as database services, education, hospital/health care, libraries or information services. The citation analyses also show 41 (1985 paper) and 26 (1988 paper) single citations, relating to the use of SERVQUAL in other service industries. This would tend to indicate that so far the impact of SERVQUAL, outside the retail and marketing sectors, has been minimal.

We have also looked more closely at papers in which SERVQUAL was a major theme, to study the nature of their reference. In order to achieve this, a search was performed in the ABI/INFORM database in which the term SERVQUAL appeared either in the title or abstract of papers. There were 22 outputs, of which ten were about the applicability of SERVQUAL in specific sectors, five were self citations, two were in review articles on service quality and five were highly critical of SERVQUAL. Again, one-quarter of the papers (and almost one-third if we exclude the five self-citations) tend to have serious reservations about SERVQUAL.

Measurement problems with SERVQUAL

Many researchers have examined the problems of measuring service quality, i.e. in trying to measure constructs which are not directly observable. Much of the current debate focuses on issues that are associated with SERVQUAL, since this is the most widely used service quality measurement technique. In the first instance, the literature looks at the inherent weaknesses of this measurement scale and suggests ways in which it might be improved; indeed Parasuraman *et al.*, have also put forward many of their own refinements in an attempt to improve the general applicability of the scale and make it universally acceptable. However, perhaps more importantly, there is growing concern and discontent that the current conceptualization of service quality and, as a result, its operationalization into the SERVQUAL scale is highly inadequate, and may in fact be flawed.

Service quality versus customer satisfaction

The literature is riddled with confusion and discontent as to the exact nature of service quality, how it can best be conceptualized, and how, if at all, it is related to customer satisfaction. Currently the literature appears to be at odds over this issue. Indeed there is even debate as to whether customer satisfaction and service quality are two separate constructs, and what is the exact nature of differences between them. There is some agreement that customer satisfaction is a transitory judgement made on the basis of a specific service encounter, whereas service quality is a global assessment based on a long-term attitude. It has further been suggested that an accumulation of transaction-specific assessments (customer satisfaction) leads to a global assessment (service quality), indicating that the direction of the causal relationship may be from customer satisfaction to service quality. This issue is open to interpretation, and some critics would argue that the causal relationship is in fact from service quality to customer satisfaction. The literature appears very confused with constant assessments and reassessments put forward in an attempt to address these issues, issues that as yet remain unresolved.

The dimensionality of SERVQUAL

Doubts have been raised as to what SERVQUAL actually measures. Parasuraman et al. define it as the measurement of a specific long-term attitude (service quality?), at a single point in time (customer satisfaction?). Does it measure service quality or customer satisfaction? Some researchers suggest that it measures neither. Concerns have also been raised concerning the psychometric viability of operationalizing any construct (in this case service quality) as the difference between two other constructs ("perceptions" and "expectations"). This is especially so when there is so much debate as to the true nature and empirical value of measuring expectations. Babakus and Boller, and Carman, raise the question about the dimensionality of SERVQUAL. How many major dimensions does it actually assess? Is it the five attributes as Parasuraman et al. suggest, is it two (technical and functional quality) or is it three (to include corporate image). Without doubt, the items that Parasuraman et al. developed are useful as a starting point for further item generation, but how much do each of these items contribute to an overall evaluation of quality? Some studies have even suggested that service quality is a unidimensional construct, although the general consensus is that it is in fact multidimensional.

Based on their findings from four industries (banking, pest control, dry cleaning and fast food), Cronin and Taylor, showed that when they applied the SERVQUAL scale, the results suggested that the five-component structure was not confirmed in any of their research sample. Carman also suggests that a degree of caution should be exercised when using the SERVQUAL scale, as each service industry may reveal different and unique dimensions. If a factor is particularly important to customers, it may break down into sub-dimensions, and these sub-dimensions should, and must, be assessed separately. There is also a need to be sensitive to factors which are specific to the particular service that is being offered. According to Carman validity checks suggest that the dimensions put forward in SERVQUAL by Parasuraman *et al.* are not so generic that users of these scales should not add items on new factors which they believe are important in the quality equation.

Another difficulty is that all the variables in the SERVQUAL questionnaire are typically treated as equally important. This may be inappropriate as research has shown that determinants of service quality differ in their importance to individual respondents and throughout different service environments. The "should" responses to the expectations questions provide an idea of the relative importance of elements, although traditional gap measurement is not weighted as a result of this information. Lewis and Mitchell suggest that it ought to be, and Parasuraman et al. concede this point and have attempted to refine their original survey to include an additional question. Respondents are given 100 points to allocate between the five dimensions

of quality for a particular organization, providing an indication of the relative importance. But is this really enough to rectify the problem?

Problems with negative statements

Negatively worded statements were included in the original SERVQUAL scale primarily to encourage respondents to read questions carefully and to eliminate bias or "halo" effects. However, in many instances this serves only to confuse the respondent and it takes some time to work out the logic behind each statement. As a result, replicated studies of SERVQUAL tend to avoid any negative wording and Parasuraman *et al.* have also reworded statements into a more positive format, to enhance our understanding of the constructs.

Problems with the rating scales

What are the merits of adopting a seven-point Likert scale to measure expectations and perceptions and why have Parasuraman et al., extended this scale to a nine-point version in their recent amendments (1994). Since the introduction of the Likert scale in 1932, researchers have attempted to find the number of scale points which maximize reliability. However, as Chang notes, the findings from these studies are often contradictory; some have claimed that reliability is independent of the number of scale points, while others have maintained that reliability is maximized using seven-points, others five-points, four-points or even three-points. Parasuraman et al. have maintained that they have increased their scale from seven to nine-points to "offer respondents a wider range of rating choices in view of the need to capture two different expectation levels".

But, how reliable is this method? The question must also be asked as to why there are only verbal tags for some of the points; most notably in the original scale it is only the extreme points, i.e. 1 and 7, which have verbal labels. As a result of this, respondents may actually be over-using the extremes of these scales which do have verbal anchors. Can Parasuraman *et al.* remain confident that all the respondents are interpreting the scale in the same way? It is possible that having verbal labels for all the scale points may make the whole procedure much less prone to bias and as such may record the respondents' meaning much more accurately.

The P-C-P model

When it comes to measuring the service quality in a particular organization (as seen through the eyes of its customers), we propose a model that takes the form of a hierarchical structure - based on three main classes of attributes - Pivotal, Core and Peripheral.

The basic premisses of our model hold that:

- There is a growing need to develop service specific dimensions/attributes.
- The dimensions of SERVQUAL and other models do not adequately address some of the more critical issues associated with the assessment of individual services, e.g. patient care, the quality of information or the quality of education received from an organization.

- A combined (single) scale should be used to measure the "gap" between expectations and perceptions, as opposed to two separate scales.
- Individual dimensions should have different weights attached to them to indicate the importance with which they are held by the consumer.

Before discussing our model, it is pertinent to revisit some of the peculiarities of services *visàvis* products. Whereas the quality of virtually any product can be assured by conforming to national and/or international specifications, the same does not ring true for services. With a few notable exceptions, such as airlines or telecommunications, no predetermined or universal standards exist for the evaluation of the quality of a service - that is, services are subject more to social, cultural and national boundaries. When one tries to design/develop a model that is intended to be used for the measurement of service quality, these boundaries must certainly be taken into account. One must also acknowledge that the inherent characteristics associated with services continue to ensure that there will never be any "ready-made, off-the-shelf" list of features appropriate to all services. In other words, we cannot be *prescriptive*, there is no magic recipe, formula or blueprint which can be applied to the service sector as a whole, a view which is supported by other researchers; if there were, the evaluation of service quality would present as few problems as does the evaluation of product quality.

According to the model, every service consists of three, albeit overlapping, areas where the vast majority of the dimensions and concepts which have thus far been used to define service quality can and will be included. These ranked levels can loosely be defined as the inputs, processes and outputs of a service organization. This notion is somewhat similar to the systems model of an organization and hence the division of the model into three hierarchical levels - pivotal (outputs), core and peripheral (jointly representing inputs and processes).

The pivotal attributes, located at the apex of the pyramid, are considered collectively to be the single most determining influence on why the consumer decided to approach a particular organization in the first instance, and consequently, it is logical to assume that they exert the greatest influence on the satisfaction levels, or otherwise, experienced from the whole service encounter. Thus, they are defined as the "end product" or "output" from the service encounter; in other words, what the consumer expects to achieve and receive, perhaps even "take away", when the service process is duly completed. Core attributes, centred around the pivotal attributes, can best be described as the amalgamation of the people, processes and the service organizational structure through which consumers must interact and/or negotiate so that they can achieve/receive the pivotal attribute. Expressed simply, during a service encounter, if the consumer comes into contact with anyone or anything in the service organization, then these will essentially be considered to be core attributes. The third level of our model focuses on the peripheral attributes which can aptly be defined as the "incidental extras" or frills designed to add a "roundness" to the service encounter and make the whole experience for the consumer a complete delight.

The third distinction deals with the idea of assigning differing importance weights to the service quality dimensions. The P-C-P model proposes to assign different weights to each of its three levels of attribute groupings, but the original SERVQUAL scale makes no distinction in the level of importance it attaches to each of its five dimensions. In the P-C-P model, more weight is given to the achievement of the pivotal attributes, followed in turn by the core and peripheral attributes respectively. We are currently in the process of determining the degree of weightings that should be attributed to each of these three respective levels of attributes by the empirical analysis of the service quality of business information providers. We also believe that it is important to ask the number of times that the consumer has "experienced" the service as well as determining the type and the nature of this contact. The final question attempts to gauge the customer's overall satisfaction with a service. The answers to these questions can then be correlated with the importance the consumer attaches to the three levels of attributes.

We hold that this model has the ability to span any service organization since it is a skeletal framework within which to consider respective services. However, it does not and cannot provide working attributes for each of the three categories of attributes. Instead it is up to individual service sectors to decide, with internal reference to the service organization employees' and external reference to the consumer, which attributes fit best into each of the three categories. Here, we are moving away from one all-encompassing measurement scale and pursuing the development of service-industry specific measurement scales.

Conclusions

While the substance and determinants of service quality may as yet be undefined and often the subject of considerable debate, its importance both to organizations and consumers alike remains unequivocal. The research challenge into service quality is, and will continue to be, ongoing; many "grey" issues will have to be addressed and resolved if our understanding of the whole service quality forum is to be improved.

This article has focused heavily on one of the most renowned service quality measurement tools that has been developed namely SERVQUAL, in order to assess the problems that exist in trying to develop one emphatic measurement tool for the service industry as a whole. The enormity of such a task may have proved to be impossible. While the contribution of the SERVQUAL scale to the service quality literature remains irrefutable, we believe that its five dimensions do not adequately address some of the more critical issues associated with the assessment of individual services. Against this back-drop, we put forward our P-C-P model (Pivotal-Core-Peripheral model) which we believe has the ability to span any service sector. What we have proposed is akin to a skeletal framework within which to consider respective services. As such, it does not, and cannot, provide working dimensions for each of the three levels of attributes; instead, individual service sectors, with reference to the consumer, must decide which dimensions best fit into the model attributes. Here, we are beginning to move away from one all-embracing measurement scale and pursuing the development of a serviceindustry specific measurement scale. We firmly believe that the P-C-P model provides a simple, yet highly effective, general framework for assessing the service quality of any service sector.

TQM in Higher Education

There are three generic approaches to the technique of total quality management as it is currently practised in higher education. The first has a customer focus, where the idea of service to students is fostered through staff training and development. This results in an institutional culture which regards the needs of students as paramount and which promotes student choice and autonomy. Attention in these institutions will be given to the flow of information to students and other clients, and to the helpfulness with which individual members of staff respond to their requests and suggestions. The institutional vocabulary will be liberally sprinkled with words such as flexibility, market and responsiveness.

The second approach has more of a staff focus, and is concerned to value and enhance the contribution of all members of staff to the effectiveness of an institution's operation, to the setting of policies and priorities, and to continuous improvements in institutional effectiveness. It entails a flatter management structure and the acceptance of responsibility for action by defined working groups. It has certain affinities to Investors in People, which places emphasis on shared organizational values, good internal channels of communication and the establishment of institution-wide staff development programmes as an entitlement for all staff. A characteristic of this second approach is a corporate disposition to be open about challenges and problems facing the institution.

The third approach takes a service agreements stance, and seeks to ensure conformity to specification at certain key measurable points of the educational process. Thus, for example, it would be possible to determine that lecturers should mark and return all student coursework within a certain number of days of the date due for handing in, and to monitor that this prescription is being implemented as agreed. Or, to take other examples, all first-year students may be offered places with the expectation that they would be housed in university-managed student residential accommodation; or there may be an agreement that books ordered by lecturing staff should be available in the library for students to borrow within a certain period of time. These service targets have many features in common with the government's Student Charter, which emphasizes timeliness and accuracy in the provision of information and services, and the right to action to redress inefficiency.

The three approaches are not mutually exclusive and all, in their different ways, are striving towards:

- Institutional self-improvement through establishing a learning culture.
- Making institutions more sensitive to the changing demands and expectations of their stakeholders; and
- Effective and continuous improvement of delivery through teamworking, supported by clear systems.

The management of change is effected through greater reliance on the professional integrity of individual members of staff, entailing clear institutional expectations of individuals facilitated by institutional programmes of training and development. In this respect, the managerial challenges of higher education do not differ from those experienced in, say,

manufacturing industry. have shown how, in the motor industry, leadership, teamwork, communication and simultaneous development have been identified as the characteristics of the best ("leanest") car factories, where innovation is highest and unit costs are lowest; these ideas have a ring familiar to those of us in higher education, particularly if the words "project planning" and "co-ordination" are substituted for the slightly anomalous phrase "simultaneous development".

Some commentators seem to take a fourth stance towards TQM, under which TQM refers to academic quality itself. This is a less useful point of view because it does not distinguish between the educational process, on the one hand, and the management of the institutional conditions under which that educational process can flourish, on the other – or, to put it another way, between the quality of the service enjoyed by students and the quality of their overall educational experience. The failure to distinguish between academic quality and the management of academic quality both obscures many of the real issues and may also prompt a perception of the educational process that is fragmentary, not coherent. It also masks one of the most interesting developments in higher education over the past few years: the development of a corporate institutional perspective overlaid on, but not replacing, the traditionally almost exclusive loyalty of academic staff to their subject rather than to their contingent place of employment. To regard TQM as simply a management technique is, therefore, inadequate; it is more properly seen as a set of institutional values (McCulloch, 1993) which derive from the new public management context within which universities and colleges now operate.

Academic Quality in a Changing Environment

Our ability to achieve high quality in the provision of higher education, and indeed our perception of the components of a high quality educational experience, are not immune to influence by developments elsewhere in the public and private sectors. Indeed, these changes in the managerial context of higher education have themselves influenced our perceptions of academic quality. But before discussing the management component of total quality management, it is worth exploring briefly why this article is not concerned with academic quality as a phenomenon in itself.

The first reason is that all universities and colleges are in the business of offering a high quality educational experience to their students: the professionalism of staff would not allow otherwise. High quality is everyone's business in higher education, and to that extent the aim of securing an educational experience of high quality is not at issue.

The second is that it is difficult to define quality in higher education in a way which is susceptible to analysis through conventional hard, or objective, TQM methodologies. The essential characteristics of quality change over time and differ from institution to institution, as well as from course to course and subject to subject. They also change fairly rapidly in response to political initiatives taken by the Government under the banners of fitness for purpose and market demand. Examples of the change in the way we perceive quality in higher education are that, 25 years ago, graduates could not have been expected to have a command of information technology, or to have a broad perspective on the cultural context of their subject discipline, or to have a view about the influence on the global economy of countries from the Pacific Rim. Quality is therefore a matter of judgement –socially, temporally and,

probably, spatially situated. Yet this does not mean that, within their contemporary context, the courses of 25 years ago were not of high quality; nor, conversely, does it mean that the courses of today are necessarily of high quality (the proportion of "good" degrees awarded seems to rise inexorably, suggesting an enhancement in the quality of graduates. At the same time, however, many would argue that the weakening command by students of English and mathematics has depressed the overall standards of university education along at least one dimension. The amount of information has increased – the number of journal titles doubled between 1987 and 1992 – yet university library expenditure per capita has declined over the same period, as have the book purchasing habits of students (Follett, 1994). The traditions, constituencies and physical attributes of institutions differ so much that, as the myriad typologies of the characteristics present in higher education of good quality testify, it is all a matter of the assessor's judgement. Yet our concern in this new competitive age is that judgement should be consistent: a debate has already been initiated about the HEFCE's methodology where the HEFCE is expected to rank subjects on the basis of self assessments which derive from mission statements, themselves incommensurable as between institutions (Watson, 1994).

The third reason why this article is not concerned with academic quality as a phenomenon in itself is that, despite the claim for lean production that there is no necessary conflict between productivity and quality due to the empowerment of team leaders (Wibberley, 1993), quality in higher education cannot be regarded as an analogue of quality in manufacturing industry or of quality in many other service sectors. This is due to the fundamental reason that the nature of an individual student's experience is at least as dependent on what that student contributes to the educational process as it is on what the institution itself provides. As a train passenger, for example, one's initiative is limited to buying a ticket and getting on the train: matters such as the courtesy of the staff, whether the train is clean and is on time, and whether the buffet is sufficiently well-stocked to sustain you during delays, are outside your immediate control, yet are essential components of a TQM approach. The passenger (customer!) is the passive recipient of a service, the more passive the better as far as railway staff are concerned, so it seems! The process of higher education is, by contrast, iterative and requires an active contribution from the student, and absolute measures of quality are not available. The significant indicators are self-referential, provisional and contestable (making them ideal instruments for fostering development). It is fruitless to look for one neat, quantifiable definition of quality in higher education. Quality is a matter of informed and detached judgement. High teaching quality is likely to be present where a staff team's clear aims and objectives are followed through into curriculum design and teaching, learning and assessment methods, and where the whole process is judged by external subject peers to be comparable with, or superior to, practice elsewhere in the wider academic community. Other definitions are appropriate to other aspects of educational provision, but the concepts of collegiality and external points of reference – benchmarking in the current jargon –are fundamental.

Managerial Expectations

The development of higher education's interest in TQM has coincided with a number of significant changes in the political and social context of higher education. One such change is the expectation of greater public accountability for both financial and educational performance. A second is the move towards a system of mass higher education, with a larger and more varied student population. A third is the relentless downward pressure on resources,

affecting, through enlarged student: staff ratios, the time available for dialogue between students and staff and, through diminished grants and the need to take up part-time jobs, the time students are also able to devote to studying. A fourth change is the emphasis on performance and outcomes.

All these factors have contrived to redefine expectations of higher education. It is no longer regarded by students as a total residential experience but is seen as being one of a number of competing claims on students' time. The boundaries between higher education and the rest of society have shifted (leading, in turn, to higher education's concern for flexibility and responsiveness) and, as the balance of public and private investment has been redrawn, a more instrumental perspective on the part of students towards the process of higher education has become evident.

But, while these changes have been occurring in higher education, other services in the public and private sectors have also been experiencing shifts in managerial thinking and practice, which have in turn had an impact on the way that quality in higher education is managed and, indeed, on what quality means. Pollitt (1993) offers a helpful framework for analysing these exogenous factors, four of which are: decentralization, the managed market, service quality and customer wishes.

Decentralization

An early example of decentralization was the centre-periphery model of managerial flexibility, which first began to attract attention in the mid-80s, when the coincidental loosening of the employment laws, the development of information technology and recessionary pressures contrived to encourage firms, under the banners of flexibility and efficiency, to distinguish between those employees who were strategically central to the organization and those who could in some sense be regarded as outworkers. Some of the grander claims of the model are now seen to have been overinflated: for example the idea that some staff might work at home, communicating with head office electronically rather than in person; or the idea that full-time employees might, as a matter of course, share desks with colleagues and come to mutually-agreeable arrangements about the days of the week they would be in the office; or the notion of the virtual office. However, some of the characteristics of the model are now visible in higher education.

Thus, for example, universities have made increasing use of short term employment contracts for certain categories of researchers and lecturers to coincide with the length of commercial contracts or to hedge bets against the uncertainties of future funding. Some have contracted out certain services on the basis of competitive tendering (e.g. catering, cleaning and facilities management). They have detached certain operating units from the mainstream management structure and have established them on an avowedly commercial basis to generate income for the institution as a whole (for example, conferences, or management training and development) and to enhance control over outputs (Hood, 1991). In the interests of the more efficient use of capital plant, they have enlarged the teaching day and year. In summary, universities have become more flexible organizations, concentrating their management skills on their core business of higher education, and using their own resources more intensively and more cost-effectively.

But flexible working has also had an effect on the management of quality. The use of short contracts and part-time staff for essential mainstream teaching (rather than as guest lecturers to enrich the curriculum and to provide an alternative perspective, often from industry, on the subject in question) means that heads of department are involved increasingly in the management of staff recruitment and induction and deployment, reducing the time available for them to engage in academic leadership and scholarly activity. This trend poses some major policy questions. To what extent should an institution invest in the development of its shortterm contract and temporary staff? Whose responsibility is it to ensure that such staff are fully integrated into teaching teams and that they have intellectual ownership of the curricula they are teaching? What mechanisms exist to ensure that the staff recruited through these routes have subject expertise and teaching skills equivalent to those of the staff employed on a permanent full-time basis? Does the restriction of casual access by students diminish the amount of tutorial guidance available or does it stimulate the acquisition by students of personal and transferable skills, including time management and responsibility for independent learning? How is continuity of educational strategy secured between one year and the next? What intellectual contribution can be expected realistically from a member of staff with a pigeon hole but no desk?

The centre-periphery model also carries within it a reference to two other recent developments in higher education: franchising, which on one reading can be seen as an attempt by institutions to strengthen their market position through strategic alliances by contracting out non-core business to neighbouring colleges, allowing other aspirational institutions to bear the risk of fluctuations in required capacity (franchising can also be seen as a strategy for strengthening an institution's regional presence); and open learning (or in some cases distance learning) where the burden and a higher proportion of the costs of teaching are in a sense displaced from lecturers to materials, or indeed to students. Both these developments present formidable challenges to quality assurance, particularly in terms of the suitability of the learning environment available to students, and the difficulties of securing changes and fostering development when managerial responsibility resides at a distance, both geographically and culturally.

Service Quality

The conventional response to the problems of decentralization is to monitor provision through the use of performance indicators, and particularly statistical indicators which allow for direct comparison of performance between different divisions. However, as the long debate about value added in higher education clearly shows, statistical indicators are not reliable indices of the presence of high academic quality. Indeed, it is likely that the finer the measurement, the less likely it is to say anything useful about the process of teaching and learning. In an increasingly diverse system, indicators have less value as comparators. This simply reflects the distinction made earlier between the quality of the service enjoyed by students and the quality of their overall academic experience; it is the former which the new concept of service quality embraces rather than the latter, yet it is this minimalist notion of quality which now seems to be pervasive in higher education, overtaking and somehow degrading the less comfortable, more intractable challenges associated with academic quality as conventionally understood.

One difficulty experienced by those who promote a service quality approach to higher education, therefore, is that all too often the topics that can be dealt with satisfactorily are peripheral to the core concerns of higher education. Another is that service agreements are, by their nature, concerned with outcomes and not with the formative process of how that outcome is achieved. A third problem is that the prescriptions can become mechanistic, with a squad of inspectors, often deriving their information from electronic databases, whose job it is to check on compliance. Ultimately, if not implemented sensitively, the service agreements approach can degrade into a form of Taylorism, contradicting the empowerment, teamworking and consultation aims of TQM by reducing the responsibility on individuals to optimize the delivery of a service in the light of local conditions. We then reach the position where lecturers' professionalism is controlled by targets, rather than by the rhythms intrinsic to a subject discipline or by the satisfaction of encouraging a student to learn how to learn.

A similar trend is evident in the increasing use by institutions of agencies to take responsibility for certain performance objectives, which itself mirrors the Government's aim of reducing the direct influence of the state by establishing its own functional agencies, e.g. the HEFCE and the Teacher Training Agency. The difficulty for higher education with agencies established on this basis is that, because financial monitoring is easier than quality assurance, and because the quality and outcome penalties of skimping on expenditure may not reveal themselves for some time, the education provided may be less beneficial for users than where the institution itself has direct control (**Knapp and Wistow**, 1993). For disaggregated institutions, student satisfaction is one of the few direct points of access they have available to the educational process but, even where appropriately canvassed, it is unlikely to be a sufficient guarantor of short-or long-term quality.

Managed Market

An equally fundamental threat to academic integrity, and thus a challenge to an institution's quality assurance systems, is prompted by the policy intention to create an internal market in higher education. The research ratings exercise, for example, has led to the division between, on the one hand, those institutions with a reputation for research and, on the other, those with a mission as predominantly teaching establishments. The effects of the teaching quality assessments by the HEFCE have been similar, distinguishing the few institutions which have excellent work from the majority which are judged to be merely satisfactory. A likely consequence of these two developments is the introduction of a compliance culture - a regrouping of effort in individual universities to work to the criteria for success (insofar as they can be identified), to identify niche markets in which they can make a name for themselves, and to spot and back winners among staff teams. Thus, far from promoting quality, an ethos of rivalry, competition and closure is being fostered in a sector in which dialogue, collaboration and external peer benchmarking are fundamental to the maintenance and enhancement of quality. It is not yet proven that, in the specific context of higher education, competition can be guaranteed to drive up quality - but, conversely, it is also difficult to substantiate the claim that overall quality is deteriorating.

The external system also potentially distorts the cyclical quality assurance systems of institutions by training an internal spotlight on a few externally selected subjects, perhaps to the disadvantage of other areas which may have benefited from intensive corporate attention.

Just as the success of the Government's health policies is politically indicated by the length of hospital waiting lists, so the success of the managed market in higher education is established through a few measurable educational outcomes. This is clearly evident in the imperative to publish regularly in refereed journals which enjoy a high esteem among subject peers, supplanting the previous culture where research of significant value was able to take the long-term view and was willing to take diversions into blind alleys. It is also apparent in the extent to which institutions' policies are driven by such targets as first-year student numbers, maximum allowable numbers and progressively diminishing units of resource, with academic development constrained by income maximization, marketability and cost instead of being governed by need or idealism.

The HEFCE is, in effect, the purchaser of higher education services provided by universities and colleges. It is able to control the size of the market and to specify the quality threshold below which it will cease to purchase the goods offered. Its overall mission is to drive down the cost of services by setting up a system of competition for national funding based essentially on price, but with a quality threshold (an unsatisfactory grading, in the language of the HEFCE's subject assessment exercise) built in. The inexorable effect of this is to confer more power on the managers of universities, increasingly seen as the interpreters, to the providing staff, of the purchasers' intentions and as the source of immutable priorities that are consistent with the purchasers' wishes. Managers are mediators of extraneous, market-orientated values (McCulloch, 1993), which compete with the collegial values and loyalties intrinsic to the subject disciplinary focus of learning in universities.

More obvious market orientations are apparent in the more professional, design-led approach to the production of prospectuses and other institutional marketing material, aimed at attracting applicants, sponsors and other income generators. Market segmentation is reflected in institutional mission statements, which represent a diversity of accomplishment and aspiration. A market orientation is made explicit through the Government's insistence that new buildings are paid for through loans raised on the money markets – a policy which has significant effects on the financial management of institutions, as they have to show themselves to be financially secure, against conventional business criteria, before loans will be considered.

Consumer Preferences

The effect of these changes, emphasizing clear goals and results, has been to move from relatively unarticulated shared assumptions and values in higher education about quality, based around the idiosyncrasies of individual subjects, towards the need for greater public accountability which, with the help of modern information technology, has brought with it an ever more fine focus of enquiry into aspects of the curriculum. Elements of the curriculum have become more disaggregated and controlled. Personal transferable skills are separated from, rather than manifested through, subject knowledge, and knowledge in turn is distinguished from competence. Modularization, a powerful source of student choice and flexibility which permits diversity in the educational pathways of individual students, enables discrete parts of the curriculum to be detached and probed and, in transferring some of the responsibility for integration and coherence from lecturers onto students, allows staff to retreat within their subject boundaries. It also focuses much more ready attention on the teaching performance of individual members of staff, despite scepticism about the claim that consumer preference, manifested through student satisfaction, should be regarded as a sufficient indicator of academic quality. Students' achievements in all aspects of the

curriculum are assessed and recorded, leading to the debate about records of achievement replacing honours classifications. A similar trend towards fragmentation and outputs is to be found in schools with the introduction of the national curriculum and testing at key stages. Already in higher education, NVQs break the link between a course and its outcome, and the process will be intensified if and when GNVQs at level 4 are introduced. At that point, the relationship will be disturbed that has, in the past, guaranteed quality between course design, delivery and the assessment of students based on the specialist knowledge of individual members of staff or defined staff teams, implying a progressive deskilling of the professionalism of academics.

Conclusions

The purpose of this article has been to show that academic quality, a problematic concept at the best of times, becomes even more slippery when the effects of changes in the external environment are taken into account. The application of new public management ideas has altered the context and practice of academic work. In particular, the sheer scale of higher education institutions now, with the emphasis on efficiency objectives, results linked to measured performance, rivalry, and doing more with less (Hood, 1991), means that the academic quality being assured is different in character to that which existed in former years.

The imperatives of new public management thus present a challenge to institutions' arrangements for the management of quality. Fundamental changes are being made to the overall management style of institutions, and institutions are enjoined to acknowledge the significance of offering programmes which are responsive to the expressed preferences of stakeholders in the marketplace. The contradictory pressures in the system are enormous, none more so than in the huge increases in student numbers and class sizes, on the one hand (laying the ghost of Althusser's "intellectual semi-employment"), and the expectation of inspecting and assessing ever more fine elements of the teaching process, on the other. Increasingly, quality is being redefined in relation to performance specifications, inspection and objective evidence - a phenomenon unique neither to higher education nor to the UK (Hood, 1991). The challenge for higher education is to maintain its own values, purposes and rhythms of work. In true post-modernist fashion, pragmatism has replaced vision in "the sea of competing ideas", and the longer educational view, which takes account of the future personal development of this generation of students as well as anticipating the academic needs of the next, is in danger of being supplanted by the rhetoric of continuous change and improvement.

Womack et al. (1990) encouragingly reassure us that, in the car industry, lean production (clear planning co-ordination and teamworking) is able to reduce costs per unit and dramatically improve quality (defined as defects per unit). This sounds like the politician's dream, and higher education's challenge is to achieve the same objective within its own collegial definition of quality, while being mindful of the dictum that flexibility, cost, quality and customer service cannot be optimized concurrently (Crowe and Nuno, 1991). TQM is not a panacea, but skilfully managed it can provide an antidote to the potentially deleterious consequences of unfettered new public management. Its great strength is to heighten individuals' awareness of the political economy and corporate context within which they work, and of the difference they can make to institutional effectiveness and, most importantly, to the service available to students. Higher education's only essential resource is the expertise of its staff. Like liberty, the price of academic quality is eternal vigilance