

Satisfaction and service quality in the quantity surveying profession

by

Carol Jane Procter

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## DECLARATION

I, Carol Jane Procter, declare that the work contained within this thesis is my own original work and has not been submitted previously for any other degree.

**Signed**  
C. J. Procter.

## SYNOPSIS

This thesis investigates client satisfaction and service quality in the quantity surveying profession. Whilst many reasons abound for dissatisfaction with the construction industry, this thesis focuses on *client satisfaction with the provision of quantity surveyors' services*. To this end, a greater understanding of the psychological processes involved in making a satisfaction decision is required and is achieved by the presentation of the theory of consumer satisfaction. It was found that consumer satisfaction is the result of meeting or exceeding expectation with performance. Furthermore, performance is not measured in technical terms, but as a result of client perceptions. Perceptions are at the heart of this thesis. This study investigates the relationship between *client perceptions* and *quantity surveyors' perceptions* of the same.

A pilot study was undertaken to provide indicators on whether a perceptual disparity exists between clients' opinion of service quality and those held by quantity surveyors. Having established that a disparity exists between client expectations and perceptions of performance, as well as a gap in quantity surveyors' perceptions of their service delivery, the study was continued. To this end a model for quantifying service quality was applied, namely the SERVQUAL Instrument as proposed by Parasuraman *et al.* (1988). The Instrument measures expectations and perceptions, permitting the calculation of *service quality gaps*. The model was replicated, save for the inclusion of an extra dimension which encompasses problems of service germane to the quantity surveying industry. It was found that out of the 30 aspects of service presented to clients, 27 items received negative scores. These negative scores represent areas of poor service quality and moreover, client dissatisfaction. When examining the determinants of service quality, clients indicated dissatisfaction on all accounts. Furthermore, the service feature *Reliability* presented the greatest disparity and was also indicated as being the most important aspect of service quality to clients.

Quantity surveyors were also surveyed to measure their perceptions of what they believe clients expect, as well as their perceptions of their own performance. To this end, quantity surveyors' perceptions of the delivered service is far higher than that perceived by clients. The findings of this study suggest that quantity surveyors are delivering poor service quality and therefore, room for improvement exists. Areas requiring improvement are delivering service on time, responding to clients timeously, keeping the client informed of project progress and treating the client as a valuable member of the design team, amongst others. Quantity surveyors need to focus on these areas of poor service quality in order to enhance client satisfaction.

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## **ABBREVIATIONS**

ASAQS	Association of South African Quantity Surveyors
DT	Design Team
GDP	Gross Domestic Product
NEDO	National Economic Development Office
QS	Quantity surveyor/ing
QSP	Quantity surveying profession
RICS	Royal Institute of Chartered Surveyors
SA	South Africa
SAPOA	South African Property Owners' Association
TQM	Total Quality Management

## **CHAPTER 1: INTRODUCTION**

### **1.1 Background**

The services provided by quantity surveyors are essentially those associated with the financial management of building projects (Willis and Ashworth, 1987). These services are employed by clients who are involved in the procurement of construction projects. Since the client's primary objective is the procurement of a building, quantity surveyors' services are sought as part of the process used to achieve this goal.

The quantity surveying profession enjoys work reservation, in that it is protected by the Quantity Surveying Act of 1970 and practitioners are required to register with the Council for South African Quantity Surveyors. To register as a quantity surveyor, a Bachelors degree and three years experience is required before undertaking the Professional Test of Competency. This provides protection for registered quantity surveyors limiting opposition and thus, competition. Lack of competition may result in complacency in an organisation, and moreover this can be magnified within a protected environment. It is therefore imperative that professional service providers, such as the quantity surveying profession concern themselves with client satisfaction and the level of service quality provided. At the centre of any business venture is the customer, since without customers there simply would be no business.

This research project was undertaken to examine the level of service provided by the quantity surveying profession and the extent to which client satisfaction is achieved.

In the section that follows, a background to the service sector is presented, indicating the growth and thus, importance of this sector. Thereafter, the methods employed by professional practices generally and more specifically, the quantity surveying profession is discussed. The importance of client satisfaction is elucidated and its relationship to service quality explained. The purpose of this section is to provide a background to the problem statement and thus, the formulation of the hypothesis, which is later presented.

### *1.1.1 Emergence of the service sector*

The Western countries' global economy has seen the emergence of the service sector over the past two decades (Quinn and Gagnon, 1986; De Souza, 1989; Ghobadian *et al.*, 1994) to the extent that the service industry accounts for 30% of world trade (Naumann, 1995). To further illustrate the importance of the service sector, Ghobadian *et al.* (1994) present the contribution of the service sector to the gross domestic product (GDP) for the following 'first world' countries: in 1989 services accounted for 69 per cent of the GDP in the United States of America; 62 per cent in the United Kingdom; 60 per cent in Germany and 67 per cent in France.

Whilst Ghobadian *et al.* (1994) illustrates the importance of the service sector to the GDP of the above 'first world' countries, the question arises about the importance of the service sector in South Africa. South Africa is not classified a 'first world' country, but is rather regarded as being a middle-income country (Hoogvelt, 1982). The distinction between low-income and middle-income countries is defined by the World Bank in 1978 as countries where *per capita* income is below 360 dollars per annum (Hoogvelt, 1982). The low-income countries comprise mostly Sub-Saharan African countries such as Ethiopia, Somalia and Chad; and the more populated countries of Asia, namely, India, Pakistan, Bangladesh and Sri Lanka (Doro *et al.*, 1989).

In 1990, the service sector contributed 16,25% to the gross domestic product in South Africa. Although this contribution to the GDP is substantially lower than that for the first world countries, the emergence of the service sector cannot be ignored. The South African service sector has grown from 14,85% of the GDP in 1983, to 16,25% in 1990, constituting a growth of 9,42% (South Africa Reserve Bank, 1991). The figures presented for the South African service sector comprise only 'pure' service provision and do not take into account the service aspect of industries such as mining, manufacturing and construction. Dotchin and Oakland (1994), citing Deming (1980), state that 44% of employment in manufacturing companies comprise people engaged in service provision. It could thus be argued that the total contribution of the service sector would be greater than that presented above, taking into account Deming's proposition.

Along with the emergence of the service sector there has been a corresponding increase in research into this area. Scant research existed on the service industry in the 1980's, but an emergence in the literature pertaining to client satisfaction with the service industry is apparent (Naumann, 1995).

### ***1.1.2 Possibility of a future decline in the service sector***

Having established the evolution of the service sector in the global economy and more specifically, in South Africa, concerns are noted of the possibility of a decline in growth of this sector. Moreover, it is contended by Quinn and Gagnon (1986) that the service sector may decline in economic importance in the same manner as the manufacturing industry if not properly managed. The manufacturing industry declined as a result of lack of attention to quality, an emphasis on scale economies and short-term market orientation. Whilst Quinn and Gagnon (1986) raise this concern, the opportunity for growth in the service sector is also identified through the provision of service quality, value for money and client orientation.

Furthermore, Brown and Swartz (1989) indicate that client sensitivity and competition are two further reasons for decline in the purchase of services. Clients are becoming more sensitive to poor service quality and are more inclined to "shop around." In addition to this, the growth of competition results in tougher business conditions. Thus, if service providers become complacent in the provision of service quality, a decline in the growth of their organisation is possible as well as a consequent effect on the service economy as a whole. Having stated this possibility, the provision of service quality and attaining client satisfaction are presented as the essence of achieving growth in the service sector.

Having discussed the possibility for both growth and decline in the service sector generally, the section that follows focuses on the professional service sector and the means by which work is procured in such organisations.

### ***1.1.3 Methods employed by professional practices for work procurement***

Unlike goods and commercial services which rely on aggressive marketing strategies,

professional services are governed by ethical and legal restraints imposed by professional societies, certification boards and other such governing bodies (Bloom, 1984). Whilst constraints on the marketing of professional services in South Africa have been relaxed to a degree in recent years, problems exist in broadening the customer base. The increased number of professionals in fields such as law, architecture and dentistry has resulted in competition for customers (Bloom, 1984). In order to maintain or attract new clients, a professional practice has to keep the client satisfied. This would require establishment of client expectations and the means by which these can be fulfilled.

Wilson (1984) contends that the number and size of professional practices have grown. In the past, the professions comprised small groups of individuals serving a small clientele. Understanding their needs and maintaining high levels of communication were easily attainable. However, professions are no longer a 'privileged minority' and client needs are becoming increasingly demanding (Wilson, 1984).

In an era of consumerism, where malpractice suits are increasing, professionals are no longer held in the same reputable light (Bloom, 1984; Brown and Swartz, 1989). Attention to service quality and client satisfaction in professional practice is of extreme importance in maintaining the client base or expanding it.

Brown and Swartz (1989) stress the importance and distinctiveness of the professional service encounter and contend that most of the research work in this area is general and descriptive. In an attempt to further this body of knowledge, Brown and Swartz (1989) perceive their work to be one of the first empirical studies of any service encounter to consider the perceptions of *both parties*; that is, *the service provider and service consumer*. Brown and Swartz (1989) found that the *entire* service encounter is evaluated, and not just the interaction with the professional service provider. It is suggested that professionals should adopt a broad perspective when defining and examining their service offerings and assessing their clients' evaluations. A further recommendation by Brown and Swartz (1989) is that the service provider should adopt a *proactive approach* in monitoring service quality. This view is based on empirical findings establishing consumer reluctance to complain when a negative service encounter occurs (Brown and Swartz (1989), citing Quelch and Ash, (1981)). Due to the

intangible nature of professional services, Brown and Swartz (1989:97) suggest that clients may

*"seek and evaluate surrogate indicators of quality, including such factors as para-professional staff behaviours, office ambience and even signage."*

Finally, their investigation established the importance of altering professional behaviour to become more client-oriented and less task- and self-oriented. By effectively implementing the aforementioned strategy, the emphasis being on matching service provision with client expectations, an adjustment of client expectations and experiences should result.

#### ***1.1.4 Methods employed by professional quantity surveyors for work procurement***

Research in Australia has shown that work procured by quantity surveyors is based on word-of-mouth, positive previous experience and recommendations from colleagues (Orlovic, 1993). This is true of South Africa where only limited marketing is provided for by the statutory body of the quantity surveying profession, namely the Council for South African Quantity Surveyors. Furthermore, Phillips (1990) states that South African quantity surveying practices are reluctant to accept the need for marketing their services for several reasons. Firstly, quantity surveyors do not perceive the provision of their service as a commercial practice, but rather as one of "serving the client." Their disdain for commercialism prevents the acceptance of the need for marketing (Phillips, 1990). Furthermore, Phillips (1990) believes that due to misinterpretation of the Code of Ethics proposed by the Council for South African Quantity Surveyors, members restrict their marketing strategies unnecessarily. Lastly, quantity surveyors are seen to equate marketing with selling and are thus reluctant to become involved in investigating marketing strategies. This reluctance to pursuing marketing strategies is supported by Bowen and Rwelamila (1995) who found that little published material exists on the subject of work procurement for quantity surveying practices, moreover, on professional marketing strategies for the quantity surveying profession.

Whilst Preece and Moodley (1996) acknowledge the necessity of marketing and promotion of services in the construction industry, they suggest that the short term benefits of marketing need to be supported by service quality which will have long term implications. Furthermore,

they suggest that professional practices have focused on their own internal marketing functions, and have failed to focus on the *raison d'être* of services marketing, that being, the relationship between client and service provider. Moreover, Preece and Moodley (1996) suggest that the attainment of client satisfaction will result in the following: repeat purchase of the service; positive word-of-mouth; the improvement of the organisation's reputation and lastly, the increasing of customer loyalty. The aforementioned advantages of client satisfaction represents a positive means of procuring future work. To this end, Preece and Moodley (1996) call for a *Total Client Satisfaction* approach where all members of staff are committed to keeping the client satisfied.

Achieving client satisfaction through service provision appears to be the necessary edge required by quantity surveying practices in maintaining their client base and for the procuring of future work. Having so stated, the affects of client dissatisfaction are presented.

#### ***1.1.5 The effects of client dissatisfaction on work procurement***

Cardozo (1965) contends that customer satisfaction will result in the repurchase, acceptance of other similar products and positive word-of-mouth publicity. Ghobadian *et al.* (1994), citing Horovitz (1990), states that a dissatisfied customer will divulge a negative experience to more than three other people. Orlovic (1993) confirms that a dissatisfied customer will not complain to the service provider, but will not return. De Souza (1989), drawing conclusions from the Technical Assistance Report Program (TARP), a study commissioned by the United States Federal Government, acknowledges the results of a dissatisfied customer. In the TARP study it was found that nine out of ten disappointed 'buyers' never repurchase from offending companies. Furthermore, Rabeler (1991), in investigating the importance of maintaining the client base in the consulting engineering field, quoted several statistics in support of his investigation. In addition to these, further quotations are presented which indicate the importance of keeping the customer satisfied.

*"Sixty-five per cent of the average company's business comes from its present satisfied customers." (Szabo, 1989:17)*

*"The average business spends six times as much to attract new customers than it does to keep old ones. Yet customer loyalty is in most cases worth ten times the price of a single purchase." (LeBoeuf, 1987:13)*

*"A typical dissatisfied customer will tell eight to ten people about his problem. One in five will tell twenty. It takes twelve positive service incidents to make up for one negative incident." (Le Boeuf, 1987:13)*

Le Boeuf (1987) provides a further statistic in relation to service quality. He states that businesses proffering poor service quality are likely to lose market share at a rate of 2 percent per year whilst those delivering high service quality will increase their market share at a rate of 6 percent per year. In addition to this, whilst the former business will average 1 percent return on sales, the latter will accrue 12 percent return on sales.

The effects of client satisfaction or lack thereof on business growth provide a strong case for the provision of high service quality and thus, keeping the client satisfied. In a service sector that cannot subscribe to aggressive marketing strategies and price competition (only limited price competition is allowed by the Council for South African Quantity Surveyors since 1986) but must rely upon positive past experience and word-of-mouth, the aforementioned strategy provides a means of maintaining and expanding the client base.

Aside of the general warning of Brown and Swartz (1989) regarding the effects of harsh competition on professional practices, a competitive business environment will exacerbate the problems associated with client dissatisfaction. The Chairman of the Western Cape Chapter of the Association of South African Quantity Surveyors (ASAQS) is quoted by Lewis (1995) as stating that the building industry, including the quantity surveying profession, is '*desperately short of work.*' Borne out of the aforementioned business climate, will be fierce competition amongst quantity surveying practices for a share of the available work. Under highly competitive conditions such as these, it will be the professional practice with the ability to understand the needs of the clients, and exceed such requirements, that will experience the necessary growth.

The changing political climate in South Africa since 1992 has resulted in the lifting of sanctions as well as the possibility of outside investment. Organisations which had formerly withdrawn from South Africa due to international pressure have returned. Moreover, organisations that had never been involved in South Africa, now have the opportunity to establish local offices. These prospective organisations may include quantity surveying firms looking for new business opportunities, which will lead to greater competition for the local quantity surveying firms.

The current competition experienced, in addition to the affects of client dissatisfaction on future work procurement calls for an inquiry into the means by which client satisfaction can be attained in the provision of quantity surveying service.

#### ***1.1.6 Research into client satisfaction with quantity surveyors' service***

Bowen and Edwards (1985) raise the issue of whether quantity surveyors know what clients require as distinct from what they are given. Only limited research into the needs and perceptions of clients in South Africa has been undertaken (Procter *et al.*, 1993). Procter *et al.* (1993) found that only 50% of clients were "satisfied" with quantity surveyors' services. In this study, the focus of the research was on client satisfaction with *construction cost advice* as apposed to the provision of the *entire* service encounter. The lack of satisfaction with construction cost advice as proposed by Procter *et al.* (1993) suggests that this area of research requires further in-depth study.

Bowen (1993) investigated client and architect requirements in terms of communication theory, and Pearl (1992) researched client and architect requirements in terms of accuracy. However, no conglomerate study has been undertaken in South Africa to establish levels of client satisfaction and specific areas of dissatisfaction with quantity surveyors' services.

A survey undertaken in the United Kingdom into client satisfaction indicated that 36% of clients rated quantity surveyors' services to be "acceptable/poor" (Anon.,1990). The investigation was undertaken by a firm of quantity surveyors who received over 300 respondents to the questionnaire. The objective of this research was to tailor the provision

of services more accurately to the client's needs. Failure to notify the client of cost problems during or after their occurrence resulted in client dissatisfaction. This survey indicated dissatisfaction with the service provided by quantity surveyors in the United Kingdom.

An earlier study, undertaken by Greig (1981), into client satisfaction with quantity surveyors' services, lacks a theoretical framework of client satisfaction. Greig (1981) contended that client satisfaction was dependent on the accuracy of forecasts, the use of cost planning techniques, advice received on costs-in-use and the accuracy of cash flow forecasts. Whilst these factors may influence the level of client satisfaction attained, Greig (1981) did not investigate other factors that may affect satisfaction.

Researchers such as Ahmed and Kangari (1995), Preece and Moodley (1996) and Dulami *et al.* (1996) have recently contributed to service quality programs in construction organisations, indicating the need for such a philosophy.

Given the importance of maintaining client satisfaction through the delivery of service quality, a paucity of research is noted in this field. The quantity surveying profession is in need of guidelines suggesting the determinants of service quality germane to this profession which will positively impact on client satisfaction.

#### ***1.1.7 Measurement of client satisfaction***

The nature of satisfaction *per se* is such that it is impossible to measure without understanding the roots of this emotion. Leiss (1976) proposes that, in order to achieve satisfaction, the nature of human needs must be established, and thus the means by which these can be fulfilled, identified. The premise of client satisfaction is establishing client needs and ensuring that these are fulfilled (Cardozo, 1965). Anderson (1973) states that *customer dissatisfaction may be measured by the degree of disparity between expectation and perceived product performance*. This view is acknowledged by Brown and Swartz (1989), who state that satisfaction occurs when the outcome meets or exceeds the client's expectations. The notion of disparity between expectation and perceived performance may thus be applied to the service industry. To measure client satisfaction, the needs and expectations of the client

should be identified and the means by which these can be fulfilled, established.

Shostack (1977) proposed that all products and services exist on a tangibility/intangibility continuum. Although goods are tangible, Shostack (1977) argues that a physical product may have a degree of intangibility. For example, in the case of the sale of a car, the after-sale guarantee will be an intangible aspect of the transaction. In the same way, services, being intangible, have a degree of tangibility. For example, when taking an airline flight, the physical appearance of the aircraft, inside and out, will constitute a tangible aspect of the service encounter. It is due to the intangible nature of the service encounter that makes the degree of satisfaction attained difficult to gauge (Samson and Parker, 1994).

Ahmed and Kangari (1995) assert that in the construction industry the client's requirements involve translating the construction needs into a design, that specifies technical characteristics and performance criteria, conformance to specifications as well as completing the building of the facility within the allocated time and cost. Furthermore, it is stated that in addition to these factors three other elements, namely *client orientation*, *communication skills* and *response to complaints* need to be considered in attaining client satisfaction.

It is apparent from available literature that there are no precise tools for measuring satisfaction. However in the service industry, the provision of superior quality service will result in client satisfaction. Therefore, the measurement of service quality will provide a means of gauging client satisfaction. This approach follows the methodology of Samson and Parker (1994) who measured client satisfaction through establishing the level of service quality provided in the Australian consulting engineering industry.

#### ***1.1.8 Impact of service quality on client satisfaction***

Lewis (1991) suggests that, although no precise definition of service quality exists, service quality may be characterised as "*a measure of how well the service matches customer's expectations.*" This viewpoint is supported by Ghobadian *et al.* (1994:49) who state that

*"quality in a service organisation is a measure of the extent to which the service delivered meets the customer's expectations."*

Alternatively, an attitudinal approach to service quality is presented by Parasuraman *et al.* (1985) where *perceptions* are under consideration as opposed to actuality. In terms of this approach, *service quality can be measured by the disparity between client perception of the service received, and client expectation prior to the service encounter.* Although the interpretation offered by Lewis (1991) and Ghobadian *et al.* (1994) differs from the attitudinal approach presented by Parasuraman *et al.* (1985), the notion is one of *disparity in what is received and what is expected.*

Having argued that client satisfaction occurs when expectations are fulfilled or exceeded, it is thus reasonable to assume that client satisfaction/dissatisfaction is a function of service quality.

This relationship may be expanded algebraically as:

*Equation 1:*

$CS/D = f(\text{service quality})$

where:

CS/D = Client satisfaction or dissatisfaction

Ahmed and Kangari (1995) identify client satisfaction as one of the key elements of Total Quality Management (TQM). TQM is considered a

*"complete management philosophy that emphasises overall satisfaction through the continuous improvement of products and processes. However, before the stage of satisfying the client is reached a concerted effort is needed to understand client requirements"* (Ahmed and Kangari, 1995:36).

This is true of client satisfaction: client requirements should be established in order to assist the quantity surveyor in understanding how the service provision may be adjusted to provide a quality service.

## **1.2 Problem statement**

The quantity surveying profession, as is the case with most professions, do not subscribe to aggressive marketing strategies. Due to professional body regulations, professional practices are afforded limited use of advertising and therefore, need to investigate alternative methods of maintaining and expanding their client base. Client satisfaction through the provision of service quality has been identified as a factor in the maintenance and growth of the service sector in general and more importantly, in the professional service sector. Failing to provide superior service quality, will result in client dissatisfaction. Client dissatisfaction results in negative word-of-mouth, lack of customer loyalty and a poor reputation, amongst others which will negatively affect the growth of the client base.

To date, no investigation into the level of service quality provided by quantity surveyors in South Africa has been undertaken. To this end, no categorical information exists on client expectations, client perceptions of performance and the determinants of service quality in respect of quantity surveyors' service. Therefore, quantity surveyors are not aware of whether a perceptual gap exists between their perceptions of service and their clients' perception of the same. Aside of the general information that exists on service quality, quantity surveyors have no guidelines upon which to base a service quality program.

Such lack of information precludes the tailoring of quantity surveyors' service to suit client expectations, the attainment of satisfaction and the insurance of future growth of the quantity surveying profession.

## **1.3 Hypothesis**

It is hypothesised that quantity surveyors are unaware of client perceptions of the level of service quality provided, and their resultant satisfaction.

#### **1.4 Objectives of the research**

*The objectives of this research project may be listed as being:*

To establish a theoretical framework of client satisfaction, *per se*.

To present the literature surrounding service quality.

To provide a theoretical framework for client identification, their respective needs and objectives and the service required generally, and those germane to South Africa.

To investigate client expectations and perceptions of quantity surveyors' performance in South Africa facilitating the measurement of possible perceptual gaps.

To measure quantity surveyors' perception of their performance as well as their perception of client expectation.

To assess the extent to which gaps exist between clients' and quantity surveyors' perceptions of quantity surveying service in South Africa.

To identify the factors affecting service quality in South Africa.

#### **1.5 Research methodology**

*The objectives of the research project will be attained using the following research methodology:*

1. Undertake a literature review of client satisfaction and the identification of models thereof.
2. Present a literature review of service quality and the identification of models thereof.

3. Establish the theory of the current practice of quantity surveyors, in general, and those germane to South Africa.
4. Perform a pilot study, interviewing ten client representatives and quantity surveyors from ten practices in the Western Cape, to ascertain their opinion of factors affecting client satisfaction and service quality.
5. Execute a national questionnaire survey to clients and quantity surveyors, incorporating an appropriate service quality model where a battery of expectation and perception of performance questions are posed.
6. Provide an analysis of the findings of the national questionnaire survey.
7. Draw conclusions and make recommendations.

## **1.6 Limitations**

### ***1.6.1 Consumers of quantity surveying service***

The term "customer" refers to the recipient of a product or service whilst the term "client" is used in respect of professional service. Flood (1993) draws a distinction between the *internal* and *external* customer/client. This is a distinction commonly held in the area of Total Quality Management (TQM) (Culp *et al.*, 1993). The external customer/client is the organisation or party who purchase and utilise the service. In this research project, it is the building client who is the *external* customer/client. The external customer/client could also be extended to those who may use the building.

*Internal* customers/clients include people within the organisation to whom information or service is provided. In the case of the traditional building procurement process, the internal customers consist of the members of the design team. Since the appointment of the quantity surveyor can be made by the architect (Ferry and Brandon, 1991), keeping the architect

satisfied would be important in securing future work. Notwithstanding the architects' contribution to the quantity surveying profession for future work, it is not within the scope of this research to examine architects' needs and expectations as well as their perceptions of quantity surveyors' performance. Furthermore, due to the differing needs of the architect to the client, it is proposed that such a study would provide another useful insight into the performance of the quantity surveying profession.

For the purposes of focus, only the *building clients* of South Africa have been surveyed in terms of their expectations and perceptions of performance of quantity surveying practice.

### ***1.6.2 Other factors causing dissatisfaction with the construction industry***

This study is particularly interested in service quality and client satisfaction. It is a study of the delivery of service examining perceptions of both clients and quantity surveyors. This thesis, however, does not take into account the aspects of service related to the core service. The core service broadly encompasses the very reasons clients approach quantity surveyors, that is, for financial management services in respect of the construction process. For purposes of focus, the assumption made is that, whilst the execution of the core service is important, it is not the only aspect of service that equates to service quality and renders the client satisfied. Aspects such as reliability, responsiveness, empathy and assurance, amongst others, are the issues at the heart of this thesis. It is not within the scope of this thesis to include exploratory research into the core service, notwithstanding their importance in establishing client satisfaction. Furthermore, many works abound on issues relating to the core service such as accuracy in estimating (Pearl, 1992) and cost planning and control (Ferry and Brandon, 1991), amongst others. Therefore, this thesis assumes the core service to be appropriate and investigates service quality in respect of client and quantity surveyors' perceptions of such.

Furthermore, the primary objective of a client in the construction industry is to procure a building. In order to do so, clients require the professional services of building consultants, of which, a quantity surveyor may be one. Given the complexity of the building process, the number of consultants required namely, architects, engineers and quantity surveyors, amongst

others and the uniqueness of each procurement project, many reasons abound for client dissatisfaction with the procurement process. In Chapter 5, some of these reasons are elucidated but are not of central focus to this thesis. This research is only interested in the clients' satisfaction with the service delivery of the quantity surveying profession in South Africa.

### ***1.6.3 Services provided by quantity surveyors***

Quantity surveyors perform services within the realm of financial management. The nature of their services varies depending on the type of procurement method utilised. Procurement in South Africa does not always follow the traditional method, but often hybrid systems are adopted and the services and involvement vary accordingly (Hindle and Rwelamila, 1993). To this end, this thesis is not concerned with the type of procurement method adopted, but focuses rather on the level of service provided to building clients, *per se*.

## **1.7 Structure of the thesis**

Having presented the background to the problem, the hypothesis, research objectives and methodology in Chapter 1, the following four chapters present an analysis of the literature pertaining to client satisfaction and service quality in the provision of quantity surveyors' services.

Chapter 2 presents the theory of consumer satisfaction. This chapter presents the development of the theory of consumer satisfaction, focusing on the most prominent studies permitting a forum for the discussion of expectation, performance, effort and repeat purchase behaviour, amongst others. Whilst this chapter relates to "goods," the findings can be considered in terms of "services" as well. The term "product" merely relates to the goods, services, or the combination of the two, being sold.

Thereafter, the relationship between client satisfaction and service quality is expounded in Chapter 3. However, the main focus of Chapter 3 is on the theory of the provision of service quality. In addition, the SERVQUAL Model is presented and argued for its applicability to

this study.

In Chapter 4, the nature of building clients is presented, as well as their respective needs and objectives. Thereafter, a brief account of the services provided by quantity surveyors is presented. Since Chapter 4 presents literature of an international nature and Chapter 5 serves to focus on the South African experience.

Chapter 5 serves to provide an insight into dissatisfaction germane to South Africa, and presents an overview of appropriate literature. This chapter elucidates the need for *published work* in the field of client satisfaction and service quality in South Africa.

Having presented a theoretical background, Chapter 6 contains the findings of a pilot study where 10 client representatives and 10 quantity surveying practices were surveyed. This preparatory research sought to establish areas of dissatisfaction as well as a comparison of expectations and perceptions to establish indicators on whether a perceptual gap exists in the mind of clients. Furthermore, quantity surveyors were asked similar questions which permitted the comparison of opinions between clients and quantity surveyors on the same aspects of service.

Chapter 7 presents the findings of the application of the SERVQUAL Instrument to a national sample of clients and quantity surveyors. This highly refined instrument contains questions generic to all service organisations and allows for flexibility in the service industry to which it is being applied.

Finally, conclusions are drawn and recommendations made regarding the factors affecting service quality as well as level of service quality in the provision of quantity surveyors' services. This is presented in Chapter 8.

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## **CHAPTER 2: THEORY OF CONSUMER SATISFACTION**

### **2.1 Introduction**

This chapter serves to provide a theoretical framework of the theory of consumer satisfaction. Since satisfaction is an indistinct concept researchers have investigated the underlying factors affecting satisfaction such as expectation, perceived performance and effort, as well as the relationships which exist between these factors. Whilst this chapter provides the key research works which focus on consumer satisfaction with the provision of *goods*, it serves as a point of departure in the development of theories regarding satisfaction. These theories on satisfaction provide an insight into expectation and perception of performance, which apply equally to the provision of service.

### **2.2 Development of the theory of consumer satisfaction**

Literature on consumer satisfaction theory began in the 1960's with Cardozo's (1965) research being the first study to use empirical data. Key research papers are presented below in chronological order to indicate the development of the theory. Based on the development presented below, research in consumer satisfaction began with studies involving only one period in time (Cardozo, 1965, Olshavsky and Miller, 1972). These studies consider satisfaction to be a *static* concept, thereafter longitudinal studies were undertaken by Oliver (1980), La Barbera and Mazursky (1983) as satisfaction was considered to be a *dynamic process*. As the theory developed, conceptual variables were introduced into the studies such as *attitude* and *intention*. The relationships between the conceptual variables were tested over periods of time and under varying conditions. Evident in the development of the theory, is the attempts of each researcher to define or redefine satisfaction, attitude, expectations and the relationships that exist, under varying conditions (such as high and low effort conditions).

### **2.3 Study on effort, expectation and satisfaction**

Cardozo (1965) investigated the impact of customer effort and expectation on satisfaction. The motivation for research was that no definitions or discussions existed in the field of

marketing or economics on the impact of customer effort and expectation on customer satisfaction. In order to set up testable hypotheses regarding the relationship between effort, expectation and evaluation, Cardozo (1965) drew on two branches of psychological theory, namely "contrast" theory and "dissonance" theory. These theories, as discussed hereunder, predict the possible mental processes which occur as a result of disconfirmation. Disconfirmation occurs when a disparity exists between expectation and performance.

### ***2.3.1 Contrast theory***

Contrast theory implies that subjects who are negatively disconfirmed, will *magnify* the difference between the performance expected and the performance actually received. For example, a customer may patronize a restaurant which he has heard is good and therefore has high expectations of it. However, when presented with bad service or an unappetising meal, the customer may state that that was the worst meal he had ever eaten, that the service was terrible and the food unfit for human consumption (Cardozo, 1965). The customer's expectations were negatively disconfirmed and since the outcome was not of great importance, the customer was free to contrast prior expectation and product performance. When expectations are not matched by product performance, contrast theory suggests that the contrast of expectation and product performance will cause the consumer to magnify or exaggerate the disparity. Such behaviour is expected only under conditions where the subject has not invested a high degree of effort.

In the field of marketing, this theory suggests that slight understatement of the product quality will result in greater consumer satisfaction. Understatement of a product will cause consumers to have lower expectations of the product performance. The objective performance will be greater than the expected performance and result in client satisfaction. However, understatement of the product should not cause potential customers to ignore the product and look for other similar brands.

### ***2.3.2 Festinger's theory of cognitive dissonance***

The second theory, known as Festinger's (1957) theory of cognitive dissonance, proposes the

opposite effect of a negatively disconfirmed experience. A customer who receives a product of less value than the product expected, will *minimise* the disparity. This is called cognitive dissonance.

This theory is based on individuals having cognitions based on past experience, the environment, beliefs and attitudes. These cognitions are stimulated by other people. Moreover, consumers have cognitions of products based on information received. Information can be received by means of advertising, word of mouth from associates and salespeople. These cognitions form a level of expectation. Once product or service performance has taken place, the customer will form a cognition of what was presented. In order to reduce psychological discomfort, the customer will attempt to minimise the difference in cognitions, if a disparity exists.

Festinger's (1959) theory postulated that when individuals experience mental discomfort because two cognitions are psychologically dissonant, the individual will change or distort one or both cognitions to result in the cognitions being more consonant (Cardozo, 1965).

This theory applied to a consumer situation, proposes that if a disparity exists between the consumer's expectation and the objective performance of the product, the consumer is stimulated to reduce the psychological discomfort by changing his perception of the product to bring it in line with his prior expectation (Cardozo, 1965). The consumer's perception of the product will occur in between the objective product performance and the consumer's expectation.

### ***2.3.3 Effects of customer effort***

Cardozo (1965) identified that customer effort would affect the overall level of satisfaction attained. Customer effort includes all the physical, financial and mental sacrifice made by the consumer in obtaining a product. Cardozo (1965) suggested various methods of adjusting customer effort. For example, the amount of information available can be reduced, making it difficult for the consumer to find the relevant information. This would result in extra customer effort. On the other hand, copious amounts of information may be made available

making the customer expend considerable effort in processing the information.

Cardozo (1965) considered two conditions where high and low effort were expended and products received of less value than that expected. Cardozo (1965) postulated that when a customer expends high effort and receives a product of less value than expected, cognitive dissonance will occur. The customer will either lower his prior expectation or increase his perception of product performance, so as to reduce any mental discomfort. However, when a customer expends little effort and receives a product less valuable than expected, the consumer will tend to magnify or contrast the disparity between expectation, effort and reward. Behaviour of this nature would support contrast theory for the low effort condition.

#### ***2.3.4 Cardozo's experiment***

Cardozo's (1965) experiment initially involved 107 students who were asked to evaluate the performance of a ballpoint pen. Out of 107, 19 subjects were disqualified as they were considered to be "*suspicious of the procedure*" (Cardozo, 1965:246). Although all subjects received the same 39c pen, subjects understood that the pens received were those chosen from samples supplied by the manufacturers and displayed in the catalogue.

In order to manipulate the subjects level of expectation, two shopping catalogues were used. The catalogues contained descriptions and prices of ballpoint pens. In the high expectation catalogue, the price median of the pens was \$1.95. In the low expectation catalogue, the prices ranged between 29c and 59c, with the average price being 39c. The catalogues contained 31 items each. In order to manipulate effort, the low effort subjects were required to look through the catalogue and write down one feature which impressed them for half the items shown. This activity took approximately 15 minutes. The high effort subject were asked to write down five features which impressed them for all 31 items. To achieve this, subjects worked for approximately 1 hour.

Furthermore, a dependent measure was used to assess the product and shopping experience. After receiving the pen and completing the shopping task described above, subjects were required to complete a questionnaire. Subjects were asked to place an "X" on a 100mm long

line, where 0 represented "very inferior" and 100 represented "vastly superior." The questionnaires were rated by measuring the distance from zero to the point where the "X" crossed the line.

### *Findings:*

Cardozo (1965) found that where little time, energy and effort were expended the outcome was not important to the subjects. Low effort subjects who expected a pen of superior quality and received one of less value, were free to contrast their expectations against product performance. This resulted in subjects rating the pen undesirable. In terms of dissonance theory, the low effort subjects were able to deny high expectations as they had invested modest time and effort in acquiring the pen.

The high effort, high expectation subjects expended considerably more time and energy in obtaining the pen. Due to the amount of effort expended, the product performance became important to the subject. The disparity between the expectation of a high quality product and the receipt of product of low value resulted in dissonance. The dissonance could only be reduced by lowering the previously high expectation or raising the evaluation of the product. Subjects subscribing to dissonance theory, gave a more favourable rating of the product so as to reduce any dissonance experienced. Cardozo (1965) stated that since subjects in the high expectation group (where the average price of the pens in the catalogue was \$1.95) had received a pen worth 39c, the disparity between what was expected and the product actually received was indeed great. Thus, the reduction in dissonance to create a favourable rating could not entirely be overcome due to the size of the disparity.

Cardozo (1965) found that the expenditure of greater effort may result in a more favourable evaluation of the product. Although Cardozo (1965) did not intend the re-questioning of the aspect of convenience in the shopping task, he concluded that greater shopping effort may result in repeat purchasing. Furthermore, Cardozo (1965) suggested that marketers should not create expectations that cannot be fulfilled by the product as this may lead to no initial sale, no repeat sale and possibly unfavourable word-of-mouth product evaluations. Lastly, Cardozo (1965) concluded from his study that client satisfaction may not only be dependent

on product performance but also the experience surrounding the acquisition of the product. Thus, client satisfaction can be considered a "global concept" more than just the product evaluation.

The research undertaken by Cardozo in 1965 was the first study on effort and expectation (Anderson, 1973). This work was followed by Olshavsky and Miller (1972) who undertook an investigation into the co-relationship which exists between expectations, product performance and perceived product quality. The research findings are presented below.

#### **2.4 Study on expectation and performance**

Olshavsky and Miller (1972) investigated the effect of disconfirmation of expectancy for a product in both positive and negative directions. The motivation for this study resulted from two conflicting schools of thought. Olshavsky and Miller (1972:19) stated that

*"it is commonly believed by advertisers that a little positive exaggeration in product promotion favourably influences a consumer's judgement of product quality."*

On the other hand, Engel *et al.* (1968) were of the opinion that overstatement or understatement of product quality would not always achieve a positive product evaluation. Based on these conflicting schools of thought and the fact that Cardozo (1965) had not investigated the impact of a positive disconfirmation, Olshavsky and Miller (1972) undertook the following study.

They considered two levels of expectation and performance. This resulted in the following four conditions: high expectation - high performance (HE-HP), high expectation - low performance (HE-LP), high performance - low expectation (HP-LE), low performance - low expectation (LP -LE). They hypothesised that *high expectation and low performance subjects who are exposed to overstatement, and thus negatively disconfirmed, will rate product quality higher than those subjects whose expectations were realistically low.* The second hypothesis stated that *low performance and high expectation subjects, who are exposed to understatement, and therefore positively disconfirmed will rate the product lower than those subjects whose expectations are high.*

The study involved 100 male undergraduate students who were asked to evaluate several reel-type tape recorders. This product was chosen for a number of reasons. Firstly, it is a product relevant to students. Secondly, the range of price, quality and performance is wide. The perceived performance of the recorder is easily manipulated by varying the quality of the recording. Lastly, the performance of the tape recorder is sufficiently complex to use promotional claims to alter expectation and thus, evaluation.

The subjects were given descriptions and brand names of the tape recorders and then shown the corresponding machines. Subjects listened to recordings through high quality headphones. These headphones were connected to a central control room where various tapes were used to manipulate performance. The tape recorders seen by the subjects were, unbeknown to them, for display purposes only. The high and low performance tapes were recorded on a good quality recorder. The low performance tape included background noise, distortion and limited frequency response. The high performance tape represented a high quality recording and only a limited amount of background noise was noticeable.

The descriptions given for the high and low expectation condition included a rating of the performance attributes of the machines. For example, the description of the high quality condition included: "*Flutter and Wow - Extremely low. Under 0.1% rms at 7.5 ips. Speed accuracy - Excellent*" (Olshavsky and Miller, 1972:20). The low expectation condition included information such as: "*Flutter and Wow - Approximately 5% rms at 7.5 ips - Poor. Speed accuracy - Fair to poor*" (Olshavsky and Miller, 1972:20).

The subjects were required to listen to 1 minute of recorded voice and recorded music. Thereafter, subjects rated the recorders on a 7 point scale from "worst possible" to "best possible" against their own perception of an ideal or perfect recorder. The performance attributes which the subjects were required to rate included frequency response, freedom from distortion, background noise level, flutter, speed control, fidelity for voice, fidelity for music and overall performance. Finally subjects were asked to rate their level of knowledge of tape recorders.

### *Findings:*

Statistical analyses of the results indicated that they were significant. The results supported both hypotheses presented above. Olshavsky and Miller (1972) proved that both understatement and overstatement do not result in unfavourable product evaluation. It was intended that a large discrepancy between expectation and performance be created for those subjects in the high expectation-low performance and low expectation-high performance categories. The objective was to test whether any evidence of the contrast effect existed as found in Cardozo's (1965) study. Olshavsky and Miller (1972) found that whether subjects were positively or negatively disconfirmed, the subjects' evaluations of performance tended to be *assimilated* toward manipulated expectations.

The findings of the study indicate that both understatement and overstatement do not result in an unfavourable product evaluation as proposed by Cardozo (1965). Cardozo's study was criticised because the scale used for high expectation condition was different than for the study involving the low expectation condition.

### **2.5 Effect of disconfirmed expectancy on perceived performance**

Following research by Cardozo (1965) and Olshavsky *et al.* (1972), Anderson (1973) raises several concerns in consumer satisfaction research. Firstly, he criticises research into consumer behaviour, satisfaction and its underlying causes as being based largely upon speculation. Furthermore, Anderson (1973:38) points out that

*"no satisfactory literal definition has yet been developed for consumer satisfaction or dissatisfaction in the literature of marketing."*

Lastly, it is confirmed by Anderson (1973) that the research undertaken by Cardozo (1965) and Olshavsky *et al.* (1972), presented above, were the only two *experiments* undertaken up until then. Furthermore, these experiments displayed conflicting results.

Four psychological theories were considered, namely cognitive dissonance (assimilation), contrast, generalised negativity and assimilation-contrast. Two of the theories were used to

explain Cardozo's (1965) research, namely contrast theory and cognitive dissonance. Since these two theories were discussed earlier, only generalised negativity theory and assimilation-contrast theory will be presented in the section that follows.

### ***2.5.1 Generalised negativity theory***

Anderson (1973) cites the study undertaken by Carlsmith and Aronson (1963) to explain generalised negativity theory. Carlsmith and Aronson (1963) hypothesised that any disconfirmation of an expected result will be perceived as less satisfying than if the expectancy had been confirmed. Although this hypothesis seems to suggest a result which is self-evident, the findings of the study suggested that a contrary theory exists, namely generalised negativity theory.

In this study, subjects were given sweet and bitter solutions to taste. It was assumed that most subjects would find sweet solutions pleasant and bitter solutions unpleasant. The expectations of the subjects were manipulated by being told to expect either a sweet or bitter solution. Carlsmith and Aronson (1963) found that when the sweet solution was expected and subjects received the bitter solution, a rating of more bitter was reported. This would support contrast theory. Alternately, when the bitter solution was expected and the subjects received sweet solutions, a rating of less sweet was reported. This assimilation toward the expected taste, supports assimilation theory. Since the result of manipulating expectations resulted in two conflicting findings, Carlsmith and Aronson (1963) found that

*"any disconfirmed expectancy results in a hedonically negative state which is generalised to objects in the environment"* (Anderson, 1973: 40).

However, applying this theory to the field of marketing, it suggests that marketers should attempt to raise expectations to a level which can be fulfilled. Creating expectancy which is not consistent with actual product performance will not increase the consumer's evaluation of the same.

### ***2.5.2 Assimilation-contrast theory***

Assimilation-contrast theory, as its name suggests, is a combination of assimilation theory

and contrast theory. This theory proposes that individuals have zones or latitudes of acceptance, rejection and neutrality. In the case where product performance differs only slightly from prior expectations, individuals will tend to minimise this disparity, and thus, support assimilation theory ( or cognitive dissonance theory). However, when individuals experience a large disparity between expectation and product performance, the difference will tend to be magnified or exaggerated. In this case, subjects would support contrast theory.

*Whether assimilation or contrast effects develop is a function of the relative disparity between expectations and actual product performance (Anderson, 1973:41).*

Assimilation-contrast theory suggests that marketers should attempt to create customer expectations at a level which will not cause consumers to experience a great disparity between expectation and perceived product performance.

### **2.5.3 Anderson's experiment**

Anderson's (1973) study involved 144 students enrolled in an undergraduate marketing course. The product being evaluated in this study was a ballpoint pen with a retail price of \$1.00. Prior to receiving the pen, the subjects were required to read the product information. In order to manipulate expectations, product information categorised into six conditions was provided to students. These six conditions ranged from "substantially understated the product features" to "substantially overstated the product features." In one condition, subjects received no product information. Half the subjects in each condition were required to complete a questionnaire prior to receiving the ballpoint pen. This served to ensure that the expectations being created by the product information were in the desired direction and intensity. The subjects were allowed time to test and examine the pen. Thereafter, the subjects were required to rate the pen on 15 visual and performance criteria. Secondly, subjects were asked to provide an overall rating for their respective pens. Lastly, it was required that the price of the pens be estimated on a modified logarithmic product rating scale, which ranged from \$0.04 to \$64.00.

#### ***Findings:***

The results of the experiment indicated that the product information provided created

expectations of such a nature that product performance was positive, supporting assimilation theory. However, where expectations had been raised to a very high level (*i.e.* product features were substantially overstated), product ratings indicated a decline for all three overstatement categories presented above in accordance with assimilation-contrast theory. Anderson (1973) concluded from this study that for relatively simple products, consumers reach a threshold of rejection once the disparity between expectation and product performance become unacceptably large. Consumers will then rate product performance less favourably than at a lower level of expectation.

Anderson (1973) suggested that the reason the contrast effect had not been experienced in this study was that the product was of sufficiently low value (a one dollar pen) so as not to cause surprise or disappointment upon testing and evaluating. Anderson (1973) also found that product ratings were higher for the condition where the pen was accurately described compared to the condition where no information was provided. This supports the findings in Cardozo's (1965) study that the processing of product information constitutes a commitment to the product, which in turn, results in a higher product evaluation. Anderson (1973) suggests that marketers should aim at providing consumers with relevant product information which will achieve a higher level of customer satisfaction.

Anderson (1973) contends that if customer satisfaction is a function of the disparity between expectation and product performance, then promotional exaggeration, will result in consumer dissatisfaction. Anderson (1973:43) states that

*"if consumer expectations are a function of promotion, and satisfaction is a function of expectations, then satisfaction may be considered a function of promotion."*

Having stated this, Anderson (1973) indicates that expectations are not only a function of promotion, as consumers may have unrealistically high expectations of products due to a "widespread faith" in research and the possibility of modern technology. Anderson (1973) concludes by proposing that products and services that require deep personal and financial commitment, may result in differing effects on consumers' perceptions of performance. This contention follows the suggestion by Olshavsky and Miller (1972) that product differing in complexity impacts on product evaluation of performance.

## 2.6 Satisfaction as a function of expectancy disconfirmation

Oliver (1980:460) having reviewed the literature that was current for that time, stated that *"little evidence in the product performance area could be cited to support the seemingly obvious conclusion that satisfaction increases as the performance/expectation ratio increases."*

The purpose of the study undertaken by Oliver (1980) was to test the relationship between expectation, disconfirmation, satisfaction, attitude and purchase intention. Oliver (1980) suggested that the strength in his study was in the methodology adopted as an actual purchase situation over a reasonable period of time was investigated.

### 2.6.1 Adaptation level theory

Oliver (1980) used adaptation level theory to explain how expectations are influenced. Expectations create a "frame of reference" against which outcome is measured. Performances which exceed expectation and thus result in positive disconfirmation, are considered to be above this point of reference. In the same way, outcomes which result in negative disconfirmation will fall below this reference point. Adaptation level theory suggests that

*"one perceives stimuli only in relation to an adapted standard"* (Oliver, 1980:461).

This adapted standard is the result of influences such as environment, physical and psychological attributes of the stimulus. Once the adaptation level has been established, positive and negative influences on evaluation will not alter the subject's level or position. However, should the influence be sufficiently great, the impact will cause the subject to alter his evaluation.

Level of expectations about product performance can be considered an adaptation level (Oliver, 1980). Oliver (1980) citing Helson (1959) proposes several factors that affect the adaptation level, namely, the product including prior experience and brand connotations, secondly, the context or environment in which the product is being sold, and lastly, the consumer's own characteristics and perceptual distortion. Oliver (1980) introduces the notion of *"post-decision deviations"* from the adaptation level which arises as a result of product performance meeting, exceeding or falling short of prior expectation. Oliver (1980:461)

proposes that satisfaction may be

*"an additive combination of the expectation level and the resulting disconfirmation"*

In other words, satisfaction, as presented above, has been regarded as a static concept where only one encounter has been taken into account. Oliver (1980) considers that expectation, product performance and the subsequent satisfaction decision occur at various stages. Subsequent product purchases may affect the level of satisfaction if the adaptation level is altered. Oliver (1980) states that adaptation level theory may provide a useful framework for the interpretation of satisfaction decisions.

### **2.6.2 Cognitive post-purchase consequences**

Oliver (1980) cites a cognitive model proposed by Howard and Sheth (1969:147) where attitude is considered in the post-purchase satisfaction decision. Attitude constitutes cognitions of an emotional nature which influences the satisfaction decision (Oliver, 1980). The model proposed by Howard and Sheth (1969) is presented below:

*Equation 1:*

$$A_{t+2} = f(S_{t+1} - A_t) + A_t$$

where:

$A_t$  = pre-purchase attitude,

$S_{t+1}$  = immediate post-purchase satisfaction, and

$A_{t+2}$  = revised post-purchase attitude

$t$  = time

This model assumes that consumers have a pre-purchase attitude, which includes expectations and anticipated satisfaction. This is followed by satisfaction which occurs after product purchase and product evaluation. Satisfaction is followed by a revised attitude toward the product. The model indicates that the revised post-purchase attitude is a function of a cognitive comparison between anticipated satisfaction ( $A_t$ ) and satisfaction actually received

$(S_{t+2})$ .

This post-purchase model can be extended further. Expectations can be considered as *belief probabilities* of attribute occurrence. Firstly, these beliefs serve to provide the foundation for attitude formation and secondly, they serve as an adaptation level for subsequent satisfaction decisions. Thus, attitude is a function of expectation, and satisfaction a function of expectation and perceived disconfirmation (Oliver, 1980). Furthermore, post purchase attitude occurring at  $t_2$  can be considered a function of pre-purchase attitude occurring at  $t_1$  and perceived satisfaction/dissatisfaction. These statements can be notated algebraically, as:

attitude ( $t_1$ ) =  $f$  (expectations)

satisfaction =  $f$  (expectations, disconfirmation)

attitude ( $t_2$ ) =  $f$  (attitude ( $t_1$ ), satisfaction)

Furthermore, Oliver (1980) introduces the concept of "*purchase intention*." Satisfaction affects future purchase intention as well as post-purchase attitude (Oliver, 1980). Post-purchase attitude will also have an effect on purchase intention. Prior purchase intention at  $t_1$  may act as an adaptation level for future intention occurring at  $t_2$ . This can be written algebraically as follows:

intention ( $t_1$ ) =  $f$  (attitude ( $t_1$ ))

intention ( $t_2$ ) =  $f$  (intention ( $t_1$ ), satisfaction, attitude ( $t_2$ ))

### **2.6.3 Oliver's experiment**

Oliver's (1980) study comprised two stages involving a non-recurring federal flu vaccination program. The study involved two thousand residents of a south-central American city who were chosen by systematic random sampling from the relevant telephone directory. Furthermore, a thousand students from a state university were selected randomly to participate in the study. The subjects were mailed a questionnaire for the first study which measured attitudes and intentions toward the flu vaccination. Twenty-eight per cent of the residents and 45% of the students responded to the survey. A second questionnaire was

mailed to those who responded to the earlier questionnaire, resulting in a 79% and 76% response rate from residents and students respectively. Eighty per cent of the residents and 66% of the students agreed to have the vaccination. The physical number of subjects involved in this study were 291 residents and 162 students who would receive the vaccine and 65 and 86 residents and students respectively who would participate as "non-vaccinees." A demographic profile of the sample was undertaken which indicated that a disproportionate number of males, whites and residents in high income brackets was evident in the study.

Subjects participating in this study were aware of eight possible consequences occurring from receiving the flu inoculation. Subjects were asked to rate the possibility of these consequences occurring, having received the flu shot, on a five point scale ranging from "no chance" to "certain." Furthermore, a nine item semantic scale was used to measure subjects attitudes toward receiving the flu vaccination. Oliver (1980) surveyed subjects' intention by asking what the probability was of receiving the inoculation on a 11 point scale ranging from "no chance" to "certain."

Having received the vaccination (the post-exposure condition), subjects were asked to evaluate any problems associated with having received the shot, on a 7 point scale. The scale ranged from "much more serious than expected" to "much less serious than expected." On a similar scale, subjects were asked to rate the benefits to be had from receiving the inoculation. The subjects participating in this study who had not taken the vaccination were asked to rate whether their satisfaction level for not having taken the inoculation. Finally, subjects were surveyed on their intention in the future to have the flu inoculation again. This question was similar to the question of intention used in the pre-exposure condition (*i.e.* prior to receiving the inoculation).

### *Findings:*

Having tested and analysed the data, the following findings were presented. The sequence of post-purchase events are as follows: satisfaction, attitude, intention. Secondly, the effect of disconfirmation does not only affect satisfaction but also attitude and intention. In other words, all post-exposure measures are affected. Disconfirmation is independent of all pre-

exposure measures and therefore exogenous to the system. Oliver (1980:465) states that

*"satisfaction, in turn, is a function of disconfirmation and a linear combination of pre-exposure variables."*

Oliver (1980) proved that *attitude* is the major determinant of adaptation level. Furthermore, post-exposure attitude and satisfaction influence future purchase probabilities. Oliver (1980) found that the results were similar for subjects who did not take the vaccination.

*Disconfirmation is unrelated to any of the exposure variables, whereas satisfaction is significantly related to disconfirmation in both samples and to pre-exposure attitude in the student sample (Oliver, 1980:465).*

Oliver's (1980) study differed from other studies in that the experiment was conducted over a seven month period, unlike studies by Cardozo (1965), Olshavsky and Miller (1972) and Anderson (1973) whose studies were undertaken over a short period. Oliver's study indicated that the adaptation level held by consumers was found to be consistent over a period of time. In studies undertaken over a short period of time, subjects are able to recall their prior expectation, whereas over a longer period adaptation level theory is supported as subjects are not able recall their prior expectations. Oliver (1980) stated that a future study should attempt to measure disconfirmation at a timing subsequent to the measurement of satisfaction. Disconfirmation can also be considered as a cognitive comparison between the adaptation level and actual product experience. When disconfirmation is experienced it determines the degree to which the adaptation level is likely to be adjusted for future evaluations.

## **2.7 A longitudinal assessment of consumer satisfaction**

La Barbera and Mazursky (1983) recognise that the significant studies discussed above mainly consider satisfaction to be a static dependent variable. However, La Barbera and Mazursky (1983) state that longitudinal research is required to test the feedback mechanisms involved in the post-purchase behaviour. This study examined multiple consecutive product purchases which had to date (1983) not been investigated in the theory of consumer satisfaction.

### 2.7.1 A cognitive model of repeat purchase behaviour

Satisfaction is considered a dynamic mechanism in the purchase-repurchase process. Intention ( $I$ ) at time  $t$ , as proposed by Oliver (1980), is determined by three components namely, prior intention ( $I_{t-1}$ ), satisfaction and current attitude ( $A_t$ ). Previous intention serves as an adaptation level for current intention while satisfaction serves a mediator between pre-purchase and post-purchase intention. It thus follows that intention is a function of previous intention, satisfaction and attitude. This is presented in Equation 1, below:

Equation 1:

$$I_t = f(I_{t-1}, SAT, ATT_t)$$

where:

$I_t$  = current intention

$I_{t-1}$  = prior intention

$SAT$  = satisfaction

$ATT_t$  = current attitude

La Tour and Peat (1979:434) conclude that

*"attitude and satisfaction are both evaluative responses to products, it is not clear whether there are any substantive differences between the two."*

Oliver (1980) differentiates between satisfaction and attitude, by proposing that the satisfaction effect (elation or disappointment) is of finite duration, whilst attitude is the global feeling consumers have toward purchase.

The model below presents the cognitive process involved in successive purchase-repurchase events. Prior intention results in a purchase  $P_t$  and the resultant satisfaction ( $SAT$ ). Satisfaction or dissatisfaction serves as a mediator for future intention and thus, repurchase. The cognitive process illustrated below is based on repeat purchases of the same brand.

$$I_{t-1} \rightarrow P_t \rightarrow SAT \rightarrow I_t \rightarrow P_{t+1}$$

From this cognitive process a model, presented in Equation 2, can be derived for the repeat purchase of a product.

*Equation 2:*

$$P_{t+1} = f(I_t, SAT, P_t, I_{t-1})$$

where

$P_{t+1}$  = the repeat purchase

$I_t$  = current intention

$SAT$  = satisfaction with product  $P_t$

$P_t$  = product purchased at  $t$

$I_{t-1}$  = prior intention to purchase

If current intention is a function of prior intention and satisfaction, then satisfaction can be considered a function of prior intention as proposed algebraically by Equation 3 and 4 below.

*Equation 3:*

$$I_t = g(I_{t-1}, SAT)$$

*Equation 4:*

$$SAT = g(I_{t-1})$$

### **2.7.2 La Barbera and Mazurskys' hypotheses**

La Barbera and Mazursky (1983) postulate that the relationship between cognitive variables and decision implications may vary depending on whether consumers are brand loyal or switch brands. In the following equation,  $RP$  and  $SW$  represent repeat brand purchase behaviour and switching behaviour respectively.  $P_{(t+1)}$  indicates the following purchase of a product, and therefore  $RP$  and  $SW$  can be interchanged with  $P_{(t+1)}$  depending on the behaviour of the consumer. The hypotheses of their study are represented in the models represented

below:

Hypothesis 1:

$$\bar{I}_t|RP > \bar{I}_t|SW$$

It is hypothesised that the mean intention is greater for consumers who repurchase the same brand than for those who switch brands.

Hypothesis 2:

$$\overline{SAT}_t|RP > \overline{SAT}_t|SW$$

It is hypothesised that the mean level of satisfaction measured in consumers who repurchase the same product is higher than for those who switch brands.

Hypothesis 3:

$$\bar{I}_{t-1}|RP > \bar{I}_{t-1}|SW$$

It is hypothesised that the prior intention to repurchase is greater for those consumers who repurchase the same brand than for those who switch brands.

Hypotheses 4 and 5 below state that current intention to repurchase will be greater than the prior intention for repeat purchases (*RP*) and in the case of brand switchers, prior intention will be greater than current intention.

Hypothesis 4:

$$\bar{I}_t|RP > \bar{I}_{t-1}|RP$$

Hypothesis 5:

$$\bar{I}_t|SW < \bar{I}_{t-1}|SW$$

Lastly, Hypothesis 6 is contained in the following quotation:

*"satisfaction/dissatisfaction from brand consumption is hypothesised to amplify the differences in the intention levels between groups over time"* (La Barbera and Mazursky, 1983:395).

Hypothesis 6:

$$(\bar{I}_t|RP) - (\bar{I}_t|SW) > (\bar{I}_{t-1}|RP) - (\bar{I}_{t-1}|SW)$$

### ***2.7.3 La Barbera and Mazursky's experiment***

Subjects involved in the study undertaken by La Barbera and Mazursky (1983) were selected from a sample of 500 people listed in 5 randomly selected telephone directories in Connecticut. Out of the sample, 180 people agreed to participate in the study, however this number was reduced to 125 on the basis of a further selection criterion. Subjects were asked to indicate how often they purchased 24 grocery products listed in the questionnaire. Only those subjects who purchased at least 12 out of the 24 groceries listed, on a fortnightly basis, were selected.

Subjects were required to complete a questionnaire on a bi-monthly basis over a five month period. Subjects were informed of the importance of accuracy of their contribution and were rewarded with five books of S & H Green Stamps (grocery vouchers). Having undertaken a pretest of the questionnaire, La Barbera and Mazursky (1983) finalised the questionnaire which involved 24 grocery products such as coffee, detergent and tissues, amongst others. Subjects were surveyed on three items including the brand currently being purchased for each of the 24 products, the level of satisfaction with the current brand, and subject's intention to repurchase the current brand. Furthermore, subjects were required to state whether brands had been purchased or used between the current and previous questionnaire. Out of the 125 subjects who began the study, 38 members discontinued the survey, reducing the survey to 87 members. This represented 48% of the 180 members who previously indicated interest

in this study.

*Findings:*

Results of the 10 questionnaires were analysed initially to indicate the product classes which most closely represented a two-week inter-purchase period. Since the results would be utilised in aggregate form, the purpose of this screening was to eliminate bias which may occur due to inconsistency in repurchase of certain products. Five product classes were selected for the analysis which included coffee, margarine, toilet tissue, paper towels and macaroni.

La Barbera and Mazursky (1983) evaluated the schools of thought surrounding the use of an overall summary measure of satisfaction and the measurement of satisfaction by a combination of attributes. Whilst Day (1977) states that measuring overall consumer satisfaction is an acceptable method of measurement, Czepiel and Rosenberg (1976) contend that "single-item overall measure" is more representative of a summary of subjective responses. Oliver (1980) in the study presented above makes use of summative scales to measure satisfaction/dissatisfaction. La Barbera and Mazursky (1983) argued that a multiple-item measure would have discouraged participation and over a period of time may have resulted in inaccurate answers. Following suggestion from psychometricians such as Deutcher (1966) and Kimberly (1976) who contend that modification of the scales in a longitudinal study is acceptable, La Barbera and Mazursky (1983) utilised an overall measure of satisfaction and intention.

La Barbera and Mazursky (1983) found that the intention to repurchase increases and then stabilises as consumers repeat their purchase of the same brand. Furthermore, the examination of the cognitive process involved in a purchase experience supported the role of satisfaction as a longitudinal perspective as opposed to the earlier theories as proposed by Cardozo (1965) which considered satisfaction to be static in nature.

La Barbera and Mazursky (1983) found that the adaptation level is resistant to change, which was consistent with findings of Oliver (1980). It was found that although satisfaction affects

intention, it did not affect the adaptation level of each group. Thus, overall satisfaction attained impacts significantly on the revised intention to repurchase. La Barbera and Mazursky (1983), based on the analysis of the results, identified different behaviour for brand loyal consumers and those consumers who switch brands. Measurement of the mean intention to repurchase was significantly different for brand loyal shoppers and "switchers." La Barbera and Mazursky (1983) divided the sample on the basis of whether or not the brand was repurchased. It was found that a stronger relationship existed between pre- and post-purchase intention for brand loyal consumers than for those who switched brands. Thus, brand switchers tend to be more sensitive to dissatisfaction from the consumed brand than brand loyal consumers. La Barbera and Mazursky (1983) also found that even though consumers may experience high levels of satisfaction with a product, this would not preclude the purchase of a different brand where coupons and special sales offers were provided.

Furthermore, satisfaction and intention increase as the loyalty to the brand increases. Repurchase behaviour is explained by the experience gained from the on-going repurchase of a particular brand. La Barbera and Mazursky (1983) suggest that management should initially attempt to create a high level of satisfaction with the purchase of a particular brand and thereafter, maintain a reasonable level of satisfaction. La Barbera and Mazursky (1983) suggested that future research into client satisfaction using longitudinal design should be continued.

## **2.8 Summary of the development of the theory of consumer satisfaction**

Cardozo (1965) investigated the relationship between effort, expectation and satisfaction. In order to understand the impact of expectation on satisfaction, Cardozo drew from two psychological theories, namely contrast theory and cognitive dissonance. Based on contrast theory, Cardozo (1965) suggested that slight understatement of product quality will result in greater consumer satisfaction. Cardozo (1965) found that when little time, energy and effort were expended, the outcome was not important to the consumer. However, when high effort was expended the outcome was of greater importance. Subjects subscribing to *contrast theory* would *magnify* their disconfirmed expectation whilst those subjects subscribing to *cognitive dissonance* would attempt to *minimise* the disparity between the prior expectation and the

disconfirmed expectancy.

Olshavsky and Miller (1972) investigated the relationship between high and low expectation and high and low performance. Expectation was manipulated by over and understatement of the product evaluated. Olshavsky and Miller (1972) found that both understatement and overstatement do not result in an unfavourable product evaluation. They found that subjects did not subscribe to the contrast effect as suggested by Cardozo (1965), but tend to assimilate their evaluations of performance towards the manipulated expectations.

Anderson (1973) criticised the work of Cardozo (1965) and Olshavsky *et al.* (1972) above, stating that the results of their experiments conflicted. Anderson's (1973) study investigated the effects of overstatement and understatement of product performance on *perceived* product performance. Anderson (1973) found that where the disparity between product performance and expectation were significantly small, subjects would assimilate their evaluations toward the expectation created. However, where the disparity was great, subjects would subscribe to the contrast effect, thereby magnifying the disparity. This supports assimilation-contrast theory. Anderson (1973) suggested that consumers reach a threshold of rejection once the disparity between expectation and performance become unacceptably large. Anderson concluded that marketers should aim at providing consumers with relevant product information to achieve a higher level of satisfaction.

*If consumers' expectations are a function of promotion, and satisfaction is a function of expectations, then satisfaction may be considered a function of promotion (Anderson, 1973:43).*

The intention of Oliver's (1980) study was to test the relationship between expectation, disconfirmation, satisfaction, attitude and purchase intention. Based on adaptation level theory, Oliver (1980) suggested that satisfaction was not a static concept, but that the post-purchase evaluation would affect subsequent attitude and intention. This hypothesis was confirmed: attitude is a major determinant of adaptation level. Therefore, post-purchase attitude and satisfaction would influence future purchase probability. A model is presented that takes into account the dynamic nature of the satisfaction decision. It was found that the sequence of post-purchase events is as follows: satisfaction, attitude and intention.

Disconfirmation does not only affect satisfaction, but attitude and intention.

La Barbera and Mazursky (1983) investigated the consecutive product purchases. Their work investigated the relationship between intention, satisfaction, repeat purchases and brand switching. They found that the intention to repurchase increases and then, stabilises as consumers repeat their purchase of the same brand. It was also found that satisfaction and intention increase as the loyalty to the brand increases. La Barbera and Mazursky (1983) based their research on a longitudinal assessment of satisfaction, as did Oliver (1980) above, stating that satisfaction is not a static concept but a dynamic process.

## 2.9 Conclusion

Client satisfaction presents a highly theorised debate based on attempting to understand the process of human cognitions. The theory that has been presented is based on the available literature focusing on the schools of thought most often prescribed. Satisfaction, owing to its nature, appears to be difficult to measure. Therefore, the models that are presented are of a conceptual nature, and thus, do not permit a quantitative assessment of customer satisfaction. The development of the theory of customer satisfaction provides a basis for understanding the process involved in creating expectations, product evaluation and the ensuing satisfaction decision. Repeat purchase behaviour was also discussed to investigate the factors involved in creating consumer loyalty.

*For the sake of clarity, the findings of the literature review and corresponding conclusions are presented, hereunder:*

(i) Consumer satisfaction is related to the product evaluation meeting or exceeding the prior expectation.

(ii) Product evaluation is the *perception* held by the client.

(iii) Expectations form a frame of reference against which outcome is measured. Various stimuli can alter expectation. However, adaptation level theory suggests that stimuli are

perceived according to the adapted standard. Therefore, where stimuli are sufficiently great, the subject will alter their adaptation level accordingly. Furthermore, expectation can be manipulated by sources such as promotion, brand connotation, prior experience and the environment in which it is sold, amongst others.

(iv) Four psychological theories exist which explain the cognitive processes involved in arriving at a satisfaction decision.

#### *Contrast theory*

Contrast theory states that when an individual is negatively disconfirmed (expectation is greater than performance) and has invested little effort, he/she will magnify the difference between expectation and performance. This theory suggests that subjects are free to contrast their perceptions since little effort was expended.

#### *Cognitive dissonance (assimilation theory)*

In some cases, where a disparity is experienced between expectation and performance (negatively disconfirmed) the consumer will attempt to change their perception of expectation or performance to make their thoughts more consonant, and thus minimise the disparity.

#### *Generalised negativity theory*

This theory suggests that whether an individual is positively (performance greater than expectation) or negatively disconfirmed (expectation greater than performance), in both cases the outcomes will be represented more negatively.

#### *Assimilation-contrast theory*

This theory combines the first two theories above and suggests that zones of acceptability, neutrality and rejection exist, depending on the size of the disparity between expectation and performance and the vested interest in the outcome.

(v) Products and services vary in complexity, importance and involvement. This in turn impacts on the product evaluation and the satisfaction decision.

(vi) When a customer expends a great amount of energy, the outcome of the transaction is considered more important.

(vii) It is contended that satisfaction is not a *static* concept, but a *dynamic* process. That is, satisfaction levels are subject to change over time.

(viii) Post purchase evaluation affects subsequent attitude and intention. The sequence of post-purchase events is: satisfaction, attitude and intention.

(ix) Attitude is a global evaluation of product performance, whereas satisfaction is considered to be transaction specific.

(x) Satisfaction and intention to repeat purchases increase as the loyalty to the brand increases. Moreover, once the consumer has reached a level of repeat purchase intention and remains loyal to a brand, their satisfaction and intention to repeat the purchase increases. This demonstrates an inter-related relationship of intention, brand loyalty and satisfaction.

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## **CHAPTER 3: THEORY OF SERVICE QUALITY**

### **3.1 Introduction**

In Chapter 2, the development of the theory regarding consumer satisfaction was presented. The literature available prior to the 1980's was written from a marketing perspective. Thus, the literature presented investigated the relationship between expectation, perceived performance and the resultant satisfaction. Attempts at altering expectation were undertaken to permit the assessment of their impact on satisfaction. Researchers such as Cardozo (1965) borrowed from the theory of psychology to understand the possible reactions to disconfirmation. The development of the theory of customer satisfaction provides a foundation for investigating satisfaction in the service sector.

Having provided an insight into consumer satisfaction in the previous chapter, where the disparity between expectation and the perceived performance is considered, this chapter focuses on the theory of service quality. The theories expounded and presented in this chapter draw on the consumer satisfaction theory, for insights into expectation and perceptions. Therefore, whilst Chapter 2 presented theory in respect of "goods," which apply equally to services, this chapter draws on the postulations made and presents a theory of the provision of service quality. Furthermore, in this chapter, the differences between "goods" and "services" is demonstrated. The differences are presented to indicate the difficulties in evaluating and maintaining quality in the service sector. The presentation of the differences do not negate the appropriateness of applying the theory of consumer satisfaction (as discussed in Chapter 2) even though the writers of the day wrote in terms of "products" or "goods."

Before presenting the theory on services and service quality issues, the relationship between consumer satisfaction and service quality is expounded. Service quality and consumer satisfaction are related concepts and this relationship is explained below.

### 3.2 Client satisfaction and service quality

Both "customer satisfaction" and "service quality" can be considered indistinct constructs. Customer satisfaction is not easily measurable as the models for satisfaction are largely conceptual (Anderson, 1973, Oliver, 1980, La Barbera and Mazursky, 1983, Bolton and Drew, 1991). In Chapter 1, it was suggested that client satisfaction is a function of service quality. This proposition is based on the investigation of the definition of each. The following definition proposed by Davidow and Uttal (1990:19) indicate that satisfaction is the disparity between expected service and perceived service:

*"Satisfaction, or lack of it, is the difference between how a customer expects to be treated and how he or she perceives being treated."*

This definition of satisfaction represents the premise held by writers such as Cardozo (1965) and Olshavsky and Miller (1972). The definition of service quality presented by Ghobadian *et al.* (1994:49) focuses on the customers perception of the difference between expectation and service delivered:

*"Quality" in a service organisation is a measure of the extent to which the delivered service meets the customer's expectations.*" (Ghobadian *et al.*, 1994:49)

and

*"Service quality is a measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis."* (Lewis and Booms, 1983:99).

Based on the definitions presented, customer satisfaction is a function of service quality and can be algebraically represented in Equation 1 below, as:

Equation 1:

$$CS/D = f(\text{service quality})$$

where

CS/D = Client satisfaction and dissatisfaction

This model is dependent on the definitions of both "customer satisfaction" and "service quality." Both terms are subject to the perspective held by the researcher presenting the definition. De Souza (1989) expresses the difficulty in defining quality as it is dependent on the orientation of the researchers. Accordingly, from an engineering perspective it is defined as "*meeting the specifications set by management*" (De Souza, 1989:21). However, from a marketing perspective, De Souza argues that quality can be defined as "*meeting customer specifications and needs*" (De Souza, 1989:21). Three dimensions that define quality from a strategist's point of view include: quality is a performance perceived by the customer, it is measured against competition and lastly, it provides value by being set at the correct price (De Souza, 1989).

In the literature presented in Chapter 2, the term "*attitude*" is distinguished from "*satisfaction*," where the former is considered a global evaluation of service performance (Oliver, 1980). "*Satisfaction*" is considered to be transaction specific. To permit a greater understanding of the relationship between these concepts and that of service quality, Parasuraman *et al.* (1988:15) provides the following explanation:

*"service quality is a form of attitude, related but not equivalent to satisfaction, and results from a comparison of expectation with perceptions of performance."*

This indicates that these three concepts are not equivalent, but are related. The relationship between service quality and client satisfaction which is contained in Equation 1 above is clearly suggested in the quotation.

Cravens *et al.* (1988) criticise marketing professionals who have regarded service quality as a function of manufacturing and distinctly separate from marketing. Instead, Cravens *et al.* (1988) subscribe to the concept of *total quality control* (as it was known at the time), stating that quality is the responsibility of all parties involved in an organisation. Total quality control has evolved into Total Quality Management (TQM) and is defined by Oakland (1995:18) as follows:

*"TQM is an approach to improving the competitiveness, effectiveness and flexibility of a whole organisation. It is essentially a way of planning, organizing and understanding each activity, and depends on each individual at each level."*

The following quotation from Cravens *et al.* (1988:286) indicates the relationship between quality and customer satisfaction:

*"The ultimate measure of high quality is achieving customer satisfaction."*

The customer should be the central focus of any quality improvement programme. Cravens *et al.* (1988) concur with Parasuraman *et al.* (1985) that the customers' perceptions of service quality should be established to indicate the important determinants that would increase customer satisfaction. Marketing professionals have the necessary tools for establishing the market segment, performing market research into customer expectation and perceptions of performance.

The advantages of delivering superior service quality cannot be overstated. The consequences of customer dissatisfaction and the advantages of superior service quality delivery was presented in Chapter 1. Within the section that follows on service quality, a literature survey is presented dealing with services, *per se*, and then focusing on service quality. This will provide a foundation for examining the professional services of a quantity surveyor and the determinants for improved service quality of the same.

### **3.3 Characteristics of services**

#### ***3.3.1 Introduction***

The section that follows deals initially with the *unique nature of service* showing how services differ from products. *Service differentiation* as proposed by Levitt (1980) is presented to indicate the aspects of a product or a service which can be enhanced to maintain or increase the client base. Thereafter, the *classification of services* is discussed in terms of high and low contact, complexity of service *etc.* as presented by writers such as Shostack (1987). The purpose of a discussion of services is due to the difference in the marketing of goods as opposed to services. Looking at the differences and commonalities permits a greater understanding of the provision of service quality and related issues.

### 3.3.2 Nature of service

Zeithaml, Parasuraman and Berry (1985), investigating problems and strategies in service marketing, state that it is not only the difference between goods and service marketing that should be established but the differences between services themselves. The following section describes the four major differences between goods and services, namely, *intangibility*, *heterogeneity*, *inseparability* and *perishability*. Zeithaml *et al.* (1985) illustrate by means of a literature search that the unique nature of services is universally documented by authors such as Judd (1968), Berry (1975), Bateson (1977), Shostack (1977), Grönroos (1978, 1979), Levitt (1981), and Lovelock (1981). This is by no means an exhaustive list of authors who have published on the unique nature of service provision. Dotchin and Oakland (1994) state that the classification of services will provide a useful insight into the improvement of managing and controlling the delivery of services, thus improving customer satisfaction.

#### 3.3.2.1 Intangibility

Products and services differ in nature, as products are mostly tangible. A product can be examined, touched and evaluated prior to purchase. Services, on the other hand, are performances. A performance cannot be measured and tested prior to being purchased. The intangible nature of services make the evaluation of service quality difficult for the provider to assess. Levitt (1981) contends that a degree of intangibility is inherent in both goods and services. Although goods are mainly physical items, the product being purchased may have a degree of intangibility. For example, where a customer purchases a motor vehicle (the physical product), the purchase may include an after-sale agreement where the dealer undertakes to attend to complaints the customer may have regarding the vehicle. The after-sale agreement constitutes the intangible aspect of the purchase of a physical item.

#### 3.3.2.2 Heterogeneity

Service provision invariably contains a high degree of personal interactivity. The humanistic aspect of service provision will result in varied levels of performance owing to the varying nature of individuals. No two people are alike, and thus the probability of performance being

the same from one service encounter to another, is very small. Customer requirements may differ within one area of service provision. Service providers may tailor the service from one customer to another depending on their needs. Essential to customer satisfaction is controlling the unnecessary variation from one service performance to another. Furthermore, a firm may understand the customers requirements, but the service received may not necessarily be the service the firm intended delivering.

#### *3.3.2.3 Inseparability of production and consumption*

Goods are generally produced, sold and then consumed. This process allows for a quality control mechanism to be installed. However, services cannot be produced prior to the service encounter. A service is consumed as it is produced. The need for producing the correct service at the correct time is thus, of the essence, as there is no opportunity to make a second attempt. Since most services are produced and consumed simultaneously, quality occurs during service delivery.

Customer involvement in the production of the service may have an impact on outcome of the service. For example, in the case of hair cuts, the client will inform the hairdresser of the style and length of hair to which it must be cut. Should the service provider, namely the hairdresser, misunderstand the input or specification of the customer, the result of the service provision may be dissatisfaction. Thus, the client's input becomes critical to the service performance.

#### *3.3.2.4 Perishability*

Services cannot be stored. Services are time dependent processes. Once the service encounter has occurred, it cannot occur again, in the same way that a product may be used repetitively. Examples of perishability of services is an unsold seat on an aircraft, cancelled appointment with a doctor. Service organisations such as banking institutions may have an hour in a day that is unused by tellers having no customers. These hours cannot be stored for times when there are queues, they simply perish. Service providers are often challenged by the difficulty in synchronising supply and demand.

### 3.3.3 Service differentiation

According to Davidow and Uttal (1990:22):

*"Customer service means all the features, acts, and information that augment the customer's ability to realise the potential value of a core product or service."*

Levitt (1980) proposes that when selling a product or a service, the focus of the sale should be established. A product or service contains four value-adding aspects which constitute the product being purchased. For example, the purchase of a motor vehicle is not just for transportation. The purchase decision will include the shape, colour, performance, inherent status in owning the vehicle, the after sale service amongst others. By differentiating between the *generic, expected, augmented* and *potential* products, clarification is lent to the marketer of products or services (Levitt,1980). Although the term "product" has been used in each category of differentiation, it can equally be adapted to the service industry. To illustrate the applicability of Levitt's (1980) differentiation, an example from the service industry is presented for each of the categories below.

#### 3.3.3.1 The generic product

The generic product is the core aspect of the transaction. It constitutes what is needed. Levitt (1980:85) describes this as being *"the fundamental, but rudimentary, substantive 'thing.'"* Levitt (1980:85) contends that customers never just purchase the "generic" product, but purchases

*"something that transcends these designations - and what that 'something' is helps determine from whom he'll buy, what he'll pay and whether, in the view of the seller, he's 'loyal' or 'fickle.'"*

The following example of the generic product in the service sector is presented to illustrate the applicability of Levitt's (1980) differentiation. In the case of a passenger wishing to fly between two cities, the generic product being purchased is transportation; or in the case of dining out at a restaurant, the generic product being purchased is food.

### 3.3.3.2 *The expected product*

The expected product includes the minimal purchase conditions. For example, in the case of the purchase of a piece of steel, the steel is the generic product and convenient times for delivery are an example of the expected product. Levitt (1980) states that there are four dimensions to the expected product. Firstly, *delivery* includes convenience and responsiveness on the part of the supplier. Secondly, the *terms* of payment should not be unreasonable and customers should be made aware of any increase in price or any hidden costs. Thirdly, the expected product includes *support efforts* which constitute the supplier providing the customer with *advice or support* if the product purchased has special applications. Lastly, Levitt (1980) contends that it is not abnormal for customers to expect suggestions from the supplier on efficient or cost-effect ways of utilising the generic product.

The examples above are extended to indicate the expected product. The expected product in the first example of air transportation would be features such as reliable departure times *i.e.* no delays in taking-off or friendly personnel at the airport and on the flight. The expected product for the example of dining out would include features such as fresh and tasty food, no delays in receiving the meal and friendly waiters or waitresses.

### 3.3.3.3 *The augmented product*

The augmented product represents the aspects of a product which transcend the expectations of a customer. Augmenting the generic product adds voluntary or unprompted additional features. Examples of product augmentation, in the case of purchasing steel, would be improving the product, extending terms of payment or scheduling the delivery of steel. Levitt (1980) states that it is not always possible to enhance products beyond the expectation of the customer without incurring additional costs. In fact, certain customers may prefer lower prices to product augmentation. Lastly, Levitt (1980:87) states that

*"the augmented product is a condition of a mature market or of relatively experienced or sophisticated customers."*

Sophisticated customers may reach a point where there are no further features that can be added, leaving the seller in a price competition with competitors. The seller should then

consider what additional features could be offered to maintain those sophisticated customers.

Possibilities for the augmented products are presented for the earlier examples. For the first example of air transportation, a complimentary meal, free drinks and entertainment in the form of music and movie channels on national flights, would constitute the augmented product. In the second example, the augmented product of dining out may include a complimentary aperitif on arrival or the chef visiting each table after the main course.

#### *3.3.3.4 The potential product*

Levitt (1980) states that the potential product are the aspects of product that can be presented to maintain or attract new customers. The limitations to the potential product are financial constraints such as the budget and the seller's imagination. Market research is recommended as a means of establishing the nature of the potential product to the client.

The potential product on the purchase of a flight might include larger seating area per person and making the flight more comfortable or in the case of dining out, the use of high quality glassware, crockery and cutlery.

It can be seen from the examples presented, to clarify the differences between the various product levels, that what was once provided as the augmented product, may become accepted by potential customers as the norm, and their expectation may increase to absorb the augmented product into the expected product.

#### *3.3.4 The classification of services*

Levitt (1981) states that "goods" and "services" should be referred to as "tangibles" and "intangibles" and that even the most tangible of products have a degree of intangibility. Often companies place more emphasis on the intangible aspect of the service to make it more attractive to customers. The intangible aspect of a tangible product encompasses the "promises" made by the seller to make the tangible product more attractive.

Furthermore, Levitt (1981) proposes that it is often the physical surroundings or appearance of staff that confirm or change customer expectations. Where the generic product is less tangible, presentation becomes increasingly important as customers use this as a surrogate for reality. Levitt (1981) states that it is more difficult to keep customers when intangible products are being sold. This is due to the high degree of personal input in the production of intangible products.

Shostack (1987) proposes that the performance of a service is a process. The nature of processes is dichotomous, as it can be described by firstly, the *complexity* of the process and secondly, by the *divergence*. The complexity of the process encompasses the steps and sequences that constitute the process. The "executorial latitude or variability" of the process is called the divergence (Shostack, 1987). Examples of the complexity of process is demonstrated when comparing book-keeping with accounting. Accounting incorporates many more functions than does book-keeping. Divergence in the process is where the performance of the service varies from performance to performance. Services can contain both complexity and divergence. Shostack (1987) cites examples such as architecture, law and consulting, which are largely professional services, as being highly divergent and complex as the service provider is required to adapt the service to the needs of the customer.

Shostack (1987) contends that manipulating the complexity or divergence of a process can alter the market position of the service provided. *Professional services have moved toward lowering divergence by specialising in a particular aspect of that service.* In the past, attorneys dealt with all aspects of law, however, a metamorphosis has occurred and attorneys specialise in aspects of law such as media or trademarks. Reducing divergence, results in greater process standardisation, cost reductions and increased quality control. Identifying the degree of complexity and divergence in the service being provided may illuminate areas where the service can be standardised, reducing costs and providing the customer with superior service.

Dotchin and Oakland (1994) citing Ruston and Carson (1985) state that there are three approaches in the marketing literature to the differences between goods and services. Kotler (1980) suggests that the *commonalities* between goods and services should be highlighted

rather than the differences. The second point of view held by writers such as Lovelock (1984) and Gronroos (1983), suggests that the areas of *differences* should be investigated to take a different approach in the marketing of goods and services. The last point of view suggests that all service organisations should adopt an *appropriate and individualised* marketing strategy for the service being sold.

Lovelock (1983) considered service delivery dichotomous in nature: firstly, services can be directed at people or things, and secondly the service act can be tangible or intangible. Lovelock (1983) proposed that where services are directed at a person, thus involving a high level of contact, customer satisfaction can be strongly influenced by the interaction of the service provider and the customer. However, low contact services are usually directed at physical objects. Lovelock (1983) stated that low contact services provide better opportunity for standardisation resulting in greater control from the service organisation.

### **3.4 The provision of quality in the service sector**

#### ***3.4.1 Definitions of quality***

The definition of quality in the service industry generally is accepted to be the measure of the extent to which service providers meet the needs of the customer (De Souza, 1989, Parasuraman *et al.*, 1985, Lewis, 1991). Ghobadian *et al.* (1994) present five generic categories for the definitions of "quality."

##### ***3.4.1.1 Transcendent***

This definition of quality in this category is "innate excellence." It is not possible to identify the determinants of transcendent quality as it is based on the recipients perception of unequalled properties. Transcendent quality is largely a transference of what the recipient considers "worthy." This is extremely difficult to measure as it varies between customers.

#### *3.4.1.2 Product led*

Product led quality considers the "units of goodness" packed into products or services (Ghobadian *et al.*, 1994). This definition also makes quantification difficult as "units of goodness" is a relative term. However, a distinction can be drawn between higher and lower quality of service depending on the recipients perception of the same.

#### *3.4.1.3 Process or supply led*

This approach to quality equates to "conformance to requirements." This definition would probably be useful to organisations providing a standard service where contact is considered low. For example, standard services such as postal services, refuse collection or public transport can adopt a process led definition of quality due to the standard nature of the service provision. Ghobadian *et al.* 1994 cites Crosby (1980) as a main proponent of this definition of quality.

#### *3.4.1.4 Customer led*

The customer led definition of quality focuses on fulfilling customer requirements. This presupposes that it is possible to identify the requirements of the customer and then set about fulfilling them. This definition is very useful for service organisations where high contact, labour-intensive and a highly skilled knowledge base is required for transaction. These include professional services, such as law and accounting, education and consultancy amongst others.

#### *3.4.1.5 Value led*

Value led quality implies a trade-off between quality, price and availability. It can be defined as "*cost to the producer and price to the customer*" or "*meeting the customer's requirements in terms of quality, price, and availability*" (Ghobadian *et al.*, 1994:48). It is proposed that the customer evaluates all three factors namely, quality, price and availability in the same

evaluation decision.

### ***3.4.2 Definitions of service quality***

Based on the definitions presented above, service quality can be considered to be *customer-led*. The customer should be the focus of any quality improvement programme. Therefore, for the purposes of this research, service quality will be defined as it is by marketing theorists.

*"Service quality is a measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis"* (Lewis and Booms, 1983:99).

Crosby (1980) alternately defines quality from the Japanese perspective: *"zero defects - doing it right the first time."* Furthermore, service quality is considered more difficult to control than goods quality owing to its nature. That is: services are intangible, heterogenous, inseparable from production and consumption and perishable.

It has been proposed by Kyj (1987) that service quality provides the competitive edge. Furthermore, service quality has been recommended as a means of product differentiation in the present era of consumerism.

### ***3.4.3 Determinants of service quality***

Lewis (1991) cites the three dimensions of service quality as proposed by Grönroos (1983). These dimensions include: the *technical* quality of the actual service performance, the *functional* quality of the process and lastly, the *corporate image* based on the technical and functional quality.

Garvin (1987) proposes eight dimensions of quality to serve as a framework for strategic analysis of goods and services namely, *performance, features, reliability, conformance, durability, serviceability, aesthetics* and *perceived quality*.

Parasuraman *et al.* (1985:47) propose 10 determinants of service quality. These determinants are considered at the forefront of service quality research (Naumann, 1995; Ghobadian *et al.*, 1994).

*Reliability:* performing the service consistently and dependably

*Responsiveness:* the "willingness or readiness" to perform a service; providing the customer with a prompt service

*Competence:* The person performing the service should have the knowledge and competence to perform the required service.

*Access:* Access to the service implies approachability and ease of contact.

*Courtesy:* Staff should be friendly, courteous, respectful and polite when dealing with the customer.

*Communication:* Communication means addressing the customer in a manner that is understood. This includes factors such as explaining to the customer what the service incorporates, the cost of the service and when the customer can expect delivery.

*Credibility:* Customers need to be able to trust the service provider. It requires that the service provider have the customers best interests at heart.

*Security:* Security encompasses physical and financial security. It also means that service providers should be confidential with their customers details.

*Knowing the Customer:* This requires the service provider to understand the specific needs of the customer and altering the service to suit the same.

*Tangibles:* Tangibles include all the physical aspects of the environment in which the service is being provided. It includes the appearance of staff, physical appearance of the equipment

and the quality of the stationary.

Ghobadian *et al.* (1994: 64) proposes that a quality model should

*"enable management to (i) identify the sources of quality, (ii) discover the quality problems, (iii) pinpoint the causes of the observed quality problem (iv) offer possible courses of action."*

### **3.5 A quantitative model for measuring service quality**

In the section that follows the conceptual model of service quality which preceded the SERVQUAL Instrument will be discussed as well as the development of the latter quantitative instrument.

#### ***3.5.1 Development of the model***

Parasuraman *et al.* (1985) pioneered the development of service quality literature by introducing a conceptual model of service quality in 1985. These researchers found that little exploratory and empirical research had been undertaken in the development of an instrument for measuring service quality. Parasuraman *et al.* (1985) found that most of the literature pertaining to service quality had evolved from the literature on "goods quality" and had been adapted for the service industry. To develop the theory on service quality, Parasuraman *et al.* (1985) selected 4 national service industries in the United States and undertook in-depth interviews with 14 executive officers on service quality issues. The four service industries included: retail banking, credit card management, security brokerage and product repair and maintenance. The survey undertook to establish what service providers consider key attributes to service quality as well as what they perceive their customers to consider the same. Furthermore, 12 focus groups of consumers from the above four industries were established to discuss service quality issues, such as factors constituting high quality service, reasons for satisfaction and dissatisfaction, and factors important in evaluating service quality.

Based on the surveys and discussion groups, Parasuraman *et al.* (1985) found that a set of "gaps" exist between the perceptions of consumers and service providers which can influence

the delivery of quality service. Having established these service delivery "gaps," Parasuraman *et al.* (1985) were able to develop a conceptual model which is presented in Figure 3.1.

The model indicates five "gaps" in the delivery of service quality and is split into two sections. The section below the dotted line indicates the problems the service provider may experience in the delivery of service quality. Below the dotted line are the factors that impact on the consumer which may alter their perceptions of the service received. In section 3.5.2 below the five gaps illustrated in the conceptual model will be presented.

### ***3.5.2 Service performance gaps***

#### ***3.5.2.1 Gap 1: Customer expectation and management perception of expectation***

The first gap is evident in the difference between consumer expectations of service and management's (or the service provider's) perception of the same. It is indeed possible that the service provider is unaware of customer expectation and therefore, will be unaware of the short-comings of the service provided. Moreover, the service provider may be unaware of the strengths in the service delivery that are pivotal in maintaining the customer base.

This gap could be overcome by management or the service provider becoming more aware of customer expectations. Customer surveys can be undertaken to solicit their opinions on expected performance. This information will permit an assessment of any discrepancy between customer expectation and management's perception of the same. Furthermore, features important to the customer can be identified and the service can be shaped to suit these expectations, facilitating a higher degree of satisfaction and service quality.

#### ***3.5.2.2 Gap 2: Service quality specification gap***

The second "gap" is one internal to the service organisation. This gap is the result of the difference between management's perception of the service expected and its translation into service quality specifications. Parasuraman *et al.* (1985) state that whilst management may

# Service Quality Model

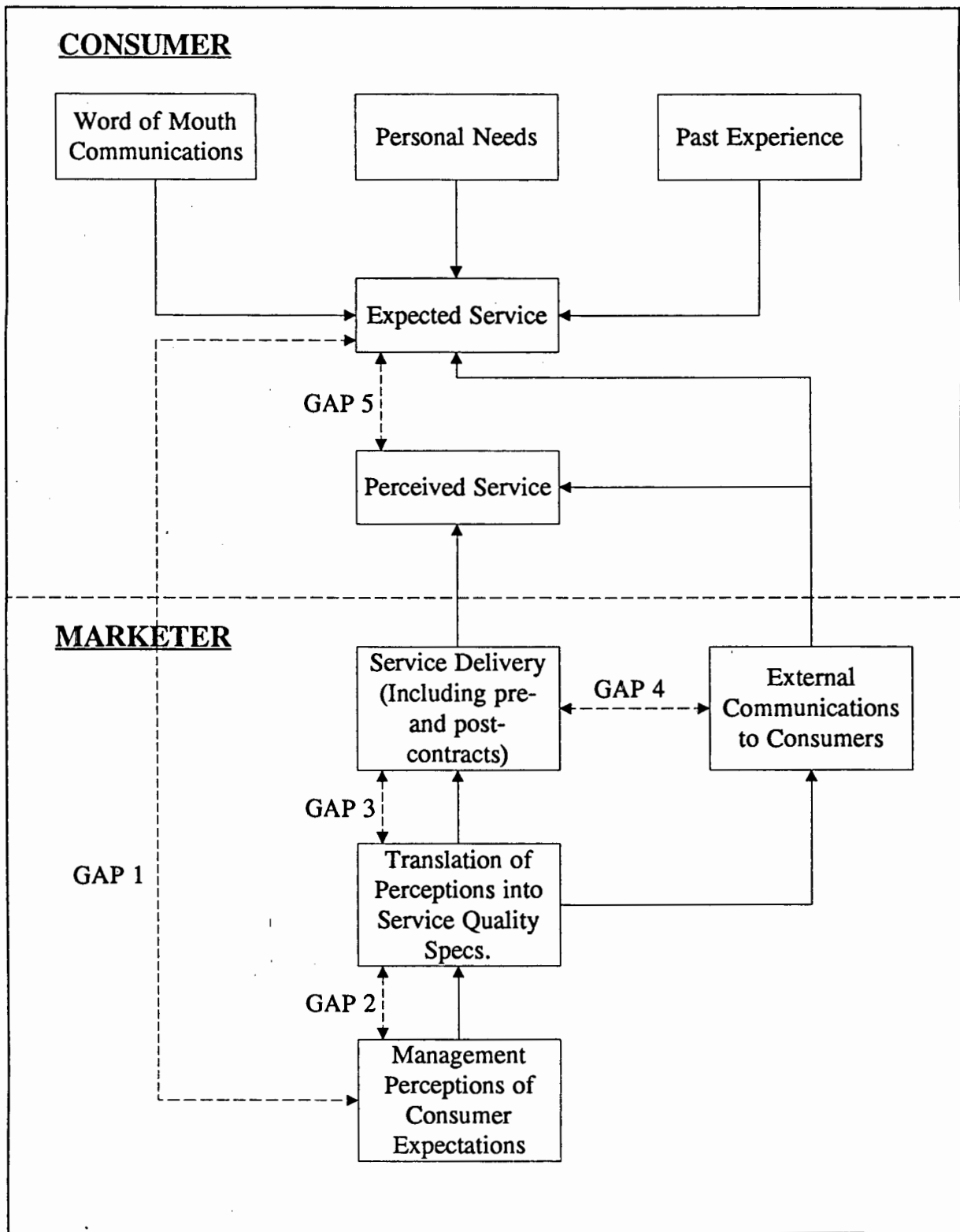


FIGURE 3.1 : SERVICE QUALITY MODEL: [Parasuraman *et al.* (1985:44)]

be aware of customer expectations, several factors exist which prevent the delivery of the expected service. Examples of such factors include lack of commitment by management to service quality, resource constraints, market conditions and short-term profit orientation. Furthermore, Zeithaml *et al.* (1990) state that undertaking a service quality programme may require a change in thinking within the organisation or even the purchasing of new technology. Often change in an organisation is opposed as management may feel comfortable with the existing structure, line of thinking or technology (or lack thereof).

#### *3.5.2.3 Gap 3: Service delivery gap*

Ideally, management should identify customer expectations through market investigation and thereafter, translate these expectations into service provision specifications. Even though management may have followed this process and provided employees with guidelines or specifications for service delivery, the performance of the service is dependent upon the "front-line" employees ability to adhere to such standards. Since it is the front-line staff who have the most contact with the customer, the outcome of the service transaction is dependent on the individual's performance. The high degree of "human" contact in the service delivery process makes standardisation of delivery very difficult to monitor. This is exacerbated by the degree of variance from employee to employee and also, the individual's own variance from one service performance to another.

#### *3.5.2.4 Gap 4: External communication gap*

Gap 4 encompasses the difference between actual service performance and the promises made through external communication channels. External communications include the company's own media coverage such as promotions and advertising. Parasuraman *et al.* (1985) suggest that organisations should not attempt to promise a level of service that cannot be attained in reality. The consequences associated with overstatement, as presented by Olshavsky and Miller (1972) were discussed in Chapter 2 under section 2.4 and indicate that exaggeration of performance does not increase customer satisfaction. Furthermore, it is contended that service organisations often do not inform their customers of the extent of their quality drive. Customers are often unaware of ways in which organisations attempt to improve the service

offered. For example, in a securities brokerage firm a rule may exist that prevents stock brokers from taking advantage of "good deals" instead of passing them on to the customers. Informing customers of aspects of service such as this, that are not readily apparent, may improve their perceptions of service quality.

#### *3.5.2.5 Gap 5: Expected service - perceived service gap*

Lastly, gap 5 represents the difference between the expected service and the perception of the service actually received. Parasuraman *et al.* (1985) propose that Gap 5 is a function of all the discrepancies within each gap. This can be algebraically represented in Equation 1, below as:

$$\text{Gap 5} = f(\text{Gap 1, Gap 2, Gap 3, Gap 4})$$

The focus groups interviewed unanimously agreed that delivering high service quality occurs when the service received meets or exceeds the customers prior expectation. Factors positively influencing this gap are those where the service provider performs beyond the expectation of the customer. Alternately, this includes negative aspects of service delivery where customers feel that the service provider is *unwilling* rather than *unable* to help.

#### *3.5.3 The SERVQUAL Instrument*

The conceptual model presented above, having resulted from the exploratory research undertaken by Parasuraman *et al.* (1985), is the basis of the development of the SERVQUAL instrument. The underlying premise of the SERVQUAL instrument is that *perceived quality* is being measured as apposed to *objective quality*.

The exploratory research presented above also culminated in 10 determinants of service quality, namely *Reliability, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security, Understanding the customer and Tangibles*. Furthermore, 97 items were agreed upon, relating to the 10 dimensions above, as being statements that would indicate the level of service quality being attained. Each item was reworded to permit an "*expectation*"

and "perception" statement respectively. Following the methodology proposed by Churchill (1979) for scale development, Parasuraman *et al.* (1988) worded approximately half the statements positively and the remaining negatively to illuminate answers of a conflicting nature. A seven point scale against which statements were rated was used, representing *strongly agree* (1) to *strongly disagree* (7). This instrument was then administered to 200 respondents, across five service categories namely, appliance repair and maintenance, retail banking, long-distance telephone supply, security brokerage and credit card management, where each service category was allocated 40 respondents. These service categories were selected to represent a broad cross-section of dimensions.

Purification of the model began by establishing the coefficient alpha for each dimension, which ranged from 0.55 to 0.78 and indicated that the deletion of certain items would result in greater alpha values. The criterion for deleting items was based on the strength of the relationship between the score on the item and the summation of the scores on all other items making up the relevant dimension. Items with a low correlation to the dimension were discarded. The coefficient alpha for each dimension was recomputed, as well as the item-to-total correlations to eliminate further items. This iterative process was undertaken several times until only 54 items were left with alpha coefficients ranging from 0.72 to 0.83 across all ten dimensions.

Parasuraman *et al.* (1988) then examined the dimensionality of the instrument by performing factor analysis of the different scores on the 54 items. It was found that the factors may not be independent of each other and that some degree of overlap may exist over the 10 dimensions. In order to investigate whether inter-correlations existed, an oblique rotation was performed on the 10 factor solution. It was found that several items had high factor loadings and when removed, resulted in certain dimensions becoming meaningless due to their low correlations with the remaining items. This resulted in a reduction in the number of dimensions previously suggested. Furthermore, certain items were reassigned to different dimensions due to the results of the factor loading. Thereafter, the alpha values and item-to-total correlations computed which resulted in further deletion of items until 34 remained. Out of the original 10 dimensions, five dimensions remained, namely: *Tangibles*, *Reliability*, *Responsiveness*, *Understanding/knowing the customer* and *Access*. The remaining items,

*Communication, Credibility, Security, Competence and Courtesy* were reduced to two dimensions namely, *Empathy* and *Assurance*. Parasuraman *et al.* (1988) stated that the results of the correlation testing and the factor loading suggested "seven fairly unique facets" of service quality. High alpha values were established among items within each dimension indicating good internal consistency. Furthermore, a reliability test was performed resulting in a high value of 0.94.

The second stage of the scale purification required that new data be collected and tested using the existing 34 item instrument. Two hundred respondents were surveyed regarding their expectations and perception of performance for the following service companies, namely a bank, credit card company, a firm offering repair and maintenance services and a telephone company. The following four sets of analysis were performed: alpha values, factor loading, oblique rotation and cross validation. These statistical analyses indicated consistency amongst the sets of data. However, two differences in the results were observed. Firstly, the alpha values and item-to-total correlations were lower than for each dimension in the earlier test. The factor loading matrices showed an overlap between dimensions D4 and D5 and D6 and D7. Parasuraman *et al.* (1988) stated that further scale purification was necessary since these results were consistent over the four data sets. Thirteen items were deleted, culminating in a 22 item instrument. *Communication, Credibility, Security, Competence and Courtesy* were combined to form the dimension named "Assurance." Furthermore, two dimensions were combined to form "Empathy" namely, *Understanding/knowing the customer* and *Access*. Lastly, Parasuraman *et al.* (1988) performed reliability and validity tests on the 22-item instrument, resulting in the total scale validity being close to 0.9. These results showed the scale to have sound and stable psychometric properties.

Table 3.1 indicates the five dimensions of the SERVQUAL Instrument and presents the essence of each dimension. Furthermore, the last column indicates the statement numbers assigned to each dimension. The SERVQUAL instrument containing the 22 statements proposed is contained in Appendix A.

**Table 3.1 The five dimensions of the SERVQUAL Instrument**

<b><i>DIMENSIONS</i></b>	<b>Features</b>	<b>Statements</b>
<b><i>TANGIBLES:</i></b>	Physical facilities, equipment, and appearance of personnel.	Statements 1-4
<b><i>RELIABILITY:</i></b>	Ability to perform the promised service dependably	Statements 5-9
<b><i>RESPONSIVENESS:</i></b>	Willingness to help customers and provide prompt service	Statements 10-13
<b><i>ASSURANCE:</i></b>	Knowledge and courtesy of employees and their ability to inspire trust and confidence	Statements 14-17
<b><i>EMPATHY:</i></b>	Caring, individualised attention the firm provides its customers.	Statements 18-22

Whilst Zeithaml *et al.* (1990) propose such a highly refined model for measuring service quality whose determinants are generic to service industries, it is suggested that the model be adapted to suit the service industry at hand.

#### ***3.5.4 Criticisms of the SERVQUAL Instrument***

Carman (1990), acknowledging the work presented by Parasuraman *et al.* (1985, 1988) investigated several questions regarding the validity of the SERVQUAL Instrument, namely,

- : how many dimensions are there and how generic are they?
- : to what degree can the wording be changed?

- : how valid is it to analyse the difference between expectations and perceptions?
- : is it necessary to administer the expectation battery?
- : what is the relationship between expectation and importance?

Carman (1990) replicated the Parasuraman *et al.* (1988) study using 26 of the original statements over three service industries, namely, in the tyre replacement industry, job placement industry and dental care service. Each questionnaire contained questions specific to the respective industry but also a measure of the original 26 SERVQUAL questions. By means of factor analysis, Carman (1990) identified the factors that loaded well with each other. The findings indicated that three of the original ten factors, namely, tangibles, reliability and security were apparent in all three service industries. Furthermore, it was found that the combination of Understanding the customer and Access into the dimension of Empathy was not appropriate. Emanating from these findings, is the fact that when a particular aspect of quality is important to customers, it is likely that such a dimension will be broken down into sub-dimensions. Furthermore, Carman (1990) recommends that, whilst the dimensions recommended by Parasuraman *et al.* (1985) are generic, they are not so generic that users of the SERVQUAL Instrument should not evaluate their own service setting for important quality issues and add additional items and factors. Carman (1990) recommends that at least seven of the original ten dimensions be retained until such time as they are proved to be not unique to service industries. With regard to the question of word changing, Carman (1990) indicates that this would be necessary for the application to various service settings, but prior to commercial application would require a validity and reliability test.

Carman (1990) criticises the premise upon which the SERVQUAL Instrument is based, namely expectation and perception of performance. It is suggested that expectations will vary between settings and therefore, perceptions of quality will depend on the prior expectation. For example, a customer's expectations of dining out at a restaurant will differ from those held when frequenting a steakhouse. Carman (1990) suggests that customers should complete the expectation battery prior to the service encounter and then complete the perception battery after service delivery. In this case, the expectations would not be influenced by the perceptions of performance. The writer's opinion, however, is that if a client wishes to

magnify his/her perceived disparity between expectation and performance, this should indicate the importance of that aspect of service. Lastly, Carman (1990) recommends the application of the SERVQUAL Instrument to professional services.

### 3.6 Service quality applied to the professional service sector

Brown and Swartz (1989) contend that whilst the importance and distinctiveness of the professional service encounter is acknowledged, only limited research has addressed this topic. Due to the high level of contact in the professional service encounter, it is imperative to examine both the service provider and the client's perception of service provision.

Brown and Swartz (1989) propose, analytically, the disconfirmation paradigm where individuals evaluate a service offering by comparison with prior expectation:

$$O_i = X_i - E_i$$

and

$$X_i = f(E < i)$$

where

$O_i$  = evaluation outcome for encounter  $i$

$X_i$  = expectations for encounter  $i$

$E_i$  = experiences for encounter  $i$ , and

$E < i$  = experiences prior to encounter  $i$ .

Based on the model of service quality developed by Parasuraman *et al.* (1985), Brown and Swartz (1989) attempted to simplify this model to suit the provision of *professional* services. The emphasis of their research was to highlight the dyadic nature of the service transaction and its impact on the evaluation of the service outcome. Firstly, the perceptions of service quality held by the service provider will determine the design and delivery of the service offered, and secondly, the consumer's perception of the service received will provide a direct evaluation of the transaction. Brown and Swartz (1989) identified three gaps, namely: the gap

between client expectation and their experiences, the gap between client expectation and professional perceptions of client expectation, and lastly, the gap between client experiences and professional perceptions of client experiences.

The first study on service quality in the professional service industry was undertaken by Brown and Swartz (1989). The study focused on the medical field and examined the relationship between physician and patient. Thirteen physicians involved in private practice and specialising in primary health care were selected. The doctors were asked to provide the names and addresses of the patients seen in the previous month. The sample size of patients surveyed was 2414 and yielded 1128 responses to the questionnaire. Patients were assured of anonymity in a covering letter endorsed by the respective doctors. The doctors, alternately, received a questionnaire with identical questions to those asked of the patients, and were asked to respond in the way they assumed their patients would respond. This would permit a direct assessment of the difference in doctor and patient perception of service quality. The questions were structured in such a way that each of the 10 determinants of service quality would be represented in the questionnaire. A 5 point Likert-type scale was used for respondents to indicate their responses, with 1 representing "*strongly agree*" and 5 representing "*strongly disagree*."

By using principal components analyses of patients responses to the set of expectation and experience statements, the underlying dimensions were identified. Varimax rotation was used to analyse each of the groups with a factor loading of 0.5 or greater. Three factors were identified in the expectation statements, accounting for 39% of the variance, whilst in the experience statements, six factors were identified, accounting for 51% of the variance.

Brown and Swartz (1989) found that all three gap types influence the service outcome. This indicates that whilst client perceptions of service quality is important, the perceptions held by the professionals when combined with the former, provide an useful insight into the service transaction. It was also found that it is not only the contact with the doctor that impacts on service evaluation but also the behaviour of staff and brochures available, amongst others. The conclusion is thus, that the entire service encounter is subject to evaluation, and not just the interaction with the professional service provider. Furthermore,

the findings of this study suggest that consumers are reluctant to complain especially when professionals are involved. Brown and Swartz (1989) recommend that professionals adopt a broad perspective when assessing client perceptions and thus, service quality.

### 3.7 Summary

(i) The definitions of service quality and client satisfaction indicate that a relationship exists between the two. Whilst service quality is meeting the client's expectation through the provision of service, client satisfaction is the result of such provision. It is postulated that client satisfaction is a function of service quality and can be represented algebraically, below:

$$CS/CD = f(\text{service quality})$$

where

CS/CD = Client satisfaction or dissatisfaction

(ii) Whilst researchers refer to satisfaction, it is proposed that "attitude" is actually meant. Satisfaction is transaction specific, whilst attitude is a global concept. For the purposes of this thesis, satisfaction will be considered as it has been defined, as the disparity between expectation and performance.

(iii) *Perceptions* are more important than *actuality* in service quality research as it is the perception of the client that is important.

(iv) Services have a unique nature, in that they are intangible, heterogenous, the production is inseparable from the consumption and services can not be stored (perishable).

(v) The provision of service has several levels, namely, the generic product, that is, the core aspect of the transaction. The expected product is the additional aspects of service that the client expects. The augmented product is the aspect of service that transcends the expectation of the customer. Lastly, the potential product is the aspect of service which will maintain or expand the customer base.

(vi) Services also vary with respect to the complexity and divergence of the task. These include contact, duration, variety and frequency amongst others. The factors will affect the clients perception of the importance of various service attributes.

(vii) Quality, *per se*, can be defined according to excellence, units of goodness packed into each unit, conformance to demand, as well as meeting requirements within the set cost to the producer. Customer led quality is placing the clients' needs at the centre of the service provision.

(viii) Whilst various researchers have suggested determinants of service quality, Parasuraman *et al.* (1985) propose ten generic determinants. These include *Reliability, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security, Knowing the customer and Tangibles.*

(ix) Depending on the type of service provision, the determinants will differ in importance. For example, security is more important to clients of the law industry than customers of a fast food service.

(x) Parasuraman *et al.* (1985), the proponents of a conceptual model of service quality, indicated five gaps in service delivery. They undertook an in-depth study into providing a 22-item questionnaire with an expectation and perception of performance battery. This provides a basis for measuring service quality as the determinants are generic. They do suggest that the instrument be adjusted to suit the service industry at hand.

(xi) Five gaps were identified which include *customer expectation and management perception of expectation disparity; service quality specification gap; service delivery gap; the external communication gap* and lastly, *the expected service and perceived service gap.*

(xii) Carman (1990) provided insights into the shortcomings of the SERVQUAL Instrument. Firstly, he concluded that the five SERVQUAL dimensions are not completely generic and that there should be at least seven of the ten original dimensions. Furthermore, he stated that the greater the importance of the dimension, the more likely it will be that sub-dimensions

will be created. Furthermore, changes in wording of the proposed questions, requires that the model be tested for validity, thereafter. Carman (1990) also questioned whether perceived quality is not affected by the prior expectation. Therefore, it would be imperative to first measure expectation before service delivery, and then measure performance. Carman (1990) thus disagreed with measuring expectation once performance had occurred.

(xiii) Brown and Swartz (1989) acknowledge the work of Parasuraman *et al.* (1988) and state that this dyadic approach is applicable in the provision of professional services. Instead of assuming the five gaps presented by Parasuraman *et al.* (1988), Brown and Swartz (1989) indicate that three gaps exist which include *the gap between client expectations and their perceptions of performance; the gap between client expectations and professionals' perception of the same; and lastly, the gap between client experiences and professionals' perception of the same.*

### **3.8 Conclusion**

The presentation of the literature regarding service quality provides an insight into the analysis of quantity surveying service. Furthermore, the problems associated with the provision of service and maintaining service quality are related to the lack of quality control mechanisms. This is due to the nature of services where production and consumption occur simultaneously and each service encounter differs due to the high degree of human involvement.

Service provision is not only related to the quality of the "generic product" or core service, but also to additional dimensions which constitute quality, such as providing the service on time, providing the service right the first time and being approachable and helpful. Parasuraman *et al.* (1985) have identified five generic dimensions. In addition, through rigorous testing and research, they have developed the SERVQUAL Instrument, which is the only quantitative measure of service quality. The Instrument permits the identification of factors affecting service quality and the establishment of service quality gaps. It is proposed that the application of such a model to the quantity surveying profession in South Africa will assist in proving the hypothesis stated in Chapter 1.

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## CHAPTER 4: THEORY OF QUANTITY SURVEYING SERVICES

### 4.1 Introduction

Whilst in Chapter 2 the theory of client satisfaction was reviewed emphasising the importance of meeting or exceeding consumer expectation, Chapter 3 investigated the nature of services and the theory surrounding service quality. This approach highlighted the importance of fulfilling, moreover exceeding, the customer's requirements, to ensure satisfaction and thus, the probability of re-engagement by the client. Based on the broad nature of the literature presented in these earlier chapters, this chapter provides a more specific view of the service relevant to this study, namely the service provided by quantity surveyors.

This chapter begins with a presentation of the literature pertaining to the nature of building clients, indicating the various categories and combinations of clients. Thereafter, client needs and objectives are identified in terms of the building industry as well as in terms of quantity surveyors' services. An account of quantity surveyors' services is presented as well as client expectations of the same. Lastly, suggestions from the literature are presented on the requirements for the delivery of a quality service in the quantity surveying profession.

Franks (1991) concurs with the suggestion in Chapter 1 of the importance of the customer and contends that *the client is the driving force in the building industry, maintaining its existence and requiring change of it*. The changing needs of the client, have resulted in the building industry evolving into a delivery system of buildings which is complex and divergent (Bennett and Flanagan, 1983). Although generally client needs are the same in terms of cost, time and quality, each building project is unique, and consequently, so are the needs of the client. Therefore, the importance of the client should not be underestimated, nor the complexity of their needs in respect of building and specifically, quantity surveyors' services.

In the section that follows, the nature of the client body is discussed in terms of whether their spending is of a private or public nature; their level of sophistication, and whether their intention to build is for their own use or for investment purposes.

## 4.2 Nature of the client

Several methods of categorising have been offered to distinguish between client organisations. These categories include level of client sophistication, client experience and purpose of building (Bennett and Flanagan, 1983). Masterman (1992) presents a tree diagram of the categorisation of client organisations that incorporates most of the recognised groupings such as public and private sector organisations (Archer, 1990). The categories are presented in Figure 4.1 below and are discussed under the respective headings that follow.

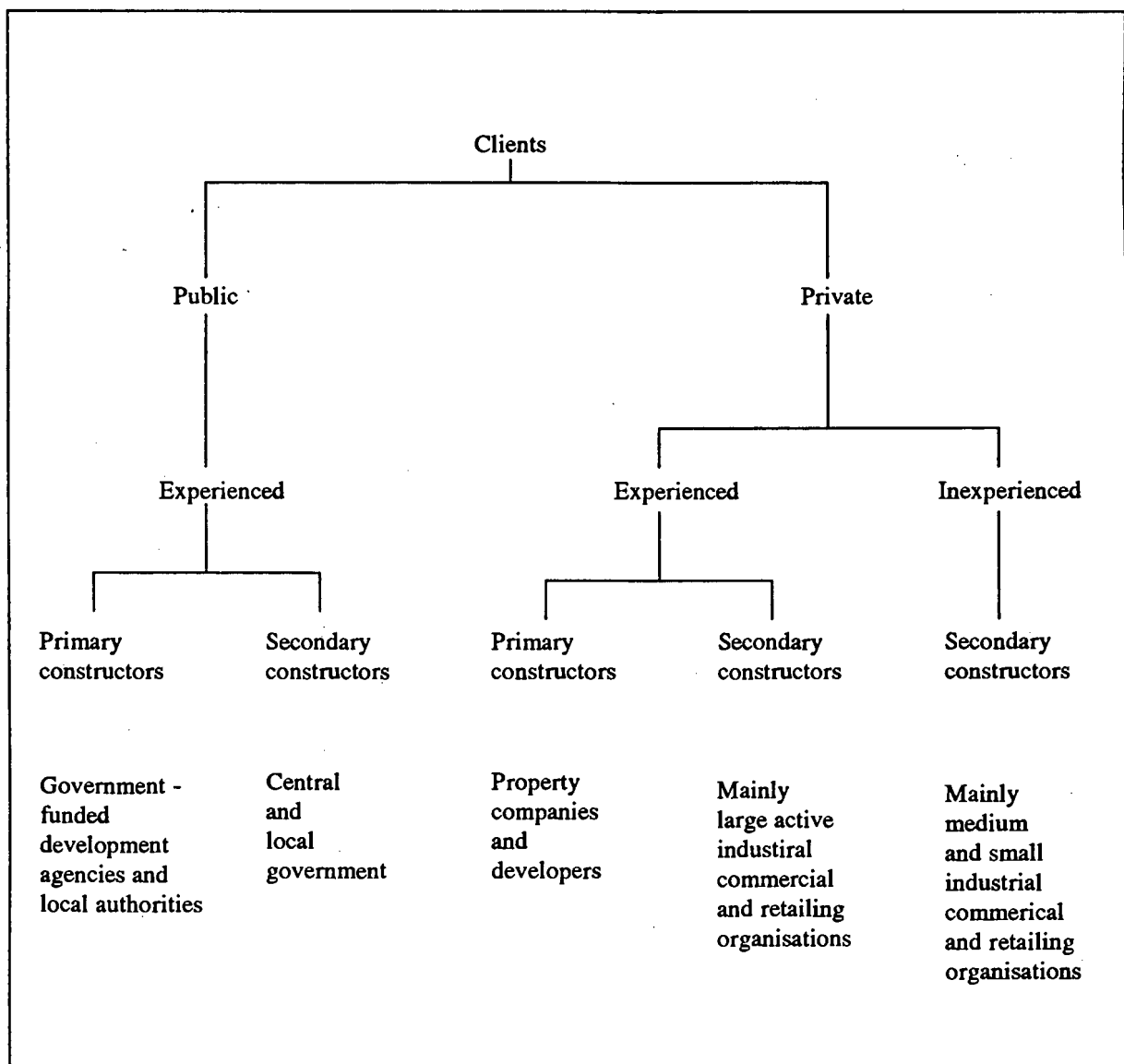


Figure 4.1 Categories of clients [Masterman, 1992: 140]

#### 4.2.1 *The private sector client vs the public sector client*

Masterman (1992) states that traditionally clients have been categorised into public and private sector clients.

Archer (1990) identifies the government of the day as a client of the building industry and more specifically, the quantity surveyor as one of the important players in the delivery process. It is considered that "accountability" is a major concern of government organisations, as taxpayers expect transparency and accountability from the elected government. Furthermore, employing the services of a quantity surveyor on public sector works may have the following benefits to government. Firstly, increased value for money results in the more efficient use of capital, resulting in more buildings procured for the same cost. Secondly, Archer (1990) contends that such efficient usage of taxpayers money will ultimately result in greater support for the government of the day. Lastly, more efficient spending on buildings procured by government may result in the lowering of the tax burden.

The distinction between *internal* and *external* clients (Flood, 1993) was presented in Chapter 1 and is applied here again, but in the context of the public sector client. Whilst internal clients are involved in the initial product, the external client is the body for whom the product is intended. It can thus be concluded that the taxpayer is the *external client* of the building industry where related to public sector spending. The public create the need for the procurement of public buildings and provide government departments with the financial resources to do so. The actual public works departments act as *internal clients* to the building industry in providing taxpayers, the external clients, with buildings that serve the public's needs.

Willis and Ashworth (1987) caution that procedures for the public sector client's requirements may differ largely from that of the private sector client. Quantity surveyors employed by the public sector should be sensitive to the needs of the public sector client. The public sector client is accountable for public money and often the requirement for controlling cost is more stringent in the public sector than in the private sector (Willis and Ashworth, 1987: 133).

Private sector clients will vary enormously, from those who are undertaking once-off procurement projects to those who build regularly for investment purposes. The needs and requirements of the private sector client will vary greatly from that of the public sector client, depending on their intention for the procured building. Furthermore, private sector clients generally have a greater degree of freedom in the method chosen for procurement and thus, in the contract procedure. Public sector clients usually have their own in-house consultants such as architects, quantity surveyors and engineers who perform the design and financial functions. However, this is not true for all public sector clients as work is occasionally given to private consultants. The quantity surveyor involved in public sector projects would need to be sensitive to the differing nature of their requirements, particularly in respect of procurement methods and documentation. **However, having stated that the public and private sector clients' nature and needs differ, the critical issue facing quantity surveyors and all other professionals is meeting the client's needs consistently.**

#### *4.2.2 Experienced and inexperienced clients*

Nahapiet and Nahapiet (1985) investigated the differing contractual arrangements entered into by clients and found that clients differ in their combination of expertise, risk, flexibility and spending potential. The level of expertise held by clients is related to their frequency of undertaking project procurement. Therefore, Nahapiet and Nahapiet (1985) draw a distinction between clients with differing levels of project experience based upon the frequency with which clients procure buildings. Based on the research undertaken by Nahapiet and Nahapiet (1985), Masterman (1992) proposes that clients who build or commission a new project more than once every five years can be considered as *experienced clients* whilst those who procure buildings once every five years or less can be categorised as *inexperienced clients*.

Masterman (1992:138) proposes a list of characteristics demonstrated by experienced and inexperienced clients respectively.

Characteristics of the experienced client include:

*(i) demonstration of expertise in managing and controlling construction projects.*

- (ii) maintenance of in-house expertise such as design consultants and construction managers.*
- (iii) demonstration of the ability to produce a comprehensive brief stating the organisation's requirements in terms of time, cost, quality and functionality.*
- (iv) the possession of a comprehensive knowledge of construction practice and procedures.*
- (v) the indication of a desire to be involved with the project throughout the design and construction phases.*
- (vi) demonstration of good communication skills when dealing with members of the design team.*
- (vii) the possession of a knowledge of procurement systems and being adept at selecting a suitable system for their particular project.*

Clients displaying characteristics such as these indicate a high degree of sophistication. Accordingly, Masterman and Gameson (1994) state that the client's requirements will be consistent with the level of experience. Thus, experienced clients may have realistic expectations of the professional team. This is consistent with the theory presented in Chapter 2, where customers, in general, form attitudes over time which are based on previous interactions and experiences. This results in clients adapting their expectations to reflect the service they are likely to receive.

Masterman (1992) presents a list of less positive characteristics which represent the inexperienced client. These characteristics are listed below:

- (i) a lack of expertise in managing and controlling construction projects.*
- (ii) little knowledge or understanding of construction practice and procedure.*
- (iii) inability to prepare a comprehensive brief which indicates the primary objectives.*

*(iv) a desire to be involved in the project which is inconsistent, intermittent and random.*

*(v) a desire to make changes to the project involving time or cost implications for which the client is unwilling to accept responsibility.*

*(vi) a tendency to be influenced by external parties other than the consultants on construction procedures.*

*(vii) a demonstration of weak communication skills when dealing with the professional team and a tendency to reject professional advice on the most suitable procurement process for their respective objectives.*

The inexperienced client would require more assistance in translating their objectives in respect of the project into a brief. Moreover, the inexperienced client may not have identified the objectives and their relative importance for the building project until consulting with members of the design team. Once the objectives of the building project have been established, the procurement process suitable to the client's needs can be selected with the help of the quantity surveyor.

#### ***4.2.3 Primary and secondary constructors***

Nahapiet and Nahapiet (1985) propose that clients differ according to their purpose for building. More specifically, there are those clients who procure buildings for their own use, such as a factory for manufacturing, and those who procure buildings as their main source of income. *Primary constructors are those clients of the building industry who procure buildings as their main business activity.* An example of primary constructors would be property developers. *Alternately, secondary constructors can be described as those who procure buildings for their own usage.* For example, a factory being build for the manufacture of a product, in which case the cost to the client of the building may be a small percentage of the organisation's turnover.

#### *4.2.4 Client combinations*

Based on the above characteristics the following combinations are presented. Masterman and Gameson (1994) have assigned alphabetical and numerical categories to the four combinations: "A" and "B" represent secondary and primary constructors respectively and "1" and "2" represent inexperienced and experienced respectively. Masterman and Gameson (1994) argue that "primary inexperienced" clients are unlikely to exist since clients who procure buildings as their main source of income are unlikely to have any recent or relevant connection with the construction of buildings.

##### *4.2.4.1 Secondary inexperienced (A1)*

Masterman and Gameson (1994) state that secondary inexperienced clients are faced with several difficulties when procuring a building. Firstly, clients of such a nature are invariably ignorant of the building process and require assistance as soon as the decision to build is made. The client is usually heavily influenced by the first point of contact with the industry which will affect his/her choice of procurement. The architect is generally the first point of contact with the construction industry for inexperienced clients. If the architect is not well versed in procurement selection, the client may become involved in a less than satisfactory method of procurement for his respective needs. An unsuitable choice of procurement for the client's needs may leave the client disillusioned with the building process. Secondly, secondary inexperienced clients tend to allow the "construction experts" to have power over their relationship. This often results in the client following unnecessary "wisdoms and whims" of the consultants (Masterman and Gameson, 1994). These "wisdoms and whims" may include suggestions that are unnecessary in meeting the client's needs, but may indeed serve those of the consultants. Furthermore, communication between the client and consultant may also be challenging in establishing the client's needs and objectives due to the client's lack of understanding of the intricacies of the building industry.

##### *4.2.4.2 Secondary experienced (A2)*

Secondary experienced clients build regularly for their own purpose. The size of the project

varies, but generally the nature of building required remains the same. These clients frequently have a high degree of in-house expertise but employ external professionals for projects (Centre for Strategic Studies in Construction (C.S.S.C.), 1990). Masterman and Gameson (1994) suggest that secondary experienced clients need to recognise their limitations. This is particularly important when clients are faced with a different type of building to construct than that which is normally procured. It is contended by Masterman and Gameson (1994) that clients may not identify the need to alter the process for projects of differing nature. This extends to the client's perception of the professional's ability to offer highly flexible advice. Masterman and Gameson (1994) provide the following example: an architect who has designed airport terminals for many years may not be sufficiently flexible to design a corporate head office building.

#### *4.2.4.3 Primary experienced (B2)*

Masterman and Gameson (1994) suggest that the primary experienced clients are large organisations such as insurance houses and pension funds who invest in the property industry for high returns. Clients such as these tend to present exact requirements and expect adherence to the same. Masterman and Gameson (1994) contend that it is the dissatisfaction of the primary experienced client that has resulted in the change in the traditional system of building procurement. These clients possess knowledge bases equivalent to their consultants and are able to articulate their building objectives clearly.

The needs and objectives of the client will depend largely on the nature of the client. Establishing the client's level of experience and intention for building will facilitate the identification of the client's needs and objectives. If satisfaction is to occur, client needs and objectives should be established in terms of their expectations of the building project and more specifically of the professional services of the quantity surveyor, amongst other project consultants.

### **4.3 Clients' needs and objectives**

Clients, irrespective of their nature, have a common purpose: the procurement of a building.

In order to achieve this, clients are required to invest in the services of "consultants" such as architects, quantity surveyors and engineers. These consultants guide the client through the process of delivery of the building. The building procurement process should be applicable to the needs of the client to ensure overall satisfaction with the project. However, the focus of this research is on the professional services of the quantity surveyor and thus, the needs of the client in respect of such service should be elucidated.

#### ***4.3.1 Needs and objectives of clients within the building industry***

Time, cost and quality are generally accepted as being the triad of client objectives (Ferry and Brandon, 1991). It is proposed that the client's brief should not only contain their needs in respect of aesthetic and technical criteria, but also the client's objectives in respect of time, cost and quality (National Economic Development Office (N.E.D.O.), 1975). Masterman and Gameson (1994) recognise though, that these three objectives are "*interrelated and conflicting*" and often it is impossible to maximise one without compromising one of the other objectives. Hughes and Williams (1991) concur by stating that an imbalance occurs when one factor is neglected which results in a corresponding detrimental effect upon the other factors. These writers liken the relationship between time, cost and quality to the angles of a triangle and state, according to mathematics, that when the size of one angle is changed, the size of the other two angles are consequently adjusted. Thus, time, cost and quality share a similar rule. Furthermore, Hughes and Williams (1991) criticise the building industry for focusing only upon cost and time and neglecting quality. Clients should be informed of this relationship so that unrealistic expectations are not created with regard to maximising time, cost and quality.

Time, cost and quality requirements are often referred to without explaining what the likely requirements are for each. Ferry and Brandon (1991) provide examples of what the requirements may possibly be in terms of cost and time. Time requirements may include: *the shortest possible construction time from inception to turning the key; shortest contract period from the time contractor starts on site; guaranteed completion date requested by client or offered by contractor; early completion unwelcome; phased construction to accommodate heavy plant installation (such as the installation of TV transmitters) and handing over the*

*building sections*. These examples proposed by Ferry and Brandon (1991) indicate the numerous possible objectives that may be considered "time requirements." In the same way, the options for cost requirements can be equally numerous. Ferry and Brandon (1991:14) present an exhaustive list from which some examples of cost requirements have been selected, namely: *low total project cost; low cost in relation to units of accommodation; best combination of capital and maintenance cost; minimum capital commitment by client until project completed ie. contractor to bear some risk*. Ferry and Brandon (1991) propose other cost requirements which clients may expect from the quantity surveyor, rather than needing to state it as a primary cost objective. These include *good budgetary control; good forecast of cost at contractual commitment and timing of cash flow to optimise the client's capital*. The list of cost requirements presented above may not be mutually exclusive and thus, the client may opt for a combination of these.

Furthermore, Masterman (1992) contends that on the question of time as an objective, the client often does not want to pay extra for an earlier completion. Moreover, clients are more interested in value for money on building projects and that the buildings are delivered timeously. Furthermore, it is contended that clients are generally most vague about building duration requirements than any other aspect of building.

The client's requirements for quality can be defined as value for money. The Royal Institute of Chartered Surveyors (R.I.C.S.) (1991) state that clients require quantity surveyors to take quality into account when balancing cost. Clients require the maximisation of value, to add to the final value of the building and to the value of the client's business. In the past, quantity surveyors have been criticised for their "narrowness of vision" in being too cost-orientated and overlooking the virtues of quality or value for money (R.I.C.S., 1991). Quality can be considered in design by providing the client with a functional building where the client's needs in terms of accommodation, aesthetics amongst others, are optimised. Quality need not only be viewed as value for money, but the client's request for the implementation of a quality management program which incorporates all members involved in procuring the building project.

Bennett and Flanagan (1983:27) present a comprehensive list of client needs which are the result of case studies of UK and US projects. The following list of client needs is presented:

- (i) functional building, at the right price*
- (ii) quality, at the right price (value for money)*
- (iii) speed of construction*
- (iv) a balance between capital expenditure and long term ownership costs*
- (v) recognition of risks and uncertainty associated with the project*
- (vi) accountability in the public sector*
- (vii) innovative design, high technology building*
- (viii) maximisation of tax benefits*
- (ix) flexibility to change the design during construction*
- (x) the ability to reflect the client's activities and image*
- (xi) minimising future maintenance costs*
- (xii) the need to keep existing buildings operational during the construction of additional work.*
- (xiii) a desire to be involved and to be kept informed of progress throughout the project duration.*

This list of client requirements indicates the challenge that faces the construction industry, and especially the professionals who are normally entrusted with the management function of building projects. Keeping the client satisfied in terms of project performance requires that building professionals exhibit, not only inherent ability in performing their own primary function, but also the ability to function as a team within the selected procurement system to achieve the objectives presented above (Naoum and Mustapha, 1994).

This research project is mainly concerned with the service provided by quantity surveyors, the level of service quality achieved and the resultant satisfaction attained by meeting the client's requirements. Therefore, the section that follows will deal with needs and objectives of clients in respect of quantity surveyors' services.

#### *4.3.2 Needs and objectives of clients with respect to quantity surveying services*

Clients employ the services of any professional as a result of their own inability to perform the task required. Clients of the building industry employ quantity surveyors for their expertise in performing the financial function associated with the building process. As presented above "cost" is one of the primary objectives of the client. Furthermore, Ferry and Brandon (1991) state that it is unlikely that clients have no financial constraints or an unlimited budget. The importance of financial control coupled with the client's vulnerability due to lack of expertise, requires that the quantity surveyor deliver a high quality service.

The R.I.C.S. (1991) present the following client requirements in respect of quantity surveyors' services:

- (i) performing the financial function as an extension of the client's organisation.*
- (ii) performing tasks with the client's best interests at heart.*
- (iii) demonstrating a pragmatic and realistic approach to the project.*

According to the R.I.C.S. (1991) the "pragmatism and realism" demonstrated by quantity surveyors is highly valued by clients. Moreover, it is the quantity surveyor's intimate knowledge of construction procedures that provide a solid basis for the development of professional services. The R.I.C.S. (1991) contends that it is the ordered and analytical procedures required of the quantity surveyor to quantify building work that provides such a sound basis for construction procedures.

Furthermore, accurate early cost advice was found by the R.I.C.S. (1991) to be an important requirement of clients in respect of quantity surveyors' services. This is indeed a challenge to quantity surveyors, as uncertainty usually exists in the exact needs of the client and with respect to design aspects at an early stage of the project.

According to the R.I.C.S. (1991) clients require a commitment to cost control, not only from the quantity surveyor, but from all members of the construction process. Moreover, cost control is more than ensuring that the costs do not exceed the early estimates. Cost management includes anticipating problems and informing the client timeously so that cost

effective solutions can be found and implemented.

The R.I.C.S. (1991) raises the concern of clients regarding quantity surveyors' integrity. Clients require quantity surveyors to act independently of other parties to the building process. Moreover, clients require independent advice from quantity surveyors free from vested interests. Furthermore, quantity surveyors should carry out their duties as though they were an extension of the client's organisation.

#### 4.4 Quantity surveyors' services

Willis and Ashworth (1987:19) present the definition of quantity surveying according to the Royal Institute of Chartered Surveyors:

*" ensuring that the resources of the construction industry are utilised to the best advantage of society by providing, inter alia, the financial management for projects and a cost consultancy service to the client and designer during the whole construction process. "*

Willis and Ashworth (1987:19) list the following summary of the work done by a quantity surveyor:

- (i) Preliminary cost advice and approximate estimating*
- (ii) Cost planning including investment appraisal, life-cycle costing and value analysis.*
- (iii) Contractual procurement and tendering procedures.*
- (iv) Preparation of contract documentation.*
- (v) Evaluation of tenders received.*
- (vi) Cash flow forecasting, financial reporting and interim payments.*
- (vii) Final accounting and settlement of contractual disputes.*
- (viii) Cost advice during use by client.*

Quantity surveyors act as a link enabling the designer to understand the cost consequences of the brief, the contractor the construction sequences of the design and the client or building owner the financial impact of the building (Hinds, 1992).

Furthermore, Willis and Ashworth (1987) have identified four areas where quantity surveyors require skill to perform their function namely, economic, legal, technological and managerial. Economic skill requires that quantity surveyors understand the time value of money as well as being able to provide advice on cost efficiency in building. Legal skill incorporates a sound knowledge of law pertaining to building contracts as well as other aspects of law for the purposes of settling disputes and evaluating the legal validity of claims. The third skill required by quantity surveyors is of a technological nature. Technological skill can be described as the knowledge required to understand the building process and the building products utilised. This skill is important for measuring the building project and providing comparative cost advice for various aspects of design. Managerial skill is necessary for the organisation of work and the performance of the administrative function.

Irrespective of the procurement system selected, the quantity surveyor may be required to perform a combination of any one of the operations as represented in the following subsection (Willis and Ashworth, 1987 and Ferry and Brandon, 1991).

#### ***4.4.1 Establishing the brief***

As discussed earlier, clients such as the secondary inexperienced client, do not possess the ability to compile an explicit brief. The brief is the most useful tool in establishing the client's objectives and consequent requirements. The brief should indicate the client's needs in respect of the cost limit, project duration, accommodation and speed of construction. Establishing these needs will assist in establishing the most appropriate method of procurement. The briefing process should elucidate the client's desire to be involved and their ability to participate in design decisions. Furthermore, the nature of the client can be established in accordance with the categorisations presented above which will indicate the level of assistance and communication needed to interface with the client. The quantity surveyor can use the briefing process as a forum for establishing the client's requirements of the quantity surveying function.

Hinds (1992) suggests that the quantity surveyor's role in the initial stage when the scope of the project is being formulated is of extreme importance, as it is at this stage when the

client's expectations are being formulated with regard to the project performance.

#### *4.4.2 Establishing the budget*

Part of establishing the brief is setting the cost limit or budget. The client will require the quantity surveyor to estimate the cost associated with the building required. According to Willis and Ashworth (1987) the quantity surveyor is often presented with incomplete or vague information to be used as a basis for setting the budget. It is contended that clients generally remember the first estimate only and become dissatisfied when the costs exceed the initial estimate irrespective of whether they have ordered changes through the design and construction of the building.

#### *4.4.3 Assistance in selection of a procurement system*

Since the quantity surveyor will assist in establishing the brief, and thus will understand the client's primary objectives, advising on the method of procurement is appropriate. Choosing the most suitable method of procurement in accordance with the client's requirements will assist in attaining client satisfaction with the building process. Davenport (1994) states that the construction professionals are required to guide the client in the selection of the procurement system which will achieve satisfaction with the investment as well as be consistent with the client's requirements for the level of participation in the process. Furthermore, Davenport and Smith (1995) purport that establishing the degree to which clients wish to be involved is critical to the client's assessment of the level of satisfaction attained with the construction investment.

The R.I.C.S. (1991) state that in the past quantity surveyors were only involved in the preparation of bills of quantities. However, the scope of the quantity surveying profession has grown to include the co-ordination and management of the procurement process. Furthermore, quantity surveyors should be in a position to inform clients of the various methods of procurement and advise the client on the selection of the procurement process most suitable to the client's objectives.

#### ***4.4.4 Provision of feasibility studies***

The purpose of preparing a feasibility report, argue Carlidge and Mehrrens (1982), is to provide the client with a sound basis for deciding whether to proceed with the project or to terminate further development of the project. The feasibility study examines the financial viability of developing the project by investigating the cost of the project and comparing this with the expected income that the building will generate. The cost of the project incorporates factors such as the building cost, the land cost and the professional fees whilst the income comprises the rentals and tax relief that the building will generate (Ferry and Brandon, 1991). Furthermore, it is an opportunity to establish whether it is possible to fulfil the client's requirements as set out in the brief under the constraints imposed.

#### ***4.4.5 Performing cost planning and control***

Billet (1990) contends that cost planning comprises two stages. The first occurs during the initial stage where the cost limit (budget) is established by the quantity surveyor. This involves estimating the building cost of the proposed project. The second stage identified by Billet (1990), is the cost control function, which ensures that the architect designs the building so that it can be built within the budget. This is achieved by distributing the total cost of the building across the elements of the building, resulting in a cost target for each element being established. Thereafter, the quantity surveyor performs cost checks by comparing the estimate for each element and the cost target. Where discrepancies are evident, the quantity surveyor will have to inform the architect and the situation may be remedied by redesigning the element. By performing regular cost checks, the cost implication of the design should not exceed the cost limit.

Willis and Ashworth (1987:143) propose that cost planning and control is a

*"system of relating the design of buildings to their cost, so that, whilst taking full account of quality, utility, appearance, the cost is planned to be within the cost limit of expenditure."*

#### ***4.4.6 Preparation of documentation for construction process***

Irrespective of the method of procurement, contract documents will need to be prepared. In the case of the traditional method of procurement, this includes preparing bills of quantities. Bills of quantities are prepared based on the drawing available and must take into account a description of the work and the relevant quantities in accordance with a standard system of measurement. Quantity surveyors should be adept at preparing specialist bills. Furthermore, the method of procuring will dictate the documentation required. Therefore, quantity surveyors should be sufficiently versed in creating building contracts to fulfil their specific purpose. For example, a quantity surveyor's services may be required under the "design and build" procurement method to create a specification or brief that the contractor can use to build from.

#### ***4.4.7 Preparation of cost reports***

Compilation of cost reports at all stages of the procurement process perform the function of informing the client and other members of the building team of the current financial position. Cost reports can be considered a medium for conveying construction cost advice to the client. Cost reports will reflect the stage of the contract and the payments to the contractor, thus reporting on progress with respect to the financial position of the contract.

#### ***4.4.8 Preparation of interim valuation certificates***

The quantity surveyor is responsible for administering interim payments to the contractor. Willis and Ashworth (1987) state that quantity surveyors prefer the contractor's surveyor to prepare an application for an interim payment. The quantity surveyor is responsible for paying the contractor an amount that represents the work done for the prescribed period. It is important that the amount verified for payment truly reflects the work undertaken by the contractor, to prevent the contractor leaving site before finishing the work. Furthermore, interim valuations are important to the contractor, as it may have consequences on his/her cash flow.

It is imperative that quantity surveyors perform this function responsibly, as the client relies on the accuracy of the interim valuations so as not to over-pay the contractor.

#### ***4.4.9 Settlement of the final account***

Where bills of quantities have been used, a final account will have to be agreed. The quantity surveyor processes all the variation instructions from the architect, any provisional items, day work and overtime to establish amounts to be added and deducted from the contract sum. Once the final account has been prepared it is sent to the contractor for approval. Willis and Ashworth (1987) caution quantity surveyors that often the contractor's record of variation instruction and other such information differs from that of the quantity surveyor. This results in a dispute in payment which must be resolved through negotiation. It is necessary for quantity surveyors to keep accurate records of all information necessary for the final account and also to keep clear records of how the final account sum was arrived at (Willis and Ashworth, 1987).

Willis and Ashworth (1987) state that where bills of quantities are not used, the principles remain the same when applied to a schedule of rates.

#### ***4.4.10 Life cycle cost analysis***

Clients are not only concerned with the initial construction cost, but also the future maintenance and energy implications of the design. Life cycle cost analysis is a modelling technique which examines the cost of alternative design specification by considering the future cost of maintenance (Ferry and Brandon, 1991). The quantity surveyor, when comparing the future costs of design alternatives, will not only take maintenance costs into account, but also tax relief, opportunity costs and inflation, amongst other factors. Cost analyses of this nature provide the architect and the client with information which will assist in making better design decisions.

Facilities management is concerned with optimising the design, management and planning of buildings to enhance the organisation's ability to meet its objectives. Quantity surveyors

possess the necessary skills for performing the tasks of a facilities manager, which may include functions as diverse as: space planning, space and furniture standards setting, project management (administration and implementation), scheduling, construction management and ongoing maintenance management. At the planning stage of the design process possibilities for future changing accommodation needs should be considered to optimise accommodation flexibility. Mole and Taylor (1993:29) contend that organisations are beginning to consider their property

*"as an important resource that needs to be incorporated into strategic business planning at the highest level."*

Construction professionals are criticised for not having drawn clients' attention to this previously. It is suggested by Mole and Taylor (1993) that quantity surveyors should provide a broader and more management orientated service incorporating such ideologies as those contained in facilities management. Facilities management can be considered a new development within the body of knowledge of life cycle costing.

#### **4.5 Client expectations of quantity surveyors' services**

Ferry (1978) states that the more experience a client has with the building industry the lower his/her expectations are likely to be. Moreover, Ferry (1978) contends that the lower the client's expectations are the more chance there exists of such being fulfilled.

Ferry (1978) lists several possible reasons for clients having expectations that are beyond the achievement of the building industry, moreover the quantity surveying profession, namely:

*(i) clients expect that in an industry such as this, where the building process has existed over hundreds of years, that organisational and technological problems have been solved. That is, clients expect that quantity surveyors will know exactly the cost and time implications of every unique building project.*

*(ii) the architect's objectives will be the same as the client's.*

*(iii) the quantity surveyor will act as a financial advisor and will strictly control the project*

costs.

*(iv) membership of a firm to a professional organisation will guarantee excellent professional performance.*

*(v) large construction organisations are well managed and are capable of achieving the project on time, within the budget and high quality in building.*

*(vi) experienced professionals will use their prior experience to provide accurate and not over-optimistic proposals for cost, time and building standards.*

Whilst the expectations above appear to be reasonable, Ferry (1978) states that it is the professionals who have caused such expectations to be illusory. Ferry (1978) contends that the interests of the client have not been represented during the evolution of the industry, but rather the interests of the architects and the contractor. Architects are criticised for focusing on their own objectives when designing rather than having the interests of the client at heart. The adoption of such an approach where the interests of parties other than the client are of central focus, negates the entire possibility of delivering a quality service and attaining client satisfaction.

Furthermore, clients rely on accurate estimating where such are described by Ferry (1978) as being no more than "subjective forecasts." Ferry (1978:9) provides the following quotation for lack of client satisfaction:

*"the basic single reason for lack of client satisfaction is that the members of the professional team and contractor have other and more important goals - profitability, an easy life, safeguarding of professional areas from each other and outsiders, maintenance of professional procedures and the satisfying of their own professional needs."*

Despite the possibility of dissatisfaction, the British Institute of Quantity Surveyors, as it was known at the time, had no complaints against any member by a dissatisfied client. Many reasons exist for such a record. Based on the literature presented in Chapter 1, dissatisfied

customers do not complain to the offending firm, they do not return. Moreover, negative word of mouth comments to other possible clients are often where complaints are aired.

Shannon (1978) draws a distinction between the expectation that clients have of the building industry in terms of the expectations clients *should* have against those clients *do* have. The expectations held by clients when entering an agreement with a consultant are listed below.

*(i) the consultant should view himself as an extension of the client's organisation and behave accordingly.*

*(ii) the consultant should measure the success of the project by the degree of satisfaction attained by the client rather than by the extent to which the consultants own prestige is enhanced.*

*(iii) the consultant should understand that the reason clients engage the services of a professional is owing to the fact that they are unable to perform the tasks themselves and therefore are vulnerable if the consultant is negligent or deficient.*

*(iv) the consultant should acknowledge that the client has constraints such as time and cost and be sensitive to such factors.*

*(v) all work relating to the project should be undertaken with the latest technology without using a project as an opportunity to test a new system.*

*(vi) the consultant should ensure that work undertaken by sub-consultants are of the same quality and thus not a scapegoat for apportioning blame.*

*(vii) the consultant should apply the same degree of diligence on documentation and supervision as that spent on design.*

*(viii) the consultant should possess the ability to inform client and other consultants of mistakes timeously to facilitate correction.*

Shannon (1978) proposes that in order to achieve client satisfaction the consultants themselves should know whether they are capable of fulfilling the client's brief. Moreover, he criticises the level of service provided by stating that consultants should be aware of the perceptions of those unsophisticated clients who expect to get the professional service that is being paid for.

#### **4.6 Delivering a quality service**

Kemp (1992) contends that implementing a quality management programme for quantity surveyors' services will prove advantageous. Installing a programme of such a nature means achieving quality by meeting the client's requirements. Kemp (1992) contends that quality management is the tool for consistently and reliably achieving client satisfaction. It also provides the client with confidence in the quantity surveyor's practice as all quality management procedures are presented to a third party for scrutiny.

Wagstaff (1992), a practising quantity surveyor, discusses the implications of the implementation of a quality programme. The programme subscribed to presents procedures for all aspects of work and for all members of staff. Wagstaff (1992) states that upon request for services, a partner of the firm establishes the client's requirements. This is documented and includes exactly which services are required as well as the terms and conditions under which such service should be carried out. The surveyor in charge of the project then proposes a quality plan which is checked and countersigned by the relevant partner. The actions required to fulfil the plan need to be checked against the firm's available resources to ensure that the client is not promised a level of service that cannot be attained.

A quality management programme such as the one presented above by Wagstaff (1992) ensures that the client receives the correct service at the first attempt, and minimises expensive and abortive work (Kemp, 1992). A successful quality programme requires continued commitment at every level of staff throughout the organisation.

From a marketing perspective, both Kemp (1992) and Wagstaff (1992) agree that a quality management programme demonstrates to clients the organisation's commitment to performing

the service reliably and consistently. Moreover, a total quality management programme is indicative of the commitment to meeting client requirements on every project and thus ensuring client satisfaction. Davidson (1992) concurs that the impetus of service quality is placing the client's needs first and performing the service correctly consistently (*ie.* getting it right the first time).

Grice (1992) states that to achieve a successful outcome, commitment from the top down and throughout the organisation must be assured. Furthermore, sound initial advice as well as a realistic budget and programme, together with management's commitment, will result in client satisfaction.

Davidson (1992) contends that client's expectations of construction on time, to specification and within budget creates a need for quantity surveyors to perform services accurately and reliably. The service provided should be tailored to suit the needs of the clients. Clients of the building industry are concerned with the project "fitness for purpose" and value for money.

#### **4.7 Summary of findings**

*A summary follows of the main points raised in Chapter 4.*

(i) Clients differ according to whether their spending is of a public or private nature. Public sector clients are accountable to the public, the external client, for public money. Public sector clients usually follow an established routine when procuring buildings and thus, require quantity surveyors to follow suit.

(ii) Clients also differ according to their level of experience in procuring buildings. The inexperienced clients may require more assistance in establishing their requirements in respect of building and the service required. Experienced clients usually have an understanding of the building industry and are capable of formulating a complete brief.

(iii) Clients can be separated into primary and secondary constructors. Primary constructors

build regularly for their own investment purposes where secondary constructors procure a building for their own use or occupation.

(iv) Combinations of the above categories exist and the needs vary accordingly.

(v) Client's primary requirements are considered to be cost, time and quality. However, these objectives are interrelated and conflicting, and it is often impossible to maximise one without compromising another.

(vi) Quantity surveyors are employed for their expertise in dealing with the cost related aspect of building, one of the client's primary objectives.

(vii) Quantity surveyors are expected to carry out their tasks as though they were an extension of the client's organisation.

(viii) Quantity surveyors offer a broad range of services which begins at the inception stage with establishing the brief, involves practising cost planning and control *ie.* keeping the project within the budget, preparing interim valuation certificates and settling the final account.

(ix) Quantity surveyors require economic, legal, managerial and technological skill.

(x) Quantity surveyors are particularly well skilled in assisting the client in establishing his/her needs and requirements and thereafter, in assisting the client in choosing the most appropriate method of procurement.

(xi) A means of achieving service quality in the quantity surveying profession is by implementing a quality management programme. This is a tool for consistently meeting the client's requirements and thus, keeping the client satisfied. A programme of this nature indicates to the client the quantity surveying firm's commitment to client satisfaction.

## **4.8 Conclusion**

Client expectations will depend on the nature of their organisation. Experienced clients are likely to be aware of the performance of the construction industry and more specifically, the level of service offered by the quantity surveyor. Quantity surveyors need to elucidate client requirements at the initial stage of the building process. Furthermore, both needs and objectives in respect of the building project and more specifically, quantity surveyors' services should be established. Clarity of this nature provides the quantity surveyor with a greater understanding of client expectations. The establishment of such expectations affords the quantity surveyor a better opportunity for tailoring service to suit the client's needs. This philosophy is the foundation of a quality management program which involves consistently meeting the client's requirements. Installing a quality programme in the quantity surveying profession as proposed above will facilitate delivering a high quality service and thus, achieve client satisfaction.

## 4.9 References

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## CHAPTER 5: THE PRACTICE OF QUANTITY SURVEYING SERVICE IN SOUTH AFRICA

### 5.1 Introduction

In Chapter 4, a literature survey was presented focusing on the theory of quantity surveying practice, taking into account local and international research. However, owing to the similarity of the construction industry locally and abroad (for example, the United Kingdom and Australia), Chapter 4 may be considered to have emanated from an *international perspective*. For this reason, Chapter 5 serves to specifically investigate the level of service quality as well as aspects of service causing dissatisfaction *in South Africa*.

In order to establish current practice in South Africa, research in this field needs to be identified. The sources for such research should emanate from the building industry or the academic institutions and thence manifest itself in journal articles, conference proceedings and occasional working papers. The preparation of the literature survey pertaining to this chapter presents a finding worthy of note, that being, *that a paucity of research and published material in the field of client satisfaction and service quality exists in the provision of quantity surveyors' service in South Africa*.

Having discovered that a dearth of information exists, the research that has been documented is presented. However, despite the paucity of information on client dissatisfaction with quantity surveyors' service, *where clients have indicated their dissatisfaction, it is of a vociferous nature*. This indicates that client dissatisfaction is evident, yet only limited research and published material exists on this topic. Furthermore, service quality in the provision of quantity surveyors' service has received no attention in South Africa. Having discovered the paucity of literature, this provides a strong motivation for the research at hand.

In this chapter, the client body will be discussed, areas of dissatisfaction presented as well as the current research into the marketing of quantity surveyors' services, presented.

## **5.2 South African building clients**

Myataza (1994) presents an investigation into the types of building clients in South Africa and their respective needs. This study provides a rare insight into the nature of the building client. No other documentation of the categorisation of South African building clients exists to this extent. Although Myataza (1994) draws upon literature of an international nature to identify client categorisation, South African building clients are grouped accordingly. Furthermore, Myataza (1994) conducted informal interviews with 53 clients out of approximately 200 clients registered with the South African Property Owners' Association (SAPOA). SAPOA is the only association representing construction clients in South Africa. It is possible that more clients exist, but are not members of this association. Clients' needs in respect of building requirements were surveyed, as well as, those needs of quantity surveyors, architects and contractors. Myataza drew a distinction between private and public sector clients. According to Wolf (1978), Myataza (1994) presents the categories of habitual, periodic and novice client.

### ***5.2.1 Habitual clients***

Habitual clients are those organisations who have an annual commitment to the construction industry such as property developers, insurance houses and investors, amongst others. Examples of these clients include organisations such as Sanlam, Old Mutual, Foschini and Pick and Pay. The former two organisations are insurance houses and the latter two organisations are chain stores: a clothing retailer and a home store. Habitual clients generally have their own specialised project management team who are highly experienced and qualified in the building industry.

### ***5.2.2 Periodic clients***

Periodic clients are those who build for their own spatial requirements but do not have a continued commitment to the building industry. The types of development periodic clients procure would include building their own head-quarters, factories, office accommodation, amongst others. These clients usually have staff who have been involved in procurement

before, yet still require the primary assistance of consultants. Myataza (1994) states that these clients can be considered to be "owner-occupier" since their building requirements are connected with their requirements for production of goods and services as the case may be.

### ***5.2.3 Novice clients***

Novice clients generally build for their own spatial requirements, but require greater support from the building consultants as their knowledge of, and involvement in the building industry is limited. Novice clients have one-off, or infrequent engagements with the building industry, where the procurement of larger residential property is developed for their own spatial requirements.

### ***5.2.4 The public client***

Myataza (1994) indicates the dichotomous nature of public sector clients *vis a viz* the public sector client *per se* and the public corporate client. The public sector's requirement for building is two dimensional, namely, the procurement of schools, hospitals and housing, amongst others, in terms of serving the public. Secondly, these clients procure for their own spatial requirements, such as office accommodation and depots. Many public sector clients such as the Public Works Department and large municipalities have their own professional staff including quantity surveyors, architects and engineers. Occasionally such departments enlist the services of consultants outside of their organisation.

#### ***5.2.4.1 The public corporate client***

The public corporate client has evolved in South Africa due to the nationalisation and privatisation policies. These clients indicate features of both private and public organisations, in that, whilst being listed on the Johannesburg Stock Exchange, they also provide social welfare services. Examples of the South African public corporate client include Escom, Telkom and Iskor (Myataza, 1994).

### 5.3 Client satisfaction with quantity surveyors' services

#### 5.3.1 *Intervention of the Association of South African Quantity Surveyors*

With the numerous problems facing the construction industry and the quantity surveying profession specifically, the Association of South African Quantity Surveyors (ASAQS)(1990) proposed a strategic plan for quantity surveying practices. In so doing, the ASAQS proposed a mission statement, goals and objectives. Moreover, the opportunities and threats facing the profession were also addressed. A weakness presented by the ASAQS included that *clients perceive the profession to be delivering an inferior service*. Furthermore, clients perceive a reluctance by practices to adapt to changing client requirements. Additional to this, were the problems relating to overrunning the budget, slow preparation and settlement of the final account. The strategic plan provides a insight into the awareness of the ASAQS for the growth of their profession and their appreciation of the problems facing the industry. Moreover, the ASAQS (1990) indicate that a lack of marketing skills is prevalent and that a requirement of future quantity surveying practices will be the employment of market research specialists to investigate client ratings of their service.

The objective of the 1991 Conference of the Association of South African Quantity Surveyors was to reformulate a strategic plan for the profession in the "new South Africa." This included papers being presented on the future role of the quantity surveying profession by a prominent client of the industry, an architect, a contractor and a marketer. Other papers were also delivered by quantity surveyors where insights were provided into the future of quantity surveying. Emanating from this conference, several points were raised which related to client satisfaction with the delivery of the construction industry and more specifically, the quantity surveying profession.

The section that follows presents the areas of client dissatisfaction with quantity surveyors' services.

### *5.3.2 Factors causing dissatisfaction with quantity surveyors' service*

#### *(i) Work reservation agreements between professionals*

Bester (1991) raises the issue of work reservation between quantity surveying and architectural practices. Architects are often the first construction consultant that the client approaches. This presents the opportunity for architects to recommend quantity surveying practices. As a result of this relationship, quantity surveyors may choose to maintain good relations to secure future work. This would incorporate acting as a "gate-keeper" for the architect on construction projects and concealing problems that the client may otherwise have been informed of. Therefore, a relationship of this nature does not serve the interest of the client as it results in a tendency to keep the architect satisfied, in the interests of procuring future work.

#### *(ii) Provision of poor quality*

Bester (1991) calls for the inclusion of guidelines for the provision of quality work. Furthermore, due to dissatisfactory service, he suggests that quantity surveying practices should be mindful of the level of expertise held by their employees. The production of work by inexperienced quantity surveyors results in poor quality and thus, client dissatisfaction. Hindle (1996a) agrees with the contention that the level of quality in all aspects of the building process has declined, referring to design information and contract documentation, amongst others.

#### *(iii) Lack of innovative service*

Ritchie (1991) suggests that quantity surveyors inform both the client and the architect of the possible services available. He states that quantity surveyors need to be innovative in their service provision, as areas exist for providing additional service. Furthermore, Ritchie (1991) indicates, that as an architect, he too wishes to be informed of the services available. Quantity surveyors should not assume that all clients and architects are informed of the services available. He purports that this should improve the entire service provision offered by quantity surveyors and would show a pro-active approach to cost management.

*(iv) Lack of teamwork*

Ritchie (1991) indicates a lack of teamwork on the part of the quantity surveying profession. Furthermore, as an architect, he has found that supporting the architect as opposed to usurping their position in meetings, provides a greater opportunity for future recommendation. Fraser (1991), in agreement with Ritchie (1991), states that teamwork is essential to providing a high quality service. Rowley (1995), relating the views of a prominent building client, states that the success of any building project relies upon the team members working harmoniously and toward a common purpose. She criticises the consultants for being too involved with substantiating claims, interpreting and redefining conditions of contract. The misdirection of these highly skilled consultants is not conducive to rendering the client satisfied.

*(v) Reactionary nature and limited responsibility*

Bester (1991) criticises the quantity surveying profession for being reactive and unwilling to accept responsibility. A dynamic approach to quantity surveying service is called for. Fraser (1991) agrees with Bester (1991), indicating that the provision of service by the quantity surveying profession tends to be reactive, following rather than leading. He suggests that the quantity surveying profession invest in strategic and visionary thinking.

*(vi) Lack of client focus*

Fraser (1991) suggests that quantity surveying practices need to subscribe to the philosophy of "*Client is King.*" To this end, Simpson (1991) supports Fraser (1991), indicating that quantity surveyors need to understand the requirements of their clients and adapt their services to suit the same. This is essential in the maintenance and growth of the client base.

*(vii) Function as a cost manager*

Ritchie (1991) calls for the quantity surveyor to perform the function of cost manager as opposed to that of a "cost historian." One of the client's main objectives is in respect of cost, that is, keeping within the budget and achieving value for money. The early warning of cost implications is necessary in keeping the project within budget, and thus keeping the client satisfied. Being termed a "cost historian" indicates that quantity surveyors fail to warn client and architects timeously of cost overruns.

*(viii) The inflationary nature of the Haylett Formula*

The Haylett formula, invented and supported by quantity surveyors, is utilised for adjusting tender prices to reflect escalation over time in the building industry. Bester (1991), a prominent building client, criticises the quantity surveying profession for surrendering to and accepting the notion of inflation. He suggests that the reason that the Haylett formula has not been removed, is that the professionals have a vested interest in inflation. Bester (1991) proposes that quantity surveyors are ideally set to call for the abolition of the Haylett formula and move toward fixed contract prices.

*(ix) Relation of fee structure to construction cost*

Bester (1991) criticises the linkage of fees to the construction cost. He states that this does not serve the purpose of keeping down costs and thus, providing value for money. Moreover, the linkage of fees to construction costs presents a motivation for increasing such cost unnecessarily. Furthermore, the work involved in specifying higher quality finishes does not incur extra work for the consultants, yet this will result in a higher fee charged, based on the increased building cost.

*(x) Professional protection*

Hindle (1996b) contends that work reservation by the professions is a contributing factor to client dissatisfaction. He states that traditional methods of delivery, devised to create work for the professions, has obscured the importance of placing the client's needs at the centre of the transaction. A customer driven philosophy may produce alternative methods in the building delivery process. Hindle (1996b) proposes that leadership, as opposed to fragmentation, would assist the compilation of a business strategy for growth. Furthermore, he suggests deregulation of the profession, permitting natural business forces to prevail. The resulting competition should amount to better service and thus, greater client satisfaction.

### ***5.3.3 Research into the marketing of quantity surveying services***

Simpson (1991), a marketer, was invited to deliver a paper at the 1991 conference of the ASAQS. To this end, he explained the importance of the professional service sector indicating that marketing was more than advertising or public relations. This paper clearly

specifies that marketing success occurs as a result of a customer-driven philosophy. Moreover, the knowledge of customer identity, their specific needs and the appropriate service are the means by which organisations maintain their client base and expand it in the future. Since Simpson (1991) is particularly interested in marketing professional services *per se*, the incisive insights into quantity surveying services that may have been presented, is thus, absent.

Phillips (1990) presents a strong motivation for the marketing of quantity surveyors' services. The paper outlines the importance of fulfilling the client's needs rather than fulfilling the needs of the "producer or seller." Phillips (1990) highlights the increasing sophistication of the selection, appointment and replacement of quantity surveying firms. Essentially, this paper deals with guidelines for marketing the professional services of quantity surveyors whilst remaining within the boundaries of professional ethics. From a purely marketing perspective, Phillips (1990) states that the provision of service quality is not sufficient for maintaining or expanding the client base, indicating that a pro-active approach to marketing is required. Furthermore, the provision of service quality is termed "*minimal marketing*" as it fails to employ further marketing procedures for extending the client base. This contention cannot be fully supported as the provision of service quality underpins a marketing drive. Moreover, marketing may attract prospective clients, but without the provision of high service quality new clients will become disillusioned. This is supported by the theory of client satisfaction presented in Chapter 2, where it was proposed that over exaggeration of the service when marketing will result in higher expectation and thus greater dissatisfaction. Therefore, high quality service is the foundation of a marketing drive.

Bowen and Rwelamila (1995) investigated the marketing development of consultancy firms, including quantity surveyors, in South Africa. To this end they found that a paucity of literature on, and empirical studies in, the marketing of quantity surveying service. The findings of their empirical study indicated that two-thirds of quantity surveying practices do not subscribe to a marketing philosophy where the organisation does not possess a marketing department or person responsible for such practice. Contrary to this finding, Bowen and Rwelamila (1995) found that quantity surveyors subscribe to a client-orientated philosophy. This research is at the forefront of marketing research in the provision of quantity surveyors

service and provides a useful insight into further work.

#### ***5.3.4 Client and architect satisfaction with construction cost advice***

Procter and Bowen (1992) present the findings of a national postal questionnaire survey investigating client and architect satisfaction with construction price advice. To this end, they state that most research in South Africa has concentrated on principles and techniques of construction cost advice, but have failed to investigate users' needs and requirements in respect of such service. Procter *et al.* (1993) found that a gap exists between clients', architects' and quantity surveyors' perceptions of construction cost advice, in respect of the provision and communication of such. This perceptual gap has resulted in client and architect dissatisfaction. Whilst this research was at the forefront of client satisfaction, it failed to investigate client satisfaction with post-tender services. Moreover, the study was framed within the scope of the traditional method of procurement. Procter *et al.* (1993) introduced the concept of service quality. However, only a brief reference to service quality was presented. Two service delivery dimensions, namely, communication and knowing/understanding the customer were investigated. These two papers, however, present the first study into client and architect satisfaction with quantity surveyors' service in South Africa, as such.

#### ***5.3.5 Provision of quality***

Scott (1990:13) states that the survival imperative is "*to provide excellence in service.*" During a period where South Africa is experiencing high interest rates, high taxation, high inflation and high salary demands, amongst others, it is important that the quantity surveying profession becomes "*relevant and indispensable.*" Scott (1990) proceeds with several points for the preservation of the quantity surveying profession, namely, with regard to fee negotiation, being adequately geared to deal with the pending changes in South Africa, insisting on more comprehensive drawings and information, and investigating lump sum and package deals for additional work. In the summation of the relevant points pertaining to the paper, Scott (1990) fails to focus on the importance of service quality, previously referred to as being important.

Alman (1989) presents research into the barriers to quality in the South African building industry. Whilst this research focuses on quality in the delivery of the building industry as a whole, it does not investigate any aspect of client satisfaction with quantity surveyors' services.

### *5.3.6 Future quantity surveying services*

Two schools of thought exist into the future of the quantity surveying profession. Firstly, that quantity surveyors increase their opportunities by moving toward project development, and secondly, that quantity surveyors broaden their service provision. Quantity surveyors are dissatisfied with the lack of profitability of pursuing this profession. The move toward project development would be more lucrative, but would result in a choice being made between consultancy and project management. By undertaking project management, quantity surveyors are competing with their clients for projects and thus, acting as consultants, at the same time would lead to a conflict of interest (Anon., 1995). Some quantity surveyors feel that to be pro-active in selling a project idea to a developer is time-intensive. Once the developer takes on the project that has been researched by the quantity surveyor, he/she stands to make a profit as a result of the quantity surveyor's proposal (Anon. 1995).

Garret (1986) undertook a research project investigating the present and future potential of the quantity surveying profession. Although a brief literature research was presented, the conclusion of the thesis was that the quantity surveying profession should change its approach from a traditional one to comply with "current thinking." To expand, Garret (1986) recommends that quantity surveyors should specialise in appropriate fields such as insurance, tax and valuations. Furthermore, quantity surveyors should market their services with the intention of informing clients of the services available and the associated costs.

Garrett's (1986) dichotomous approach to the future of quantity surveying in South Africa includes a public-relations approach by the profession and a service-orientated approach. The former approach would serve to improve the image of the quantity surveying profession. Furthermore, he suggests that the professional association governing quantity surveying practice should also attempt to inform clients of types of services available and the associated

costs in the form of fees. Professional bodies would operate from a collective budget, far greater than the budget held by an individual firm, and thus, use this advantage to promote public relations.

Garrett (1986) investigated the options available to quantity surveyors such as valuation, investment analysis, building tax consultancy, valuation surveying, building insurance consultancy amongst others. These proposals indicate that a future exists for quantity surveyors that is not necessarily part of quantity surveying practice, *per se*.

Naude (1994) submitted a research report entitled "*the quantity surveyor, his practice and administration.*" In this research report, Naude (1994) attempts to direct quantity surveyors into developing a successful practice emphasising the importance of the client to the future of the construction industry, and more specifically, to the quantity surveying profession. Furthermore, it is proposed that clients should be surveyed to establish their opinion on service provision as well as to elucidate their requirements. Having established their requirements in terms of service provision, quantity surveyors should set about meeting and exceeding these requirements in order to achieve client satisfaction. Thereafter, quantity surveyors should monitor the service provision by means of constant communication with the client body as well as establishing feedback mechanisms to this end.

Naude (1994) emphasises the importance of the intangible aspects of service delivery such as neat appearance of staff as well as tidy and modern office space. Although, the intention of Naude's study is to provide guidelines for delivering a high quality service, the research itself does not contain any empirical study as to the current level of service quality in the quantity surveying profession in South Africa.

#### **5.4 Summary of findings**

- (i) Clients are dissatisfied with several areas of quantity surveying provision. This includes:
- : work reservation agreements between professional practices
  - : provision of poor quality service
  - : lack of innovative service

- : lack of teamwork
- : the reactionary nature of quantity surveyors
- : the culture of the adoption of limited responsibility
- : the lack of client focus
- : the lack of cost implications timeously
- : the inflationary nature of the Haylett formula
- : the linkage of construction cost to fees charged
- : protection of the professionals

(ii) The Association of South African Quantity Surveyors have undertaken strategic planning wherein areas of dissatisfaction experienced by clients are featured. *Therefore, it would appear that quantity surveyors are indeed aware of client dissatisfaction with the provision of quantity surveyors' service.*

(iii) Quantity surveyors in South Africa do not subscribe to a marketing philosophy

(iv) Client and architect dissatisfaction has been established with the provision of construction cost advice.

(v) Marketing the quantity surveying profession can also be considered the responsibility of the professional body, namely the ASAQS.

(vi) The importance of providing service quality, that is meeting the client's needs, is suggested as being the tool for the future growth of the profession. Furthermore, quantity surveyors should monitor service provision through constant communication. Moreover, a feedback mechanism for establishing satisfaction is recommended.

(vii) A paucity of literature on service quality in the provision of quantity surveying service in South Africa is noted.

## 5.5 Conclusion

Two major conclusions are apparent from the presentation of this chapter. Firstly, a paucity of published material exists on the provision of service quality in the quantity surveying profession. This is not to say that the quantity surveying profession is not aware of the importance of a customer-driven philosophy. This is demonstrated in the adoption of "strategic planning" as being the subject of the 1991 Conference of the ASAQS. Furthermore, marketing was found to be employed to a lesser extent. In many ways, the quantity surveying profession is bound by its own perception of professionalism, which excludes the importance of focusing on a marketing perspective, generally, and service quality perspective, specifically.

Secondly, it was found that there are numerous other specific problems causing client dissatisfaction. Furthermore, there are problems within the quantity surveying profession such as lack of team work, lack of client focus, behaving in a reactionary manner, cost reporting instead of cost management, inflationary fees and a lack of predisposition toward keeping the client satisfied. The problems emanating from the literature in South Africa suggests that problems experienced by clients in South Africa are not far removed from those experienced by their counterparts abroad.

The presentation of the findings suggest that issues surrounding service quality in the provision of quantity surveyors' services are not being addressed, yet a need for such exists. This is due to the fact that client dissatisfaction exists together with the paucity of literature available in South Africa.

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## CHAPTER 6: QUANTITY SURVEYING PRACTICE: PILOT STUDY

### 6.1 Introduction

The presentation of Chapter 5 indicated areas of client dissatisfaction germane to South Africa and the apparent lack of research. Whilst Chapters 2 through 5 presented the literature pertaining to satisfaction, service quality and quantity surveyors' services, Chapter 6 provides the beginning of the empirical study which is contained in the following two Chapters. This chapter contains the results of the pilot study which took the form of an interview survey in the Western Cape. Ten client representatives and ten quantity surveyors participated in this survey. This chapter serves to provide an indicator of the problems within the area of service provision. This is followed by Chapter 7 where the findings of the national questionnaire survey on service quality is presented.

### 6.2 Research objectives of the pilot study

The objectives of the pilot study may be listed as follows:

- (i) To establish indicators into the selection criteria used by clients when employing quantity surveying firms and quantity surveyors' perceptions of the same.*
- (ii) To provide a preliminary examination of client expectation and their perception of performance.*
- (iii) To establish an insight into client preference with regard to selected service attributes.*
- (iv) To investigate possible indicators of client satisfaction with quantity surveyors' services.*
- (v) To provide a preliminary insight into client perceptions of service performance and quantity surveyors' perceptions of the same.*

*(vi) To use the findings of the pilot study to assess the relevancy of the application of the SERVQUAL Instrument.*

### **6.3 Research methodology**

Candidates for the pilot study were selected from the Association of South African Quantity Surveyor's (ASAQS) and South African Property Owners' Association's (SAPOA) mailing lists in the Western Cape area. A list of possible respondents was compiled randomly to represent a cross section of clients and quantity surveyors. The client group represents private and public sector clients, experienced and inexperienced, as well as primary and secondary clients. The quantity surveying firms selected represent small to large practices. Respondents were telephoned to seek cooperation, and thereafter appointments were made with senior partners, in the case of quantity surveying practices. In the case of client organisations, the representative most directly involved with the quantity surveyor on their building projects was interviewed. This culminated in ten client organisations and quantity surveying practices respectively agreeing to be interviewed. Furthermore, all interviewees were male and thus, references in the text to such respondents will be in the corresponding gender.

Whilst it may be argued that ten respondents from both the client and quantity surveying group do not constitute a large sample, it is considered sufficiently large for the purposes of establishing indicators and trends in a pilot study. Whilst no conclusive findings can be made, the pilot study provides a foundation for the main study, namely, the national survey presented in Chapter 7. Furthermore, the respondents to the pilot study reside in the Western Cape area and more specifically, in Cape Town. Cape Town is the capital city of the Western Cape province. The Western Cape represents the province with the second largest number of clients and quantity surveyors. For the purposes of this study, it was decided that respondents from the Western Cape would equally represent the views of clients and quantity surveyors situated elsewhere geographically in South Africa.

Questionnaires were compiled for both the client and the quantity surveying group. Having compiled the questionnaire aimed at the client group, the questionnaire used for the quantity

surveying interviews followed the former save that the intention was to establish quantity surveyors' perception of client responses. Thus, where clients were asked their perception of an aspect of service, quantity surveyors were asked to state their perception of client response. This served to fulfill the fifth objective of the pilot study.

The questionnaires were designed around issues emanating from the literature and contained five parts respectively which can be listed as follows:

#### Part 1: Selection criteria

The questions contained in Part 1 attempt to provide an insight into the selection criteria used by clients for employing quantity surveying practices. The questionnaire designed for the quantity surveying group surveys their perceptions of the selection criteria used by clients.

#### Part 2: Client requirements

Part 2 of the questionnaire was designed to inquire into client perception of the extent to which quantity surveyors' services fulfill their needs. Clients were asked to state how quantity surveyors ascertain their needs, whether this is a satisfactory method, and lastly, how clients would prefer this to be established.

#### Part 3: Communication of range of services available

The purpose of this part of the questionnaire serves to inquire into the extent to which quantity surveyors extend their service beyond the core service. Quantity surveyors were asked whether they inform their clients of the services available or whether they assume them to be informed. Furthermore, clients were asked whether being informed of the services available would impact of their level of satisfaction.

#### Part 4: QS and client role in the Design Team

Questions in Part 4 focus on participation of the client and the quantity surveyor in the design team. Firstly, the quantity surveyor's role in the design team is questioned and the client's perception of that aspect of service is discussed. Furthermore, the relationship between treating the client as a valuable member of the design team and client satisfaction, is pursued.

### Part 5: Satisfaction attained

Whilst the first four parts of the questionnaire sought to provide a greater understanding of the possible aspects of service which may affect satisfaction, Part 5 focuses on the methods employed by quantity surveyors in investigating client satisfaction. Questions are asked to elucidate whether quantity surveyors enquire about client satisfaction and, if so, the method employed in so doing. This would indicate the quantity surveyors commitment to client satisfaction. Furthermore, clients were asked to indicate what aspects of service result in satisfaction and dissatisfaction, as well as to suggest possible improvements to quantity surveyors service. Lastly, clients were asked to rate their level of satisfaction whilst quantity surveyors were asked to indicate their perception of client satisfaction. The purpose serves to illuminate whether a gap exists between clients' and quantity surveyors' perception of satisfaction and service quality.

To facilitate the accurate recording of responses, the questionnaires were designed to include both open and closed questions. The open questions permitted respondents to render their own points of view, which were not prompted by a range of possible answers contained in the questionnaire as was the case for the close-ended questions. For the majority of close ended questions, proposals were suggested with a five point scale ranging from always, frequently, occasionally, seldom to never. To promote the presentation of the findings, the responses, where applicable, have been divided into two groups, namely, always and frequently, and occasionally, seldom and never. The questionnaire used for the client and quantity surveyor interviews are contained in Appendix B and C.

Having established the objectives and methodology employed, the findings of the pilot study are presented.

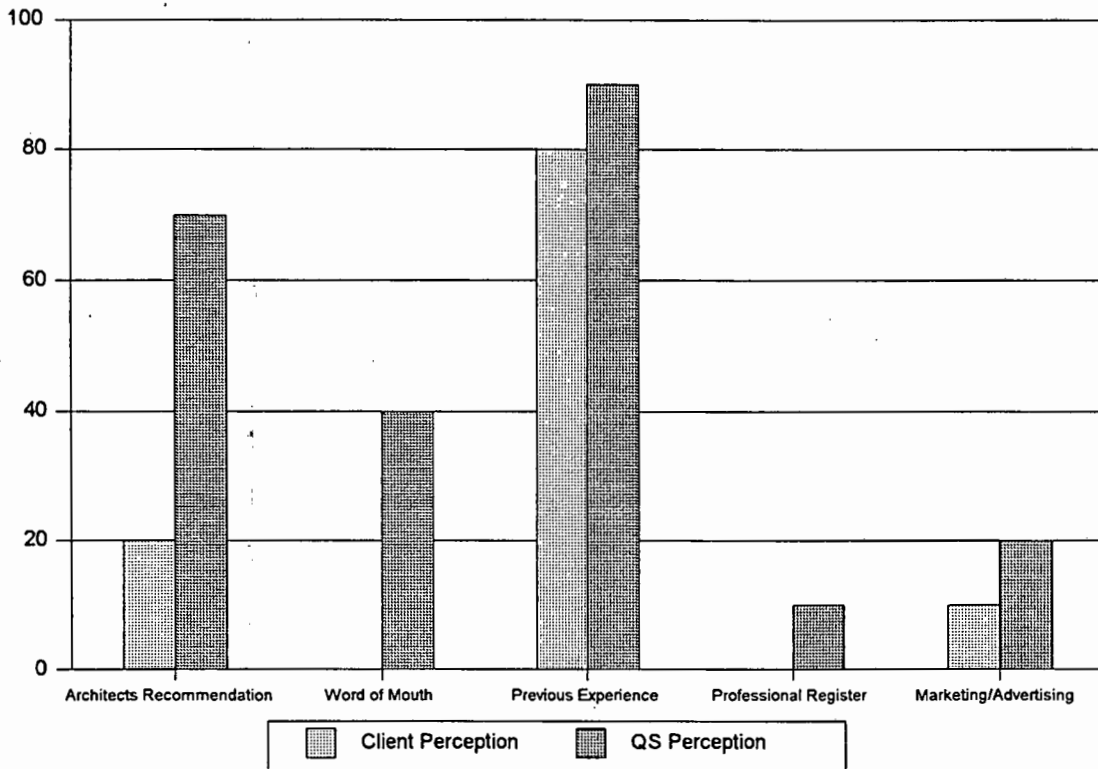
### **6.4 Findings of the interview survey**

The findings of the pilot study are presented according to the questions posed, which are recorded in italics with the question number.

### 6.4.1 Selection basis of QS firms

*How do you normally select a quantity surveying firm for your building projects? ( Question 1.1)*

Both clients and quantity surveyors were asked about selection criteria. Quantity surveyors, however, were asked to present their perception of the selection criteria. The response to this question is contained in Figure 6.1. Furthermore Figure 6.1 presents the summation of the responses to "always" and "frequently" contained in the questionnaire. This represents the scenario that occurs most often and can be deemed to be current practice. The summation of these two responses is used throughout the presentation of the tables that follow.



**Figure 6.1 Selection criteria for the employment of quantity surveying practice**

### *Previous experience*

It was found that eight out of ten clients always or frequently base the selection of quantity surveying firms on previous experience. This is corroborated by 9 of the quantity surveyors who indicated that previous experience was always or frequently the criteria for selection.

### *Architect's recommendation*

Seven members of the client group indicated that it was *seldom or never* recommendation by the architect that served as a selection criteria. Quantity surveyors, however, do not subscribe to this perception: seven out of ten quantity surveyors indicated that recommendation by the architect was often the reason for selection.

### *Word-of-mouth*

All clients interviewed indicated that they rarely (occasionally, seldom or never) employed quantity surveying practices based on word-of-mouth. A propensity of quantity surveyors (6 out of 10) perceive clients' basis of selection to be as a result of word-of-mouth frequently or occasionally.

### *Marketing or advertising*

Seven clients stated that marketing or advertising on the part of the quantity surveyor seldom or never served as a basis for selection on building projects. Quantity surveyors, alternately, were more optimistic about the strength of marketing being a reason for selection, indicating that this was frequently (2 of the respondents) or occasionally (7 of the respondents) the reason for selection.

### *Professional register*

Furthermore, the majority of clients (9 out of 10) seldom or never used the professional register for selecting the quantity surveying practice. Quantity surveyors' perceptions concur with those of the client since eight out of ten indicated that this is seldom or never the case.

The response to the close-ended questions indicates that whilst both clients and quantity surveyors acknowledge the importance of positive past experience for re-selection of a building project, quantity surveyors place stronger importance on the architect's

recommendation for re-selection. This finding suggests that quantity surveyors place the architect's needs above that of the client on a building project in order to procure future work. Clients' perception that they are rarely influenced by word-of-mouth contradicts the findings of Szabo (1989) who investigated the damaging nature of negative word-of-mouth comments which was presented in Chapter 1.

*It is evident from the opinions of the respondents and the presentation thereof in Table 6.1 that previous experience is the most important selection criteria for clients when selecting a quantity surveying firm. Furthermore, under all the headings presented above except "professional register", a perceptual gap exists between clients and quantity surveyors.*

In addition to the close-ended questions above, both the client and the quantity surveying groups presented comments on important selection criteria. Having collated all the comments, certain commonalities amongst the raw data were identified. To this end the creation of Table 6.1 is useful in identifying such commonalty, on one hand, and disparity on the other.

**Table 6.1 Summary of client and quantity surveyors' comments of aspects of service highly regarded in the selection criteria**

	Core Service	Overall service quality	Empathy	Assurance	Competence	Reliability	Access
Client	√√√√ √√√	√√	√	√√	√√√	√	√√
Quantity surveyor	√√√√ √√	√√√	√√√√√ √√	√	√	√	

Based on the findings presented in Table 6.1, it is evident that the core service is of extreme importance to the client. Quantity surveyors are of like mind as to the importance of the core service. The core service includes accurate estimating, ability to undertake cost control, inventive cost saving amongst others. Core service is not the focus of this study, however the importance of the provision of such is not disputed. The core service is the very reason clients seek professional service. *Having stated the importance of such, clients have not only suggested that selection depends on the ability to provide the core service alone. Clients have*

*indicated the importance of service quality, by virtue of stating the importance of empathy, assurance, competence, reliability, and access amongst others in the selection process. Quantity surveyors' perceptions concur with those of the clients that the core service is not the only aspect of service important to the client.*

Empathy, which incorporates good personal relationships and compatibility amongst others is perceived by quantity surveyors as a predominant reason for selection on building projects. In both cases, competence and access were perceived to be of greater importance to clients than to quantity surveyors. *Therefore, a perceptual gap exists between clients and quantity surveyors with regard to the importance of the dimensions of service.*

At the outset of the pilot study, it was postulated that only the pre-tender services (construction cost advice) should be asked after, a sub-set of the core service. This early advice is considered to have far reaching implications on the project's success. However, it was found through discussion with the two groups that this imposed an unnecessary limitation on the investigation into client satisfaction. Thus, whilst clients have responded to this survey, as far as possible, in terms of construction cost advice, the main study that follows investigates service provision in its entirety.

#### ***6.4.2 Extent to which client requirements are fulfilled***

*Do the services provided by the quantity surveyors fulfill your needs? (Question 2.2)*

Seven out of ten clients indicated that quantity surveyors always or frequently fulfilled their requirements. Quantity surveyors were extremely optimistic with regard to fulfilling such needs since all quantity surveyors (100%) surveyed stated that they always or frequently fulfill the needs of the client.

*This question indicates that quantity surveyors are probably unaware of the disparity that exists between their perception of service and the client's perception of the lack thereof. Furthermore, the client's response suggests a lack of satisfaction and by implication a lack of service quality.*

Furthermore, discussion emanated on how the fulfilment of requirements was achieved in the opinion of the client group as well as the quantity surveying group. For both groups the opinion of each of the interviewees was collated and thereafter, keywords were found to summarise the opinion. The following keywords represent the client opinion on how the requirements are met: *insistence, repeat purchase, communication and compliance to brief*. The comments and the respective keywords, indicate that clients do not always receive the service required as a matter of course, but invariably have to take an aggressive stance in having their requirements met. Words such as *demanding, insisting* and *telling* amongst others indicates the client's approach to obtaining satisfaction.

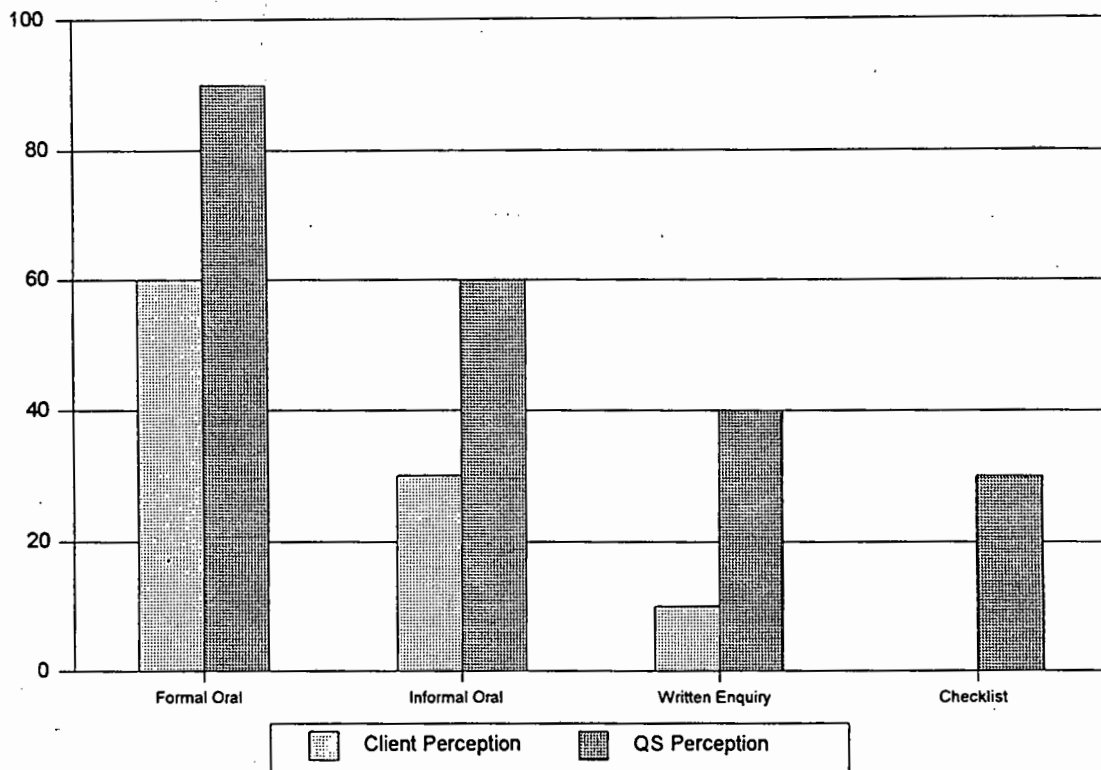
Quantity surveyors, alternately, were asked to comment on how client requirements were met. In many cases, the quantity surveying group indicated that it was the provision of the core service that resulted in fulfilling the clients' needs. Furthermore, quantity surveyors indicated that their clients' requirements are fulfilled by the provision of service quality. Moreover, it is the provision of empathy by the quantity surveyor that is paramount in fulfilling client requirements.

*Although within both groups common opinion exists, a comparison between the groups indicates a disparity in the achievement of fulfilling client requirements. Whilst quantity surveyors purport to achieving service quality, clients indicate that a less idyllic situation exists which is apparent in their perception of having to pursue quantity surveyors for the service.*

#### **6.4.3 Ascertainment of client requirements**

*How do quantity surveyors ascertain your requirements ? (Question 2.3)*

This question was posed to clients to elucidate current practice, to ascertain whether it is effective and lastly, to elicit from clients the method they would rather quantity surveyors employed in establishing their requirements. The response to this question is contained in Figure 6.2.



**Figure 6.2 Method employed in establishing client requirements (Q2.3)**

It was found that clients are generally asked either informally on site (3 out of 10) or formally; for example, at a meeting (6 out of 10). Only one client stated that he had been presented with a written enquiry. Furthermore, clients were seldom or never (7 out of 10) presented with a checklist of the services they require.

Quantity surveyors' perceptions of the same were concurrent yet the magnitude of the answer varied. Formal or informal oral enquiries appear to be the most common approach in establishing clients' requirements, numbering 9 and 6 respondents respectively. More quantity surveyors than clients indicated that written enquiries were the norm (4 quantity

surveyors and 1 client). Again, more quantity surveyors (3 out of 10) than clients indicated that the use of checklists, always or frequently, was current practice, with only one quantity surveyor indicating that this is occasionally the case.

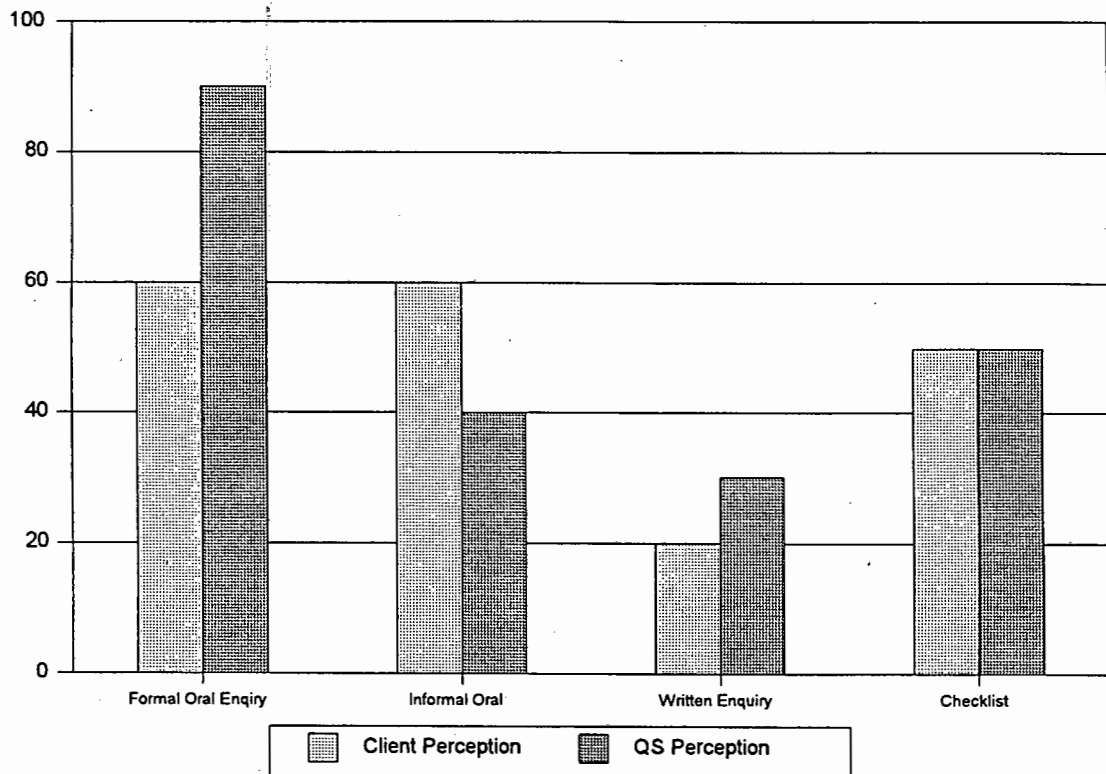
*Is the method employed by quantity surveyors effective in ascertaining your requirements? (Question 2.4)*

Six out of ten clients stated that the method employed by quantity surveyors in ascertaining their requirements is effective. Although the methods vary from practitioner to practitioner, in most cases clients have indicated that suitable methods were employed. However, when the same question was posed to the quantity surveying group, all ten respondents indicated that, irrespective of the method employed to ascertain client requirements, it was effective.

*How would you prefer quantity surveyors to ascertain your requirements? (Question 2.5)*

The third aspect of this question involved how clients would like this aspect of service to be delivered. Most clients (6 clients respectively) indicated that formal or informal oral enquiry are suitable methods for establishing their requirements. A written enquiry was not strongly favoured as the most sought after method of eliciting requirements (only 2 respondents indicated that this should be the method always or frequently adopted). However, clients did indicate a favourable attitude (5 clients indicated always or frequently) toward the system of a checklist containing services available at the outset of the commission.

Quantity surveyors, alternately, proposed that a formal oral enquiry should be the method adopted to suit the client, where nine out of ten indicated that this should always or frequently be the method employed. Furthermore, quantity surveyors presented the same response as clients (5 respondents respectively) that the use of checklists was the preferred method of establishing requirements.



**Figure 6.3 Client preference for establishing requirements (Q2.5)**

#### **6.4.4 Communication of services available**

The following set of questions sought to elucidate whether informing clients of the services available and the method employed would influence their level of satisfaction.

*Are you informed by the quantity surveyor of the range of services available to you?  
(Question 3.1)*

Seven of the ten clients interviewed stated that they were only informed occasionally, seldom

or never of the various services available to them. Quantity surveyors concurred with the client group, as six out of ten stated that this was seldom current practice. Clients were then asked whether being informed of the services available would increase the level of satisfaction attained with the service provided. Six of the clients indicated that this would enhance the level of satisfaction whilst three clients indicated that it would not influence the satisfaction level achieved. One client stated that he was unsure of whether being informed of the service range available would affect his level of satisfaction.

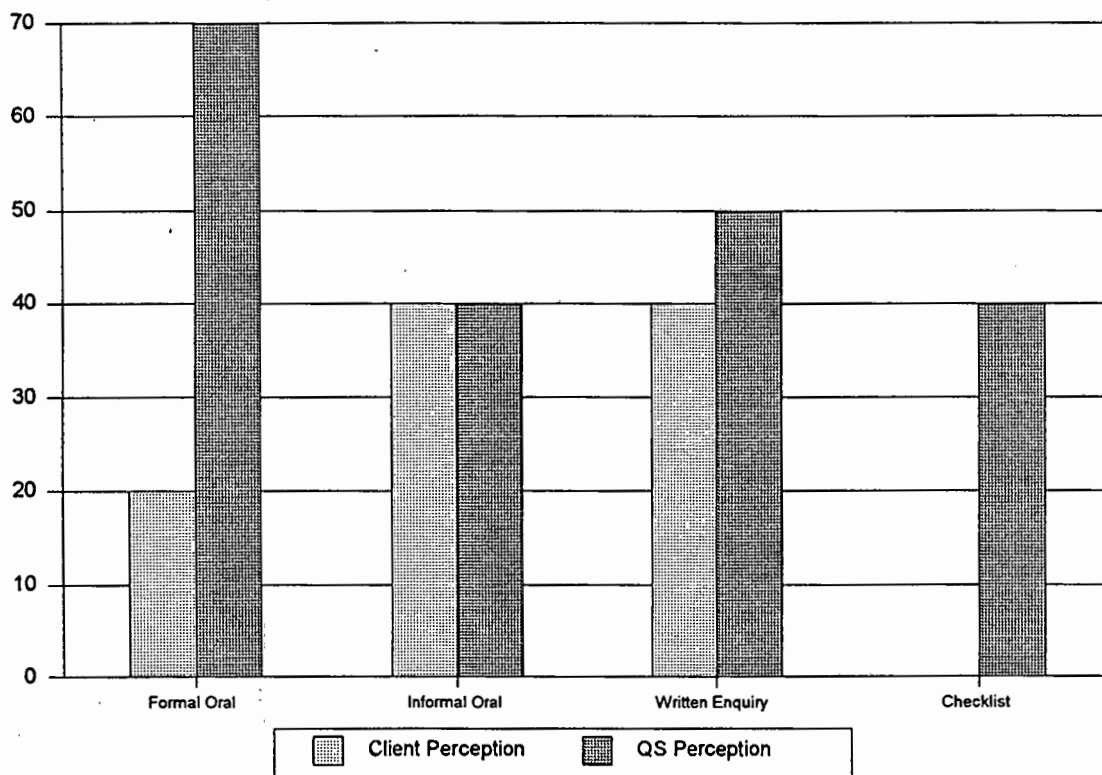
Quantity surveyors' perception of the relationship between the client being informed of the services available and the responding level of satisfaction, was consistent with the client group. Seven per cent of quantity surveyors interviewed stated that they believed that informing clients of the services available would indeed increase their level of satisfaction.

*How is the range of service communicated to you? (Question 3.2)*

Clients were presented with a range of methods for communicating the services available namely, informal oral presentation, formal oral presentation, written presentation or a checklist of all the services available. For the two former methods, four of the clients respectively, indicated that this is frequently the case. Not one client indicated that any of the four methods were always used. Formal oral enquiry and checklist of services are rated by seventy and ninety per cent respectively as being occasionally, seldom or never used to communicate the available services.

*The apparent lack of response in the range "always to frequently," indicates that the communication of the range of services available, is indeed, not common practice. Since, in the section above, clients have indicated that being informed of the range of services available may increase their level of satisfaction, it is imperative that the impact of this finding is realised. Thus, quantity surveyors should include in their provision of service, the communication of the services actually available to the clients. It is questioned whether quantity surveyors are informed themselves of the other forms of service on offer or if they are comfortable with their own traditional approach.*

Quantity surveyors, alternately, perceive their method of communication of available services remarkably differently. Seven out of the ten quantity surveyors communicate the availability of services by means of formal oral presentation compared with two clients who state that this is frequently the case. Furthermore, four quantity surveyors indicated that the use of checklists was frequently the norm compared with no clients claiming to ever have been presented with such a method.



**Figure 6.4 Method employed in communicating range of service available (Q3.2)**

Quantity surveyors' perceptions, however, did concur with those of the client in respect of informal oral and written presentation, where four and five of the quantity surveyors interviewed respectively, agreed that this was frequently the case.

The impression created by the response from each group is that it is not the norm to inform clients of the availability of services. This finding is indeed concurrent with the results of Question 3.3.

*Is the method employed effective in communicating the range of services available to you? (Question 3.3)*

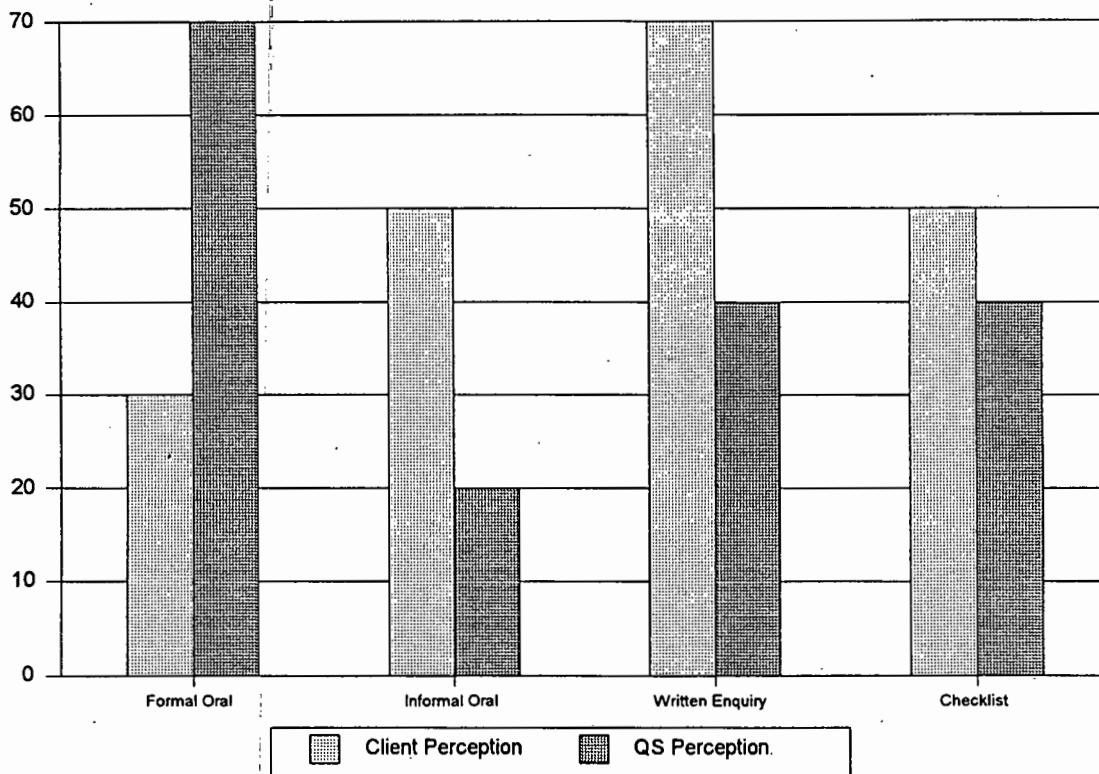
Six of the ten clients interviewed purported to finding the means of communicating the services available effective whilst more importantly, four clients felt that the method employed was ineffective. Quantity surveyors need to keep their clients satisfied in order to create a "*re-purchase attitude*." By comparison, seven of the quantity surveyors stated that they felt the method currently employed was effective. One quantity surveyor stated that he had never bothered to find out whether clients were satisfied with this aspect of service, and since he was still in business, it meant that his methods were satisfactory. Three quantity surveyors stated that they were unsure of whether the methods employed by themselves were effective.

*How would you prefer quantity surveyors to communicate the services available to you? 3.4*

The most popular method amongst the clients interviewed is that of written presentation, where seven clients stated that this would always or frequently be the preferred method. Compared with the quantity surveying group, four of the ten concurred with clients, while the majority (6 out of 10) indicated that this would be preferred occasionally, seldom or never.

Both informal oral and checklist of services were supported by five clients respectively as being always the preferred method. Whilst these two methods were the second most favoured by the client group, only two of the quantity surveyors felt that informal oral presentation would frequently be the preferred method. In the case of checklist of services, four of quantity surveyors perceive this to be always or frequently the preferred method.

Figure 6.5 indicates the preferred method by clients for communicating the range of services available.



**Figure 6.5 Client preference for method employed in communicating range of services available (Q3.4)**

When asked about the preference for a formal oral enquiry three clients were in favour and the remaining seven stated that this would be preferred occasionally, seldom or never. Formal oral is thus the least preferred method of communicating the available services. Quantity surveyors, however, are therefore not familiar with client preferences, since when quantity surveyors were asked to indicate what they perceived the client's preferences to be, formal oral presentation was rated as the client's first preference (7 out of 10 indicated

always or frequently).

*If you were informed of the range of services available, would this increase the level of satisfaction attained ? (Question 3.5)*

Six out of the ten clients interviewed indicated that being informed of the range of services available would indeed increase the level of satisfaction attained with the provision of quantity surveying service. Three clients indicated that this would not be the case and one client was not sure if being informed of the available services would affect the level of satisfaction experienced.

Most quantity surveyors (7 out of 10) concurred that informing clients of the services available would increase their (the clients') satisfaction. Alternately, three quantity surveyors were unsure as to the affect such information would have.

In most cases the clients did not present any further comment except for two clients who stressed their support for such behaviour. One client stated that it would be impressive to have a quantity surveyor inform them of the services available, whilst another indicated that quantity surveyors should not assume that all clients are *au fair* with the services available. One quantity surveyor suggested that informing the clients of the services available may enhance the client's confidence as this would show a professional approach.

*The findings of this question indicate the importance of including additional aspects of service other than just the core service. Whilst the quality of the core service is important, quantity surveyors should take note of aspects such as informing clients of the services available as this may improve the client's level of satisfaction attained.*

#### **6.4.5 Level of communication attained**

*Do you think effective communication exists between you and the quantity surveyor? (Question 3.6)*

Six out of the ten clients interviewed indicated that effective communication exists always or frequently between themselves and the quantity surveyor. The remaining four clients indicated that this was occasionally the case. No clients reported having poor communication with the quantity surveyor.

Quantity surveyors were asked whether effective communication exists between the clients and themselves, to which they stated that this was always (3 out of 10) or frequently (7 out of 10) the case. Thus, all ten quantity surveyors stated that effective communication was always or frequently the case. *Quantity surveyors have a more optimistic view of the efficacy of their communication than that perceived by the client group. Based on the findings, a gap exists between the perception of the level of communication held by clients and by quantity surveyors where quantity surveyors hold a more optimistic opinion of current practice.*

Comments emanating from discussion indicates room for improvement in the opinion of both the client and the quantity surveying groups. Both parties suggest that good communication exists when initiated by themselves, indicating a lack of responsibility by the other party. Most clients indicated the importance of continual liaison. One quantity surveyor stated that lack of communication sometimes exists when clients become secretive about their investment intention.

Joint responsibility must be assumed for effective communication, where clients need to be informed regularly of project progress by quantity surveyors. Furthermore, the aspect of trust is paramount in the realisation of a positive experience.

*Do you think that more effective communication between you and the quantity surveyor would improve the level of satisfaction attained with the service provided? (Question 3.8)*

All clients responded that improved communication would always or frequently increase the level of satisfaction attained with the services provided by quantity surveyors. Quantity surveyors were unanimous in their response and concurred with the client group that more effective communication would increase the level of satisfaction attained.

From discussion with the clients the importance of communication and the benefits thereof are again reinforced. Firstly, clients indicated that effective communication permits a greater understanding on the part of the client of problems that arise. Furthermore, quantity surveyors are also exposed to the client's in-house problems. In conclusion, one client stated that *"improved communication always improves results."* Quantity surveyors, in discussing the impact of communication on satisfaction, appeared to be sceptical of this relationship. This was evident in that a number of quantity surveyors reported that *theoretically* there should be a relationship between communication and satisfaction. Alternately, there were also those who were emphatic about the benefits of communication, where one quantity surveyor stated that two-way communication led to *"a relaxed atmosphere, less finger-pointing and a better team spirit."*

#### **6.4.6 Suggested improvements to communication**

Clients as well as quantity surveyors were asked to indicate possible improvements to the communication process. *A common suggestion by clients for the improvement of communication was that simply more communication should exist. Clients need to be informed of project progress, preferably, by means of direct communication from the quantity surveyor. Clients require communication which is specific rather than vague, as well as timeous.* Therefore, clients would like to be warned of specific problem areas prior to their occurrence rather than thereafter.

Furthermore, one client suggested the need for instructions to be reported back in writing to show confirmation and commitment on the part of the quantity surveyor. Having stated this, another client held the view that quantity surveyors should guard against the over-provision of information and reduce it to the salient points. A further opinion held was that in communicating, *quantity surveyors should demonstrate a positive attitude and be approachable.* This client has thus indicated the need for empathy in this provision of service.

One quantity surveyor suggested that clients should be educated as to the problems facing the quantity surveyor on building projects and not be misled with regard to the quantity

surveyor's expertise. A further opinion held was that quantity surveyors should identify the level of expertise held by the client and communicate accordingly. Most importantly, one quantity surveyor suggested that the area most requiring improvement was in the pro-active communication of financial problems to the client.

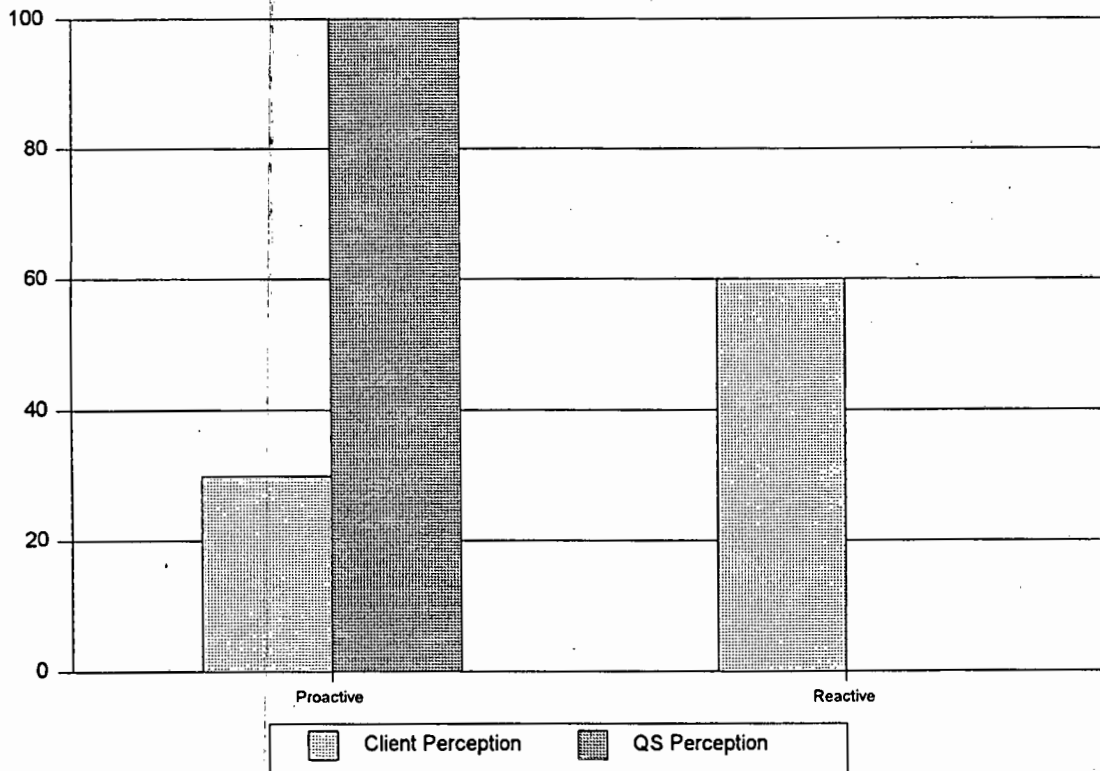
Whilst some quantity surveyors suggested a move toward standard documentation for various services, one quantity surveyor warned that standardised letters are seldom read. Furthermore, limitation of paperwork was suggested as *too many letters block the system*.

#### ***6.4.7 Role of the quantity surveyor in the design team***

*Would you describe the role that quantity surveyors assume in the design team as being pro-active or reactive? (Question 4.1)*

Bester (1991) suggested that in order for the quantity surveyor to act in the best interests of the client, the quantity surveyor would need to behave pro-actively. Pro-active quantity surveying implies a state of mind where the quantity surveyor is always thinking ahead and taking action where problem areas exist. Reactive quantity surveying, on the other hand, suggests an attitude of always waiting upon instruction. Clients were asked to rate their perception of the quantity surveyor's approach during the project evolution. Six of the ten clients indicated that quantity surveyors frequently behave in a reactive fashion, whilst three indicated that they frequently behaved in a proactive manner. By comparison, all ten quantity surveyors interviewed believe that they always or frequently act in a proactive manner toward the project.

Furthermore, both client and quantity surveying groups were asked to indicate whether the role of the quantity surveyor in the design team should change. A preponderance of clients (9 out of 10) recommended that quantity surveyors should behave in a more proactive manner, whilst one respondent was unsure. In all cases quantity surveyors agreed that their role should change from being reactive to proactive. Figure 6.6 indicates the quantity surveyors role in the design team as perceived by clients and themselves.



**Figure 6.6 Client and QS perception of the latter's role on the design team (Q4.1)**

When discussing the benefits of pro-active quantity surveying on building projects, several points were raised. Firstly, clients perceive financial benefits such as maximising profit and value for money, whilst others perceive there to be less cost over-runs. Secondly, *clients are of the opinion that quantity surveyors act in a pro-active fashion toward the architect instead of themselves in order to procure future work.* Moreover, some clients believe that the quantity surveyor assumes a subservient position to the architect and thus does not always act in the best interests of the client. The client would naturally require the quantity surveyor to consider his needs paramount. Moreover, one client stated that *"when you pay for a professional service, that is what you expect."*

Many of the quantity surveyors, in discussion, indicated that the future of the quantity surveying profession lay in behaving in a pro-active manner on building projects. Thinking ahead and acting timeously are considered to be the essence of pro-active quantity surveying.

#### *6.4.8 Client as member of the design team*

*Do you consider yourself to be a valuable member of the design team, participating in decision-making? (Question 4.3)*

Nine out of the ten clients interviewed always or frequently consider themselves to be valuable members of the design team. By comparison, seven of the quantity surveying group indicated that they always or frequently consider the client's participation to be useful in respect of the project. Quantity surveyors were also asked whether clients perceive themselves as valuable members of the design team, to which six respondents indicated that this was always or frequently the case. *This does, however, indicate a difference in perception between the client's perception of their participation and the quantity surveyor's perception of how clients see themselves. This suggests that clients, in reality, do not participate to the degree they perceive themselves to.*

*Does/would being treated as a valuable member of the design team, and participating in decision making, improve your level of satisfaction attained with the service provided? (Question 4.4)*

Both clients and quantity surveyors (9 out of 10 respectively) agreed that the notion of treating the client as a valuable member of the design team and including him/her in decision making would improve the level of satisfaction attained with the service provided. In both groups, one respondent respectively indicated that this would not improve the level of satisfaction.

*The major perceived benefit of including the client and treating him/her as a valuable member of the design team, was that the client would be kept informed of project progress. Being informed promotes teamwork, reduces the probability of error, and is thus, time saving.*

*A number of clients came to the conclusion that being involved in the project would increase their level of satisfaction. This supports the finding of the close-ended question presented above (Question 4.4).*

Having collated the responses, two schools of thought were evident amongst the quantity surveying group. Firstly, there are those quantity surveyors who support the view held by clients that their involvement is essential to satisfaction. These quantity surveyors suggested that clients of all levels of expertise and opinion should be kept informed and included. The opinion held by the second group suggested *conditional* involvement. Some examples are presented: "*clients can be involved in the project if they have sufficient experience*"; "*if clients get involved they are accepting joint responsibility*"; "*clients may be involved if they know what they want and what they are doing.*" These comments denote a degree of contempt for the client, suggesting that these quantity surveyors do not acknowledge the client as the driving force of the construction industry. Moreover, they do not subscribe to a customer-driven philosophy.

#### ***6.4.9 Informing clients of the benefits of various services***

*Do quantity surveyors ever explain the benefits to be had from availing yourself of the various services they have to offer? (Question 5.7)*

The response from the client group indicated that it was not current practice for quantity surveyors to explain the benefits to be had from availing themselves of the various services. Two of the clients interviewed stated this was frequently the case, whilst six clients indicated that this was occasionally or seldom the case. One client stated that quantity surveyors had never explained this aspect of service. By comparison, seven out of the ten quantity surveyors interviewed contended that they always or frequently informed their clients of the benefits to be had of the various services offered by quantity surveying practices.

*If the benefits to be had of availing oneself of the various services were explained to you, would this increase your level of satisfaction? (Question 5.8)*

Furthermore, clients were asked to indicate whether being informed of the benefits of the services being offered would increase their level of satisfaction. Most clients (7 out of 10) responded that this would positively affect their level of satisfaction. Two clients did not think that this would influence their level of satisfaction and one client did not participate in this question. Whilst a preponderance of quantity surveyors concurred with the client group, four responded as being unsure of whether such information would affect or increase client satisfaction.

#### ***6.4.10 Project debriefing***

*Do quantity surveyors have a debriefing (feedback) mechanism at the end of a project for establishing client satisfaction with their services? (Question 5.10)*

A preponderance of clients (7 out of 10) indicated that quantity surveyors do not employ a feedback mechanism at the end of the project. However, when asked whether they thought this would be useful, eight clients agreed to the usefulness of such a feedback mechanism. Quantity surveyors, alternately, concurred that project debriefing-briefing is not common practice. Compared to the client group, less of the quantity surveyors (6 respondents) suggested that project debriefing would be useful. Two quantity surveyors were unsure whilst one indicated that he did not think that this was a useful tool at all.

Whilst one client indicated that such a feedback system would initiate quality control, one client claimed that such a system would be subjective and dishonesty would prevail. Another client stated that there would be no need for such a feedback mechanism as the quantity surveyors would know indubitably whether or not the client was satisfied. Whilst one quantity surveyor indicated that face-to-face feedback would be useful in ensuring satisfaction in the future, a more disturbing opinion was held by a quantity surveyor who stated that *"feedback is unnecessary, since clients still employ us."*

#### *6.4.11 Enquiry by quantity surveyors of client satisfaction*

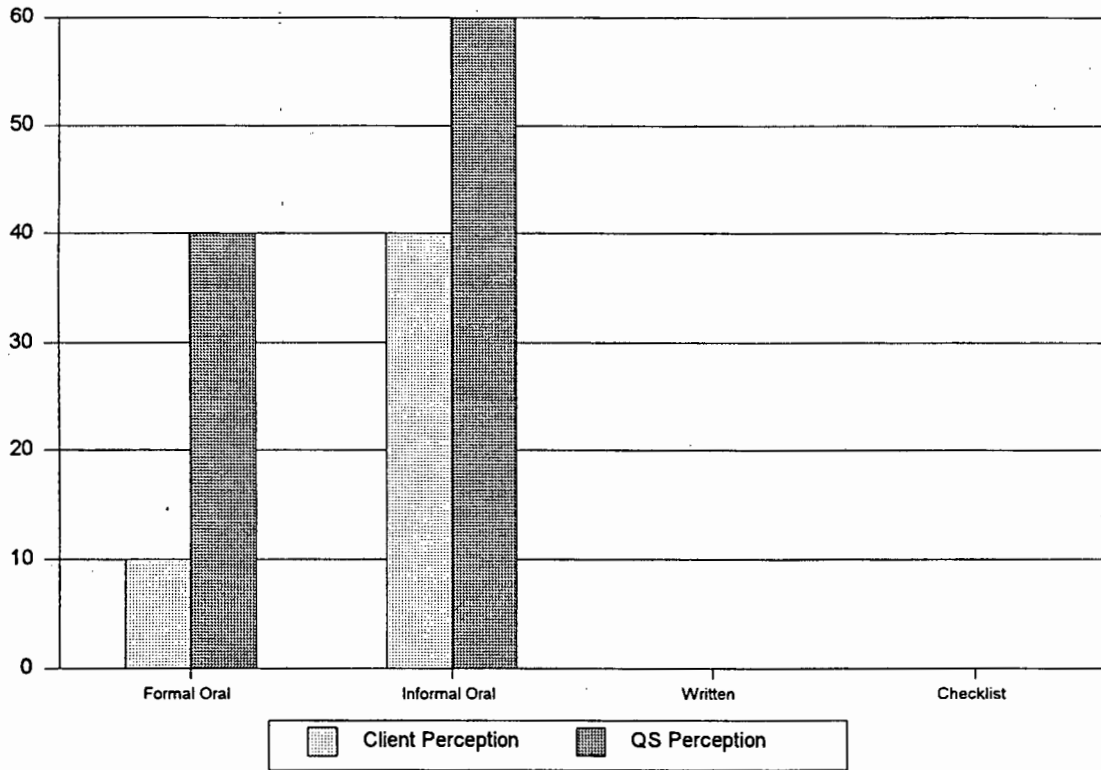
*How frequently are you asked by quantity surveyors whether or not you are satisfied with their service? (Question 5.6)*

Two clients stated that they were frequently asked, compared with five clients who stated that they were occasionally asked. As many as three of the ten clients interviewed stated that they had never been asked by a quantity surveyor whether they were satisfied or not. Quantity surveyors indicated that this indeed was the current practice: three stated that they frequently ask their clients whether they are satisfied, five stated that this was occasionally the case, whilst two seldom asked. No quantity surveyors interviewed indicated that they had never enquired after the client's satisfaction.

*It is apparent from the client perceptions that quantity surveyors seldom enquire after their level of satisfaction, yet quantity surveyors hold the reverse perception.*

*How do quantity surveyors ascertain your level of satisfaction with service provided? (Question 5.5)*

The response from the client group indicated that an enquiry into their level of satisfaction was rare. To this end, four clients stated that always or frequently an informal oral enquiry was the method employed in ascertaining satisfaction. One client indicated that a formal oral enquiry was frequently the method employed. For the remaining forms of enquiry, that being written enquiry and checklist of services, all ten clients indicated that this occurred occasionally, seldom or never. *Thus, when quantity surveyors do take time to enquire, which appears to be seldom, they do it by informal oral enquiry.*



**Figure 6.7 Method employed by quantity surveyors to ascertain client satisfaction (Q5.5)**

Quantity surveyors were asked to indicate the method employed in eliciting client satisfaction. Six quantity surveyors stated that it was always or frequently by means of an informal oral enquiry whilst the remaining four proposed that a formal oral enquiry was current practice. Furthermore, all ten quantity surveyors concurred with clients, that written enquiry and enquiry by means of a checklist of services was occasionally, seldom or never the method employed.

*Do you at any stage make the quantity surveyor aware that you are satisfied/dissatisfied with the service being provided? (Question 5.9)*

Most clients (7 out of 10) stated that they occasionally or seldom inform the quantity surveyor of the level of satisfaction attained. *This is an important finding and supports the theory that clients seldom inform the service provider of poor service quality and their consequent dissatisfaction.*

Quantity surveyors were asked to state whether clients inform them of their level of satisfaction. This group presented a more positive scenario as four quantity surveyors indicated that this is always or frequently the case. However, the majority (6 out of 10) of quantity surveyors interviewed stated that only occasionally do clients complain.

*Clients do not tell quantity surveyors whether they are satisfied or not. This could lead to them not returning to that particular firm. Moreover, spreading negative word of mouth experiences to other potential clients is not a desirable situation.*

#### **6.4.12 Factors causing satisfaction**

Both clients and quantity surveyors were asked to reflect upon the service received, or given in the case of the quantity surveying group, and state the areas of service resulting in client satisfaction. Eight out of ten clients suggested aspects of work which can be summarised as core service activities. Other aspects of service with which clients were satisfied included communication, teamwork and timeous provision of service. Whilst clients focused on having been satisfied with the core service provided, quantity surveyors reported that their perception of aspects causing satisfaction to date not only included the core service, but also service attributes such as speed, accuracy and communication. *A perceptual disparity is once again evident in views held by clients and those held by quantity surveyors. The comparison of the findings provides a useful insight into the apparent quality of the core service, but absence of service attributes such as communication, reliability, responsiveness, amongst others, that are an integral part of service delivery. (These findings are a result of question 5.2.)*

#### **6.4.13 Factors causing dissatisfaction**

Both clients and quantity surveyors were required to propose aspects of service resulting in client dissatisfaction. *Many of the factors causing dissatisfaction related to poor provision of the core service such as inaccuracy, lack of interpretation of project details, acting untimely as well as being subservient to the architect.* Furthermore, *lack of professionalism and thoroughness as well as conservatism, vagueness and lack of understanding* were purported as being reasons for dissatisfaction. The response from the clients was emotive and lengthy whilst the response from the quantity surveying group was brief and apparently, only recently considered. The areas of dissatisfaction proposed by the quantity surveying group included *lack of speed, accuracy, innovation and reporting. Late and incomplete documentation and inaccurate estimating* were the two most regularly presented areas of dissatisfaction. It would appear that there are areas within the core service which require attention, as unanimously agreed by clients and quantity surveyors. In most cases clients did not begin to mention their dissatisfaction with aspects other than the core service.

#### **6.4.14 Suggestions for improving satisfaction**

Question 5.4 in the questionnaire to clients and the respective question to quantity surveyors served to investigate improvements to be made to increase satisfaction. Whilst two clients suggested improvements to the core service, other clients emphasised *improvements to empathy, trust, professionalism, communication as well as access (the provision of an on-line service).* Thus, *clients generally require improvements to service quality with the emphasis on those dimensions stated above.* Alternately, quantity surveyors proposed many improvements to the core service, such as *increased accuracy in budgeting and cost reporting, pro-active cost management, provision of design economics, amongst others.* Furthermore, aspects of service such as *communication and the timely provision of service* was proposed as areas in need of improvement. *Once again, it is apparent that quantity surveyors are too focused on the core service and have failed to recognise the importance of the service dimensions, such as those proposed earlier by the clients.*

#### ***6.4.15 Level of satisfaction attained by client***

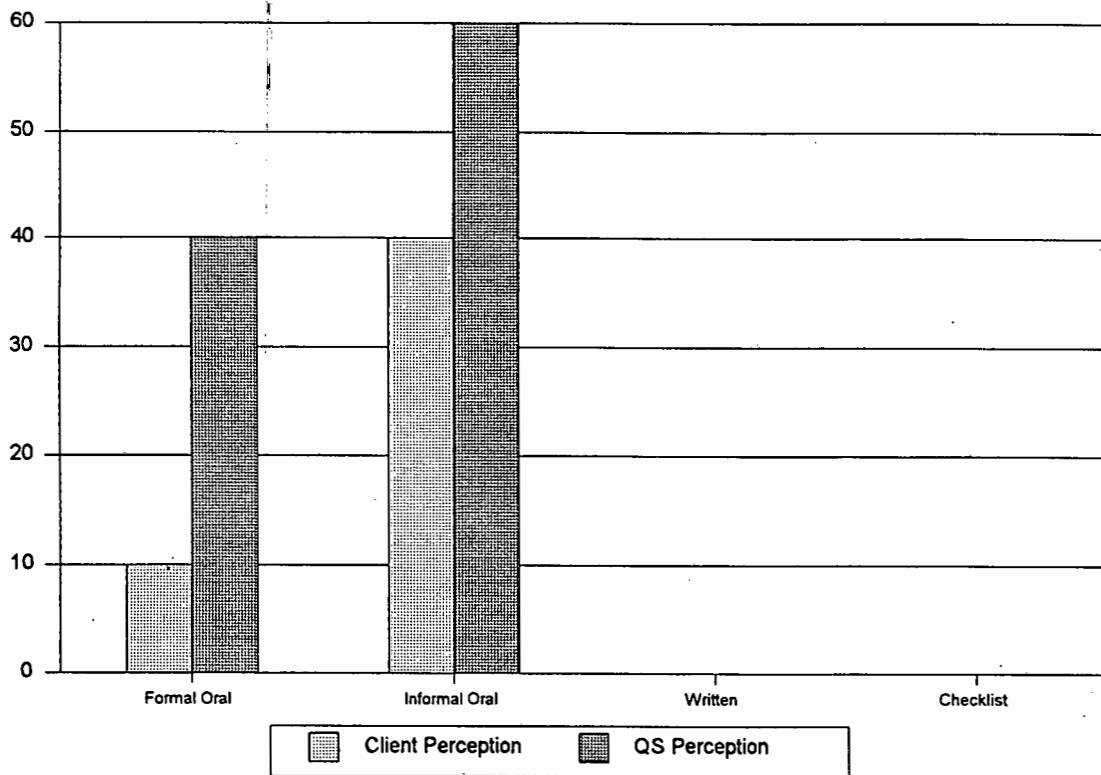
Clients were asked to rate their level of satisfaction attained with the provision of quantity surveyors service. Six of the clients indicated that they are frequently satisfied with the services provided by quantity surveyors. Two clients stated that they are occasionally satisfied whilst one purported to be seldom satisfied with quantity surveyors' services. One client did not want to comment on his level of satisfaction. By comparison, when the quantity surveyors were asked to state how satisfied they perceive their clients to be, it was found that nine of the quantity surveyors perceive their clients to be frequently satisfied with their service.

*From the data and the feedback there appears to be a chasm between quantity surveyors' perception of client satisfaction and the satisfaction actually attained by clients.*

#### ***6.4.16 Client satisfaction rating***

Clients were asked to rate their overall level of satisfaction with quantity surveyors' services. In the same fashion, quantity surveyors indicated on a scale from 1 to 5, their perception of client satisfaction.

Figure 6.8 indicates that clients' level of satisfaction vary between satisfied (5 clients), adequate (3 clients) and dissatisfied (2 clients). A sense of mediocrity with regard to the level of satisfaction attained is evident in these results. By comparison, quantity surveyors appear to be over-confident in their ability to render their clients satisfied, where all ten quantity surveyors indicated that their clients are extremely satisfied or satisfied.



**Figure 6.8 Client satisfaction and QS perception of the same (Q5.11)**

### 6.5 Summary of findings

*The findings of this chapter can be summarised and presented as follows:*

(i) Previous experience is agreed to be the most important selection criteria for clients when selecting quantity surveying firms. This corroborates the findings of Chapter 1 where the importance of positive previous experience was expounded. Quantity surveyors agree with clients regarding the importance of previous experience in procuring future work.

(ii) Whilst the importance of the delivery of the core service can not be disputed, clients have

indicated that service quality dimensions such as empathy, reliability, assurance, amongst others, are highly regarded in the selection criteria.

(iii) Whilst clients indicated that quantity surveying services do not always fulfill their needs, quantity surveyors were more optimistic about such fulfilment. This indicates a disparity in perception, which is of concern since quantity surveyors believe that the service delivery meets clients' needs all the time. From the discussion, clients have to insist on service, whilst quantity surveyors believe it is their ability to perform a high quality service that keeps the clients satisfied.

(iv) The enquiry into how quantity surveyors ascertain client requirements resulted in a disparity of perception. Quantity surveyors believe that their methods are always effective, whilst clients did not fully support this notion. When asked how clients would prefer quantity surveyors ascertaining their requirements, it was evident that quantity surveyors and clients were not *ad idem* in this regard.

(v) Informing clients of the range of services available would increase their level of satisfaction. It was apparent from the findings that clients are seldom informed of the services available. Quantity surveyors are not aware of clients' preferences for communicating the range of services available. Considering that this can affect client satisfaction, quantity surveyors should take note of this aspect of service delivery.

(vi) Quantity surveyors have a more optimistic view of the efficacy of the communication which exists between clients and themselves. Furthermore, clients have indicated room for improvement with regard to communication between the parties.

(vii) Both clients and quantity surveyors agree that improved communication would increase the level of satisfaction attained by the client.

(viii) Clients' suggestions to improve communication were simply to increase its occurrence with the emphasis on warning clients of financial problems timeously.

(ix) Clients indicated that quantity surveyors behave in a reactive manner, whilst quantity surveyors themselves believe that they mostly behave in a pro-active manner. Clients believe that quantity surveyors behave in a more pro-active manner toward the architect to secure future employment. This perception is not unfounded since quantity surveyors indicated that recommendation by the architect was often a reason for selection on building projects.

(x) Clients indicated that being treated as a valuable member of the design team would improve the level of satisfaction attained. The major benefit of this to the client would be being kept informed of project progress. Two schools of thought were evident amongst the quantity surveyors, namely, those who unconditionally supported the notion and those who supported client involvement conditionally.

(xi) Whilst being informed of the benefits of the services available would increase client satisfaction, clients indicated that this was not current practice.

(xii) Quantity surveyors do not employ a feedback mechanism at the end of a project, however both clients and quantity surveyors perceive this to be a useful instrument.

(xiii) Quantity surveyors appear to seldom enquire after client satisfaction. Clients seldom inform the quantity surveyors of their satisfaction or dissatisfaction. This lack of enquiry by quantity surveyors could result in quantity surveyors assuming clients to be satisfied and thus, never improving their level of service quality. Furthermore, dissatisfied clients will relate their negative experience to other potential clients, resulting in negative word-of-mouth publicity. This would be extremely damaging to a quantity surveying firm and possibly, the quantity surveying profession.

(xiv) Quantity surveyors appear to be preoccupied with the provision of the core service whilst clients indicated the importance of the core service as well as the provision of service quality incorporating aspects such as communication, empathy, trust, professionalism, amongst others.

(xv) Quantity surveyors perceive client satisfaction to be greater than clients actually

experience it to be.

## **6.6 Conclusion**

The conclusion of the findings of this chapter can be summarised by stating that several service delivery gaps exist. Firstly, a gap exists between client expectation and service performance. Secondly, a perceptual gap exists between client perception of performance, their preferences and quantity surveyors perception of the two. This apparent lack of understanding on the part of the quantity surveyor could, according to the literature presented in Chapter 1, have a detrimental affect of the growth of the quantity surveying profession, generally, and individual quantity surveying organisations, specifically.

### ***6.6.1 Sub-hypotheses***

Thus, two further hypotheses may be considered for testing:

*That a perceptual gap exists between client expectations and their perceptions of the service provided by quantity surveyors*

*That a disparity exists between clients' and quantity surveyors' expectations and perceptions of the service provided*

The findings of the pilot study as presented in the summary indicate the need for further investigation into service quality. It is apparent that, in addition to delivery of the core service, clients require additional service factors which impact on their level of satisfaction attained. To this end, it is recommended that the application of the SERVQUAL model be undertaken to indicate specifically the gaps in service and the perceptual gaps held by the quantity surveying profession. Enough evidence was found in the pilot study to continue the research and broaden the sample.

## 6.7 References

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## **CHAPTER 7: THE MEASUREMENT OF SERVICE QUALITY IN THE QUANTITY SURVEYING PROFESSION**

### **7.1 Introduction**

In Chapter 6, the findings of the pilot study, which form the foundation of the questionnaire survey undertaken, were presented. In this chapter, the research methodology adopted for the national questionnaire survey is discussed and the findings presented. This includes setting out the objectives of the survey as well as the methodology adopted to fulfil these objectives. The SERVQUAL Model is introduced once more not only since it forms the basis of the questionnaire, but also to permit an explanation of the "mechanics" of the model. Having presented the theoretical framework for service quality and client satisfaction in Chapters 2 and 3, this chapter serves to elucidate client expectation, the extent to which clients perceive quantity surveyors to meet such expectation and the resulting disparity, should such disparity exist. Furthermore, quantity surveyors are asked to respond to similar aspects of service, focusing on their perceptions of client expectations and their ability to meet such requirements. The strength of the validity of the data lies in the close alignment of the questionnaire distributed with that postulated by Zeithaml *et al.* (1990) in the SERVQUAL Instrument. Finally, the model is tested for validity and reliability and proposals are made to enhance the applicability of the SERVQUAL Instrument to the quantity surveying profession.

### **7.2 Research methodology**

#### ***7.2.1 The objectives of the survey***

The pilot study provided an indication of possible areas of inadequate service quality and the resultant client dissatisfaction. The questions that were asked in the interview survey emanated from the literature and provided sufficient grounds for the continuation of this study. Having established in the earlier chapters that no rigorous quantitative model for establishing client satisfaction exists, save for the theoretical ones, the application of the SERVQUAL Instrument is appropriate. This highly refined quantitative model is useful in

establishing areas of high and low service quality within a set of proposed dimensions. The workings of the Model will be presented under a later heading; suffice it to say that it is useful in establishing expectations, perceptions of performance and the associated gaps.

The objectives of this questionnaire survey can be listed as follows:

*(1) To measure the gap between perceived and expected service quality by clients in the quantity surveying industry in South Africa.*

*(2) To measure the gap across the boundary between client expectations and the perceptions of quantity surveyors of the same.*

*(3) To test the reliability and validity of the SERVQUAL model when applied to the quantity surveying profession.*

### ***7.2.2 The SERVQUAL Instrument***

In Chapter 3, the SERVQUAL model as proposed by Zeithaml *et al.* (1990) was presented, describing the research process that resulted in this model. In this section, the mechanisms of the model will be presented to permit a greater understanding of the mail questionnaire survey, which is the focus of this chapter.

The SERVQUAL Instrument emanated from the Parasuraman *et al.* (1985) conceptual model of service quality presented in Chapter 3. The Instrument has evolved from several studies undertaken by the proponents to establish model validity and reliability across the various service industries. Furthermore, Zeithaml *et al.* (1990) state that the instrument serves as a skeleton for research and can be adapted to suit the particular needs of a service industry.

#### ***7.2.2.1 The mechanisms of the Instrument***

The Instrument comprises 22 expectation orientated statements with a matching set of statements pertaining to perception of performance specific to an industry or company. In

between the two sets of statements, a section is presented to ascertain clients' assessment of the relative importance of the five dimensions (*Tangibles*, *Reliability*, *Responsiveness*, *Assurance* and *Empathy*). Table 7.1 indicates how the 22 statements relate to the five dimensions.

**Table 7.1 Dimension and respective set of statements**

Dimension	Statements pertaining to the dimensions
Tangibles	Statements 1 - 4
Reliability	Statements 5 - 9
Responsiveness	Statements 10 - 13
Assurance	Statements 14 - 17
Empathy	Statements 18 - 22

Respondents are required to respond to the expectation and perception statements by allocating a rating of 1 to 7. The paired scores can then be compared to establish the disparity between the expectation statement and the perception of performance statement. Zeithaml *et al.* (1990) states that the Gap 5, or SERVQUAL score is computed for each item pair, and for each customer, by subtracting the expectation score from the perception score, as follows:

$$\text{SERVQUAL Score} = \text{Perception Score} - \text{Expectation score}$$

Zeithaml *et al.* (1990) calculate their averages by first computing the SERVQUAL score for each respondent, and then computing the average score by using Gap 5 scores for each respondent. Once Gap 5 scores have been calculated for all 22 item pairs, and for all respondents, the dimension score can then be computed. This is computed by averaging the scores for the statements pertaining to a particular dimension. For example, the first four statements making up the dimension *Tangibles* can be computed by adding the scores for the first four statements and dividing by four. To obtain the overall measure of service quality, the dimension scores can be averaged (adding the five scores, and dividing by five). This however, will compute the unweighted SERVQUAL score. Since respondents are asked to

rate five statements describing the various service features, or dimensions, a relative weighting can be established. This is achieved by using the dimension score and multiplying it by the average importance weight and then, dividing by 100.

Although Zeithaml *et al.* (1990) compute their scores by individual respondents and then across the sample, flexibility in this approach has been suggested by the proponents. Furthermore, the SERVQUAL Instrument facilitates analysis on several levels, namely the key dimensions can be identified, as well as the items within the dimensions. This provides a focus for service quality improvement. Zeithaml *et al.* (1990) state that this is also a useful tool for measuring service quality over a time period to indicate whether any improvements have been realised.

#### *7.2.2.2 Adaptation of the SERVQUAL Instrument*

The Instrument suggested by Zeithaml *et al.* (1990:175) is

*" a concise multiple-item scale with good reliability and validity."*

This Instrument has been refined over a number of years and has been tested rigorously, to establish statements which are universal over the various service industries. Zeithaml *et al.* (1990) propose that where necessary the model can be adapted to suit the particular industry to which it is being applied. In this case the model was followed closely as a form of replication. The reason for replicating the Instrument was to establish whether it is applicable to the quantity surveying profession. This provides a point of departure from whence the next application can be started. The questionnaires used for this survey containing the adapted SERVQUAL instrument is presented in Appendix F and G.

##### *(i) Rewording of statements*

##### *Tangibles*

For the four statements constituting the dimension *Tangibles* the first three statements were not changed from the original Instrument. However, the fourth statement in the SERVQUAL Instrument was changed from *"Materials associated with the service will be visually appealing"* to *"Excellent QS firms will produce documentation which is detailed, accurate,*

*and easy to understand.*" Thus, the essence of the statement was maintained, but the contents expanded to be applicable to quantity surveying service.

### *Reliability*

The statements contained in the SERVQUAL Instrument were replicated, save for minor changes in the wording of Statements 5 and 8, where the essence of the statement was maintained.

### *Responsiveness*

Statement 10 was changed from "*Employees in excellent QS firms will tell customers exactly when services will be performed*" to "*Excellent QS firms will keep the client informed of project progress.*" The essence of this statement was not maintained as the provision of quantity surveying service is sometimes reliant on the performance of other members of the design team. It would be unlikely that quantity surveyors would always be able to state exactly when services will be performed, but more likely for quantity surveyors to keep the client informed of project progress. In fact, it is proffered that the building client may require this level of service more so than being given exactitudes that are unlikely to become reality.

### *Assurance*

The four statements which constitute *Assurance* were replicated for this dimension. In statement 16, the word "approachable" was added to "courteous" as it was felt that clients of a less sophisticated nature may feel intimidated by professionals and thus, it would be imperative for quantity surveyors to be, not only courteous, but approachable as well.

### *Empathy*

The statements in this dimension were largely replicated from the SERVQUAL Instrument, save for the two statements. Statement 18 was expanded to be more applicable to the provision of quantity surveyors' service from "*Excellent QS firms will give individual attention*" to "*Excellent QS firms will provide the client with the service required according to the client's specific needs and requirements.*" The latter statement encompasses the essence of the former statement, but is written to be more specific to the QS-client service encounter. Lastly, statement 21 was also expanded from "*having the client's best interests at heart*" to

a more all-encompassing description of being *dedicated and loyal to the client and the project as well as protecting the client's investment and acting in the best interest of the project at all times.*

Thus it can be seen that the SERVQUAL Instrument was largely replicated save for the statements presented under the headings above.

### *(ii) Extra dimension*

Since the SERVQUAL Instrument was largely replicated for this study, it was deemed necessary to include an extra dimension, namely *Client Focus*, to include points that were raised in the pilot study which could not be included in the existing dimensions. The eight extra statements emanated from the pilot study which is presented in Chapter 6. The statements relate to areas of service such as communication, post-project debriefing and teamwork, amongst others.

Since Zeithaml *et al.* (1990) devised such a highly refined instrument, the inclusion of this dimension provides an opportunity to expand the model to include a feature uniquely appropriate to the quantity surveying profession. The data emanating from the survey will be tested for construct reliability and validity, which will provide an opportunity for establishing the merits or demerits of adding this dimension.

### **7.2.3 The sample**

The questionnaire was mailed to a sample of quantity surveyors and clients of the building industry. Quantity surveying firms registered with the Association of South African Quantity Surveyors were surveyed, numbering 626 firms throughout South Africa. A total of 181 clients were surveyed based on the membership list of the South African Property Owners' Association (SAPOA). As the SAPOA membership does not only include prospective clients of the building industry, but also affiliated interested parties such as lawyers, estate agents, engineers amongst others, the Association provided a list of only "clients" of the building industry contained on their membership list.

#### 7.2.4 The response

Whilst Table 7.2 indicates a poor response to the client survey, 2 questionnaires were returned with "return to sender" marked on the envelope as the address had changed or no such address existed. Furthermore, two clients wrote a reply letter stating that they are not involved with quantity surveyors. Even though this poor response does constitute sufficient response (16.02%) to draw conclusions from, it should still be noted that the conclusions of the client survey are based on a small data base. Taking into account the returned questionnaires as well as the respondents who did not complete the questionnaire, the client sample may be reduced to 177, and thus yield a greater response of 16.4%.

It may be argued that a larger sample of clients should have been surveyed to result in a greater number of returned questionnaires. However, it should be noted that the clients surveyed are registered with a body protecting property owners numbering 181. The organisations listed on the mailing list included the major investors such as the insurance houses and pension funds who spend billions of rands each year in the property sector. Under section 7.3, demographic details will be presented where clients' average annual turnover will be discussed in terms of their contribution to the construction industry.

**Table 7.2 Response to questionnaire survey**

	Sample	Response Percentage	Return to sender	Non Response
Clients	181	29 16.02%	2	2
Quantity surveying firms	626	155 24.80%	7	1

The quantity surveying firms surveyed, presented a slightly higher response of nearly 25%. Seven questionnaires were returned marked "return to sender", and one professional practice stated that they were too small to participate. This reduces the quantity surveying sample from 626 to 618, and thus, increasing the response rate to 25.08%

## 7.3 Demographic data

### 7.3.1 Demographic data for client group

#### 7.3.1.1 Public and private sector

Clients were asked to indicate whether their organisation was of a public or private nature. The response received indicated that 96.4 per cent of the respondents represented private sector firms. Only one public sector client participated in this survey which is tabulated below. Thus, it can be concluded that the opinion held by the respondents to this survey represents those of the private sector. It is a loss to this project that such a low response to this survey came from the public sector. The response from the client group is contained in Table 7.3.

**Table 7.3 Nature of client response**

Public sector clients	Private sector clients
1	27
3.6%	96.4%

#### 7.3.1.2 Current investment levels

Tables 7.4 and 7.5 are split into those clients involved in public sector spending and those in the private sector. The public sector client who participated in this study is most involved in procuring post office buildings (37% - Other) as well as industrial buildings (30%). The data reflects no involvement in housing development by the public sector client. However, this client is involved in all other areas of public sector building.

**Table 7.4 Current investment levels in public sector spending**

<b>Public Sector</b>	<b>Mean</b>
Residential buildings	0
Institutions	10%
Industrial buildings	30%
Office accommodation	23%
Other	37%

Table 7.5 indicates that the clients surveyed are mainly involved in commercial building (56%) and industrial building (25%) culminating in more than 81% of the investment level for private sector investment. The private sector clients have also indicated involvement in residential building (11%), while their involvement in the procurement of institutions and engineering works is to a lesser extent.

**Table 7.5 Current investment levels in private sector spending**

<b>Private Sector</b>	<b>Mean</b>
Residential buildings	11%
Industrial buildings	25%
Commercial buildings	56%
Engineering works	3%
Institutions	3%
Renovations and maintenance	2%
Other	0%

### 7.3.1.3 Nature of client organisations

The largest response (41.4%) came from property development companies, followed by companies whose main source of work is other than construction, but who build for investment purposes. An example of companies of this nature are the insurance houses and pension funds. This is consistent with the data indicating investment levels presented in Table 7.5, where commercial and industrial building together showed a preponderance of client investment. Commercial and industrial building are usually procured for investment purposes.

It should be noted that a poor response to this question was received, where 10 respondents did not indicate the nature of their organisation.

**Table 7.6 Nature of client organisation**

<b>Nature of organisation</b>	<b>Percentage</b>	<b>Frequency</b>
Property development company	41.4%	12
Building for own use	3.4%	1
Building for investment purposes	17.2%	5
Other	3.4%	1
No response	34.6%	10
<b>Total</b>	<b>100%</b>	<b>29</b>

### 7.3.1.4 Interaction with quantity surveyor

Clients were required to indicate their level of interaction with quantity surveyors on building projects. It was found that ninety two per cent of clients use quantity surveyors on their building projects. A question of this nature was included to indicate whether the sample who responded were indeed qualified to comment on the level of service quality attained in the provision of quantity surveying service. Table 7.7 indicates the level of interaction of client with quantity surveyors on building projects.

**Table 7.7 Interaction with quantity surveyors on building projects**

<b>Interaction with quantity surveyor</b>	<b>Percentage</b>	<b>Frequency</b>
On every project.	55.2%	16
On occasional building projects.	37.9%	11
Not at all.	3.4%	1
No response	3.4%	1
<b>Total</b>	<b>100%</b>	<b>29</b>

*7.3.1.5 Client's turnover*

In order to establish the size of the client's involvement in property development, respondents were required to indicate the company's average annual turnover in property development over the last three years. It was found that forty one per cent of the clients responding to this survey have an average turnover of more than R100 million per annum. Thus, eleven of the respondents represent more than R 1 billion in construction turnover. Considering that 81% of the clients surveyed are involved in commercial and industrial building, and that the contribution to the GDP for 1995 was R 6 051 billion (South African Reserve Bank, 1996), the clients surveyed represent 18,18% of this contribution. Having earlier questioned the legitimacy of the client survey due to the small number of respondents (subsection 7.2.4 above), the contribution of just 11 clients to the construction industry suggests that the findings of the client survey are indeed meaningful.

The response indicated a fair spread over the turnover categories signifying that the opinions of a diverse set of clients were evident in this survey. It is evident from the data that the opinions of the smaller client, that is, those having a turnover of less than R 5 million, are not represented in the survey. The second single largest group of respondents to this question fall into the category of having a turnover between R5 and R10 million, representing 18.5% of the sample.

**Table 7.8 Average annual turnover of clients**

<b>Turnover (R Millions)</b>	<b>Percentage</b>	<b>Frequency</b>
Less than 5	0	0
Between 5 and 10	18.5%	5
Between 10 and 20	11.1%	3
Between 20 and 50	14.8%	4
Between 50 and 100	14.8%	4
More than 100	40.7%	11
No response	0	0
<b>Total</b>	<b>100%</b>	<b>27</b>

#### *7.3.1.6 Geographical location of client survey*

Clients were asked to denote the area in which their offices are located. The intention of a question of such a nature was to establish whether the survey represents a national response. This question was not well answered, despite the simplicity of the question. Only 19 of the 29 respondents stated where the offices were located. Of the respondents who answered this question, forty five per cent indicated that their offices are in Gauteng. Furthermore, the second greatest group have their offices in the Western Cape. Essentially, the spread of location is not ideal as there are areas of the country where no representation is evidenced, for example, the Orange Free State, Northern Cape, Eastern Cape amongst others. It is, of course, possible that the 34.5% of respondents who did not indicate the geographical position may well reside in one of these areas. The geographical location of client organisations responding to this survey are contained in Table 7.9.

surveying practices probably have less than 10 members of staff.

### 7.3.2.2 Quantity surveying firms' average annual turnover

Most of the quantity surveying firms (47%) who participated in this survey have an average annual turnover of between half a million and one million rand. By summing the respondents in the bracket R 0.5 million and R 1 million and R 1 and R 5 million the preponderance (78%) of the respondents are grouped in these two categories. The remaining participants are either small firms with a turnover of less than half a million, or otherwise firms whose average annual turnover is greater than R 5 million. Due to the personal nature of this question, only 61% of the respondents were prepared to indicate the average annual turnover of their firm. The results are presented in Table 7.10.

**Table 7.10 Quantity surveying firms' average annual turnover**

Average annual turnover (R million)	Percentage	Frequency
Less than 0.5	2.1%	2
Between 0.5 and 1	47.4%	45
Between 1 and 5	30.5%	29
Between 5 and 10	8.4%	8
More than 10	9.5%	9
<b>Total</b>	<b>100%</b>	<b>95</b>

### 7.3.2.3 Work mix of quantity surveying firms

Quantity surveying firms were asked to denote the work-mix of their practice to ascertain whether the respondents have a fair experience of different types of work and the associated involvement with various client types procuring the respective buildings. Quantity surveying firms indicated that their greatest involvement (30.2%) on average is in the procurement of public sector institutions such as schools and hospitals. The second highest involvement

**Table 7.9 Geographical location of clients**

<b>Geographical location</b>	<b>Percentage</b>	<b>Frequency</b>
North West	0%	0
Western Province	10.3%	3
Orange Free State	0%	0
Northern Cape	0%	0
KwaZulu Natal	3.4%	1
Eastern Cape	0%	0
Gauteng	44.8%	13
Northern Transvaal	6.9%	2
Eastern Transvaal	0%	0
Outside SA	0%	0
No response	34.5%	10
<b>Total</b>	<b>100%</b>	<b>29</b>

Having discussed the demographic data relating to the client group, the demographic data acquired from the quantity surveyors' survey is presented below.

### **7.3.2 Demographic data for quantity surveying firms**

#### **7.3.2.1 Staffing levels**

Quantity surveyors were asked to indicate the current level of full-time staff employed by their office. It was found that the average number of employees is 11 (10.84) in quantity surveying practices surveyed. However, it was found that outliers exist, where two practices have staff of 160 employees and one firm employs 600 members of staff. The exclusion of these two respondents would result in a smaller staff size. Thus, on average, quantity

(23.3%) is in the procurement of commercial building for the private sector. Whilst private sector industrial building was rated as being the third greatest area of involvement, the remaining work mix involvement ranges from 8.8% for private sector residential buildings to 1.5% for industrial building for the public sector. The data pertaining to the work mix of quantity surveying practice is contained on Table 7.11.

**Table 7.11 Quantity surveying firms' average work mix**

Quantity surveyors' work mix	Average	Ranking
Public sector residential buildings	4.2%	7
Public sector institutions	30.2%	1
Public sector industrial buildings	1.5%	11
Public sector office accommodation	3.3%	9
Other - Public sector	3.6%	8
Private sector residential buildings	8.8%	4
Private sector industrial buildings	9.5%	3
Private sector commercial buildings	23.3%	2
Private sector engineering work	2.9%	10
Private sector renovations and maintenance	7.0%	5
Other - Private sector	5.7%	6
<b>Total</b>	<b>100%</b>	

#### 7.3.2.4 Nature of quantity surveyors' clients

Quantity surveyors were asked to indicate by percentage the type of client receiving their services. This question permits an evaluation of the level of sophistication of the client and how quantity surveying practice may be tailored to suit such organisations. Based on Table

7.12, most of the quantity surveying work (42%) emanates from public sector clients. In South Africa, these are likely to be organisations such as the Public Works Department. Nearly 20% of the clients of quantity surveying firms are building solely for their own accommodation. Furthermore, 18% of clients are property development companies whilst 15% of clients are building for their own investment purposes such as the pension funds and insurance houses, amongst others. A small percentage (1.3%) of quantity surveyors are employed by other quantity surveyors. This set of data provides a spread amongst client types. By comparison, however, the clients who responded were largely private sector clients whilst the quantity surveying group have indicated having substantial experience of the public sector client (42%). Alternately, whilst quantity surveyors' experience in the public sector is represented by a clientele of forty two per cent, the remaining cumulative preponderance (58%) is represented by the private sector. This suggests a healthy split between the two sectors.

**Table 7.12 Nature of quantity surveyors' clients**

<b>Client nature</b>	<b>Average</b>
Public sector clients	41.9%
Property development company	17.5%
Clients building for own use	19.6%
Clients building for investment purposes only	14.7%
Other quantity surveying firms	1.3%
Other	5.0%
<b>TOTAL</b>	<b>100%</b>

### *7.3.2.5 Geographical location of quantity surveying practices*

Table 7.13 indicates the distribution of the geographical location of the quantity surveying practices surveyed. The purpose of such a question was to establish whether the responses

were representative of a nationwide survey. As expected the survey results indicate that the majority of respondents came from areas such as the Western Cape (22.7%), KwaZulu/Natal (20.1%) and Gauteng (27.3%). These areas represent the larger business areas within South Africa. Furthermore, the results indicate representation from every area within the country as well as representation (4.5%) from the neighbouring countries.

**Table 7.13 Geographical location of quantity surveying firms**

Geographical location	Percentage	Frequency
North West	0.6%	1
Western Province	22.7%	35
Orange Free State	9.7%	15
Northern Cape	1.3%	2
KwaZulu Natal	20.1%	31
Eastern Cape	6.5%	10
Gauteng	27.3%	42
Northern Transvaal	4.5%	7
Eastern Transvaal	1.3%	2
Outside SA	4.5%	7
No response	1.3%	2
<b>Total</b>	<b>100%</b>	<b>154</b>

Having presented the demographic data pertaining to the clients and quantity surveying practices surveyed, the findings of the application of the SERVQUAL Instrument are discussed below.

## 7.4 Findings of the client survey

### 7.4.1 Introduction

Having presented the demographic data pertaining to clients and quantity surveying practices who participated in this survey, the section that follows focuses on the results of the SERVQUAL Instrument. The first section under the heading of "Findings" relates to client responses regarding expectation, perception of performance and the Gap 5 score. The gap 5 score or SERVQUAL score is computed by subtracting the expectation score from the perception of performance score. This score indicates the disparity between what clients would like to receive and the service they perceive to have received.

Furthermore, quantity surveying firms' responses are presented thereafter, based on quantity surveyors' perceptions of the level of service which constitutes quality for the client. Having presented the surveys independently, a comparison of perceptions is presented where conclusions are drawn based on the analysis of the findings.

To facilitate the analysis of the data, each of the statements within a dimension are presented in tabular form along with the respective expectation and performance scores. The questionnaire which was mailed to clients and quantity surveying firms is contained in Appendix F and G respectively at the end of the document. Although the questionnaire has been explained earlier, it is reiterated that a seven point Likert type scale was used to gauge responses. For the expectation set of statements, 1 represented "*not essential*" and 7, "*very essential*," whilst for the perception set of statements 1 represented "*strongly disagree*" and 7, "*strongly agree*." Therefore, an expectation statement receiving a score of 7 would indicate that clients perceive this aspect of service to be very essential to performing excellent quality of service, whilst 1 would indicate that clients' expectations were low for such service delivery.

In the tables that follow, column 1 contains the statement to which the average scores relate. The column named "*expectation*" represents the average score of clients' expectation of ideal quantity surveying practice. The following column, named "*perception of performance*"

indicates the average score of clients' perception of the level of service performed by the quantity surveying firm most regularly used by themselves. The final column represents the Gap 5 score where the average expectation score is subtracted from the average perception score. A positive Gap 5 score indicates superior service, that is the perception of performance was greater than the prior expectation, whilst a negative score indicates poor service quality where the clients' expectations were greater than the service received. Lastly, a score of zero would indicate that the client has received the service required.

The following section deals with client responses to statements, presented by dimension and therefore starting with *Tangibles*.

#### **7.4.2 Tangibles**

Table 7.14 presents the statements pertaining to *Tangibles*, in addition to the average scores for each statement for expectation and perception of quantity surveying performance. (The statements presented below are worded for the *expectation set of statements only*. For the sake of brevity, the *perception of performance* statements have not been repeated here as the essence of the statement remains the same, except that it is worded " *The quantity surveying firm most regularly used by our firm ....* " The client questionnaire can be found in Appendix E.) The last column indicates the Gap 5 score, which is calculated by subtracting the expectation score from the perception of performance score ( $Q = P - E$ ).

##### **7.4.2.1 Expectation**

Client expectation of the "*tangible*" aspect of service quality appears to be low. This is clearly demonstrated in Table 7.14. By means of averaging the responses, three out of the four statements received low scores (4.14 and below), indicating that these statements were not considered very essential to the delivery of excellent quality of service. These statements include that excellent quantity surveying firms will have modern-looking equipment, the physical facilities will be visually appealing and that members of staff will be neat in appearance. *The fourth statement, namely that excellent quantity surveying firms will produce*

documentation which is detailed, accurate, and easy to understand, was rated as very essential (6.79). Clients thus, have low expectations of the tangible aspect of quantity surveying service save for the accuracy of documentation where clients indicated a high level of expectation.

**Table 7.14 Client expectation, perception of performance and Gap 5 score for the dimension *Tangibles***

TANGIBLES	CLIENT EXPECTATION	PERCEPTION OF PERFORMANCE	GAP 5 SCORE SQ=P-E
1. Excellent quantity surveying firms will have modern looking equipment.	3.93	4.29	0.355
2. The physical facilities at excellent quantity surveying firms will be visually appealing.	3.72	4.18	0.454
3. Employees at excellent quantity surveying firms will be neat in appearance.	4.14	4.61	0.469
4. Excellent quantity surveying firms will produce documentation which is detailed, accurate and easy to understand.	6.79	5.21	-1.579
Average for each column	4.65	4.57	-0.08

#### 7.4.2.2 Perception

For statements 1 to 3, clients rated their *perception* of the service delivered more highly than their expectation of the service. This would indicate that clients are indeed satisfied with most tangible aspects of quantity surveying services. However, clients rate their *perception* of statement 4, that is, documents should be detailed, accurate and easy to understand, as being lower than their expectation of the same. *This suggests that clients are dissatisfied with the standard of documentation produced by quantity surveyors.*

#### 7.4.2.3 Gap 5 score for Tangibles

On examination of the data by statement, *the disparity between expectation and performance is large for Statement 4 (-1.579), indicating dissatisfaction with production of documentation*

*which should be detailed, accurate and easy to understand.* Furthermore, the disparity for Statements 1 to 3 are of a positive nature, indicating that *clients are satisfied with the following aspects, namely, having modern looking equipment, visually appealing physical facilities and staff who are neat in appearance.*

The average unweighted SERVQUAL score for the dimension of *Tangibles* is -0.08. This indicates that generally clients are very mildly dissatisfied with this aspect of service. Should statement 4 be excluded, this average would be 0.426, indicating that clients are receiving quality of service greater than that expected. Moreover, it would indicate client satisfaction with the dimension of *Tangibles*.

### **7.4.3 Reliability**

#### **7.4.3.1 Expectation**

Based on Table 7.15, clients' expectations of the dimension, *Reliability* appear to be high. The ratings for all five statements range from 6.41 to 6.83, with an average expectation of 6.60 for the dimension. By comparison the average expectation score for *Tangibles* was 4.65, demonstrating the difference between the two dimensions. The statements making up this dimension includes service features such as delivering service at the promised times, quantity surveyors showing sincere interest in solving client's problems, performing the service correctly the first time, providing service timeously and insisting on error-free records. *The statement rated most essential to excellent quantity surveying firms is delivering services at the promised times.*

#### **7.4.3.2 Perception**

For each statement, clients responded that their *perception* of the service received was indeed lower than the quality of service expected. Quantity surveyors scored the lowest (4.86) for performing the service right the first time out of all the five statements in this dimension. The average score for this dimension is 5.09, just less than a point and a half lower than client expectations for *Reliability*.

**Table 7.15 Client expectation, perception of performance and Gap 5 score for the dimension *Reliability***

RELIABILITY	CLIENT EXPECTATION	PERCEPTION OF PERFORMANCE	GAP 5 SCORE SQ - P-E
5. Excellent QS firms will deliver services at the promised times.	6.83	5.11	-1.72
6. When a client experiences a problem, excellent QS firms will show sincere interest in solving it.	6.66	5.18	-1.48
7. Excellent QS firms will perform the service right the first time.	6.45	4.86	-1.59
8. Excellent QS firms will provide their services timeously.	6.66	5.21	-1.44
9. Excellent QS firms will insist on error free records.	6.41	5.07	-1.34
Average for each column	6.60	5.09	-1.51

#### 7.4.3.3 The Gap 5 score for Reliability

Table 7.15 indicates large differences between clients' expectations and perceptions of performance of the quantity surveying firm used. Statement 5 presents the largest gap (-1.72) for the dimension of *Reliability*. This indicates that clients are dissatisfied with quantity surveyors' inability to deliver services at the promised times. The second largest gap in service delivery is in performing the service right the first time. Further, a lack of service delivery is evident in quantity surveyors showing a sincere interest in solving client's problems (-1.48), providing services timeously (-1.44) and keeping error-free records (-1.34).

The average gap in performance for *Reliability* is -1.51. This indicates an area of service of low service quality, and therefore, client dissatisfaction with the reliability of quantity surveyors' service.

## 7.4.4 Responsiveness

### 7.4.4.1 Expectation

The ratings for this dimension ranged from 6.00 to 6.45, with an average of 6.31. Statements 10 and 11 were rated the most highly (6.45 respectively), where *clients expect to be kept informed of project progress* and *providing clients with prompt service*. Secondly, *being willing to help the client* (6.34) and *indicating that they are never too busy to assist their clients* (6.00) was rated highly as well.

The average expectations of clients for the dimension, *Responsiveness* (6.31) was slightly lower overall than for *Reliability* (6.51), indicating that clients have greater expectations of the service feature, *Reliability*.

**Table 7.16 Client expectation, perception of performance and Gap 5 score for the dimension *Responsiveness***

RESPONSIVENESS	CLIENT EXPECTATION	PERCEPTION OF PERFORMANCE	GAP 5 SCORE SQ = P-E
10. Excellent QS firms keep the client informed of project progress.	6.45	4.93	-1.52
11. Employees in excellent QS firms will give prompt service to clients.	6.45	5.21	-1.23
12. Employees in excellent QS firms will always be willing to help clients.	6.34	5.07	-1.27
13. Employees in excellent QS firms will never be too busy to respond to client's requests.	6.00	5.07	-0.93
Average for each column	6.31	5.07	-1.24

### 7.4.4.2 Perception

*Clients indicated that they were least satisfied with being kept informed of project progress* (4.93). However, in section 7.4.4.1, clients indicated that they rated this aspect of service

most highly within the dimension of *Responsiveness*. The average performance rating for the four statements comprising *Responsiveness* is 5.07. Clients have rated quantity surveyors' performance in this area much the same as they did for the dimension, *Responsiveness* (5.09).

#### *7.4.4.3 The Gap 5 score for Responsiveness*

Clients appear to be dissatisfied with quantity surveyors' performance in the area of *Responsiveness*. The area of service with the greatest disparity between expectation and performance is the quantity surveyor's ability to keep the client informed of project progress (-1.52). Furthermore, clients are dissatisfied with quantity surveyors' willingness to help clients (-1.27) and giving prompt service (-1.23). To a lesser extent, clients have indicated that quantity surveyors do not possess a philosophy of being too busy to respond to their requests (-0.93).

The average difference between expectation and perception of the performance received by quantity surveyors is -1.24. This suggests that improvements to service quality would enhance satisfaction within this area. Particularly, keeping the client informed of project progress is imperative in improving service provision.

#### *7.4.5 Assurance*

##### *7.4.5.1 Expectation*

Within the dimension *Assurance*, clients rated most highly out of all four statements that *safety in transactions* was expected from excellent quantity surveying firms. Furthermore, the *ability to answer client's requests* (6.24) and the *ability to instill confidence* (6.07) was also rated very highly. Whilst courtesy and approachability of staff employed by quantity surveyors was rated 5.79, it was the lowest rated statement within the dimension *Assurance*, indicating that this is less essential in achieving satisfaction. The overall average for all four statements was 6.15, which is lower than for *Reliability* (6.60) and *Responsiveness* (6.31). The scores are represented in Table 7.17.

#### 7.4.5.2 Perception.

For all four statements, the client's *perception* of the service delivered is lower than that rated for their expectation of service. Clients rate statement 14 the lowest (5.07) indicating that staff of quantity surveying firms do not adequately instill confidence in their clients. Whilst the average performance rating can be considered low (5.19), it is still marginally higher than the average performance of *Responsiveness* (5.07). Clients exhibited a low expectation rating for statement 16 (courtesy and approachability of staff) and consequently reported that the delivery of this aspect of service was only slightly less than that required (-0.33).

**Table 7.17 Client expectation, perception of performance and Gap 5 score for the dimension Assurance**

ASSURANCE	CLIENT EXPECTATION	PERCEPTION OF PERFORMANCE	GAP 5 SCORE SQ - P-E
14. The behaviour of employees of excellent QS firms will instill confidence in clients.	6.07	5.07	-0.997
15. Clients of excellent QS firms will feel safe in their transactions.	6.48	5.11	-1.38
16. Excellent QS firms will employ staff who are approachable and courteous to their clients.	5.79	5.46	-0.33
17. Staff employed by excellent QS firms will have the ability and competence to answer client's requests.	6.24	5.11	-1.13
Average for each column	6.15	5.19	-0.96

#### 7.4.5.3 The Gap 5 score for Assurance

The statement with the greatest discrepancy between expectation and performance is that of *safety in transactions*. It is clear from the difference, -1.38, that the clients are dissatisfied with this aspect of service. The second largest gap (-1.13) in this dimension was exhibited in the difference between expectation and performance of *quantity surveyors having the ability and competence to answer clients' requests*. Furthermore, clients indicated a small

degree of dissatisfaction (-0.33) for approachability and courtesy of quantity surveying staff. Due to such a small gap for statement 16, an average gap of -0.96 is computed for the dimension *Assurance*. Excluding statement 16, the gap size for the dimension would be 1.17 as opposed to 0.96. This indicates that statement 16 may not be particularly relevant to this dimension.

#### **7.4.6 Empathy**

##### **7.4.6.1 Expectation**

A great variance ranging from 5.36 to 6.66 in the ratings of client expectations for the dimension *Empathy* is evident. This discrepancy indicates that perhaps some of the statements are of a less relevant nature to the client. For example, the aspect of having convenient operating hours is perhaps more applicable to other service institutions such as banks which have limited operating hours. Most quantity surveying practices are open during normal working hours and thus, this would explain why clients have not rated their expectation of statement 19 very highly (5.36).

*Clients rated most highly (6.66) the statement purporting loyalty and dedication to the client and the project (statement 21).* This statement was slightly modified from the original SERVQUAL instrument to be more applicable to the quantity surveying profession. Furthermore, *clients have great expectations of quantity surveyors providing service according to their specific needs (6.45) as well as quantity surveyors understanding the specific needs of the client (6.24).* Expectations related to providing personal attention was rated less essential to the provision of service quality (5.79).

##### **7.4.6.2 Perception**

The clients' perception of performance for the dimension of *Empathy* produced an average of 5.14. The aspect of convenient operating hours was rated the poorest (4.96), which raises the question of quantity surveying firms actual business hours. *This suggests that clients have not always been able to gain access to their quantity surveying firm when required.* However,

in section 7.4.6.3, attention will be drawn to the small discrepancy actually noted (-0.39). *The ability to provide clients with their specific needs and requirements, in terms of perceived performance, was rated the highest in the dimension of Empathy, that being 5.32.* Thus, clients have a higher regard of QS performance in the area of meeting specific needs and requirements, than in the areas relating to the remaining statements within this dimension. The average performance score of 5.14 is consistent with the service delivery of the dimensions already presented, except for *Tangibles* which was far lower, namely 4.57 (*Reliability*, 5.09; *Responsiveness*, 5.07; *Assurance*, 5.19).

**Table 7.18 Client expectation, perception of performance and Gap 5 score for the dimension *Empathy***

EMPATHY	CLIENT EXPECTATION	PERCEPTION OF PERFORMANCE	GAP 5 SCORE SQ = P-E
18. Excellent QS firms will provide the client with the service required according to the client's specific needs and requirements.	6.45	5.32	-1.13
19. Excellent QS firms will have operating hours convenient to all their clients.	5.36	4.96	-0.39
20. Excellent QS firms will have employees who give clients personal attention.	5.79	5.18	-0.615
21. Excellent QS firms will remain loyal and dedicated to the client and the client's project, protecting the client's investments, and acting in the best interest of the project at all times.	6.66	5.21	-1.44
22. The employees of excellent QS firms will understand the specific needs of their clients.	6.24	5.04	-1.21
Average for each column	6.10	5.14	-0.96

#### 7.4.6.3 The Gap 5 score for Empathy

*Clients are most dissatisfied with quantity surveyor's ability to be loyal and dedicated to their*

*project*. The difference in expectation and perception of performance is -1.44. Secondly, within the dimension of *Empathy*, dissatisfaction is indicated with regard to quantity surveyors understanding the specific needs of their clients (-1.21). Statements 18 and 22, which relate to the needs of the client, are closely worded specifically to indicate consistency in the respondents ratings. Comparatively statement 18, which states that quantity surveyors will provide the client with the service required according to their specific needs and requirements, displayed a disparity of -1.13 which is consistent with statement 22 (-1.21).

Further areas of dissatisfaction are noted, but of a lesser degree. Clients appear to be moderately dissatisfied with being given personal attention (-0.615) and even less dissatisfied with having convenient operating hours (-0.39).

#### **7.4.7 Client Focus**

This is an extra dimension which was created based on the pilot study presented in Chapter 6. The purpose of the additional dimension was to include aspects of service specific to quantity surveying service. As previously discussed, the first 22 items are based on the replication of the SERVQUAL instrument. The extra eight statements represent the author's own extra dimension named *Client Focus*. This follows the methodology undertaken by the Centre for Manufacturing Management (1993) who investigated service quality in the consulting engineering field in Australia. The additional eight statements culminating in *Client Focus* is represented in Table 7.19 along with the average scores.

##### **7.4.7.1 Expectation**

The most highly rated statement within the dimension of *Client Focus*, is the statement pertaining to *clear communication of project details to the client*, scoring a rating of 6.31. Furthermore, *clients have high expectations (6.28) of being involved in the project and being treated as a valuable member of the design team (statement 30)*. Other statements were also rated reasonably highly, namely that quantity surveyors will communicate technical problems in a manner which is easily understood (6.13) and that quantity surveyors will project a positive attitude toward and enthusiasm for the client's project (6.06). Although four of the

eight statements presented above indicated high expectation, the average total for all eight items is 5.80. The expectations for the remaining four items is thus lower, bringing down the average. *Two of the lowest rated items related to clients' expectation of quantity surveying firms who indicate the services available and the relevant fee structure, together with quantity surveyors' ability to understand the client's possible in-house problems.*

#### *7.4.7.2 Perception*

The average for all eight perception of performance ratings is relatively low (4.56), when compared with *Empathy* which scored an average of 5.14. Notwithstanding the low overall score, quantity surveyors' ability to communicate technical problems in a manner that the client can understand was rated the most highly (4.89) out of all eight statements relating to performance. The item relating to quantity surveyors' ability to treat clients as a valuable member of the design team also rated almost equally as highly (4.86). Based on statement 29, quantity surveyors do not frequently (4.11) organise a debriefing session at the end of a project. Based on the survey, clients perceive a low degree (4.36) of promotion of teamwork amongst members of the design team.

#### *7.4.7.3 The Gap 5 score for Client Focus*

The average SERVQUAL score for all eight items in this dimension is -1.24. Clients indicated low service quality (-1.60) with regard to clear communication of project details. Secondly, the large disparity (-1.48) between client expectations and their perceptions of performance of the debriefing session indicated an area of client dissatisfaction and poor service quality. Contributing to the average disparity for this dimension is that clients are dissatisfied with not being treated as a valuable member of the design team. The only statement yielding a disparity of less than one, was the statement regarding quantity surveyors understanding the possible in-house problems which the client may experience. Although the *perception of performance* rating was low, so too was the rating for *expectation*, resulting in small disparity. It can be concluded that this is not a particularly important aspect of service for most clients.

**Table 7.19 Client expectation, perception of performance and Gap 5 score for the dimension *Client Focus***

CLIENT FOCUS	CLIENT EXPECTATION	PERCEPTION OF PERFORMANCE	GAP 5 SCORE SQ = P-E
23. Excellent QS firms will project a positive attitude toward and enthusiasm for the client's project.	6.06	4.82	-1.25
24. Excellent QS firms will understand the possible in-house problems the client may experience.	5.31	4.54	-0.77
25. Excellent QS firms will communicate technical problems in a manner that the client can understand.	6.13	4.89	-1.25
26. Excellent QS firms will be specific when communicating information pertaining to the project to the client i.e. resist being vague.	6.31	4.71	-1.60
27. Excellent QS firms will promote teamwork between all members of the design team.	5.52	4.36	-1.16
28. Excellent QS firms will inform the client of services available and the relevant fee structure.	5.21	4.21	-0.99
29. Excellent QS firms will organise a debriefing session at the end of the project to illuminate areas of dissatisfaction in order to prevent such problems recurring.	5.59	4.11	-1.48
30. Excellent QS firms will treat the client as a valuable member of the design team, involving him or her in project decisions.	6.28	4.86	-1.42
Average for each column	5.80	4.56	-1.24

### Summary of client survey

The statements attracting the greatest disparity are presented on Table 7.20. This presents a summary of the aspects of service perceived to have the poorest level of service quality. Moreover, it indicates areas of client dissatisfaction. Whilst 27 out of the 30 statements presented received negative scores, the table below ranks the ten statements with the greatest disparity between expectation and perception of performance. This serves to present a focus which is not dimension bound, giving an overall view of the areas of poor service quality and thus, client dissatisfaction.

**Table 7.20 The ten statements with the greatest disparity**

Statement	Dimension	Gap
Excellent QS firms will deliver services at the promised time.	Reliability	-1.72
Excellent QS firms will be specific when communicating information pertaining to the project <i>ie.</i> resist being vague.	Client Focus	-1.60
Excellent QS firms will perform the service right the first time.	Reliability	-1.59
Excellent QS firms will produce documentation which is detailed, accurate and easy to understand.	Tangibles	-1.58
Excellent QS firms will keep the client informed of project progress.	Responsiveness	-1.52
When a client experiences a problem, excellent QS firms will show sincere interest in solving it.	Reliability	-1.48
Excellent QS firms will organise a debriefing session at the end of the project to illuminate areas of dissatisfaction in order to prevent such problems recurring.	Client Focus	-1.48
Excellent QS firms will remain loyal and dedicated to the client and the client's project, protecting the client's investment, and acting in the best interest of the client.	Empathy	-1.44
Excellent QS firms will perform their services timeously.	Reliability	-1.44
Excellent QS firms will treat the client as a valuable member of the design team, involving him or her in project decisions.	Client Focus	-1.42

### 7.4.8 The dimensions

#### 7.4.8.1 Importance weighting

Table 7.21 indicates the average for each dimension for expectation, perception and the Gap 5 score. The last column in the table presents the average importance weighting for each dimension. The ranking of the "Gap" column is based on the absolute value. These figures are the result of Question 3 on the client questionnaire where respondents were presented with statements which describe the essence of each dimension and asked to give a percentage

breakdown of relative importance for each statement.

**Table 7.21 Client expectation, perception of performance, Gap 5 and importance weighting for all dimensions**

DIMENSION	Expectation		Perception		Gap		Importance Weighting	
Tangibles	4.65	6	4.57	5	-0.08	4	6.82%	6
Reliability	6.60	1	5.09	3	-1.51	1	42.14%	1
Responsiveness	6.31	2	5.07	4	-1.24	2	22.44%	2
Assurance	6.15	3	5.19	1	-0.96	3	11.39%	3
Empathy	6.10	4	5.14	2	-0.96	3	10.86%	4
Client Focus	5.80	5	4.56	6	-1.24	2	9.49%	5

From the table it is evident that the dimension *Reliability* is considered the most important dimension by clients, yielding an average of 42%. This dimension has also attracted the greatest disparity between expectation and performance (-1.51). This finding presents an area in need of great attention as clients are not only dissatisfied with the service, but also rate this dimension, by far, the most important.

*Responsiveness* was considered the second most important service feature (22%). However, this dimension scored just more than half the points that were awarded to the dimension, *Reliability*. Furthermore, this dimension has the second largest disparity between expectation and performance.

*Assurance* and *Empathy* are rated jointly as the dimension with the third largest disparity (-0.96). In addition they were respectively rated the third and fourth most important dimension.

Whilst *Tangibles* is considered the least important service feature to clients of the quantity surveying profession, scoring an average of 7%, the remaining service features scored

between 9% and 11% respectively. This indicates that the aspect of *Assurance*, *Empathy* and *Client Focus* are considered of equal importance, generally, for the attainment of excellent service quality, albeit that in comparison to *Reliability* and *Responsiveness* they are rated lower.

The calculation of the weighted SERVQUAL score permits an examination of the relationship between the size of the disparity between expectation and performance, thus the gap 5 score, and the average weighting for the respective dimensions. Table 7.22 presents the weighted SERVQUAL scores.

**Table 7.22 Clients' importance weighting, unweighted SERVQUAL score and weighted SERVQUAL score for all dimensions**

DIMENSION	Importance weighting		Unweighted SERVQUAL Score		Weighted SERVQUAL Score		Weighted SERVQUAL Score (x100)
Tangibles	6.82%	6	-0.0751	6	-0.0051	-0.5	6
Reliability	42.14%	1	-1.5143	1	-0.638	-64	1
Responsiveness	22.44%	2	-1.2389	2	-0.250	-25	2
Assurance	11.39%	3	-0.9581	4	-0.109	-11	4
Empathy	10.86%	4	-0.9562	5	-0.103	-10	5
Client Focus	9.49%	5	-1.2387	3	-0.1177	-12	3

The weighted SERVQUAL score is calculated by multiplying the importance weighting percentage by the gap 5 score and dividing by 100. In so doing, the importance of the dimension to the client is applied to the perceived performance gap. (For the sake of clarity, the last column in Table 7.22 contains the weighted SERVQUAL score multiplied by 100.) Having calculated the weighted SERVQUAL score for each dimension, it is evident that the dimension considered most important to clients, that being *Reliability*, is the dimension that has the greatest disparity between expectation and performance. It would appear that clients are most dissatisfied with the area of service which is the most important to them. Secondly,

the dimension, *Responsiveness*, was rated the second most important service feature to quantity surveyors performing a high quality of service, yet it was also the dimension which has the second greatest gap between expectation and performance. In order for quantity surveyors to increase service quality and thus, client satisfaction, firms should focus on the service features *Reliability* and *Responsiveness*.

## **7.5 Findings of the quantity surveyors' survey**

Quantity surveying firms received a questionnaire similar to that sent to the client group. The questionnaire contained three parts pertaining to the SERVQUAL Instrument. The first part required quantity surveyors to indicate their perception of client expectation of service quality. This involved rating from 1 to 7, the same 30 expectation items presented to the clients. This would represent quantity surveyors' perception of clients' expectations. The second part of this section required quantity surveyors to rate between 1 and 7, their ability to meet such expectations. Quantity surveyors were not asked to rate individual items, but just the six dimensions. The six dimensions were not labelled as such, but the essence of the service feature was described. Lastly, quantity surveyors were presented with the same six statements representing the six dimensions and were asked to rate their perception of the relative importance to clients (out of 100) of each service feature.

### ***7.5.1 Quantity surveyors' perception of client expectation of service quality***

Quantity surveyors were asked to rate on a 7 point Likert scale, similar to that used for the clients, their perception of what constitutes quality of service for clients using QS practices. In Table 7.23, the average expectation score for each dimension was computed based on quantity surveyors' ratings of each of the 30 statements presented in the questionnaire. The average score for the dimension *Reliability* was the highest out of all 6 dimensions, indicating that quantity surveyors perceive clients to have high expectation in this area of service delivery. *Responsiveness* was also rated highly (6.43) by quantity surveyors as being an area of high client expectation. This is consistent with the opinion of clients on their expectation of superior service quality. *Tangibles* scored the lowest by a convincing margin as being essential to service quality yielding a score of 5.15.

Table 7.23 indicates the average scores for quantity surveyors' perceptions of client expectation and the ranking of each dimension.

**Table 7.23 Quantity surveyors' perception of client expectations**

DIMENSION	Expectation score	Ranking
Tangibles	5.15	6
Reliability	6.62	1
Responsiveness	6.43	2
Assurance	6.27	3
Empathy	6.13	4
Client Focus	6.00	5

#### **7.5.2 Quantity surveyors' perception of their ability to meet such expectation**

The average score for quantity surveyors' ability to meet client expectations of performance for the various dimensions ranged between 4.97 and 6.34, indicating that quantity surveyors are aware of areas of high and low service performance. An example of this is evident under the dimension of *Client Focus*, quantity surveyors rated their performance the lowest in all six areas. The dimension with the highest performance rating is *Reliability* where quantity surveyors scored an average of 6.34 for their ability to perform the promised service accurately and dependably. Quantity surveyors rated highly (6.19) their ability to perform the required service with empathy. *Empathy* represents the quantity surveyors' ability to provide loyal and dedicated service to their clients. Furthermore, quantity surveyors do not rate the appearance of physical facilities, equipment and other tangibles as being an area of high performance.

Table 7.24 presents quantity surveyors' perceptions of both the client's level of expectation as well as the latter's perception of performance. This permitted the calculation of the Gap 5 score as perceived by quantity surveyors (perception minus expectation).

**Table 7.24 Quantity surveyor’s perceptions of client expectations, performance and the resultant Gap 5 score**

<b>DIMENSION</b>	<b>Expectation (Average)</b>	<b>QS’s ability to meet expectations</b>	<b>Gap 5 Score</b>
Tangibles	5.15	5.18	+0.03
Reliability	6.62	6.34	-0.28
Responsiveness	6.43	5.87	-0.56
Assurance	6.27	5.88	-0.39
Empathy	6.13	6.19	+0.06
Client Focus	6.00	4.97	-1.03

### **7.5.3 Quantity surveyors’ perception of the Gap 5 score**

The Gap 5 score can now be calculated by subtracting *the quantity surveyors’ perception of clients’ expectation score* for each dimension from *the quantity surveyors’ perception of their own performance*. However, since the expectation battery constituted the 30 statements, the dimension score was calculated by averaging the items pertaining to the respective dimension.

Two positive gaps exist indicating that quantity surveyors perceive that service quality and thus, client satisfaction, has been attained in the areas of *Tangibles* and *Empathy*. It would appear that the reason the dimension *Tangibles* has acquired a positive score is due to a low level of expectation met with a slightly higher level of performance. *Empathy* has also realised a positive value with a high expectation score and an equally high service delivery score. Thus, quantity surveyors have indicated that the empathy shown toward clients is a strong aspect of their service delivery. Whilst *Tangibles* and *Empathy* both have positive scores (5.15 and 6.13 respectively) in expectation and (5.18 and 6.19) in performance. Both expectation and perception of performance scores differ by almost one point respectively. This disparity suggests that *Tangibles* is not as important a dimension as *Empathy*, by virtue of the low expectation score.

Furthermore, quantity surveyors do not perceive the disparity to be as great as the clients do (presented in section above) since for *Reliability*, *Responsiveness* and *Assurance* the average negative score for those three dimensions is -0.41. Alternately, quantity surveyors have indicated that a large gap exists between client expectation of *Client Focus* and quantity surveyors' ability to fulfil such expectation (-1.03).

#### 7.5.4 Quantity surveyors' perception of importance of service features

In Table 7.25, quantity surveyors have perceived the dimension *Reliability* to be the most important service feature to clients (38%). The second most important dimension as perceived by quantity surveyors is *Responsiveness*, representing a similar distribution of importance points as presented by the clients in Table 7.22.

**Table 7.25 Quantity surveyors' perceptions of the importance weighting of dimensions for clients, the Gap 5 score and the resultant weighted SERVQUAL score**

DIMENSION	Gap	Importance to client (QS perspective)	Weighted SERVQUAL
Tangibles	+0.03	10.3%	+0.003
Reliability	-0.28	38.1%	-0.107
Responsiveness	-0.56	16.2%	-0.091
Assurance	-0.39	13.0%	-0.051
Empathy	+0.06	13.5%	+0.008
Client Focus	-1.03	8.3%	-0.086

#### 7.6 Comparison of clients' and quantity surveyors' opinions

Having presented the clients' opinion survey and the quantity surveyors' perception of the level of service quality delivered, a comparison of client and quantity surveyor opinion is presented. This comparison indicates the difference in perception of the same service

delivery.

Based on the data presented in Table 7.26, the perceptions held by clients vary greatly from those held by quantity surveyors. Clients indicate a disparity in all six dimensions between the service expected and the service actually received. Quantity surveyors indicate that clients receive greater service than that expected in the area of *Tangibles* and *Empathy*. The gaps perceived by quantity surveyors are much smaller than the gaps perceived to exist by the client group. From this it can be concluded that quantity surveyors need to re-evaluate the level of service provided and moreover, should see it from the perspective held by the client. In the area of *Reliability*, clients perceive a great disparity (-1.51) between expectation and performance, whilst quantity surveyors perceive a much smaller disparity (-0.28). Together with the high importance rating given to the dimension *Reliability*, the SERVQUAL score for that dimension is -0.638. By comparison, the quantity surveyors' perception realises a SERVQUAL score of -0.107, nearly five times less than the SERVQUAL score emanating from the client survey.

The SERVQUAL scores for the dimensions take into account the importance weighting allocated to the respective dimensions. By ranking the weighted SERVQUAL scores, it is apparent that, even though the size of the gaps differ, the ranking of the disparity is similar. In both cases *Reliability*, *Responsiveness*, *Client Focus* and *Assurance* rate in the first four positions, in the same order. *Empathy* and *Tangibles* rate fifth and sixth for clients whilst their ranking is opposite for the quantity surveying group.

So far the SERVQUAL score for the entire service delivery has not been presented. This is calculated by adding the weighted SERVQUAL scores for all dimensions and then dividing by six. This results in a score of -0.204 as perceived by clients and -0.054 for quantity surveyors. The comparison of clients' and quantity surveyors' perceptions is presented in Table 7.26 indicating the Gap 5 score, importance weighting and weighted SERVQUAL Score as perceived

**Table 7.26 Comparison between clients' SERVQUAL score and quantity surveyors' perception of the same**

DIMENSION	Gap		Importance weighting		Weighted SERVQUAL score	
	Client	QS Perception	Client	QS Perception	Client	QS Perception
Tangibles	-0.08	+0.03	6.82%	10.3%	-0.005	+0.003
Reliability	-1.51	-0.28	42.14%	38.1%	-0.638	-0.107
Responsiveness	-1.24	-0.56	22.44%	16.2%	-0.250	-0.091
Assurance	-0.96	-0.39	11.39%	13.0%	-0.109	-0.051
Empathy	-0.96	+0.06	10.86%	13.5%	-0.104	+0.008
Client Focus	-1.24	-1.03	9.49%	8.3%	-0.118	-0.086
	<b>SERVQUAL Score</b>				<b>-0.204</b>	<b>-0.054</b>

### 7.7 Comparison of SERVQUAL score with other service industries

To permit a greater understanding of the SERVQUAL score calculated in this study, a comparison is presented with other services industries. The SERVQUAL Instrument was applied to the consulting engineering field in South Africa (Bowers, 1990). Architects and contractors' opinions were considered to represent the "clients" of the industry. Both architects and contractors indicated a positive SERVQUAL score, that being +0.082 and +0.185. This indicates that these consumers of consulting engineering services rate their perception of performance greater than their expectations, on average. Out of five dimensions, one dimension resulted in a negative score for both architects and contractors, namely *Reliability*.

Furthermore, the SERVQUAL instrument was applied to the consulting engineering field in Australia (Centre for Manufacturing Management, 1993). To this end, the researchers involved changed the SERVQUAL Instrument substantially although keeping the essence of each dimension. Whilst they did not compute the SERVQUAL score for the industry, the report indicates a negative score for all dimensions. Furthermore, the aspect of service that

clients find most dissatisfying is the aspect of *Reliability* (-1.11). It was also found that *Reliability* is considered the most important aspect of service to their clients.

Having presented an interpretation of the means relating to the **client** and **quantity surveyors'** surveys and their relationship to each other, the data have been subjected to further statistical procedures. The section that follows, is not meant to provide specific recommendations to the quantity surveying profession, but serves to provide researchers with a background feeling for the way in which those surveyed answered the questions. The analysis presented below investigates the relationships of the variations in the data and provides insights into possible new dimensions.

## **7.8 Model testing**

Models are needed to impose some convenient restrictions on relationships between variables in such a way that meaningful insights about possible interpretations of the data can emerge. There is not necessarily a single unique model for a data set, but various plausible explanations. Each one should be examined for its adequacy and simplicity.

### ***7.8.1 Factors in the client data set***

The full model for the design of the modified SERVQUAL Instrument, used in this study, was imposed on the data. The output indicated that the model is associated with a lot of inherent instability which is probably related to an inadequacy of the data set, that being too many variables (30 variables) observed on too few cases (29 cases).

The data were considered in fragments where a small subset of variables were selected for factor analysis, often up to the limits of model complexity permitted on a small data set. The package Statistica was used. This procedure permitted an investigation into the structure of the data providing some insights into the validity of various dimensions.

Exploratory factor analysis was undertaken on the Gap 5 scores (perception score minus expectation score) for all statements.

Based on the exploratory factor analysis, the following was found:

(i) The original SERVQUAL Instrument was constructed from 22 items assuming 5 dimensions. The modified Instrument applied to the QS service industry was constructed from 30 items assuming 6 dimensions. After exploratory factor analysis, three service dimensions (*Tangibles*, *Comfort Features* and *Client Focus*) were reflected and are contained in Table 7.27.

**Table 7.27 Dimensions emerging from exploratory factor analysis for client data set**

Dimensions	SERVQUAL applied to QSP Client data set	After exploratory factor analysis
Tangibles	Statements 1 to 4	Statements 1-3
Reliability	Statements 5 to 9	Statements 4 - 22 with the exception of Statement 16 Renamed "Comfort Features"
Responsiveness	Statements 10 -13	
Assurance	Statements 14- 17	
Empathy	Statements 18-22	
Client Focus	Statements 23-30	Statements 23-30 with the exception of Statement 29

(ii) Variables 1 to 3 (statements 1 to 3) loaded well together, whilst variable 4 loaded with a second factor. The wording for statement 4 was seemingly in keeping with the original SERVQUAL statement. However, it is possible that in respect of the quantity surveying profession the importance of accuracy of documentation may have been confounded with accuracy of estimates. Such confounding may cause the variation of client responses to statement 4 to be more in keeping with those of the statements relating to statements 5 through 22 than statements 1 to 3.

(iii) When testing combinations of dimensions, the variables relating to the dimensions

*Reliability, Responsiveness, Empathy* and *Assurance* were found to all load together. This cohesion indicates that the variations behave consistently. However, statement 16 loaded very mildly with the statements 4 through 22. Statement 16 refers to the courtesy and approachability of employees of QS practices.

(iv) For the assumed dimension in this study, namely *Client Focus*, it was found that the variables for that dimension load together well, save for item 29. Statement 29 relates to excellent quantity surveying practices having a debriefing session at the end of a project to illuminate areas of client satisfaction or lack thereof.

Owing to the size of the data set for client responses, and therefore, the lack of confirmatory factor analysis verifying all of these claims simultaneously, only a modest insight can be noted for future research. Essentially, to establish firm insights, a larger data set is required. Whilst this data limitation leaves little to report, a future study may explore these tentative findings and their inclusion in this report may be useful.

#### ***7.8.2 Factors in the quantity surveyors' data set***

The data set for the quantity surveying practices represented 155 cases, in respect of "expectation" related questions as distinct from the client set where the Gap 5 score (perception minus expectation) was analysed. Due to the larger number of cases, confirmatory factor analysis was undertaken.

*The following findings were noted after confirmatory factor analysis:*

(i) Similarly to their counterparts in the client data set, statements 1 to 3 loaded together. It would appear that item 4 is again more strongly related to *Reliability, Responsiveness* and *Assurance* than *Tangibles*.

(ii) The variations relating to statements 4 to 16, loaded together well, indicating consistency over the three assumed dimensions. Instead of finding that the three dimensions exhibited sub-dimensions as proposed by Carman (1990), here three dimensions, (*Reliability,*

*Responsiveness* and *Assurance*) have combined to form one dimension in this study. The size of the data sets in Carman's (1990) study was larger and may therefore admit firmer nuances.

**Table 7.28 Dimensions emerging from confirmatory factor analysis for QS data set**

Dimensions	SERVQUAL applied to QSP <i>QS data set</i>	After confirmatory factor analysis
Tangibles	Statements 1 to 4	Statements 1-3
Reliability	Statements 5 to 9	Statements 4 - 16 with the exception of 9
Responsiveness	Statements 10 -13	
Assurance	Statements 14- 17	
Empathy	Statements 18-22	Statements 17 - 22 with exception of 18 and 21 including 27
Client Focus	Statements 23-30	Statements 23 - 28 excluding 27 including 18 and 21
		Statements 9, 29 and 30

(iii) The dimension *Empathy* has emerged as being separate. However, changes have been noted in that the variations for statement 18 are not seen to load well with this factor. However, statement 27 does load well. This statement refers to the promotion of teamwork which could relate to the dimension *Empathy*.

(iv) *Client Focus* has emerged as another separate factor where variables 23 through 28 load well together, including variables 18 and 21, but excluding statement 27. The inclusion of statements 18 and 21 refer to providing the client with service according to their specific needs and remaining loyal and dedicated to the client. These statements can be considered to relate to *Client Focus*.

(v) Lastly, items 9, 29 and 30 seem to have emerged as a final dimension, but their consistency in variation appears to be an artefact as there is no clear common thread in the wording of the statements. These statements respectively refer to keeping error free records, organising a de-briefing session on satisfaction attained and treating the client as a valuable member of the design team.

All of these factors are related to one another and were decided in a model that allowed for factors that were not forced to be statistically independent. This study may provide a point of departure for future replications of the SERVQUAL Instrument in the quantity surveying profession. A greater response rate will provide more conclusive insights into the various dimensions, but the study population of QS professionals and clients in South Africa is markedly smaller than the service industry populations in the United States of America, amongst others, and hence such contrasting structures cannot yield the same degree of complexity verifiable in quantitative statistical methods.

Some models for questionnaires arise naturally from their conceptualization and construction. Other models can sometimes emerge from mathematical explanations of the data using computer packages (e.g. exploratory factor analysis). Any factor model should be subjected to confirmatory factor analysis.

## **7.9 Summary of findings**

(i) For all dimensions, a disparity exists between client expectations and their perceptions of performance.

(ii) The largest disparities for statements range between -1.72 and -1.42, on a seven point scale, and are evident for ten statements, indicating factors which require attention in the delivery of service quality, namely:

- : delivering service at the promised time
- : clear communication of project information
- : performing the service right the first time
- : production of documentation which is detailed, accurate and easy to understand
- : informing the client of project progress
- : showing sincere interest in solving client's problems
- : organisation of debriefing for illuminating areas of dissatisfaction
- : remaining loyal to the client and acting in the client's best interest
- : performing services timeously
- : treating the client as a valuable member of the design team

(iii) Of the ten items listed above, four relate to the service dimension *Reliability*. This dimension was also rated, by far, the most important. Furthermore, it is the dimension with the greatest disparity between expectation and performance. Applying the unweighted SERVQUAL score to the importance dimension, and thus yielding the weighted SERVQUAL score, *Reliability* still accounts for the greatest score. The factors affecting *Reliability* are listed as follows:

- : delivering service at the promised time
- : showing sincere interest in solving the client's problems
- : performing the service right the first time
- : providing service timeously
- : insisting on error-free records

(iv) Whilst *Responsiveness* and *Client Focus* yielded the same gap in service delivery, *Responsiveness* was rated more important (22% vs 9%). The following factors are related to *Responsiveness* and indicate attention in the delivery of service quality:

- : keeping the client informed of project progress
- : giving prompt service

: always being willing to help

: never being too busy to respond to requests.

(v) Focusing on the weighted SERVQUAL scores where the service gap is applied to the importance weighting, the dimensions are ranked as follows:

1. *Reliability*

2. *Responsiveness*

3. *Client Focus*

4. *Assurance*

5. *Empathy*

6. *Tangibles*

(vi) A great disparity currently exists in the perceptions held by clients and those held by quantity surveyors as to the level of service quality delivered in the quantity surveying profession. The proof is evident in the disparity between the SERVQUAL scores presented in Table 7.26.

(vii) *Reliability* is considered an important aspect of service delivery to clients, yet this is the dimension with the greatest difference between expectation and performance. Whilst quantity surveyors do not perceive the disparity to be as great, it is acknowledged that a gap exists. Furthermore, quantity surveyors do realise the importance of this service feature to clients.

(viii) *Responsiveness* is also considered an important service feature by clients and this is acknowledged by the quantity surveyors. However, the size of the gap perceived to exist by quantity surveyors is less than half of that perceived to exist by clients.

(ix) *Assurance* and *Empathy* received approximately equal importance weighting (11%) by clients, whilst quantity surveyors allocated approximately 13% respectively for these two dimensions. Quantity surveyors perceive *Empathy* as an area where superior service quality is delivered (+0.06), whilst the client group indicated nearly a point difference between expectation and performance (-0.96). Thus, whilst quantity surveyors understand the importance level of this dimension, they fail to see that clients are dissatisfied with the

service delivery. In the same way, quantity surveyors are unaware of the size of the disparity which is apparent for the dimension *Assurance*.

(x) *Tangibles* is rated the least important service feature for the client group. Quantity surveyors however, have rated this the second least important feature. Quantity surveyors indicate that clients are satisfied with this area of service (+0.03) whilst clients indicate the smallest degree of dissatisfaction (-0.08). It would appear that with a greater degree of attention being paid to this dimension, clients would indeed be satisfied. To refer to section 7.4.2.2., it was mainly in the area of accurate documentation that clients were least satisfied.

(xi) The extra dimension included in this survey, namely *Client Focus*, was not rated as being very important by the client group. Quantity surveyors indicated that this was the least important aspect of quantity surveying service. In both cases, however, both clients and quantity surveyors perceive a gap to exist between client expectation and performance.

(xii) Clients rated *Reliability* of service to be the most important factor in service provision. It is also the area where the greatest disparity between expectation and performance are noted. *Reliability* is also considered by clients of the South African and Australian consulting engineering industries to be the most important aspect of service. Furthermore, the clients of the South African engineering industry produced a positive SERVQUAL score, where the clients of the quantity surveying profession produced a negative SERVQUAL score.

## 7.10 Conclusion

Based on the list of findings and subsequent conclusions, client expectation is greater than their perception of performance. Thus, quantity surveyors are not providing service quality, moreover client dissatisfaction is evident. Furthermore, quantity surveyors do not see their service in the same poor light that clients do. However, quantity surveyors do perceive poor service quality to exist in four areas of service, namely *Reliability*, *Responsiveness*, *Assurance* and *Client Focus*.

To this end the main hypothesis, is only partially supported. The hypothesis proposed that

quantity surveyors are unaware of client perceptions of the level of service quality. The findings prove that quantity surveyors are only partially unaware of the perceived lack of service quality and thus, client dissatisfaction.

The sub-hypotheses that emanated from the pilot study are presented again:

*(i) That a perceptual gap exists between client expectations and their perceptions of the service provided by quantity surveyors.*

*(ii) That a disparity exists between clients' and quantity surveyors' expectations and perceptions of the service provided.*

Both of the sub-hypotheses are supported. It has been proved that a substantial perceptual gap exists between client expectations and their perceptions of the service received. Moreover, of the thirty statements posed to clients, twenty seven statements received a response where expectations were far greater than the perceived performance.

The second sub-hypothesis was supported in that a disparity was evidenced between the perceptions of clients and those held by quantity surveyors.

## 7.11 References

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## **CHAPTER 8: SUMMARY, CONCLUSION AND RECOMMENDATION**

### **8.1 Introduction**

The premise of this thesis is that quantity surveyors are unaware of the level of service quality provided as perceived by clients, and their resultant satisfaction. The problem at hand is that lack of client satisfaction will result in construction clients seeking other parties for the delivery of the financial management process. Moreover, lack of service quality is related to lack of client satisfaction. The presentation of the preceding chapters has sought to investigate the nature of client satisfaction, the factors involved in achieving service quality generally as well as a theoretical investigation into quantity surveyors' services, *per se*.

The literature provided insights into the determinants of service quality as well as other relevant issues pertaining to quantity surveying service. To this end, the only quantitative model for establishing service quality was applied to the quantity surveying profession to permit an assessment of the level of service provided. The application of the SERVQUAL Instrument provided a comparison between client expectations and perceptions of performance as well as a comparison of quantity surveyors' perceptions of expectation and performance against those held by clients.

### **8.2 Summary of the main findings**

#### ***8.2.1 Provision of service quality results in maintaining the client base***

Based on the literature presented in Chapter 1, it was established that customers generally do not complain, but instead divulge their negative experiences to other potential clients. This affects the expectation of potential customers who may then be soured prior to the purchase transaction.

Whilst the construction industry provides sufficient reason for client dissatisfaction due to it often not meeting clients' needs in terms of cost, time and quality, client dissatisfaction with the provision of quantity surveyors' services relate to a different set of problems. The client's

primary objective is to procure a building. The need for the services of a quantity surveyor results from this primary objective for procurement. This study may be considered an investigation of a problem within a greater problem. That is, the lack of service quality in the quantity surveying profession is a sub-problem of others that exist in the construction industry. However, having so stated, ignorance of the factors affecting client satisfaction with quantity surveying services may result in clients turning elsewhere for financial management of their building projects.

Furthermore, it is suggested that a future study focusing on the *factors affecting client satisfaction with the construction industry as a whole*, would provide greater insight into the problems currently being faced in the construction industry in South Africa.

### ***8.2.2 Satisfaction is the disparity between expectation and perception of performance***

Based on the definitions expounded in Chapter 2 and 3, satisfaction is the meeting or exceeding of prior expectation. Expectations are the result of piecing together information emanating from one's own experience or otherwise those collected from other sources. These sources include those internal to the organisation such as sales people, advertising and promotion, and those external to the organisation such as other peoples' opinion and the media. Furthermore, previous experience affects expectations. Thus, the creation of expectation is based on a collection of stimuli, some of which are within the control of the provider.

Since expectation is the standard against which performance is measured to establish satisfaction, quantity surveyors may use this factor to enhance satisfaction. It is proposed that superior service quality will result in a positive experience, which will become part of the client's new expectation for future "purchasing." Moreover, a good reputation will assist in the formulation of expectations held by prospective clients.

Quantity surveyors have not been afforded the use of advertising until recently, as it was prohibited in terms of the rules and regulations governing the profession. In Chapter 2, neither exaggeration nor understatement were advised in the use of "product" information as

this would lead to clients subscribing to generalised negativity theory (that is, whether they are positively or negatively disconfirmed, a generalised negative perception would ensue). Thus, quantity surveyors are advised to promote their firms in a manner which represents their capabilities accurately.

Lastly, the literature pertaining to client satisfaction indicates that it is the client's *perception* of performance that is relevant. When investigating client satisfaction, the emphasis is on what the client *perceives* to be reality as opposed to what the service provider perceives the same to be.

### ***8.2.3 The expenditure of effort***

It was found that the greater the amount of effort expended in attaining a product or service, the more important the satisfaction decision becomes. In Chapter 2, four psychological theories were presented, indicating that some clients may magnify the disparity between expectation and performance whilst others may choose to assimilate their cognitions so that no dissonance is experienced. The former theory is called contrast theory whilst the latter is termed cognitive dissonance. Assimilation-contrast theory is the combination of the two theories indicating that people have zones of acceptability, neutrality and rejection.

Furthermore, the greater the amount of effort and involvement invested in the acquisition of a product or service, the more important the transaction outcome will be and thus, the greater the impact on the satisfaction decision. It is concluded that the clients of the construction industry and therefore, quantity surveyors as well, will subscribe to assimilation-contrast theory. Owing to the amount of time, money and effort construction clients expend, the evaluation of the entire project is critical. Furthermore, performance of the quantity surveyor, or any other consultant, may act as a surrogate indicator of satisfaction. Clients may therefore tend to magnify the disparity between expectation and performance of quantity surveyors' service due to the high degree of effort expended on a building venture.

#### ***8.2.4 Repeat purchase behaviour***

In Chapter 2, it was found that loyalty and satisfaction increase as repeat purchases increase. In the same way, regular clients to both the construction industry and quantity surveying profession, who experience a positive transaction will repeat their "purchase" of service from the same firm of quantity surveyors. Once satisfaction is attained, a repeat purchase behaviour will become evident, resulting in greater satisfaction. This together with increased loyalty toward that firm, will make it more difficult for competitors to take away the existing client base.

#### ***8.2.5 Nature of quantity surveying service***

As proposed in Chapter 3, four major differences exist between goods and services. In the provision of quantity surveying service, these differences cannot be ignored. Services are intangible and thus difficult to assess in terms of quality. Clients will look for surrogate indicators of quality such as physical surroundings, accurate documentation and professionalism, amongst others. It is imperative for quantity surveying practices to subscribe to professionalism on all levels, including physical surroundings, neat appearance of staff and superior documentation.

Services are heterogeneous in nature, due to the high degree of personal contact involved. It is imperative that *all members of staff* within a quantity surveying firm are committed to a service quality philosophy.

Furthermore, the production and consumption of services are inseparable, permitting only one opportunity for "*getting it right first time.*" Quantity surveyors, in providing their service, need to create a favourable impression. After each encounter the client needs to feel that his/her needs are considered paramount and that the quantity surveyor is committed to achieving these requirements.

### ***8.2.6 Product differentiation***

Quantity surveyors may improve their service when compared to their competitors by differentiating their service. Clients purchase the expertise of a quantity surveyor due their own inability to perform the task. This is termed the generic product or core service. This includes feasibility studies, cost advice, bill production, drawing up contractual documents, cost management and control and the settlement of the final account, amongst others.

Quantity surveying service can be considered to be highly divergent and complex as the services provided need to be adapted to suit the differing needs of the various client types. The provision of quantity surveying service allows for the development of personal relationships with the client due to the high degree of contact and the frequency of service provision. Whilst this does not provide the opportunity for standardisation of service, the area of personal relationships permits a greater understanding of the client's needs and the method by which such can be fulfilled.

### ***8.2.7 The varying nature of clients and their respective needs***

The clients of the construction industry vary according to the nature of their spending, the frequency with which they construct and the purposes for which they construct. The first distinction is between public and private sector clients. Private sector clients are classified according to their intention for constructing. Primary clients are those clients who procure building as their main source of income whereas secondary clients procure for their own spatial requirements. Accordingly, levels of experience can also be applied to the primary and secondary constructor. It is proposed that the primary experienced client is likely to be the client type most responsible for the change in procurement system. Secondary inexperienced clients are perhaps clients who require additional assistance as they are likely to be ignorant of the building process and require assistance from project inception. Secondary experienced clients are likely to be familiar with the procurement process and have in-house expertise requiring professional assistance from time to time. Such clients need to acknowledge their limitations especially if they have become accustomed to only one method or type of construction.

Quantity surveyors should be able to identify the type of client they are serving and tailor the service to suit the customer. Furthermore, the involvement of the quantity surveyor in the briefing process allows the elucidation of the client requirements. Specific requirements need to be clearly communicated to assist in achieving the client's objectives.

#### ***8.2.8 Quantity surveying problems germane to South Africa***

In terms of the literature, clients are dissatisfied with the quantity surveyors' predisposition to cater to the architect's needs in order to secure future work. Such a philosophy clearly does not serve the interests of the client. Moreover, acting as a gate-keeper to the architect prevents the quantity surveyor from acting in the best interests of the client and the building project. Furthermore, the late reporting of cost implications causes client dissatisfaction. The client requires timeous reporting of cost related problems, so as to solve them before they occur. Moreover, the client also needs to be informed of project progress and the associated costs. Slow cost reporting indicates a reactionary culture as well as the adoption of limited responsibility.

The problems experienced by clients as related above are not germane to South African clients only, but are consistent with those reported by clients abroad, such as those in the United Kingdom and Australia, amongst others.

#### ***8.2.9 The factors affecting service quality in the provision of quantity surveying service***

A great disparity exists between client expectation and perception of performance in the following areas:

- : delivery of service at the promised time
- : providing clear and specific communication that pertain to the project
- : performing the service right the first time
- : the production of documentation which is detailed, accurate and easy to understand
- : keeping the client informed of project progress
- : showing sincere interest in solving the client's problems

- : organising a debriefing to illuminate areas of dissatisfaction
- : the ability to remain loyal and dedicated to the client's project, protecting the client's investment, and acting in the best interests of the client
- : performing the services timeously
- : treating the client as a valuable member of the design team, involving him/her in the project decisions.

Whilst other areas of poor service quality were evident and displayed in Chapter 7, these statements reflect areas of dissatisfaction perceived by the client. Furthermore, since the expectation exceeded the performance, the client body can be considered to be negatively disconfirmed. The effects of disconfirmation will encourage negative word of mouth exposure and amount to negative past experience. It was found in the literature and in the pilot study that positive past experience relates to reselection on future projects and cultivates a "repurchase culture."

#### ***8.2.10 Perceptual disparities experienced by clients***

The findings of Chapter 7 indicate that a perceptual gap exists between client expectations and their perception of performance. For all dimensions, namely, *Tangibles*, *Reliability*, *Responsiveness*, *Assurance*, *Empathy* and *Client Focus*, clients have indicated that their expectations are greater than performance.

Furthermore, the dimension attracting the greatest disparity between expectation and performance was rated the most important feature to clients. This is the dimension of performing the service reliably.

#### ***8.2.11 Disparity between clients' and quantity surveyors' perceptions***

Quantity surveyors have demonstrated that their perception of the service delivered is indeed greater than that perceived by clients.

Quantity surveyors believe that their delivery of service is greater than the client's

expectations for both the dimensions of service, *Tangibles* and *Empathy*. Thus, quantity surveyors believe clients to be satisfied with these two areas of service.

For the dimensions of *Responsiveness*, *Assurance* and *Reliability* quantity surveyors perceive a small disparity to exist, ranging from -0.56 to -0.28. Where clients have indicated a large disparity for *Reliability* (-1.51), quantity surveyors have indicated a relatively small disparity (-0.28). This disparity indicates that whilst quantity surveyors perceive that a gap in service delivery exists in this area, they are unaware of the magnitude of the gap.

Furthermore, a similar disparity exists between quantity surveyors' perceptions and those held by clients, in that clients have rated a gap of -1.24 for the dimension *Responsiveness* whilst quantity surveyors perceive a gap of -0.56 to exist.

In the area of *Client Focus*, quantity surveyors have recognised the gap in service delivery and are almost aware of the size of the disparity. Clients perceive a gap of -1.24 to exist, whilst quantity surveyors indicated, on average, a gap of -1.03. This suggests an awareness of the need for improvement in this area.

### 8.3 Conclusions

Having presented the main findings of this study, the following conclusions can be made:

- (i) Clients are dissatisfied as a result of poor service quality.
- (ii) Quantity surveyors are only to a limited extent aware of the perception held by clients of the poor level of service provided. That is, for the service dimensions *Reliability*, *Responsiveness*, *Assurance* and *Client Focus*, quantity surveyors are aware that clients are dissatisfied, but they are not aware of the degree to which such exists. For the service features *Tangibles* and *Empathy*, quantity surveyors perceive the service delivered to above that expected by clients.
- (iii) The effects of client dissatisfaction as proved above will lead to negative word-of-mouth,

the provision of a poor reputation, lack of client loyalty and therefore, lack of re-employment on future contracts. This will lead to a decrease in the client base and a consequent decline in profitability.

Reflecting upon the main hypothesis presented below, the findings of this study indicate that the main hypothesis is partially supported.

*It is hypothesised that quantity surveyors are unaware of client perceptions of the level of service quality provided, and their resultant satisfaction.*

Quantity surveyors are not completely unaware of client perceptions of service quality. To reiterate, quantity surveyors perceive a service delivery gap to exist for four dimensions. However, they do not perceive the magnitude of the problem to be as great as it is perceived to be by the clients. Furthermore, for two service dimensions, quantity surveyors indicated that superior service is delivered. Clients' perceptions were not concurrent. *Therefore, the main hypothesis is only partially supported.*

An explanation for the apparent lack of insight into client perceptions by quantity surveyors could be due to their lack of acceptance of marketing as presented in Chapters 1 and 5. Furthermore, this shows a lack of client focus. Quantity surveyors may be tempted to place the needs of the architect as paramount in the hope of securing future work. The relationship between the quantity surveyor and the architect presents a conflict of interests in respect of the client.

For the purposes of clarity the sub-hypotheses that emanated from the pilot study are presented again below:

Sub-hypothesis 1

*That a perceptual gap exists between client expectations and their perceptions of the service provided by quantity surveyors.*

Firstly, a perceptual gap is evident in clients' expectations of performance and their perceptions' of performance. Clients' expectations are not being met, resulting in client dissatisfaction.

#### *Sub-hypothesis 2*

*(ii) That a disparity exists between clients' and quantity surveyors' expectations and perceptions of the service provided.*

The second sub-hypothesis is supported, in that a disparity has been identified between quantity surveyors' perception of their performance as against client perceptions of the same.

***The sub-hypotheses relating to the problem that became evident in Chapter 6 are thus both supported.***

Thus, if quantity surveyors are aware of the lack of client satisfaction, this poses the question: why are quantity surveyors not attempting to achieve client satisfaction? This is probably due a restrictive and prescriptive system which does not allow for such change.

To provide quantity surveyors with a guideline for achieving client satisfaction through the delivery of service quality, the following recommendations are made and presented below.

#### **8.4 Recommendations**

*(i)* It is recommended that irrespective of the beliefs that quantity surveyors possess with regard to professionalism and the associated business strategy, a change in thinking is required. A paradigm shift is called for in the minds of the quantity surveying profession so that a customer-driven philosophy may be adopted.

*(ii)* The delivery of superior service quality is a necessity in the creation of positive past experience, positive word-of-mouth, and the maintenance of a good reputation. Whilst these advantages improve expectations of potential clients, two further advantages are noted, that

being, client loyalty and increased repeat purchase behaviour. These advantages reinforce the maintenance of the current client base. It is recommended that quantity surveyors subscribe to a service quality philosophy in order to maintain and increase the client base.

(iii) Quantity surveyors should not use under- or overstatement in the promulgation of their marketing efforts as this will cause false expectations on the part of the client.

(iv) It is recommended that quantity surveyors recognise that their true customer is the *construction client* and *not the architect*. Furthermore, research is required into new methods of organisational structure which preclude the quantity surveyor from serving the architect and which place the client's needs as paramount on all levels.

(v) Based on the findings which indicated poor service quality in the area of *Reliability*, quantity surveyors are encouraged to focus on the following areas which clients rated highly:

*Quantity surveyors should...*

- : deliver services on time.
- : show sincere interest in solving client's problems.
- : subscribe to the philosophy of "doing it right the first time."
- : insist on error-free record keeping.

(vi) Clients reported experiencing a gap in their expectation of the aspect of service termed *Responsiveness* and their perceptions of it in practice. Therefore, quantity surveyors need to turn their attention to being more responsive to clients. It is suggested that quantity surveyors should strive for:

- : keeping the client informed of project progress.
- : giving prompt service.
- : always being willing to help.
- : never being too busy to respond to client requests.

(vii) In addition to these aspects of service, it is recommended that quantity surveyors address the following areas in which large disparities were noted between client expectations and

their perception of the service actually provided:

Quantity surveyors should...

- : be specific when communicating information pertaining to the project and resist being vague.
- : produce documentation which is detailed, accurate and easy to understand.
- : organise a debriefing session at the end of the project to illuminate areas of dissatisfaction in order to prevent such problems recurring.
- : remain loyal and dedicated to the client and the client's project, protecting the client's investment and acting in the best interests of the client.
- : treat the client as a valuable member of the design team, involving him or her in project decisions.

(viii) It is recommended that the SERVQUAL Instrument be further refined to suit the quantity surveying profession. Moreover, the Instrument requires a larger data set than was used in this study so that confirmatory factor analysis can be undertaken. A larger data set will permit greater insights into the dimensionality of the Instrument.

(ix) It is recommended that the SERVQUAL Instrument be applied to the quantity surveying profession after a period of time to provide a comparison with the findings of this study to establish whether service quality is improving, declining or being maintained.

(x) Furthermore, as suggested earlier, the undertaking of an investigation into client satisfaction with the *construction industry* may provide some further insights into this topic.

(xi) It is recommended that the present organisational system placing the architect's needs ahead of the client's, by virtue of the quantity surveyor's objective for securing future work, needs to be addressed.

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## **APPENDIX A: SERVQUAL Instrument**

*Replication of the expectation battery only. The perception of performance battery contains the same statement, but presents it from a perception of performance point of view.*

### **TANGIBLES:**

1. Excellent ..... firms will have modern-looking equipment.
2. The physical facilities at excellent .... firms will be visually appealing.
3. Employees at excellent .... firms will be neat appearing.
4. Materials associated with the service will be visually appealing in an excellent .... firm.

### **RELIABILITY:**

5. When excellent .... firms promise to do something by a certain time, they will do so.
6. When a client has a problem, excellent .... firms will show sincere interest in solving it.
7. Excellent ..... firms will perform the service right the first time.
8. Excellent ..... firms will provide their services at the time they promise to do so.
9. Excellent ..... firms will insist on error free records.

### **RESPONSIVENESS:**

10. Employees in excellent ..... firms will tell clients exactly when services will be performed.
11. Employees in excellent ..... firms will give prompt service to clients.
12. Employees in excellent ..... firms will always be willing to help clients.
13. Employees in excellent ..... firms will never be too busy to respond to client requests.

### **ASSURANCE:**

14. The behaviour of employees in excellent .... firms will instill confidence in clients.
15. Clients of excellent .... firms will feel safe in their transactions.
16. Employees in excellent ... firms will be consistently courteous with clients.
17. Employees in excellent ... firms will have the knowledge to answer client's questions.

### **EMPATHY:**

18. Excellent .... firms will give clients individual attention.
19. Excellent .... firms will have operating hours convenient to all their clients.
20. Excellent .... firms will have employees who give clients personal attention.
21. Excellent .... firms will have the customer's best interest at heart.
22. The employees of excellent .... firms will understand the specific needs of their clients.

**APPENDIX B: QUESTIONNAIRE USED FOR CLIENT INTERVIEWS**

**QUESTIONS TO BE POSED TO CLIENTS**

Please note: For the purpose of this questionnaire, the term "service" shall mean those services in respect of construction cost advice which are provided during the pre-tender stages of the building procurement process. The term "service" does not include bill production, the preparation of payment certificates or the final account, but does include cost estimating, cash flow forecasting, the preparation of feasibility studies, the preparation of life cycle cost analyses, etc.

**1. SELECTION OF QUANTITY SURVEYING FIRMS**

1.1 How do you normally select a quantity surveying firm for your building projects?

Architects recommendation

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Word of mouth

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Previous experience

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Professional register

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Marketing/advertising on the part of the quantity surveyor

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
 .....  
 .....  
 .....

1.2 Upon what criteria is your selection of a quantity surveying firm for your building projects based?

.....  
 .....  
 .....  
 .....

2. CLIENT REQUIREMENTS IN RESPECT OF CONSTRUCTION COST ADVICE

2.1 List, in order of priority, your main requirements in respect of construction cost advice services.

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....

2.2 Do the construction cost advice services provided by quantity surveyors fulfil your needs?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If so, how?

.....

.....

.....

.....

If not, why?

.....

.....

.....

.....

2.3 How do quantity surveyors ascertain your requirements in respect of construction cost advice:

An informal oral enquiry eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written enquiry in respect of services required?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral enquiry in respect of services required eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services provided by quantity surveyors, given to you at the outset of the commission?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
.....  
.....  
.....

2.4 Is the method employed (Question 2.3) effective in ascertaining your requirements?

Yes		Unsure		No	
-----	--	--------	--	----	--

2.5 How would you prefer quantity surveyors to determine your requirements in respect of construction cost advice:

An informal oral enquiry eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written enquiry in respect of services required?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral enquiry in respect of services required eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services provided by quantity surveyors, given to you at the outset of the commission?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
.....  
.....  
.....

**3. COMMUNICATION OF CONSTRUCTION COST ADVICE SERVICES AVAILABLE**

3.1 Are you informed by either the architect or the quantity surveyor about the range of construction cost advice services available to you:

Informed by quantity surveyor?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Informed by architect?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

3.2 How is the range of services available communicated to you:

An informal oral presentation eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written presentation of services available to you?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral presentation of services available to you eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services provided by quantity surveyors, given to you at the outset of the commission?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
 .....  
 .....  
 .....

3.3 Is the method employed (Question 3.2) effective in communicating the services available to you?

Yes		Unsure		No	
-----	--	--------	--	----	--

3.4 How would you prefer quantity surveyors to communicate the services available to you:

An informal oral presentation eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written presentation of services available to you?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral presentation of services available to you eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services provided by quantity surveyors, given to you at the outset of the commission?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
 .....  
 .....  
 .....

3.5 If you were informed of the range of construction cost advice services available to you, does this increase the level of satisfaction attained with the services provided?

Yes		Unsure		No	
-----	--	--------	--	----	--

3.6 Do you think that effective communication exists between you and the quantity surveyor?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If yes, how?

.....  
 .....  
 .....  
 .....

If no, why?

.....  
 .....  
 .....  
 .....

3.7 Do you think that effective communication exists between the quantity surveyor and the architect?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If yes, how?

.....  
.....  
.....

If no, why?

.....  
.....  
.....

3.8 Do you think that more effective communication between you and the quantity surveyor will improve levels of satisfaction with services provided by the quantity surveyor?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If yes, how?

.....  
.....  
.....  
.....

If no, why?

.....  
.....  
.....  
.....

3.9 Can you suggest any improvements in the communication process which will increase your level of satisfaction with the provision of construction cost advice?

.....  
.....  
.....  
.....

**4. ROLE OF QUANTITY SURVEYORS**

4.1 Would you describe the role that quantity surveyors assume in the design team in respect of construction cost advice as being pro-active or reactive?

Proactive

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Reactive

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

.....  
.....  
.....  
.....

4.2 Do you think this role should change:

From proactive to reactive?

Yes		Unsure		No	
-----	--	--------	--	----	--

From reactive to proactive?

Yes		Unsure		No	
-----	--	--------	--	----	--

Please motivate your answer.

.....  
.....  
.....  
.....

4.3 Do you consider yourself to be a valuable member of the design team, participating in decision-making in respect of construction cost advice?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If not, why?

.....  
.....  
.....  
.....

4.4 Does/would being treated as a valuable member of the design team, and participating in decision-making, improve your level of satisfaction attained with construction cost advice services?

Yes		Unsure		No	
-----	--	--------	--	----	--

If yes, why?

.....  
.....  
.....  
.....

If no, why?

.....  
.....  
.....  
.....

**5. SATISFACTION WITH CONSTRUCTION COST ADVICE SERVICES PROVIDED**

5.1 Are you satisfied with the services provided by quantity surveyors?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

5.2 What aspects of quantity surveying services are you particularly satisfied with?

.....  
.....  
.....  
.....

5.3 What aspects of quantity surveying services usually cause you to be dissatisfied?

.....  
.....  
.....  
.....

5.4 What improvements could you suggest in the services provided by quantity surveyors?

.....  
.....  
.....  
.....

5.5 How do quantity surveyors ascertain your level of satisfaction with construction cost advice provided:

An informal oral enquiry eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written enquiry in respect of services provided?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral enquiry in respect of services provided eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services provided by quantity surveyors and your level of satisfaction in respect of each service?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
.....  
.....  
.....

5.6 How frequently are you asked by quantity surveyors whether or not you are satisfied with the services provided?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If you are not asked, how do you let them know?

.....  
.....  
.....  
.....

If you are asked, how do you let them know?

.....  
.....  
.....  
.....

5.7 Do quantity surveyors ever explain the benefits to be had from availing yourself of the various services they have to offer?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

5.8 If the advantages of availing yourself of the various quantity surveying services were explained to you, does this increase the level of satisfaction attained with the services provided?

Yes		Unsure		No	
-----	--	--------	--	----	--

.....  
.....  
.....  
.....

5.9 Do you, at any stage, make the quantity surveyor aware that you are satisfied/dissatisfied with the service being provided?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If so, how?

.....  
.....  
.....  
.....

5.10 Do quantity surveyors have a de-briefing (feedback) mechanism at the end of the project for establishing client and architect satisfaction with their services?

Yes		No	
-----	--	----	--

If yes, please describe the mechanism.

.....  
.....  
.....  
.....

If no, do you think this would be useful?

Yes		Unsure		No	
-----	--	--------	--	----	--

5.11 On a scale from 1 to 5, please rate your overall level of satisfaction with the construction cost advice provided by quantity surveyors?

Extremely satisfied	1
Satisfied	2
Adequate	3
Dissatisfied	4
Very dissatisfied	5

Thank you for your time.

**APPENDIX C: QUESTIONNAIRE USED FOR QUANTITY SURVEYOR INTERVIEW**

QUESTIONS TO BE POSED TO QUANTITY SURVEYORS.

Please note: For the purpose of this questionnaire, the term "service" shall mean those services in respect of construction cost advice which are provided during the pre-tender stages of the building procurement process. The term "service" does not include bill production, the preparation of payment certificates or the final account, but does include cost estimating, cash flow forecasting, the preparation of feasibility studies, the preparation of life cycle cost analyses, etc.

1. PROCUREMENT OF WORK

1.1 How do clients select quantity surveyors for their building projects?

Architects recommendation

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Word of mouth

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Previous experience

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Professional register

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Marketing/advertising on the part of the quantity surveyor

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
 .....  
 .....  
 .....

1.2 Upon what criteria do clients or architects base their selection of quantity surveying firms for their building projects?

Clients

.....  
 .....  
 .....

Architects

.....  
.....  
.....  
.....

1.3 Please describe the marketing strategies employed by your firm.

.....  
.....  
.....  
.....

2. CLIENTS AND ARCHITECTS REQUIREMENTS IN RESPECT OF CONSTRUCTION COST ADVICE

2.1 List, in order of priority, clients' and architects' requirements in respect of construction cost advice services.

Client's requirements	Architect's requirements
1.....	1.....
2.....	2.....
3.....	3.....
4.....	4.....
5.....	5.....

2.2 Do the construction cost advice services provided by quantity surveyors fulfill the needs of clients and architects?

Client

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Architect

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If so, how?

.....  
.....  
.....  
.....

If not, why?

.....  
.....  
.....

2.3 How do you ascertain the requirements of clients and architects in respect of construction cost advice:

An informal oral enquiry eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written enquiry in respect of services required?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral enquiry in respect of services required eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services provided by quantity surveyors, given by you at the outset of the commission?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
 .....  
 .....  
 .....

2.4 Is the method employed (Question 2.3) effective in ascertaining the requirements of clients and architects?

Yes		Unsure		No	
-----	--	--------	--	----	--

2.5 How should quantity surveyors ascertain the requirements of clients and architects in respect of construction cost advice:

An informal oral enquiry eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written enquiry in respect of services required?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral enquiry in respect of services required eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services provided by quantity surveyors, given by you at the outset of the commission?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....

.....

.....

.....

**3. COMMUNICATION OF CONSTRUCTION COST ADVICE SERVICES AVAILABLE**

3.1 Do you inform either the client or the architect about the range of construction cost advice services available to them?

Client

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Architect

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

3.2 How do you communicate to clients and architects the range of services available to them:

An informal oral presentation eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written presentation of services available?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral presentation of services available eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services available presented to clients and architects at the outset of the commission?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
 .....  
 .....  
 .....

3.3 Is the method employed (Question 3.2) effective in communicating the services available to clients and architects?

Yes		Unsure		No	
-----	--	--------	--	----	--

3.4 How do you think clients and architects would prefer you to communicate the services available:

An informal oral presentation eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written presentation of services available?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral presentation of services available eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services available presented to clients and architects at the outset of the commission?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
 .....  
 .....  
 .....

3.5 Do you think that by informing clients and architects of the services available to them, this increases their level of satisfaction attained with the services provided?

Client

Yes		Unsure		No	
-----	--	--------	--	----	--

Architect

Yes		Unsure		No	
-----	--	--------	--	----	--

3.6 Do you think that effective communication exists between you and the client?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If yes, how?

.....  
.....  
.....  
.....

If no, why?

.....  
.....  
.....  
.....

3.7 Do you think that effective communication exists between the you and the architect?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If yes, how?

.....  
.....  
.....  
.....

If no, why?

.....  
.....  
.....  
.....

3.8 Do you think that more effective communication between you, the client, and the architect, will improve the level of satisfaction attained by the recipients of construction cost advice?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If yes, how?

.....

.....

.....

.....

If no, why?

.....

.....

.....

.....

3.9 Can you suggest any improvements in the communication process which will increase clients' and architects' levels of satisfaction with construction cost advice provided?

.....

.....

.....

.....

**4. ROLE OF QUANTITY SURVEYORS**

4.1 Would you describe the role that you assume in the design team in respect of construction cost advice as being pro-active or reactive:

Proactive?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Reactive?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

.....

.....

.....

.....

4.2 Do you think this role should change:

From proactive to reactive?

Yes		Unsure		No	
-----	--	--------	--	----	--

From reactive to proactive?

Yes		Unsure		No	
-----	--	--------	--	----	--

Please motivate your answer.

.....  
 .....  
 .....  
 .....

4.3 Do you consider the client to be a valuable member of the design team, participating in the decision-making in respect of construction cost advice?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If not, why?

.....  
 .....  
 .....  
 .....

4.4 Does the client consider himself to be a valuable member of the design team, participating in decision-making in respect of construction cost advice?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If not, why?

.....  
 .....  
 .....  
 .....

4.5 Does/would the client being treated as a valuable member of the design team, and participating in decision-making, improve the level of satisfaction attained with construction cost advice services?

Yes		Unsure		No	
-----	--	--------	--	----	--

If yes, why?

.....  
.....  
.....  
.....

If no, why?

.....  
.....  
.....  
.....

**5. SATISFACTION WITH CONSTRUCTION COST ADVICE SERVICES PROVIDED**

5.1 Are clients and architects satisfied with the services provided by quantity surveyors?

Clients

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Architects

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

5.2 What aspects of quantity surveying services are clients and architects particularly satisfied with?

Clients:

.....  
.....  
.....  
.....

Architects:

.....  
.....  
.....  
.....

5.3 What aspects of quantity surveying services usually cause clients and architects to be dissatisfied?

Clients:

.....  
.....  
.....  
.....

Architects:

.....  
.....  
.....  
.....

5.4 What improvements can you suggest in the services provided by quantity surveyors?

To clients:

.....  
.....  
.....  
.....

To architects:

.....  
.....  
.....  
.....

5.5 How do you ascertain client's and architect's levels of satisfaction with construction cost advice provided:

An informal oral enquiry eg. on site?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A written enquiry in respect of services provided?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A formal oral enquiry in respect of services provided eg. at a meeting?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

A checklist of all services provided and the level of client and architect satisfaction with each service provided?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Other - please specify

.....  
.....  
.....  
.....

5.6 How frequently do you ask clients and architects whether or not they are satisfied with the construction cost advice services provided ?

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If you do not ask them, how do they let you know?

.....

.....

.....

.....

If you do ask them, how do they let you know?

.....

.....

.....

.....

5.7 Do you ever explain to clients and architects the benefits to be had from availing themselves of the various services you have to offer?

Clients

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Architects

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

5.8 Does/would explaining to clients and architects the benefits to be had from availing themselves of the various quantity surveying services available to them increase the level of satisfaction attained with the services provided?

Yes		Unsure		No	
-----	--	--------	--	----	--

5.9 Do clients or architects, at any stage, make you aware of whether they are satisfied/dissatisfied with the service being provided?

Client

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

Architect

always		frequently		occasionally		seldom		never	
--------	--	------------	--	--------------	--	--------	--	-------	--

If so, how?

.....

.....

.....

.....

5.10 Do you have a de-briefing (feedback) mechanism at the end of the project for establishing client and architect satisfaction with your services?

Yes		No	
-----	--	----	--

If yes, please describe the mechanism.

.....

.....

.....

.....

If no, do you think this would be useful?

Yes		Unsure		No	
-----	--	--------	--	----	--

5.11 On a scale from 1 to 5, please rate the overall level of client and architect satisfaction with the construction cost advice provided by you?

Client satisfaction

Extremely satisfied	1
Satisfied	2
Adequate	3
Dissatisfied	4
Very dissatisfied	5

Architect satisfaction

Extremely satisfied	1
Satisfied	2
Adequate	3
Dissatisfied	4
Very dissatisfied	5

Thank you for your time.

## APPENDIX D: COVERING LETTER TO CLIENTS

12 February 1996

### SERVICE QUALITY IN QUANTITY SURVEYING PRACTICES

This questionnaire is the basis of my Masters research project regarding the level of *service quality* provided by Quantity Surveying Practices in South Africa. The following quotation explains the nature of this research:

*"Quality in a service organisation is a measure of the extent to which the service delivered meets the customer's expectations."*

The objectives are to determine:

- \* The level of service quality expected by clients of quantity surveying firms
- \* The level of service actually achieved by quantity surveying firms
- \* The relative importance of such service quality

It would be greatly appreciated if you would take time to complete this questionnaire as it would be of assistance in improving the level of service quality provided by quantity surveyors. It should take only **20 MINUTES** to complete. The data collected will be used in aggregate form only and confidentiality is thus ensured.

Kindly return the questionnaire in the envelope supplied by the 15 March 1996. The envelope is marked "free post" and thus, does not require a stamp.

Yours sincerely

Carol Procter

## APPENDIX E: COVERING LETTER TO QUANTITY SURVEYORS

12 February 1996

### SERVICE QUALITY IN QUANTITY SURVEYING PRACTICES

This questionnaire is the basis of my Masters research project regarding the level of *service quality* provided by Quantity Surveying Practices in South Africa. The following quotation explains the nature of this research:

*"Quality in a service organisation is a measure of the extent to which the service delivered meets the customer's expectations."*

The objectives are to determine:

- \* Quantity surveyor's perceived level of expected service quality by clients
- \* Quantity surveyor's perceived level of importance of service features
- \* The ability of quantity surveyors to meet such needs

It would be greatly appreciated if you would take time to complete this questionnaire as it would be of assistance in improving the level of service quality provided by quantity surveyors. It should take only **20 MINUTES** to complete. The data collected will be used in aggregate form only and confidentiality is thus ensured.

Kindly return the questionnaire in the envelope supplied by the 15 March 1996. The envelope is marked "free post" and thus, does not require a stamp.

Yours sincerely

Carol Procter

**APPENDIX F: QUESTIONNAIRE MAILED TO CLIENTS IN NATIONAL SURVEY**

**PART ONE: DEMOGRAPHIC DATA**

1.1 Please indicate whether your organisation is considered to participate in the public or private sector. If your organisation is considered a "Non-government organisation," please mark the public sector box for the purposes of this study.

Public Sector		
Private Sector		

1.2 Please indicate your organisation's current investment levels, per annum and as total investment, as a percentage of total investment in property (TOTAL EQUALS 100%)

<b>FOR PUBLIC SECTOR ORGANISATIONS</b>	<b>PER ANNUM</b>	<b>IN TOTAL</b>
Residential buildings e.g. housing, flats		
Institutions e.g. schools, hospitals		
Industrial Buildings e.g. factories		
Office Accommodation		
Other (Please specify)		
<b>TOTAL</b>	<b>100%</b>	<b>100 %</b>

<b>FOR PRIVATE SECTOR ORGANISATIONS</b>	
Residential Buildings e.g. flats, retirement villages	
Industrial Buildings e.g. factories	
Commercial Buildings e.g. shopping centres, offices	
Engineering Works e.g. roads and services	
Institutions e.g. hospitals	
Renovations and Maintenance	
Other (Please specify)	
<b>TOTAL</b>	<b>100 %</b>

1.3 If you are involved in the private sector, please indicate the nature of your organisation.

<b>FOR PRIVATE SECTOR ORGANISATIONS</b>	
Property development company	
Building for own use	
Building for investment purposes	
Other (Please specify)	

1.4 Please indicate the frequency with which your company interfaces with Quantity Surveyors.

**Do you interface with Quantity Surveyors....**

on every building project?	
on occasional building projects?	
not at all?	

1.5 Please indicate your company's average annual turnover in property development over the last three years.

<b>TURNOVER (R MILLION)</b>	
Less than 5	
Between 5 and 10	
Between 10 and 20	
Between 20 and 50	
Between 50 and 100	
More than 100	

1.6 Please indicate the geographic area in which your local office is situated.

North West	
Western Cape	
Orange Free State	
Northern Cape	
Kwazulu/Natal	
Eastern Cape	
Gauteng	
Northern Transvaal	
Eastern Transvaal	
Outside of South Africa	

**PART TWO: CLIENT EXPECTATIONS OF SERVICE QUALITY**

**Directions:** In order to answer this part of the questionnaire, please think about the type of quantity surveying firm that you would consider to deliver an excellent quality of service. Reading each statement below, kindly circle the number that represents your feelings.

*If you think a feature is not at all essential for excellent quantity surveying firms such as the one you have in mind, circle number 1. If you feel a feature is absolutely essential for excellent quantity surveying firms, circle 7. If your feelings are less strong circle one of the numbers in the middle.*

There are no right or wrong answers - all we are interested in is the number that truly reflects your feelings regarding firms that would deliver excellent quality of service.

	NOT ESSENTIAL	ESSENTIAL
1. Excellent quantity surveying (QS) firms will have modern-looking equipment.	1 2 3 4 5 6 7	
2. The physical facilities at excellent QS firms will be visually appealing.	1 2 3 4 5 6 7	
3. Employees at excellent QS firms will be neat in appearance.	1 2 3 4 5 6 7	
4. Excellent QS firms will produce documentation which is detailed, accurate, and easy to understand.	1 2 3 4 5 6 7	
5. Excellent QS firms will deliver services at the promised time.	1 2 3 4 5 6 7	
6. When a client experiences a problem, excellent QS firms will show sincere interest in solving it.	1 2 3 4 5 6 7	
7. Excellent QS firms will perform the service right the first time.	1 2 3 4 5 6 7	
8. Excellent QS firms will provide their services timeously.	1 2 3 4 5 6 7	
9. Excellent QS firms will insist on error free records.	1 2 3 4 5 6 7	
10. Excellent QS firms will keep the client informed of project progress.	1 2 3 4 5 6 7	
11. Employees in excellent QS firms will give prompt service to clients.	1 2 3 4 5 6 7	
12. Employees in excellent QS firms will always be willing to help clients.	1 2 3 4 5 6 7	
13. Employees in excellent QS firms will never be too busy to respond to client requests.	1 2 3 4 5 6 7	
14. The behaviour of employees of excellent QS firms will instill confidence in clients.	1 2 3 4 5 6 7	
15. Clients of excellent QS firms will feel safe in their transactions.	1 2 3 4 5 6 7	
16. Excellent QS firms will employ staff who are approachable and courteous to their clients.	1 2 3 4 5 6 7	

17. Staff employed by excellent QS firms will have ability and competence to answer client requests.	1 2 3 4 5 6 7
18. Excellent QS firms will provide the client with the service required according to the client's specific needs and requirements.	1 2 3 4 5 6 7
19. Excellent QS firms will have operating hours convenient to all their clients.	1 2 3 4 5 6 7
20. Excellent QS firms will have employees who give clients personal attention.	1 2 3 4 5 6 7
21. Excellent QS firms will remain loyal and dedicated to the client and the client's project, protecting the client's investments, and acting in the best interest of the project at all times.	1 2 3 4 5 6 7
22. The employees of excellent QS firms will understand the specific needs of their clients.	1 2 3 4 5 6 7
23. Excellent QS firms will project a positive attitude toward and enthusiasm for the client's project.	1 2 3 4 5 6 7
24. Excellent QS firms will understand the possible in-house problems that the client may experience.	1 2 3 4 5 6 7
25. Excellent QS firms will communicate technical problems in a manner that the client can understand.	1 2 3 4 5 6 7
26. Excellent QS firms will be specific when communicating information pertaining to the project to the client <i>ie.</i> resist being vague.	1 2 3 4 5 6 7
27. Excellent QS firms will promote teamwork between all members of the design team.	1 2 3 4 5 6 7
28. Excellent QS firms will inform the client of services available and the relevant fee structure.	1 2 3 4 5 6 7
29. Excellent QS firms will organise a de-briefing session at the end of the project to illuminate areas of dissatisfaction in order to prevent such problems recurring.	1 2 3 4 5 6 7
30. Excellent QS firms will treat the client as a valuable member of the design team, involving him in project decisions.	1 2 3 4 5 6 7

**PART THREE: SERVICE FEATURES**

*Directions: Listed below are 6 features pertaining to quantity surveying firms and the services they offer. Please allocate a total of 100 points among the features, to reflect their importance to you when evaluating the quality of service provided by quantity surveyors. The more important the feature, the higher the number of points allocated.*

SERVICE FEATURES	Points Allocated
1. The appearance of the quantity surveying firm's physical facilities, equipment, personnel and communication materials.	
2. The ability to perform the promised service dependably and accurately in terms of time, cost and quality management.	
3. Experienced, technically expert and readily available staff who are able to maintain client confidentiality.	
4. The knowledge and courtesy of the firm's employees and their ability to convey trust and confidence.	
5. The loyalty, dedication and individualised attention the quantity surveying firm provides its clients.	
6. "Extra" components which emphasise close client focus, for example, post-job interviews, creativity, initiative, customised services.	
<b>TOTAL POINTS</b>	<b>100</b>

**PART FOUR:**

*Directions: The following statements relate to your opinion of quantity surveying firm most frequently used by your company. Please indicate the extent to which you think this firm has the features described in these statements. Circle 1, if you strongly disagree, circle 7 if you strongly agree that the firm has this feature. If your opinion is less strong, circle the appropriate number in between.*

*The Quantity Surveyors most regularly used by our firm:*

	DISAGREE	AGREE
1. have modern-looking equipment.	1 2 3 4 5 6 7	
2. have physical facilities that are visually appealing.	1 2 3 4 5 6 7	
3. employ staff who are neat in appearance.	1 2 3 4 5 6 7	
4. produce documentation which is detailed, accurate, and easy to understand.	1 2 3 4 5 6 7	
5. deliver services at the promised time.	1 2 3 4 5 6 7	
6. show sincere interest in solving problems as they occur.	1 2 3 4 5 6 7	
7. perform the service right the first time.	1 2 3 4 5 6 7	
8. provide their services timeously.	1 2 3 4 5 6 7	
9. insist on error free records.	1 2 3 4 5 6 7	
10. keep us informed of project progress.	1 2 3 4 5 6 7	
11. give prompt service.	1 2 3 4 5 6 7	
12. employ staff who are always willing to be helpful.	1 2 3 4 5 6 7	
13. are never too busy to respond to our requests.	1 2 3 4 5 6 7	
14. employ staff who instill confidence in ourselves.	1 2 3 4 5 6 7	
15. make us feel safe in our transactions.	1 2 3 4 5 6 7	
16. employ staff who are approachable and courteous.	1 2 3 4 5 6 7	
17. employ staff who have the ability and competence to answer our requests.	1 2 3 4 5 6 7	
18. provide ourselves with the service required according to our specific needs and requirements.	1 2 3 4 5 6 7	
19. have convenient operating hours.	1 2 3 4 5 6 7	
20. employ staff who give us personal attention.	1 2 3 4 5 6 7	
21. remain loyal and dedicated to ourselves and our project, protecting our investments, and acting in the best interest of the project at all times.	1 2 3 4 5 6 7	
22. employ staff who understand our specific needs.	1 2 3 4 5 6 7	

23. project a positive attitude toward and enthusiasm for our project.	1 2 3 4 5 6 7
24. understand the possible in-house problems that we may experience.	1 2 3 4 5 6 7
25. communicate technical problems in a manner that we can understand.	1 2 3 4 5 6 7
26. be specific when communicating information pertaining to the project to ourselves <i>ie.</i> resist being vague.	1 2 3 4 5 6 7
27. promote teamwork between all members of the design team.	1 2 3 4 5 6 7
28. inform ourselves of services available and the relevant fee structure.	1 2 3 4 5 6 7
29. organise a de-briefing session at the end of the project to illuminate areas of dissatisfaction in order to prevent such problems recurring.	1 2 3 4 5 6 7
30. treat ourselves as a valuable member of the design team, involving us in project decisions.	1 2 3 4 5 6 7

**PART FIVE: QUANTITY SURVEYORS SERVICES**

Please indicate which of the services below are used by your organisation by allocating a percentage to each service (TOTAL EQUALS 100).

Feasibility studies	
Cost planning and control	
Construction cost advice	
Life cycle cost analysis	
Cash flow forecasting	
Financial cost reporting	
Comparative cost estimates	
Other (Please specify)	
<b>TOTAL</b>	<b>100%</b>

The data collected from this survey will be used in aggregate form only and will be treated with the strictest confidence. However, it would be greatly appreciated if you would fill in the following details as, in the event of a query, it would facilitate contacting you.

THIS INFORMATION IS OPTIONAL.

<b>NAME OF COMPANY:</b>		<b>PHONE NUMBER:</b>	
<b>ADDRESS:</b>		<b>FAX:</b>	
		<b>DATE:</b>	
		<b>CONTACT PERSON:</b>	

**THANK YOU FOR YOUR TIME IN PARTICIPATING IN THIS STUDY.**

**APPENDIX G: QUESTIONNAIRE MAILED TO QUANTITY SURVEYORS IN NATIONAL SURVEY**

**PART ONE: DEMOGRAPHIC DATA**

1.1 Please indicate the current full-time staff levels in your office (*or local branch*).

Total number of employees	
---------------------------	--

1.2 Please indicate the firm's average annual turnover, over the last three years.

Less than R 500 000	
Between R 500 000 and R 1 000 000	
Between R 1 000 000 and R 5 000 000	
Between R 5 000 000 and R 10 000 000	
More than R 10 000 000	

1.3 Please indicate your average *work-mix* as a percentage of your total work load ( The total should equal 100 per cent).

<b>FOR PUBLIC SECTOR ORGANISATIONS</b>	-----
Residential Buildings e.g. housing, flats	
Institutions e.g. schools and hospitals	
Industrial Buildings e.g. factories	
Office Accommodation	
Other (Please specify)	
<b>FOR PRIVATE SECTOR ORGANISATIONS</b>	-----
Residential Buildings e.g. retirement villages	
Industrial Buildings e.g. factories	
Commercial Buildings e.g. shopping centres, offices	
Engineering Works e.g. roads, services	
Renovations and Maintenance	
Other (Please specify)	
<b>TOTAL</b>	<b>100 %</b>

1.4 Please indicate the *nature of the clients* who make use of your services as a percentage.

Public Sector Clients	
Property development company	
Clients building for own use	
Clients building investment purposes	
Other quantity surveying firms	
Other (Please specify)	
TOTAL	100%

1.5 Please indicate the geographic area in which your local office is situated.

North West	
Western Cape	
Orange Free State	
Northern Cape	
Kwazulu/Natal	
Eastern Cape	
Gauteng	
Northern Transvaal	
Eastern Transvaal	
Outside of South Africa	

**PART TWO: YOUR ASSESSMENT OF CLIENT EXPECTATIONS**

**Directions:** In order to answer this part of the questionnaire, please consider what *YOUR CLIENTS EXPECT OF QUANTITY SURVEYING FIRMS* that provide the *QUALITY OF SERVICE* which ensures their satisfaction. Please indicate the extent to which you think your clients would feel that such firms possess the features described in the following statements.

*If they are likely to feel a feature is not at all essential, circle 1. If they are likely to feel a feature is absolutely essential, circle 7. If their feelings are likely to be less strong, circle one of the numbers in the middle.*

There are no right or wrong answers - all we are interested in is the number that truly reflects your clients feelings regarding firms that would deliver excellent quality of service.

	NOT ESSENTIAL	VERY ESSENTIAL
1. Excellent quantity surveying (QS) firms will have modern-looking equipment.	1 2 3 4 5 6 7	
2. The physical facilities at excellent QS firms will be visually appealing.	1 2 3 4 5 6 7	
3. Employees at excellent QS firms will be neat in appearance.	1 2 3 4 5 6 7	
4. Excellent QS firms will produce documentation which is detailed, accurate, and easy to understand.	1 2 3 4 5 6 7	
5. Excellent QS firms will deliver services at the promised time.	1 2 3 4 5 6 7	
6. When a client experiences a problem, excellent QS firms will show sincere interest in solving it.	1 2 3 4 5 6 7	
7. Excellent QS firms will perform the service right the first time.	1 2 3 4 5 6 7	
8. Excellent QS firms will provide their services timeously.	1 2 3 4 5 6 7	
9. Excellent QS firms will insist on error free records.	1 2 3 4 5 6 7	
10. Excellent QS firms will keep the client informed of project progress.	1 2 3 4 5 6 7	
11. Employees in excellent QS firms will give prompt service to clients.	1 2 3 4 5 6 7	
12. Employees in excellent QS firms will always be willing to help clients.	1 2 3 4 5 6 7	
13. Employees in excellent QS firms will never be too busy to respond to client requests.	1 2 3 4 5 6 7	
14. The behaviour of employees of excellent QS firms will instill confidence in clients.	1 2 3 4 5 6 7	
15. Clients of excellent QS firms will feel safe in their transactions.	1 2 3 4 5 6 7	

16. Excellent QS firms will employ staff who are approachable and courteous to their clients.	1 2 3 4 5 6 7
17. Staff employed by excellent QS firms will have ability and competence to answer client requests.	1 2 3 4 5 6 7
18. Excellent QS firms provide the client with the service required according to the client's specific needs and requirements.	1 2 3 4 5 6 7
19. Excellent QS firms will have operating hours convenient to all their clients.	1 2 3 4 5 6 7
20. Excellent QS firms will have employees who give clients personal attention.	1 2 3 4 5 6 7
21. Excellent QS firms will remain loyal and dedicated to the client and the client's project, protecting the client's investments, and acting in the best interest of the project at all times.	1 2 3 4 5 6 7
22. The employees of excellent QS firms will understand the specific needs of their clients.	1 2 3 4 5 6 7
23. Excellent QS firms will project a positive attitude toward and enthusiasm for the client's project.	1 2 3 4 5 6 7
24. Excellent QS firms will understand the possible in-house problems that the client may experience.	1 2 3 4 5 6 7
25. Excellent QS firms will communicate technical problems in a manner that the client can understand.	1 2 3 4 5 6 7
26. Excellent QS firms will be specific when communicating information pertaining to the project to the client <i>ie.</i> resist being vague.	1 2 3 4 5 6 7
27. Excellent QS firms will promote teamwork between all members of the design team.	1 2 3 4 5 6 7
28. Excellent QS firms will inform the client of services available and the relevant fee structure.	1 2 3 4 5 6 7
29. Excellent QS firms will organise a de-briefing session at the end of the project to illuminate areas of dissatisfaction in order to prevent such problems recurring.	1 2 3 4 5 6 7
30. Excellent QS firms will treat the client as a valuable member of the design team, involving him in project decisions.	1 2 3 4 5 6 7

**PART THREE: SERVICE FEATURES**

**Directions:** Please allocate a total of 100 points among the six service features listed below, to reflect *HOW IMPORTANT YOU THINK EACH FEATURE IS TO YOUR CLIENTS* when they evaluate the *QUALITY OF SERVICE* offered by quantity surveyors. The more important the feature, the higher the number of points it should be allocated.

<b>SERVICE FEATURES</b>	<b>POINTS ALLOCATED</b>
1. The appearance of the quantity surveying firm's physical facilities, equipment, personnel and communication materials.	
2. The ability to perform the promised service dependably and accurately in terms of time, cost and quality management.	
3. Experienced, technically expert and readily available staff who are able to maintain client confidentiality.	
4. The knowledge and courtesy of the firm's employees and their ability to convey trust and confidence.	
5. The loyalty, dedication and individualised attention the quantity surveying firm provides its clients.	
6. "Extra" components which emphasise close client focus, for example, post-job interviews, creativity, initiative, customised products and services.	
<b>TOTAL POINTS</b>	<b>100</b>

**PART FOUR:**

**Directions:** Listed below are the same six features. In this section, please assess the extent to which you think *YOUR FIRM IS ABLE TO MEET THE EXPECTATIONS YOUR CLIENTS HAVE* with regard to these features.

*For each feature, circle 1 if your firm is unable to consistently meet client expectations, circle 7 if your firm is able to consistently do so, otherwise circle an appropriate number in between.*

SERVICE FEATURES	Unable -- Able to consistently meet client expectations
1. The appearance of the quantity surveying firm's physical facilities, equipment, personnel and communication materials.	1 2 3 4 5 6 7
2. The ability to perform the promised service dependably and accurately in terms of time, cost and quality management.	1 2 3 4 5 6 7
3. Experienced, technically expert and readily available staff who are able to maintain client confidentiality.	1 2 3 4 5 6 7
4. The knowledge and courtesy of the firm's employees and their ability to convey trust and confidence.	1 2 3 4 5 6 7
5. The loyalty, dedication and individualised attention the quantity surveying firm provides its clients.	1 2 3 4 5 6 7
6. "Extra" components which emphasise close client focus, for example, post-job interviews, creativity, initiative, customised products and services.	1 2 3 4 5 6 7

**PART FIVE: QUANTITY SURVEYORS SERVICES**

**Directions:** Please allocate a total of 100 points among the services presented below, to reflect *WHICH SERVICES ARE MOST REGULARLY USED BY YOUR CLIENTS*. The more important the feature, the higher the number of points it should be allocated.

Feasibility studies	
Cost planning and control	
Construction cost advice	
Life cycle cost analysis	
Cash flow forecasting	
Financial cost reporting	
Comparative cost estimates	
Other (Please specify)	
<b>TOTAL</b>	<b>100%</b>

The data collected from this survey will be used in aggregate form only and will be treated with the strictest confidence. However, it would be greatly appreciated if you would fill in the following details as, in the event of a query, it would facilitate contacting you.

**THIS INFORMATION IS OPTIONAL.**

<b>NAME OF FIRM:</b>		<b>PHONE NUMBER:</b>	
<b>ADDRESS:</b>		<b>FAX:</b>	
		<b>DATE:</b>	
		<b>CONTACT PERSON:</b>	

**THANK YOU FOR YOUR TIME IN PARTICIPATING IN THIS STUDY.**