AN INVESTIGATION INTO THE NATURE, DETERMINANTS, AND DYNAMICS OF SERVICE QUALITY EXPECTATIONS

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JANUARY, 1994

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SUMMARY

On the basis of a review of the substantive quality and service marketing
literature current knowledge regarding service quality expectations was found
either absent or deficient. The phenomena is of increasing importance to both
marketing researchers and management and was therefore judged worthy of
scholarly consideration. Because the service quality literature was
insufficiently rich when embarking on the thesis three basic research issues
were considered namely the nature, determinants, and dynamics of service
quality expectations. These issues were first conceptually and then
qualitatively explored. This process generated research hypotheses mainly
relating to a model which were subsequently tested through a series of
empirical investigations using questionnaire data from field studies in a single
context. The results were internally consistent and strongly supported the
main research hypotheses. It was found that service quality expectations can be
meaningfully described in terms of generic/service-specific,
intangible/tangible, and process/outcome categories. Service-specific quality
expectations were also shown to be determined by generic service quality
expectations, demographic variables, personal values, psychological needs,
general service sophistication, service-specific sophistication, purchase
motives, and service-specific information when treating service class
involvement as an exogenous variable. Subjects who had previously not
directly experienced a particular service were additionally found to revise their
expectations of quality when exposed to the service with change being driven
by a sub-set of identified determinants. Notions of equity (a personal value)
were found to exert a particularly strong influence during this period of
revision. It is argued the model of service quality expectations presented in
this thesis adequately summarises the major forces that cause customers to
form and update their expectations of quality service. The model is therefore
argued to represent a significant contribution to the substantive service
marketing literature. This extension of knowledge clearly warrants further
research efforts to replicate and refine relationships in a fertile area for which
there lies much interesting research ahead.

Key Words :

Marketing, Consumer, Model.

2

ACKNOWLEDGEMENTS

LIST OF CONTENTS

LIST OF FIGURES

17

18

CHAPTER 1

INTRODUCTION

1.1   INVESTIGATION OBJECTIVE

The primary objective of this investigation is to contribute to the extant literature in the area of marketing science. More specifically it aims to contribute to our current understanding of service marketing. This is to be achieved by addressing three central issues with respect to service quality :

(1)   What is the *nature* of service quality expectations ?

(2)   What are the *determinants* of service quality expectations ?

(3)   What are the *dynamics* of service quality expectations ?

At the general level these issues are concerned with developing an explanatory model to increase our understanding of the service expectation phenomena. The function of such a model is essentially to *delimit* research to relevant constructs, *integrate* disparate concepts into a common framework, and to *generate* future research topics (Howard & Sheth, 1969). Such an approach is highly consistent with the scientific process and is regarded as having considerable benefits to marketing science (Zaltman & Burger, 1975).

1.2   IMPORTANCE OF THE RESEARCH

1.2.1   Introduction

The purpose of this section is to justify the selection of service quality expectations as a topic worthy of research. This is achieved by first drawing attention to the importance of services and service quality. Within this background it is argued from a marketing science and managerial perspective that service quality expectations are a valid research phenomena.

22

1.2.2   <u>The Importance of Service and the Service Sector</u>

Service and the service sector is important for three primary reasons. First, service is increasingly being used by the goods dominated sector to augment the total product. Second, the service sector is of vital economic interest to all developed countries. Third, the manufacturing industry is increasingly reliant on service companies due to trends in outsourcing.

Over recent years the traditionally goods-dominated sector has increasingly realised that customer service can be a useful competitive weapon. Takeuchi & Quelch (1983, p143) argue that favourable service in the goods-dominated sector is effective in creating competitive differentiation, customer loyalty, and dealer loyalty. Furthermore, as goods parity becomes more prevalent in many markets the service component might be the only means of product differentiation (Brooks & Wragg, 1992). Quinn, Doorley & Paquette (1990, p59) observe,

"More and more companies are beginning to look like those in the personal computer industry, where producing the actual "box" is a loss-margin activity, and software and service-support create most of a product's value to customers".

The growing importance of service to the goods-dominated sector is also reflected by the ever more popular practice of relationship management. Relationship management is concerned with creating and maintaining ongoing exchanges between buyer and seller (Dwyer, Schurr, & Oh, 1987). Components of relationships are both intangible and complex stressing social elements such as personal and non-economic satisfaction (*op cit.*). Stressing the intangibles when engaging in re-selling efforts (Levitt, 1981) and using relationship marketing to augment goods (Berry, 1983) makes relationship management a distinct form of service effort.

In the G7 economies (U.S., Canada, France, Italy, Britain, Japan and Germany) the service sector accounts for between 57% and 72% of total domestic output (The Economist, 1993, p85). Services are also the fastest growing part of international trade, employ more people and account for around 40% of all British foreign investment stock (*op cit.*). Indeed, services currently account

for around 58% of total world-wide G.N.P. (Bateson, 1989). In addition to these aggregate economic figures there is also reason to believe that service companies are becoming more integrated with manufacturing companies. A recent report (O.E.C.D, 1992: quoted in The Economist *op cit.*) found that manufacturing companies are buying more inputs from each other. It is suggested here that one reason for this is the growing emphasis being placed on outsourcing by manufacturing companies. This notion is consistent with recent prescriptions by business commentators. For example, Quinn, Doorley, & Paquette (1990) argue manufacturers should base their strategies around core service competencies and not production. Two main objectives of outsourcing are to gain flexibility and reduce costs. This makes outsourcing an attractive proposition for industry and therefore its popularity might be expected to gain momentum in coming years increasing the interdependence of manufacturing and services.

To conclude, service is being used by the goods-dominated sector to augment the market offer. This is reflected by trends in industries where goods parity is common (e.g. P.C. market) and by the popularisation of techniques such as relationship management. The service sector is demonstrably of vital economic importance. This is reflected by the economic data. In addition, recent developments in outsourcing have made the manufacturing sector more reliant on service companies. This is also reflected in the economic data. These three factors combine to make service and the service sector of critical national and international interest.

1.2.3 The Importance of Service Quality

This section draws on anecdotal, prescriptive, and empirical work to demonstrate that service quality is of concern to both management, customers, and society as a whole. This is achieved by referring to reports in the popular business press as well as more scholarly articles.

Popular business writers have long stressed the virtues of service excellence to practising managers (Albrecht & Zemke, 1985; Peters, 1988; Peters, 1990, and Peters & Waterman, 1982). Amongst these entreaties marketing scholars have also found themselves being prescriptive (Berry & Parasuraman, 1992). Feigenbaum (1990, p14) concludes,

"Without ... significant quality attention, service companies .... now have the same vulnerability to international competition that has affected manufacturing companies for the past decade and a half".

In addition both managers and the business press attribute market success at least in part to superior service (Carlzon, 1987 and Sellers, 1988). Overall, it appears managers have accepted the service quality imperative (Blackiston, 1988 and Cound, 1988). Two senior managers recently stated (reported by Congram & Friedman, 1991, p3),

"Quality is the only patent protection we've got"

"High-quality service is the best marketing device ever created, and mediocre service is the surest way to deserved oblivion".

In a recent survey by the American Marketing Association covering North America, Western Europe and Japan 95% of executives believed service will become more important over coming years and 80% believed service will be the key to future competitiveness (Jackson, 1992). In another survey conducted for the British Institute of Managers (Coulson-Thomas & Brown, 1990) over 70% of respondents ranked "building long term relationships with customers" and "introducing a more customer oriented culture" as very important. In the same study over 90% of respondents ranked customer satisfaction and quality as very important.

But why do managers report so much interest in service and quality ? Quite simply quality matters to the customer and because it matters to the customer profits can be enhanced by appropriate efforts. Furthermore, the British customer appears to believe that service quality has not improved much over the 1980's[1] despite the fact problems existed in the first place. This suggests large opportunities exist in the marketplace for companies who can deliver good service. Customers show service quality matters in a variety of ways the key points being summarised as follows.

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1 "Consumer Concerns, 1992", National Consumer Council, Britain

(1)   **Brand switching:** customers frequently penalise poor service by switching to competitor brands (Blackiston, 1989; DeSouza, 1989 and Weitzel, Schwarzkopf, & Peach, 1989);

(2)   **Service loyalty:** customers frequently reward good service by repurchasing the service brand(Anderson & Sullivan, 1990[1]; Schneider & Bowen, 1985 and Zahorik & Rust, 1992);

(3)   **Premium pricing:** customers appear willing to pay a significant premium to secure reliable service (Gallup, 1985[2] and Buzzell & Gale, 1987);

(4)   **Word-of-mouth:** dissatisfied customers engage in more word-of-mouth activities than their satisfied customers (T.A.R.P., 1979).

Not only have these behaviours been conceptually and to some extent empirically demonstrated by behavioural models (Bitner, 1990; Bolton & Drew, 1991b; Boulding, Kalra, Staelin, & Zeithaml, 1993; Cronin & Taylor, 1992 and Zeithaml, 1988) but larger company based research suggests customers do indeed pay premiums for quality and actively purchase quality service (Buzzell & Gale, 1987 and Phillips, Chang, & Buzzell, 1983).   These latter two studies further relate quality to higher return on investment and larger than normal market share growth. Reichheld & Sasser (1990) maintain that keeping just 5% more customers can result in almost a 100% increase in profits when viewing relationships in the long-term.   In addition, studies by management consultants Arthur D. Little suggest that even in the manufacturing sector service quality can affect sales revenue by as much as 10% (Shycon, 1992).

Delivering good service can also have a much wider affect on the health of an organisation in terms of staff morale (Berry & Parasuraman, 1992 and Schneider & Bowen, 1985). Schneider & Bowen (1985), for example, empirically support the contention that service staff delivering poor service are more likely to intend to resign than vice versa. This is particularly interesting because it suggests quality is also an issue for public services (e.g. health, police, rail and education) in addition to profit driven services. Indeed, within Britain considerable public debate has taken place over the quality of most public services. To a large extent this has been prompted by government initiatives (e.g. the Citizens Charter) and competition policies (e.g. compulsory

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[1] Reported by Zahorik & Rust, 1992
[2] Reported by Moores, 1991

tendering for Civil Services' and the N.H.S. internal market). Although gains by delivering good public service are sometimes more problematic to measure than the private sector (e.g. non-financial benefits such as social and physical well-being) it is reasonable to propose that better service is desirable all other things beings equal.

To conclude, service quality is of concern both to practising managers and customers whether in the private or public sector. This is not only reflected by reports in the press serving these groups but also by empirical surveys, scientific research and public policy.

1.2.4   The Importance of Expectations

1.2.4.1   Introduction

It has now been demonstrated that service and service quality are important to a number of groups. The purpose of this section is to justify, given this background, an investigation into service quality expectations. This is achieved from two perspectives: marketing science (a significant contribution to knowledge) and managerial (expectations management).

1.2.4.2   Marketing Science Perspective

The concept of service quality expectations is pervasive throughout the substantive models of service quality (see Chapter 2). However, despite the pervasive nature of the concept at the inception of the research project (1991) only one paper (Parasuraman, Berry, & Zeithaml, 1991a) and a chapter of one book (Berry & Parasuraman, 1991) specifically dealt with "service expectations". In each instance the work was conceptual. No empirical data concerning service quality expectations was in the public domain at this time. Given the central nature of the expectation construct to service quality models and early calls for research into service expectations (Parasuraman, Zeithaml, & Berry, 1985, p49) this is surprising. Indeed, Parasuraman, Berry, & Zeithaml (1991a, p39) wrote their paper because of the,

"pivotal role of customer expectations in service quality assessments, and by the limited knowledge about their structure and formation".

More recently Boulding, Kalra, Staelin, & Zeithaml (1993, p25) commented,

"the antecedents of the different expectation variables remain largely unexplored ...... understanding the determinants of these expectations is a critical managerial issue".

Given the importance of service quality expectations to substantive models and the impoverished knowledge concerning such expectations research is required to increase our understanding of the construct.

1.2.4.3 Managerial Perspective

The potential importance of service quality to the profitability and competitiveness of service companies has been noted which identifies it as an area of practical interest to commerce (Bharadwaj, Varadarajan, & Fahy, 1993 and Rust & Zahorik, 1993). Furthermore, recent social policy makes service quality of interest to public bodies also.

However, despite all of the interest shown in service quality many organisations' efforts to raise service levels have failed. Coyne (1989, p69) observes,

"investments in service are two-edged swords- they can create large benefits, or they can be a massive waste of time, effort, and shareholders' money".

This sentiment is echoed by Zeithaml, Parasuraman & Berry (1990, p8) who note,

"a lot of money is wasted in organisations every year in the name of quality improvement. From adding costly service features that are unimportant to customers to spending training money unwisely".

It is apparent that most effort has been made in relation to service performance. Whilst improving performance is undoubtedly important it does appear that managing expectations (Berry & Parasuraman, 1991 and Parasuraman, Berry, & Zeithaml, 1991a) has been largely ignored. Given that expectations might act as a comparison level (e.g. Parasuraman, Zeithaml, & Berry, 1988), adaptation level (e.g. Oliver, 1981), or causal determinant (Boulding, Kalra, Staelin, & Zeithaml, 1993) in service performance appraisals the management of expectations offers great potential to service organisations. *A priori* there was reason to believe that a study investigating service quality expectations has the potential to generate knowledge useful to market segmentation (Parasuraman, Zeithaml, & Berry, 1988 and Pitt, Oosthuizen, & Morris, 1992) and organisation communication efforts (Berry & Parasuraman, 1991 and Parasuraman, Berry, & Zeithaml, 1991a). With reference to the latter point a study by Nyquist, Bitner, & Booms (1985) found that 75% of all communication difficulties between front-line staff and customers arose from "inaccurate" customer expectations and requests. This highlights the need to better understand and manage customer expectations.

1.2.4.4   Conclusion

Service quality expectations play a vital role in many substantive models of quality but despite this fact little is known about the construct. This makes service quality expectations a suitable area of study from a marketing science perspective. Furthermore, a deeper knowledge of expectations has the potential to significantly aid marketing managers in their efforts to influence expectations. These two points justify the selection of service quality expectations as a suitable topic of study from the service marketing literature.

1.3   OVERVIEW OF THESIS

The thesis opens with a review of the substantive literature surrounding quality and services marketing (Chapter 2). On the basis of this review the basis for selecting the three research issues is described. Chapter 3 develops the

concept of service quality expectations and presents a model derived from the service quality, satisfaction, and attitude literature's. Relevant change dynamics are also conceptually identified and constructs defined. Chapter 4 presents exploratory work designed to refine the conceptual basis of the research issues and to develop formal hypotheses. Each of the three subsequent Chapters describe empirical work designed to test hypotheses relating to the nature, determinants and dynamics of service quality expectations respectively. Finally, Chapter 8 clarifies the contributions to marketing science and discusses key implications for practising managers. Limitations and future research opportunities are also noted at this point.

LITERATURE REVIEW

2.1 INTRODUCTION

This literature review first describes the concept of quality. Subsequently the concept of services is defined and distinguished from goods. An ensuing survey of the service marketing literature identifies some key implications for customers. Within this framework the service quality literature is reviewed taking particular note of its concept and substantive models. Further to this proposed generic dimensions of service quality are noted. The concept of service quality expectations is then identified from the literature and proposed determinants noted. Conclusions are then drawn.

2.2 THE CONCEPT OF PERCEIVED QUALITY

This section develops the concept of perceived quality. No distinction is drawn between goods and services. First, the importance of quality management is noted and the subsequent role of marketing in its conceptual development described. The concept of quality is then distinguished from quality management and further refinements made. Finally, a summary is made and conclusions drawn.

2.2.1 Quality Management

2.2.1.1 Beginnings to Present Day

From an historical perspective quality has most often been associated with gaining control over the production process (Garvin, 1987). In the post World War II period this centred on statistical quality control. Statistical quality control was aimed at containing the number of defects produced by setting tolerances and inspecting samples of end-products for non-conformance (Wilkinson & Witcher, 1991). This was followed in the 1960's and 1970's by a

process oriented period which at first concentrated on the prevention of defects (i.e. process reliability) through the use of root-cause analysis and related techniques. Later the role of people in the process of production was increasingly recognised and with it the 1970's saw the rise of quality circles and other efforts designed to train and educate workers (Law & Cousins, 1991 and Hooley, 1993).

In the early 1980's a fundamental shift took place in quality management. It was no longer centred exclusively on production processes but rather included an entire company wide effort (Ishikawa, 1985; Juran & Gryna, 1988; Imai, 1986 and Oakland, 1989). Juran & Gryna (1988) termed this all inclusive nature of quality management as the "quality function". That is (*op cit.*, p2.4),

"the entire collection of activities through which we achieve fitness for use, no matter where the activities are performed".

The concept of quality chains shown in Figure 2.1 is useful for illustrating the unconfined nature of the "total" quality management philosophy. Here we can see that quality management is concerned with managing a set of relationships or chains which span through an organisation from external supplier to end customer. The practice of Total Quality Management (T.Q.M.) is therefore multi-functional and spans a whole organisation's complex web of networks. Further, internal links can be seen to exist between employees. Hence, if employees view each other as customers (Berry, 1981) opportunities exist for linking external customer quality demands via internal marketing programmes (e.g. Gummesson, 1986).

Figure 2.1 : The Quality Chain

Environment
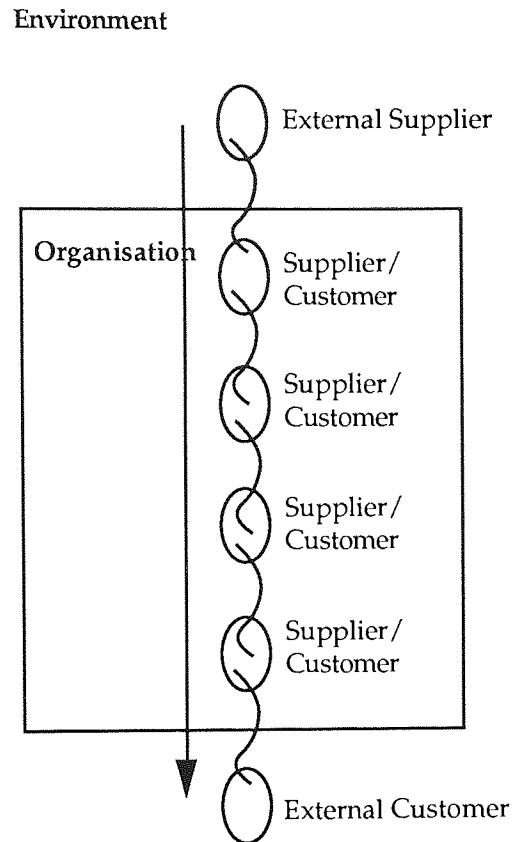
(Source : Adapted from Oakland, J. (1989),*Total Quality Management,* Butterworth Heinneman, p4)

2.2.1.2   The Role of Marketing

With the rise of T.Q.M. the importance of marketing in the quality process was explicitly recognised and accepted. Takeuchi & Quelch (1983, p145) argue,

"Marketers must also be active in contributing to perceptions of quality. Marketers have been too passive in managing quality. Successful businesses of today will use marketing techniques to plan, design, and implement quality strategies that stretch beyond the factory floor".

The marketing function was commonly incorporated by the mid- to late 1980's in most pedagogic quality improvement cycles or so called quality loops such as that shown in Figure 2.2 (e.g. Juran & Gryna, 1988, p2.5 and Oakland, 1989, p159).

Figure 2.2 : A Quality Loop
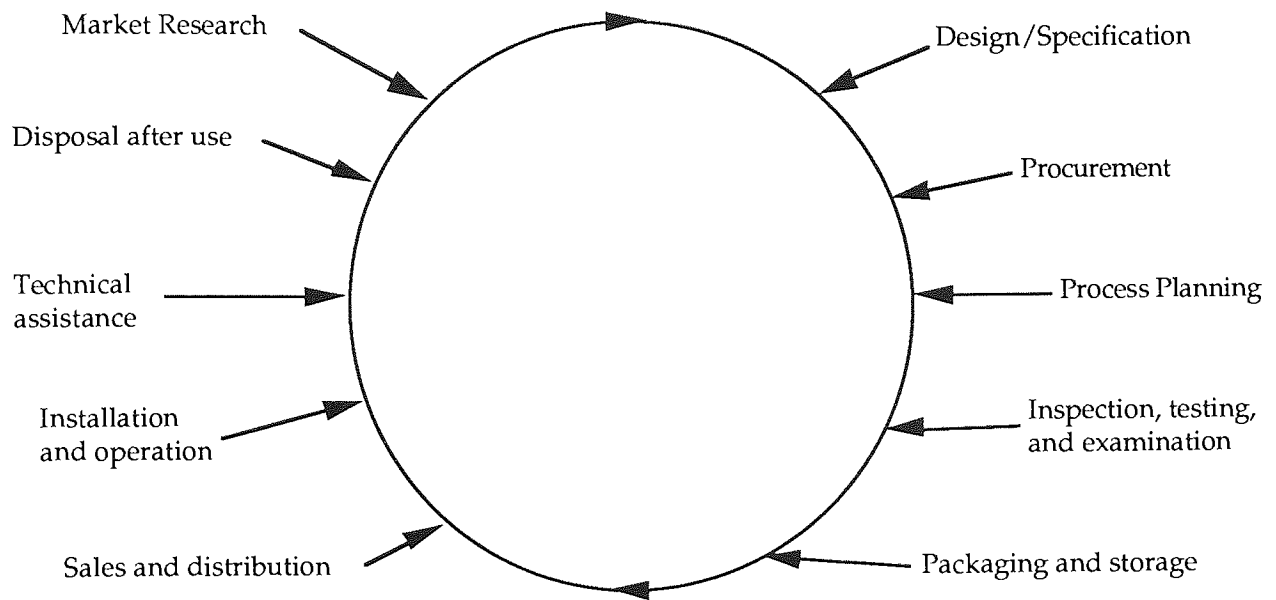
(Source : Adapted from British Standards (1987), *BS 5750: Quality Systems*, British Standards Institution, England, p5.1.1)

The quality loop starts with the market research function (top left in Figure 2.2) and as such is seen to lead all other functions in the quality management process in terms of time. One purpose of marketing from the perspective of T.Q.M., then, is to establish customer requirements and communicate those requirements throughout an organisation in a participative style (Oakland, 1989). In other words (Ishikawa, 1985, p21),

"the marketing division must play a significant role because it is the 'window' through which the opinions of consumers can be heard".

In addition to this marketing should "close the loop" by continually monitoring customers and providing feedback to the rest of the organisation on quality performance. In this sense the marketing function is both the entrance (i.e. setting standards) and exit (i.e. providing feedback) of quality management (Ishikawa, 1985).

Introducing the marketing function into the quality process in this manner has further shifted the management of quality towards the customer away

from technology or production. Indeed, Sherkenbach (1986) argues the customer focus is vital and summarises thus (*op cit.*, p17).

"If you just try to meet the competition, you will not survive in the new economic age. You must try to meet the customer, not just the competition. And it is you who must change, not the competition".

Marketing, then, can be seen to have introduced an *external* orientation to quality management in addition to the typical *internal* orientation. Managing quality towards an external rather than internal object is not only prescribed by the more management oriented researchers but also pure statisticians (e.g. the quality loss function and robust quality: Taguchi, 1981 and Taguchi & Claust, 1990 respectively). However, whilst the marketing-driven approach to quality management is conceptually pervasive much of Western industry practice appears to have been slow in adopting such an orientation. For example, Motorola, a recognised industry leader in "quality" (Jackson, 1992), was criticised as late as 1992 for ignoring the customer and being "transfixed by its quest to cut defect rates" (The Economist, 1992, p55).

2.2.1.3 Summary

Historically quality management has been focused internally on the production process. The 1980's saw management concerns shift from the factory floor to embrace the whole organisation. In addition to this development the marketing function has been conceptually incorporated into quality management efforts and can be seen to lead all other functions in terms of time. The adoption of marketing-led T.Q.M. inherently introduces an external, customer driven orientation. However, it appears that much of Western management practice might not be consistent with this approach.

2.2.2 The Quality Concept

2.2.2.1 Quality Management and the Quality Concept Distinguished

The internal and external orientation of modern quality management has been noted. In defining quality Juran & Gryna (1988, p2.2) argue,

"Quality consists of those products and features which meet the needs of customers and thereby provide product satisfaction"

"Quality consists of freedom from deficiencies".

Cravens, Holland, Lamb & Moncrief (1988, p293) insist that quality improvement requires answering these two basic questions.

"what are the relevant dimensions of consumer-perceived quality ?"

"what business processes and results favourably contribute to customers' perceptions of quality ?".

Both of these pairs of quotes further reveal the conceptual appeal of dichotomising quality into an internal and external perspective. It is suggested that the former is more concerned with *quality management* whereas the latter is concerned with the *quality concept* .

A number of writers seem to have confused the meaning of quality management with that of the concept of "quality" (e.g. Law & Cousins, 1991). This is rather like confusing marketing management with the marketing concept. At the most basic level the former is concerned with managing marketing activities (Kotler, 1991) whereas the latter is primarily focused on exchange (Bagozzi, 1975; Cravens & Woodruff, 1986; Hunt, 1983 and Kotler, 1991). Similarly quality management is concerned with managing activities which impact on the quality of a product. The quality concept, alluded to in this and the previous section, is concerned with external customers and not

internal management. The quality concept is of primary concern to this review and is now developed further.

2.2.2.2 The Quality Concept Defined

Garvin (1984) described five approaches to defining quality: transcendental, value-based, manufacturing-based, product-based, and user-based. The transcendental approach describes quality in terms of some "innate excellence" (*op cit.*, p25) which is universally recognised through experience but is altogether unanalysable and evades precise definition. The immeasurable and indefinable nature of the transcendental approach is unsuitable for marketing science and is therefore rejected in this context. The value-based approach is also rejected. Whilst quality and value might be related concepts they are also quite distinct the latter concept incorporating some trade-off between quality and customer sacrifices (Bolton & Drew, 1991b; Livingston & Zeithaml, 1987; Nyquist & Booms, 1987 and Zeithaml, 1981). The manufacturing-based approach captures the notion of quality management as discussed above and is again not of specific interest here. Definitions of quality in this context invariably focus on "conformance to requirements" (e.g. Crosby, 1979). The product-based orientation describes attributes of a product which are precise and capable of direct measurement. Quality is therefore seen to rise in relation to the quantity of some desired attribute (i.e. "more is better"). Finally, the user-based approach defines quality from the customers' perspective. Note that in this definition the product is the "object" and the user the "subject" in this relationship. One without the other can have little meaning. In this sense, then, the latter approach subsumes perceived product quality.

Both product and user-based quality definitions have been used in the marketing literature. Indeed, these approaches are linked directly to the frequently made distinction between objective and subjective quality respectively (Garvin, 1984; Holbrook & Corfman, 1985; Taguchi, 1981 and Zeithaml, 1988). Objective quality is usually defined in terms of technical superiority on some pre-defined standard and is verified either by an expert or physical measurement (Curry & Faulds, 1986 and Hjorth-Anderson, 1984). Subjective quality alternatively is defined by customers' in terms of responses to objects (products) and perceptions of quality. The notion of perceived quality has gained considerable favour in the marketing literature over recent years (see Zeithaml, 1988, for a review) in addition to the wider sphere of the business press (e.g. Peters, 1988). The underlying rationale behind this is

simple. Customers' are influenced by *their* perceptions of quality and not those of the engineer, operations manager, and so on. Therefore, raising performance standards on product attributes which are either not used or are unimportant to customers is regarded as a waste of resource. Further, even if an attribute is used and is important to customers there is no point raising performance if such an increase is incapable of being perceived by the customer.

Zeithaml (1988) describes perceived quality as a second-order attribute capable of being viewed from a means-end perspective (i.e. measurable but abstract). She further proposes perceived quality to be a global assessment similar in nature to an attitude. A quality judgement is seen to take place on a relative or comparative basis within an evoked set. However, with regards to the latter point she found (*op cit.*, p7),

"[higher level abstract] dimensions of quality can be generalised to product classes or categories".

The product class approach is favoured here because defining perceived quality in terms of an evoked set is conceptually weaker. First, it introduces the new variable of price which confounds quality with value. Second, evoked sets vary considerably between individuals which reduces the generalisability of statements regarding quality. Third, "excellence" (see below) within an evoked set can be a meaningless concept. For example, an individual with low disposable income might have three given products within their evoked set which they judge themselves to be inferior to others in the same service class. Fourth, it uses the language of pre-purchase decision making which is not useful given that quality is a post-purchase evaluation.

The term "quality" is commonly used to connote (Webster's, 1966),

"a distinctive inherent feature",

"a degree of excellence", or

"enduring good traits that make one somewhat superior".

Defining quality in terms of "excellence" and "superiority" in this manner is consistent with the marketing literature. For example, Phillips, Chang & Buzzell (1983) stress relative quality or superiority *vis-a-vis* competitors from the customers' perspective. Both Zeithaml (1988) and Garvin (1984) define quality as excellence. Popplewell & Wildsmith (1988) define quality as,

"the degree of excellence by which we satisfy the needs of the customer".

Consistent with the literature review then quality is defined in terms of customer perceived excellence.

2.2.3 Summary and Conclusions

From production oriented roots quality management has conceptually become a company-wide effort led by the marketing function. Incorporating marketing into the quality process introduced a customer orientation. This new orientation allows a simple dichotomy to be drawn. That is, the distinction between internal and external quality or quality management and the quality concept respectively. The quality concept itself is not without ambiguity but the literature favours a customer perceived definition. This approach regards quality as a customer attitude or judgement of product superiority or excellence in relation to its class.

2.3. SERVICE AND SERVICE MARKETING

2.3.1 Introduction

The quality concept has now been described. This section introduces the concept of service from the *customer's perspective*. First, services are distinguished from goods. The nature of services is then further considered paying particular attention to a humanistic paradigm and service characteristics. Key implications for customers are subsequently discussed under the rubrics of perceived risk and evaluation processes. Finally, a summary is made and conclusions drawn.

2.3.2   <u>Goods, Services and Products Defined</u>

Goods have been defined as (Rathmell, 1966, p32),

"tangible economic products that are capable of being seen and touched and may or may not be tasted, heard or smelled".

They are, further, objects which are acquired like an asset during customer-provider exchanges. Whilst little controversy seems to exist over the meaning of a "good" the term "service" appears more nebulous. Webster's Dictionary (1966) defines service as an,

"action or use that furthers some end purpose: conduct or performance that assists or benefits someone or something: deeds useful or instrumental toward some object".

Kotler (1988, p477) defines service as,

"any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything".

These two definitions are apparently consonant and straightforward enough in meaning. A service is essentially everything a good is not. However, confusion does exist in the literature. It would appear this arises from three main sources. The first problem involves the *total product concept*. The implication of this concept is that products can only be realistically described to exist on some continua. A related but distinct problem concerns poorly defined service marketing generalisations. That is, are generalisations supposed to relate to service, goods, products, sectors, or organisations ? Although vital to an understanding of service marketing this appears to be a frequently overlooked point. The final problem again concerns ambiguous concepts- the distinction between the product and the benefits that it might yield. Each of these points is now elaborated.

The total product concept essentially views a "product" as an all-inclusive term (Enis & Roering, 1981, p1),

"for that which is offered to the buyer".

Treating products as the total market offer in this manner means that products practically consist of a blend of goods (tangibles) and services (intangibles) (Enis & Roering, 1981; Brown & Fern, 1981 and Levitt, 1981). In other words any market offer exists on some continuum ranging from a pure good (which is purely tangible) to a pure service (which is purely intangible) (Iacobucci, 1992; Rathmell, 1966 and Shostack, 1977). In practice it is apparent that few products will fall at either extreme. Gronroos (1978), whilst accepting the continuum notion, generally disregards it as a distraction which can only cause confusion. The point, he argues, is whether the *core offer* is a good or a service. This approach is supported by Shostack (1977, p75) who further proposes,

"the greater the weight of intangible elements in a market entity [offer], the greater will be the divergence from product [goods] marketing in priorities and approach".

This relativistic view would appear most practical. That is, service marketing concepts should be seen to relate to the service component of a product *only*. By implication, then, service marketing concepts will be *most* applicable to service dominated products. In sum, marketing concepts should not be interpreted as relating to whole products. Note that a product is used throughout this thesis to refer to a goods-service blend and not just a "good".

Contingent on the above discussion service marketing generalisations are sometimes problematic. Levitt (1972) observes,

"There are no such things as service industries. There are only industries whose service components are greater or less than those of other industries. Everybody is in service".

This highlights the problem that distinctions and therefore generalisations between manufacturing and service industries might not be easily found. Lovelock (1983a) also points out that it is very difficult to generalise across a wide range of service industries or situations and proposes a service classification scheme (1983b) to aid in the development of service marketing practice. This is based on the premise that it is difficult to generalise *within* as well as *between* service and goods dominated industries. This is particularly evident when considering the array of products which might be offered within any single industry. It has been argued in this review that service marketing concepts should be seen to relate only to the service component of products. By extension, service marketing generalisations about "sectors" or "industries" should only be seen to relate to the respective service components. Further, they should be considered meaningful only when clearly distinguished from other industries. An example of an attempt to do this is shown by the marketing of the professions literature (e.g. Bloom, 1984 and Gummesson, 1978).

Iacobucci (1992) presents empirical support for the existence of a goods-service continua by asking customers to rate products from "mostly a product [good]" to "mostly a service". However, interestingly she did not find a corresponding pattern when asking customers to judge the degree of tangibility. Rather it was found that most services were judged to comprise of mainly tangibles though relatively less so than goods. Whilst this might be regarded as an anomaly of the sampled services and measurement method (a single item) it does raise an important issue. That is, whilst the service part of the product is intangible the derived *benefit(s)* from that activity will frequently be viewed by the customer as tangible. Therefore although the activity of providing a golf lesson, for example, is intangible the benefit is not (*op cit.*). You can drive the ball discernibly further, putt with greater accuracy, and so on. Lovelock (1983a, p115) makes a similar point.

"Strictly speaking, this generalisation is true [i.e. intangibility] ..... And yet overuse of statements concerning service intangibility makes me uncomfortable. Certain types of services involve highly tangible acts to either the customer in person or to some physical object owned by the customer. Haircuts, medical care, hotel visits, airline travel, repair and maintenance, lawn mowing and home improvement services all include a number of important tangible elements that would be unwise to overlook".

Again this point can be taken to distinguish between the service (which is intangible) and the consequence of the service (which may or may not be intangible). Note that this issue is not unique to services. Whilst goods are tangible the benefits provided might not be. For example, an expensive item of clothing is clearly tangible but the possible benefit of feeling more confident or secure is not. This point was similarly argued by Rushton & Carson (1989). This discussion would again suggest the need for clear conceptual definitions and descriptions of generalisations.

To summarise, a service can be seen as an act or use opportunity which is both intangible and ephemeral. A good on the other hand can be seen as a tangible object which is possessed and capable of longevity. Empirically, products and sectors are more difficult to define because of the semantic nature of goods and service combinations (i.e. products). Service marketing concepts should be regarded as relating to the service component of products alone. Generalisations about services should be interpreted in that light. In addition whilst services are intangible their consequences or benefits might well not be.

2.3.3   The Nature of Services

2.3.3.1   A Humanistic Approach

Services are labour intensive (The Economist, 1992; Ginghold & Maier, 1986 and Levitt, 1972 & 1976). From a customer perspective people form an important part of the service product (Bitner, Booms, & Tetreault, 1990 and Lovelock, 1981). Personal interaction between customer and provider (e.g. Czepiel, Solomon, Surprenaut & Gutman, 1985) and customer and customer (e.g. Martin & Pranter, 1989) are critical elements of service experiences for all parties concerned. In order to investigate the service phenomena it is argued a humanistic paradigm is the most viable option.

The overall trend in the service marketing literature clearly demonstrates a humanistic approach is critical in understanding service. Early research into service marketing concentrated on characteristics of service, subsequent management problems, and possible remedies thereof (see Zeithaml, Parasuraman, & Berry, 1985, for a review and empirical investigation). This period was further characterised by its conceptual and non-empirical nature.

One of the first concerns in the service marketing literature from a management perspective was the variability of service (i.e. heterogeneity). The response to this problem was to suggest the standardisation of service through the use of technologies and minimising the level of human involvement in "production" (Levitt, 1972 & 1976). "Industrialising" service using technologies is designed to yield an efficient, low-cost, high volume service operation which satisfies customers (Bowen & Lawler, 1992). However, it is also de-humanising to the extent that it tries to minimise the human content of service. This approach has gradually been eroded over recent years in favour of a more *customer oriented* (versus management oriented) and *humanistic paradigm* in the front-office. Murray comments (1991, p10),

"Though the marketing discipline has directed attention to the field of service marketing in recent years, much of the work in that area has centred on the development of conceptual models with an emphasis on managerial paradigms. Considerably less attention has been given to understanding the behaviour of the service consumer".

Particular interest has been shown since the mid-1980's in customer evaluation of service and the nature of service encounters. This emphasis on human responses and psychological processes has created a generally "softer" and more humanistic view to service marketing. This more humanistic approach can be demonstrated by contrasting the early calls for the "industrialisation" of service against the more recent "de-industrialisation" and "empowerment" approaches (e.g. Bowen & Lawler, 1992; Peters, 1988, and Teboul, 1988). Empowerment is concerned with encouraging and rewarding employees for the *initiative* shown in providing customer satisfaction (e.g. Bowen & Lawler, 1992, and Peters, 1988). Giving greater autonomy to employees is not only designed to create more satisfied customers but also more satisfied employees which is frequently seen as an important factor in providing good service (e.g. Schlesinger & Heskett, 1991). This approach is clearly more humanistic in its outlook than industrialisation.

To summarise, services are dominated by their human content. Early service marketing research concentrated on management issues and tended to be less humanistic in approach than recent efforts. Current research has a stronger customer and humanistic orientation. Given the customer focus of the quality and marketing concepts recent developments are regarded as more pertinent

to this thesis. For this reason the nature of service is reviewed from the customers' perspective.

2.3.3.2   The Self-Serving Customer

Before embarking on a review of service characteristics and their implications for customers' the concept of self-service should be noted. The notion of self-service contradicts much of the rationale for adopting a humanistic approach to service marketing and the greater emphasis being placed on customer-provider interactions and personal service in the literature. It will be shown that the humanistic approach to service is robust against this and other diminishing concepts.

In an empirical study Bateson (1983) found certain groups of customers willing to participate more in service delivery for no extra benefit such as a lower price. Indeed, his results suggested that the "do it yourself" option may provide (*op cit.*, p52),

"an added benefit and differentiate the service in their mind".

Ginghold & Maier (1986) arguing from a theoretical standpoint arrive at a similar conclusion. Using the benefit segmentation paradigm they argue that certain groups of customers will be insensitive to personal or other service augmentations. The concept of service offers presented by Gronroos (1990) is worth considering at this point. Gronroos describes services as comprising of bundles of benefits, goods and services. Services can be categorised as being core (i.e. the reason for being in the market); facilitating (i.e. make the core service possible) and supporting (i.e. augmentations of the product) (*op cit.*, pp74/5). Within this framework the self-service paradigm can be analysed in greater depth.

First, it is apparent there is a difference between increasing the level of customer participation (self-service) and removing it altogether. It is difficult to name services which are completely self-service (i.e. facility use only). Therefore, although customer participation might be increased in one of the service offer components human interaction will still be evident on another.

45

It would not be unreasonable to suggest that the remaining human encounter elements might become more important when evaluating overall product experiences. Second, many services reported as being "zero-level personal service" such as automatic teller machines (Ghinghold & Maier, 1986, p46) are in fact only part of a total service offer and must be interpreted in that light. Continuing with the previous example A.T.M.'s can be seen as either a facilitating machine (i.e. helps to reduce cash and balance status demands etc. on staff) or a supporting service (i.e. 24-hour cash availability and balance enquiry facilities). Clearly, A.T.M.'s only form *a part* of the service offer made with cheque accounts.

In addition to a self-service perspective Ginghold & Maier (1986) also suggest two other limitations of the personal service paradigm. The first stems from a strategic marketing perspective. Here they argue that personal service is not capable of differentiating commodity or generic services such as window cleaning. Further, for non-generic services they argue that personal service is easily duplicated by competitors and is therefore incapable of providing sustainable competitive advantage. With respect to the first point it can just as easily be argued that personal service is the *only* means of differentiating commodity services. Further, in relation to the second point empirical and anecdotal evidence suggests the reverse case to be true (e.g. Buzzell & Gale, 1987 and Peters, 1988). Their final criticism of personal service relies on the Service Life Cycle/customer sophistication paradigm. This they interpret as suggesting that customers using products towards the end of their Life Cycle (i.e. sophisticated customers) place increasingly less emphasis on personal service. No empirical evidence is available to support this contention. However, it has been found that more sophisticated customers tend to be the more demanding service customers and expect more from a provider's employees (Berry & Parasuraman, 1991). This does not sit comfortably with Ghinghold and Maier's assertion.

To summarise, although self-service is a real option for many customers it is likely to involve only a limited number of product classes or certain components of the market offer. Further, the remaining human encounter components of the market offer might become disproportionately influential in service evaluations. Other criticisms of the personal service paradigm are largely refuted. The humanistic approach to service is therefore considered wholly appropriate from a customer perspective.

2.3.3.3   Service Characteristics

So far service has been defined and a humanistic approach highlighted. Three service characteristics are now briefly described in order to complete the survey of the nature of services: intangibility, heterogeneity and inseparability. These service features are argued to be of particular concern to service customers and are therefore explicitly discussed (Murray, 1991 and Zeithaml, 1981).

Intangibility :   Intangibility is a widely quoted characteristic of service (Bateson, 1977; Berry, 1980; Booms & Bitner, 1981; Eiglier & Langeard, 1977; Fisk, 1981; Ghinghold & Maier, 1986; Gronroos, 1978; Iocubbucci, 1992; Levitt, 1981; Lovelock, 1983a; Rushton & Carson, 1989; Sasser, 1976; Shostack, 1977 and Zeithaml, Parasuraman, & Berry, 1985). Indeed, it is often argued to be the most important characteristic (Bateson, 1979 and Rushton & Carson, 1989). In distinguishing "service" from "goods" in section 2.3.2 intangibility was described as the defining feature. Berry (1980, p30) notes two meanings which are commonly attached to intangibility. First, intangibility refers to something which is impalpable. That is, unable to be touched. Second, intangibility refers to something which is difficult to grasp mentally or to define with certainty. That is, vague and elusive.

Heterogeneity :   Heterogeneity has most frequently been associated with quality problems. It has been an enduring concern to service managers and researchers alike being commonly associated with industrialisation efforts. Heterogeneity has also been a widely quoted characteristics of service (Bateson, 1977; Berry, 1980; Eiglier & Langeard, 1981; Ghinghold & Maier, 1986; Iocubbucci, 1992; Levitt, 1972 & 76; Lovelock, 1983a; Sasser, 1976; Zeithaml, Parasuraman, & Berry, 1985). Heterogeneity as a term simply refers to variability or the inability to standardise performances. The problem of heterogeneity is due in part to the high human content of service. Service contact personnel vary from location to location, day to day, and from hour to hour. They vary not only because employees are obviously rotated or unavailable but because moods change, general dispositions change, and so responses to customers change. Further, even if the same service *was* provided the customer would experience different customers in the encounter, have different moods themselves, and so have different *perceptions* of the service regardless. Customer involvement in the production process (e.g. Lovelock, 1983a and Sasser, 1976) introduces another source of variability (i.e.

customer "specifications") making it impossible to achieve standardisation in any objective sense.

Inseparability :   Inseparability refers to the simultaneous production and consumption of service.   It is this feature which has led to the service encounter being proposed as a prime focus for research (Carlzon, 1987; Czepiel, Solomon, Surprenaut, & Gutman, 1985 and Normann, 1991). Consistent with both intangibility and heterogeneity it is a widely quoted service feature (Bateson, 1977; Berry, 1980; Booms & Bitner, 1981; Eiglier & Langeard, 1981; Ghinghold & Maier, 1986; Gronroos, 1978; Iocubbucci, 1992; Lovelock, 1983a; Rathmell, 1974; Regan, 1963; Sasser, 1976 and Zeithaml, Parasuraman, & Berry, 1985). Regan (1963) was the first to argue that whereas goods are produced, sold and consumed services are sold, produced, and then consumed. Conceptually this is shown in Figure 2.3.

Figure 2.3   :   The Inseparability of Production and Consumption

Goods   Services
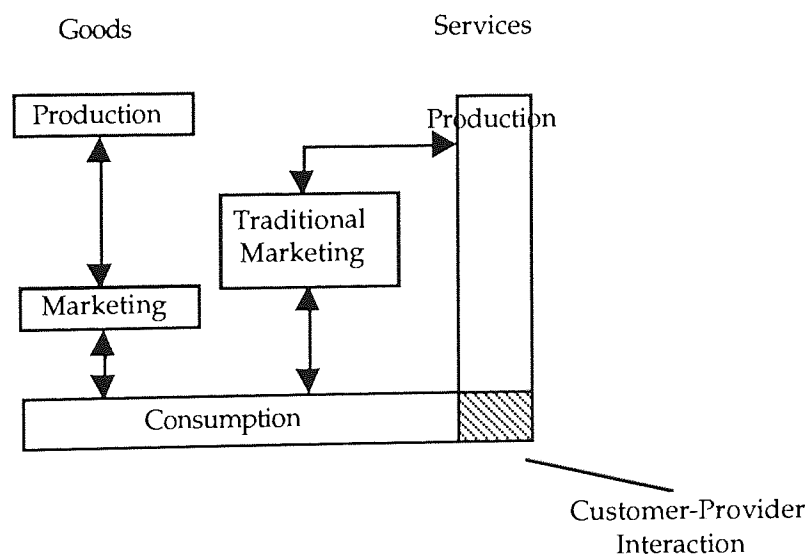
(Source : Rathmell, J. (1974), *Marketing in the Service Sector*, Winthorp, England, p7)

2.3.4   <u>Implications of the Nature of Service for Customers</u>

The following review, drawing on both conceptual and empirical evidence, demonstrates the nature of service has considerable impact on both customer

perceptions of risk and evaluation processes. It is proposed that these two features are the primary means of distinguishing goods from services at the customer level. It is also noted, however, that risk perceptions and evaluation processes are not wholly independent of each other.

2.3.4.1   Perceptions of Service Risk

2.3.4.1.1   *Conceptual Definition and Evidence*

Risk is synonymous with uncertainty. Customers view risk as subjective probabilities of future outcomes. In other words risk is a perceptual construct which lacks any objective reality. Deviations from some expected outcome may, of course, be either positive or negative. Of particular interest to the customer, however, will be negative outcomes or unanticipated costs. Brooker (1984) identified four components of perceived risk: physical (i.e. risk of physical harm); psychological (i.e. lowering of self-esteem); performance (i.e. lower than anticipated product performance); and financial (i.e. unanticipated monetary costs). Jacoby & Kaplan (1972) identify an additional risk component, social risk (i.e. loss of respect, friendship etc.). However, this component does not appear to be clearly delineated from psychological risk. Murry & Schlacter (1990) also identify overall and convenience risk (i.e. loss of time) as additional risk components. To conclude, customer risk is conceptualised as a multidimensional perceptual construct of uncertainty most particularly concerned with loss.

The notion that customers view service as possessing inherently greater risk than a comparable good has gained support both conceptually (e.g. Eiglier & Langeard, 1977 and Zeithaml, 1981) and empirically (Guseman, 1981; George, Weinberger, & Kelly, 1985 and Murray & Schlacter, 1990). At the conceptual level it is the nature of service itself (i.e. heterogeneity, intangibility and inseparability) which creates the higher risk perceptions (George, Weinberger, & Kelly, 1985 and Murry & Schlacter, 1990). As Booms & Nyquist (1981, p173) argue in relation to heterogeneity,

"since in many cases each service experience is unique (i.e. not standardised), repurchase is also an uncertain and risky decision".

Intangibility also causes customers to view service as a high risk purchase (Bateson, 1979; Eiglier & Langeard, 1977; George, Weinberger, & Kelly, 1985 and Zeithaml, 1981). Intangibility impinges on customer perceptions by restricting the amount of information available relative to goods which in turn raises perceptions of risk (Bateson, 1991; Booms & Bitner, 1981; George, Weinberger, & Kelly, 1985; Lovelock, 1981; Young, 1981 and Zeithaml, 1981). Due to the high human content and inseparability of many services the opportunity for social and psychological loss is greater for services than *comparable* goods (Murry & Schlacter, 1990). In addition to the direct consequences of service characteristics the general lack of guarantees and warranties might also raise service risk perceptions (e.g. Eiglier & Langeard, 1977 and George, Weinberger, & Kelly, 1985). Certainly this might account for anecdotal reports of unconditional service guarantees providing powerful competitive weapons (Hart, 1988 and Hart, Schlesinger, & Maher, 1992). Uncertainty over the eventual cost of some services might also contribute to the general heightened sense of risk (Rushton & Carson, 1989).

In an empirical investigation of perceived risk in services George, Weinberger, & Kelly (1985) noted the findings of Lewis (1976) and Guseman (1977). Lewis (1976) found risk in services to be higher on all components of the Jacoby & Kaplan (1972) conceptualisation except for "physical risk" where no difference was found. Social and psychological risk was also found to be higher for services than products. Further noting the work of Guseman (1977) they highlighted that services were of higher risk than goods especially when customers are trying new services. The ensuing empirical study by George, Weinberger, & Kelly (1985) also found that services were regarded as a greater risk than goods. In the most rigorous empirical study to date Murry & Schlacter (1990) found that services were perceived as higher risk than comparable goods on six out of the eight risk components previously noted. Only financial and performance risk were not perceived to be different.

To summarise, both conceptual and empirical support is available for believing services carry a greater perceived risk than goods. Heightened risk perceptions result from both direct and indirect influences of service characteristics. The response of customers to heightened risk perceptions in the context of service are now reviewed under the headings of information acquisition, tangiblisation, brand loyalty and adoption of innovations.

2.3.4.1.2 *Information Acquisition*

In response to higher perceived risks customers are expected to spend more time searching for information than for comparable goods (Eiglier & Langeard, 1981 and Murray, 1991). Booms & Nyquist (1981, p174) comment,

"Since it is human nature to try to reduce risk and uncertainty, consumers who are about to purchase a service .... scan[ning] every encounter ... and exposure to the firm for information to reduce uncertainty regarding the firm's service and its quality".

Both conceptually (Bateson, 1991; Eiglier & Langeard, 1981; George & Berry, 1981; Surprenaut & Dholakia, 1987 and Zeithaml, 1981) and empirically (Murray, 1991 and Schlissel, 1985) personal sources of information, particularly word-of-mouth, are seen to be of greater value to service customers than non-personal sources of information. Zeithaml (1981) argues that one of the primary reasons for this is that service attributes cannot be tested prior to purchase and that (*op cit.*, p193),

"Given this risk, they may depend to a greater extent on selecting sources such as word-of-mouth which they may perceive to be more credible and less biased".

Murray (1991) empirically demonstrate that service customers have a greater preference for personal sources of information prior to purchase when compared to goods customers. Furthermore, he found that greater confidence is placed on personal sources of information for service customers.

2.3.4.1.3 *Tangiblisation*

Service customers tangiblise (i.e. make conceptually concrete) offers to reduce the perceived risk involved in purchase (Eiglier & Langeard, 1981; Guseman, 1981 and Schlissel, 1985). Expressing the need to offer surrogate tangibles in service advertising George & Berry (1981, p409) argue,

"one way advertisers can help lower the consumer's perception of uncertainty and risk-taking is by using tangibles in advertising in such a way as to convey appropriate signals about the service".

The issue of tangiblisation is elaborated further in the context of service evaluation.

2.3.4.1.4   *Brand Loyalty*

Service customers are generally argued to be brand loyal (e.g. Bateson, 1991; The Economist, 1992 and Zeithaml, 1981). One explanation for this is that customers reduce perceived purchase risk by repeatedly buying the same service (Roselius, 1971). However, Surprenaut & Dholakia (1987) question this reasoning by arguing that preferences are unstable in service evaluations and so brand loyalty is less likely to result for services than goods.

2.3.4.1.5   *Adoption of Innovations*

The lack of information and subsequent feelings of risk are particularly pertinent for new buyers of services (George, Weinberger, & Kelly, 1985). Zeithaml (1981) conceptually argues that innovations diffuse slower because of higher perceived risk. She offers three supporting explanations for this. First, due to service intangibility they are less communicable. Second, it is often impossible to sample or test a service prior to purchase. Third, services are more complex than goods because different bundles can be offered through customisation. Each of these factors can be seen as a barrier to the diffusion of service innovations. Murray (1991, p20) focuses on the lack of opportunity for pre-trial experiences as a barrier and argues,

"there may be less opportunity to diminish uncertainty by direct observation and/or trial for services, suggesting a prolonged consumer adoption process and, ultimately, a more lengthy diffusion process for services".

Perceived risk influences service customers to adopt different information acquisition strategies compared to goods. Further, customers engage in the unique cognitive process of "tangiblisation" with respect to service. Brand loyalty may or may not be a strategy for risk reduction in services. Service innovations are generally supposed to diffuse slower than goods.

2.3.4.2 Service Evaluation Processes

2.3.4.2.1 *Conceptual Definition and Evidence*

Webster's Dictionary (1966) defines "evaluate" in the following manner.

"to examine and judge concerning the worth, equality, significance, amount, degree, or condition of: appraise, rate"

Rushton and Carson (1989, p30) argue that service intangibility makes it,

"more difficult for a customer or potential customer to make sense of and evaluate than a tangible product".

Booms & Nyquist (1981, p173) similarly argue,

"Because services are intangible, the potential consumer finds it difficult to perceive and judge the value of committing to a purchase ..... Only after buying does one get to "sample" the service".

The search, experience, and credence framework adopted by Zeithaml (1981) is useful to develop this point. Search qualities refer to those product attributes or claims that can be verified before purchase. Experience qualities refer to those product attributes or claims which can only be verified during or after

consumption. Credence qualities refer to those product attributes or claims that are difficult to verify by the average customer even after consumption. Empirical studies into the veracity of this categorisation (e.g. Ford, Smith, & Swasy, 1988) are broadly supportive.

Zeithaml (1981) argues that services, partly due to their intangibility, are high in experience qualities and low in search qualities when compared to goods. Shostack (1977) agrees. It is this highly experiential nature of services and the inability to try services pre-purchase that conceptually makes them more difficult to evaluate than goods (Gronroos, 1978; Fisk, 1981 and Zeithaml, 1981). Empirically Iocubucci (1992) found that all investigated services were highly experiential and lacked search properties. Murray (1991) also offers empirical evidence supporting the highly experiential nature of services and additionally that information evaluation is more complex for a service than a good.

In summary,, evaluation is concerned with judging service offers. Service evaluation is regarded as being different from that of goods because it lacks search properties and is dominated by experience properties. Within this context service evaluation is discussed under the headings of point of evaluation, evoked set, tangiblisation, evaluative criteria, evaluation bias, and attribution.

2.3.4.2.2 *Point of Evaluation*

Zeithaml (1981) conceptually argues that customers engage in more post-purchase evaluation for services than for goods. She further argues that customers engage in more post-purchase evaluation than pre-purchase evaluation. The rationale for this is that search properties are lacking for services and so there is little to evaluate at the pre-purchase stage. Young (1981) supports the contention that service evaluation is likely to take place after use. Murray (1991) offers empirical evidence supporting Zeithaml's (1981) contention that service is more difficult to evaluate pre-use and Young's (1981) contention that evaluation takes place after use. However, Fisk (1981) argues customers evaluate service at three different points in time. The first evaluation is aimed at identifying the "best" solution for a customers problem. This involves searching for information and selecting from an array of alternative services. The second evaluation, still pre-use, involves comparing any expectations resulting from the first evaluation (and choice) with any

54

experiences of that choice. Finally, (dis)satisfaction evaluation is argued to take place after service use.

Murray (1991) offers empirical evidence that service customers' engage in longer decision processes because there is a greater need to reduce perceived risk. However, Schlissel (1985), contrary to the assertion that service customers engage in more post- than pre-use evaluation, empirically found that customers evaluate service at comparably high levels both before and after use for professional and non-professional services.

2.3.4.2.3   *Evoked Set*

The term evoked set refers to the set of alternatives which the customer feels are acceptable for solving a particular problem. Intangibility means that services have special distribution and inventory problems (Booms & Bitner, 1981; Eiglier & Langeard, 1981; Lovelock, 1981 & 1983; Rushton & Carson, 1989; Sasser, 1976 and Zeithaml, Parasuraman, & Berry, 1985). This might result in a reduced evoked set at the pre-encounter stage due to a restriction in choice from distribution problems (Zeithaml, 1981). No empirical evidence is available to support this proposition, however.

2.3.4.2.4   *Tangiblisation*

Tangiblising service is not only a strategy used by customers to reduce perceived risk but also an aid to service evaluations (Booms & Bitner, 1981; Booms & Nyquist, 1981; Eiglier & Langeard, 1981; Grove & Fisk, 1983; Guseman, 1981; Levitt, 1981; Rushton & Carson, 1989 and Shostack, 1977). Shostack (1977, p77) argues,

"when a consumer attempts to judge a service, particularly before using or buying it, that service is "known" by the tangible clues, the tangible evidence that surround it".

By using tangible clues the customer is made to feel more "at home" (Rushton & Carson, 1989, p32) with a service. Three factors are most commonly cited as

55

being used as tangible clues of a service. First, there is the environmental setting in which a service is bought and consumed (Bitner, 1990; Booms & Bitner, 1981; Eiglier & Langeard, 1981; Guseman, 1981; Levitt, 1981 and Shostack, 1977). Bitner (1990 & 1992) gives a detailed examination of the service environment (i.e. "servicescapes"). She argues (1992) that there are three environmental components.

(1)   Ambient conditions e.g. temperature and noise;

(2)   Space function e.g. layout and equipment, and

(3)   Signs, symbols and artefacts e.g. style and decor.

She proposes that (1992, p63),

"Perceptions of the servicescapes and associated positive (negative) cognitions can lead to positive (negative) beliefs and attributions associated with the organization, its people, and its products".

In addition to the service environment service participants (other customers and contact personnel) might also be used as tangible clues to the service (Booms & Bitner, 1981; Grove & Fisk, 1983; Guseman, 1981; Levitt, 1981; Martin & Pranter, 1989 and Shostack, 1977). The impact of contact personnel on customers is well documented (Solomon, Surprenaut, Czepiel, & Gutman, 1985) and empirically verified (Bitner, Booms, & Tetreault, 1990 and Nyquist, Bitner, & Booms, 1985). However, the impact of other customers on evaluations remains to be seen.

2.3.4.2.5   *Evaluative Criteria*

It has already been noted that customers are argued to find services more difficult to evaluate than goods. Zeithaml (1981, p192) summarises that,

"intangibility, non-standardisation, and inseparability of production and consumption make services more difficult to evaluate than goods. Difficulty in evaluation forces consumers to rely on different cues and processes when evaluating services".

Both Booms & Nyquist (1981) and Smith & Houston (1983) argue that it is difficult to form accurate sets of expectations which in turn makes satisfaction evaluations more difficult. Surprenaut & Dholakia (1987) argue that evaluative criteria are held with less confidence and that the inherent service risk creates unstable evaluation processes. Further, they argue that choice decisions are made by elimination rather than linear compensation strategies. The lack of firm criteria and search properties means that surrogate tangibles, image, and recommendations are all likely to form important evaluative criteria (George, Weinberger, & Kelly, 1985 and Schlissel, 1985) both pre- and post-encounter. George, Weinberger, & Kelly (1985) further argue that pre-encounter criteria are virtually non-existent and even post-encounter criteria might be very restricted.

To conclude, it is believed that evaluative criteria are limited both before and after the service encounter when compared to goods. Further, the evaluative criteria which are available are thought to be held with less certainty which in turn leads to reliance on other more tangible clues.

2.3.4.2.6 *Evaluation Bias*

Difficulty in conceptualising service might cause negative feelings towards service. Rushton & Carson (1989, p30) describe the phenomena in the following manner.

"This elusiveness can easily lead to customer anxieties about the product which can, in turn, result in negative attitude towards the product".

After the service encounter the customer is left owning nothing with respect to the service (Gronroos, 1978). Service cannot be possessed like goods (Berry, 1980). George (1977, p86) states the problem in this manner.

"After a day of buying services, the customer still has an empty basket. Many potential problems can occur from a transaction where money is exchanged but the customer receives nothing physical ..... They seem to feel that purchasing services is frequently a less pleasant experience than buying goods. Contributing to the negative perception of services is the intangibility factor".

Indeed, it has been suggested that because customers have greater confidence in their evaluations of goods than services they are inherently biased in favour of goods (Surprenaut & Dholakia, 1987). Empirically, Day & Muzaffer (1977) found that a large proportion of customers were either always or sometimes dissatisfied with certain services.

To conclude, it is argued that because customers perceive services as higher risk purchases and receive nothing tangible negative feelings are likely to colour both pre- and post-encounter evaluations. The one exception to this might be when a customer becomes a "regular" which can lead to more positive evaluations (Zeithaml, 1981).

2.3.4.2.7 Attribution

The term "attribution" refers to the process of assigning "causes" to certain "effects". Due to the inseparability of production and consumption customers are active participants in shaping the service offer (Gronroos, 1978). One consequence of this is that customers might attribute some of the blame for poor service on their own inability to specify requirements (Zeithaml, 1981). This is conceptually supported by Parasuraman (1987) who proposes that customers are more likely to engage in attribution activities when a high level of customisation is involved.

2.3.4.2.8 Summary

Service evaluation differs from goods. The point and emphasis of evaluation is, however, unresolved. The evoked set is conceptually argued to be reduced for services. Information acquisition strategies also differ between goods and services which in turn influences the evaluation process. Tangiblising service as an aid to its evaluation is conceptually and empirically well established.

Evaluative criteria tend to be fewer in number, less confidently held, and different in nature compared to criteria used when evaluating goods. In addition, because of the very nature of services they tend to be evaluated under a cloud of negative feelings. However, customers are conceptually argued to be more willing to engage in attribution processes with services than goods.

2.3.5 Summary and Conclusions

It has been shown in this section that the literature is frequently ambiguous in its use of the terms goods, services, and products but can be conceptually distinguished. This has implications for service generalisations. The literature also reveals that the nature of service is intrinsically different from goods being anchored in a humanistic paradigm and possessing unique characteristics (intangibility, heterogeneity, and inseparability). The nature of service raises levels of perceived risk and affects evaluation processes with a variety of consequences for the customer. This section can therefore be seen to provide a critical link between the quality and service concepts from the customers' perspective. This in turn offers a sound foundation for demonstrating the conceptual underpinnings of much of the service quality literature and for extending the literature in respect of service quality expectations.

2.4 CONCEPTUALISATION AND MODELS OF SERVICE QUALITY

2.4.1 Introduction

In this section service quality is first defined in general terms. Taking note of this more general definition specific models of service quality are discussed under the categories of discrepancy models, service perception models, and extended models. Finally, some issues relating to discrepancy models are discussed in more detail.

2.4.2 Service Quality Defined

It has been noted that *quality* is defined as a user-based judgement of superiority or excellence which is similar to an attitude (see section 2.2.2.2). It has also been shown that service is a complex and elusive phenomena (see section 2.3.3). By extension service quality is defined as a customer's judgement of service superiority or excellence which has both a complex and elusive in nature. Furthermore, service quality is regarded as an overall judgement (attitude) which is not unlike an "attitude toward a company" (Bitner, 1990; Bolton & Drew, 1991a & b; Boulding, Kalra, Staelin, & Zeithaml, 1993 and Cronin & Taylor, 1988). Whilst this definition lacks specificity it does has the advantage of being robust across the models discussed below. Further, as Congram & Friedman (1991, p11) conclude,

"What is critical is not the specific "definition" of quality that you live by, but rather that you have one that is driven by customer perceptions".

2.4.3 Models of Service Quality

2.4.3.1 Discrepancy Models of Service Quality

The term "discrepancy" simply refers to a difference or gap between two cognitive constructs. It is of significance because several authors have conceptualised service quality as the gap between what a customer expects from a service and what they perceive is received (Brown & Swartz, 1989; Gronroos, 1982 and 1984; Klaus, 1985; Lehtinen & Lehtinen, 1982; Lewis & Booms, 1983; Parasuraman, Zeithaml, & Berry, 1985 and 1988). Lewis & Booms (1983, p99), for example, argue as follows.

"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. This criteria of quality is more complex than it might first appear ..... Quality ...... is dependent upon customer expectations and perceptions of the service experience".

Myers (1988) discusses at some length a similar issue of measuring unmet wants or "deficiencies" in relation to general multi-attribute models. A "deficiency" is used to describe differences between the perceived performance of some product and a relevant reference point (*op cit.*, p109). An ideal point multi-attribute attitude model is given below to illustrate the concept (Engel, Blackwell, & Miniard, 1990, p315).

$$A_b = \sum_{i=1}^{n} W_i (I_i - X_i)$$

where,

A_b = overall attitude towards the brand;

W_i = importance weight assigned to attribute i;

I_{ik} = the ideal performance on attribute i

X_i = the belief about the brand's actual performance on attribute i;

n = number of salient attributes.

This model is useful in the explication of service quality because in many ways there is little difference between the ideal point model and the service quality construct. That is overall service quality (i.e. attitude towards the company) is argued to result from a comparison between some normative excellence benchmark, or some desired level of performance, and the actual experienced or perceived service performance (Parasuraman, Zeithaml, & Berry, 1988 and Parasuraman, Berry, & Zeithaml, 1991b). This benchmark has been conceptually linked to an "ideal" level (Boulding, Kalra, Staelin, & Zeithaml, 1993 and Teas, 1993b). Algebraically the gap approach to overall service quality is expressed below.

$$OSQ = \sum_{k=1}^{n} W_{ik} (P_{ik} - E_{ik})$$

where,

OSQ = overall service quality;

W_{ik} = importance weight assigned by individual i to attribute k;

P_{ik} = individual i's rating of service performance on attribute k;

61

E_{ik} = individual i's predicted rating of performance "excellence" or "should's" on attribute k.

n = number of salient attributes.

Note the service quality construct is frequently measured without attribute importance's (e.g. Babakus & Boller, 1991; Carman, 1990; Foreman, Pitt, & Nel, 1993; Parasuraman, Zeithaml, & Berry, 1988, and Parasuraman, Berry, & Zeithaml, 1991b). That is, service quality attributes are assumed to be of unitary importance.

2.4.3.2 Perception Based Models of Service Quality

Cronin & Taylor (1992) criticised the discrepancy conceptualisation of service quality and argued in favour of using perceptions of service performance alone. This, they argued, is more in keeping with defining quality as an attitude and differentiates quality from the satisfaction paradigm. In an ensuing empirical investigation of four models of service quality using correlations with an overall rating of service quality and a stepwise regression they showed that perceptions alone offer a statistically more powerful explanation of service quality evaluations. The four competing models are shown in Table 2.1 with summary results.

OSQ = (Perceptions - Expectations)   (1)

OSQ = W (Perceptions - Expectations)   (2)

OSQ = (Perceptions)   (3)

OSQ = W (Perceptions)   (4)

Table 2.1 : Summary Results: Cronin & Taylor, 1992

	(1)	(2)	(3)	(4)
Criterion Correlations	0.543	0.539	0.601	0.557
R^{2*}	0.388	0.391	0.447	0.410

Looking at these results it is quite apparent that model (3), the performance only battery of SERVQUAL (Parasuraman, Zeithaml, & Berry, 1988), has the

highest simple correlation with the overall measure of service quality and explains the largest amount of variance of the criterion variable.

Boulding, Kalra, Staelin, & Zeithaml (1993) also conceptualise overall service quality as a function of perceptions. This is shown algebraically below.

$$OSQ_{it} = f\ (PS_{ijt})$$

where,

OSQ_{it} = individual i's overall perception of a firms service quality at time t

PS_{ijt} = individual i's cumulative perception on the j'th dimension of service quality held at time t

Again, overall service quality is regarded as an attitude. Whilst ostensibly very similar to the conceptualisation forwarded by Cronin & Taylor (1992) it does in fact represent a significant departure from previous work. That is, perceptions *do not* accrue from a specific service encounter per se but are rather updated through exposure to a service to form some type of cumulative construct. Under empirical testing this model performed well and is discussed more in section 2.4.3.3.

2.4.3.3   Extended Service Quality Models

In addition to the previous models of service quality there are what might be termed "extended" models. This refers to attempts by researchers to build richer models by incorporating more diverse constructs and processes such as satisfaction, value, attribution processes, behavioural intentions and internal organisations. For ease of presentation extended models are further distinguished into two categories. The first category concerns largely conceptual work viewing service quality in a holistic manner. These models will therefore be termed "holistic" models. The second category draws heavily on the attitude and satisfaction literature in attempt to specify substantive, empirical causal models. These models will therefore be termed "substantive" models.

The first largely conceptual model of service quality was presented by Gronroos (1982 and 1984). This is summarised in Figure 2.4.

Figure 2.4   :   A Holistic Model of Service Quality: Gronroos, 1982

```
┌─────────────┐
│ Corporate   │
│ Image       │──────────┐
└─────────────┘          │
                         ▼
┌─────────────┐      ┌──────────────┐
│ Technical   │─────▶│ Total Service│
│ Quality     │      │ Quality      │
└─────────────┘      └──────────────┘
                         ▲
┌─────────────┐          │
│ Functional  │──────────┘
│ Quality     │
└─────────────┘
```
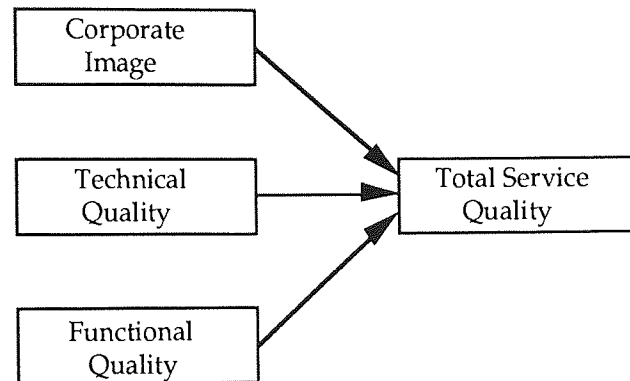
(Source : Adapted from Gronroos, C. (1984), "A Service Quality Model and Its Marketing Implications", European Journal of Marketing, Vol.18 (4), pp33)

Here, total service quality is a function of corporate image, technical quality and functional quality. Corporate image is self-explanatory, i.e. it is the perceived image of a particular company which is held in the customer's mind. Technical quality is concerned with *what* the customer receives as a result of his interactions with a service and is strongly related the key benefits sought from the service *outcome*. Functional quality refers to *how* these benefits are transferred to the customer and is concerned with the *process* of outcome delivery.

Parasuraman, Zeithaml, & Berry (1985) also present a conceptual model of service quality which was later extended even further (Zeithaml, Berry, & Parasuraman, 1988). The original more parsimonious model is shown in Figure 2.5.

Figure 2.5 : A Holistic Model of Service Quality: Parasuraman *et al*, 1985

Company


```
            ┌─────────────────────────────┐
            │  Management Perceptions     │
            │          of                 │
            │  Customer Expectations      │
            └─────────────────────────────┘
                                           Gap 2- are customer expectations
                                           properly translated into
                                           specifications ?

            ┌─────────────────────────────┐
Gap 1- does │  Service Quality            │
management  │  Specifications             │
know what   └─────────────────────────────┘
their                                      Gap 3- are staff following the
customers                                  specifications ?
expect ?
            ┌─────────────────────┐   ┌─────────────────────┐
            │                     │   │  Communications     │
            │  Delivery of Service│   │        to           │
            │                     │   │  Customers          │
            └─────────────────────┘   └─────────────────────┘
─ ─┼─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┼ ─ ─ ─ ─ ─ ─ ─ ┼ ─ ─ ─ ─ ─ ─
                                       Gap 4- is the communicated
            ┌─────────────────────┐    service the same as the
            │  Customer Perceptions│    delivered service ?
            │         of          │
            │  Service Performance│
            └─────────────────────┘
Gap 5- are customers expectations
being met ?
            ┌─────────────────────┐
            │  Customer Expectations│
            │         of          │
            │  Service Performance│
            └─────────────────────┘
```

Customers

(Source : Adapted from Parasuraman, A.; Zeithaml, V. & Berry, L. (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research", Journal of Marketing, Vol.49 (4), p44)

What this model shows is that service quality (Gap 5) is a function of a series of gaps (i.e. Gaps 1 to 5). In other words,

$$\text{Gap } 5 = f \ (G1, G2, G3, G4)$$

The first gap (G1) is essentially a market research gap which reflects a poor understanding of customer expectations by relevant managers. The second gap (G2) is concerned with the extent to which customer expectations are translated into service specifications without error. The third gap (G3) is concerned with service staff following standards accurately. Finally, gap four (G4) is concerned with company's ensuring their communications are consonant with the previously set standards. Clearly, the underlying proposition is that if customer expectations are known and met by a company then the provided service will be viewed as quality.

In a similar vein to the above models LeBlanc & Nguyen (1988) also presented a "gaps" model. In their model, perceived service quality was argued to be a function of five variables: corporate image, internal organisation (i.e. non-customer-visible instruments necessary to deliver the service), tangible elements associated with the service, service interactions with staff, and the degree of customer satisfaction with the service encounter. This model is of some interest because it attempted to integrate the work of Parasuraman *et al* with that of Gronroos. However, the paper also introduced the notion that satisfaction might in some way be related to service quality evaluations. This leads well into the more substantive models of service quality which have been developed since the early 1990's.

2.4.3.3.2   *Substantive Models*

Bitner (1990) proposed an extended model of perceived quality in relation to service encounters. This is shown in Figure 2.6.

Figure 2.6 : A Substantive Model of Service Quality: Bitner, 1990
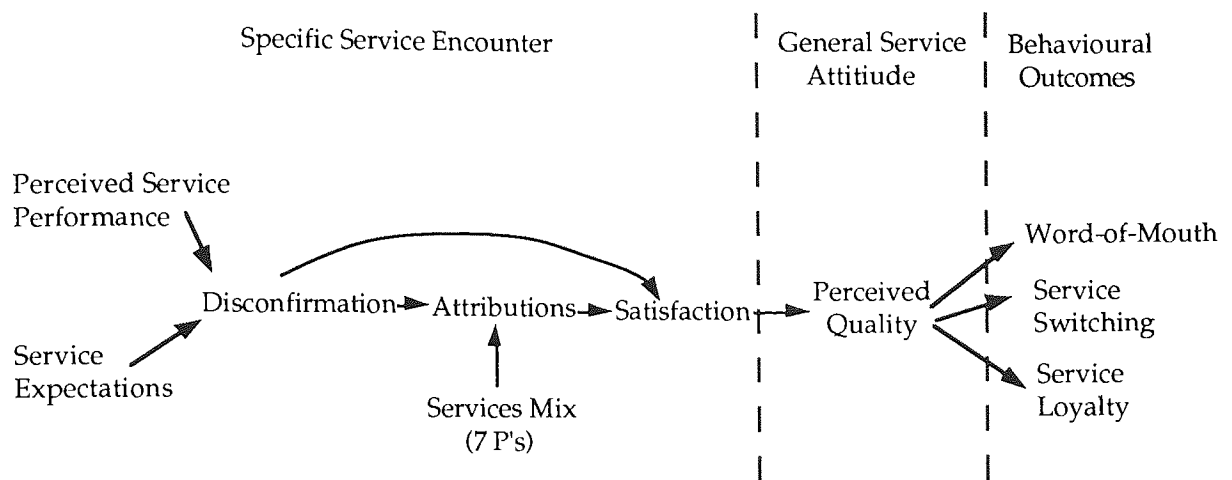
(Source : Simplified from Bitner, M. (1990), "Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses", Journal of Marketing, Vol.54 (2), p7)

Re-stating Bitner's model structurally the following equations are obtained.

Disconfirmation $= f_1$ (expectations, perceptions)

Dis/satisfaction $= f_2$ (disconfirmation, attributions)

Perceived Quality $= f_3$ (satisfaction)

Behaviour $= f_4$ (perceived quality)

Holding disconfirmation constant for all experimental conditions the two following equations (if re-stated as shown here) were upheld amongst others.

Perceived Quality $= f_1$ (satisfaction, attributions)

Intentions $= f_2$ (perceived quality, satisfaction)

Bolton & Drew (1991a & b) formally stated their models in terms of structural equations which also demonstrated the relationship between satisfaction and

67

service quality. In relation to attitude change (*op cit.*, 1991a) the following model was proposed.

Dis/satisfaction$_t$ = f_1 (disconfirmation$_t$, performance$_t$, expectations$_{t-1}$)

Attitude$_t$ = f_2 (dis/satisfaction$_t$, attitude$_{t-1}$)

Substituting f_1 into f_2 produces f_3 below equation.

Attitude$_t$ = f_3 (disconfirmation$_t$, performance$_t$, expectations$_{t-1}$, attitude$_{t-1}$)

In words, customer satisfaction is argued to be a function of disconfirmation (unmet expectations), perceptions of service performance, and prior expectations. In turn, customer dis/satisfaction with the service experience is argued to modify prior attitude in some way. Note that "attitude" is synonymous with "quality" in this context. In subsequent empirical testing the expectations component of f_3 was dropped because it was judged unimportant within the particular research context. The remaining function was empirically upheld with perceptions of performance having the largest impact on perceived quality. However, in their later study (*op cit.*, 1991b) disconfirmation was found to have the largest impact on perceived quality. It is worth noting that Bolton & Drew define disconfirmation in terms of subjective disconfirmation rather than inferred disconfirmation. That is, they use "better/worse than expected" type measures rather than subtracting expectations from perceptions (i.e. inferred disconfirmation). This is consistent with suggestions in the attitude literature (Oliver, 1980b; Swan & Trawick, 1981, and Tse & Wilton, 1988).

Cronin & Taylor (1992) also investigated the relationship between satisfaction, service quality, and behavioural intentions. More precisely they empirically tested the causal order. Their original propositions are shown below in schematic form in Figure 2.7.

Figure 2.7 : A Substantive Model of Service Quality: Cronin & Taylor, 1992

```
    ┌──────────────────────────────────────────────────┐
    │                                                  ▼
┌──────────┐        ┌────────────────┐        ┌──────────────┐
│ Dis/     │───────▶│                │───────▶│ Purchase     │
│ Satisfaction │    │ Service Quality│        │ Intentions   │
└──────────┘        └────────────────┘        └──────────────┘
```
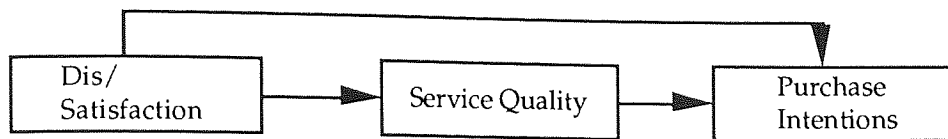
In subsequent empirical testing, however, dis/satisfaction was found not to be an antecedent of service quality evaluations but rather a consequence. Furthermore, only satisfaction was found to be an antecedent of purchase intentions. This contradicts the previous models but is consistent with the suggestion made by Parasuraman *et al* (1985 and 1988). The final model is shown in schematic form in Figure 2.8.

Figure 2.8 : A Substantive Model of Service Quality: Cronin & Taylor, 1992

```
                    ┌────────────────────────────────┐
                    │                                ▼
┌────────────────┐  ┌──────────┐        ┌──────────────┐
│ Service Quality│─▶│ Dis/     │───────▶│ Purchase     │
│                │  │ Satisfaction │    │ Intentions   │
└────────────────┘  └──────────┘        └──────────────┘
```
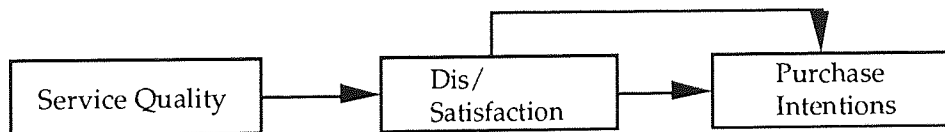
In addition to the above models an exciting new process model has been forwarded by Boulding, Kalra, Staelin, & Zeithaml (1993). First, this model distinguishes between different types of expectations: "will" expectations; normative "should" expectations, and "desired" expectations. Will expectations are simply defined as beliefs or subjective predictions of service performance. Normative should expectations are "what ought to happen" and desired expectations, typical to the work of Parasuraman *et al*, are some ideal standard. Rejecting ideal expectations on the grounds that they are too stable and difficult to manipulate they concentrates their efforts on the previous two types. Specifically, they describe the fundamental functional relationships as following:

$$WE_{ijt} = f_1 \ (WE_{ijt-1}, X_{it}, DS^*_{ijt})$$

where,

WE_{ijt} = consumer i's will expectations for the j'th dimension of service just after experiencing a service contact at time t;

DS^*_{ijt} = transaction specific service delivery to person i at time t;

X_{it} = new information between encounters.

$$SE_{ijt} = f_2 (SE_{ijt-1}, Z_{it}, K_{ijt} \bullet DS^*_{ijt})$$

where,

SE_{ijt} = "should" expectations for the j'th dimension of service just after experiencing a service contact at time t;

Z_{it} = new information between encounters;

K_{ijt} = 1 when $DS^*_{ijt} > SE_{ijt-1}$ or 0 otherwise.

$$PS_{ijt} = f_3 (WE_{ijt-1}, X_{it}, SE_{ijt-1}, Z_{it}, DS^*_{ijt})$$

PS_{ijt} = individual i's *cumulative* perception of service quality on the j'th dimension

That is, drawing on classic attitude theory they assume that both types of expectations are learnt through information and experience. Note that when the term K_{ijt} is operative it has to be greater than 1. This reflects what may be termed a ratchet effect. That is, should expectations might go up but they do not come down. These expectations along with the most recent service experience and information form perceived service quality which is some cumulative construct which captures all previous experiences and information. It is this latter construct which then directly causes behavioural intentions. Significantly, Boulding, Kalra, Staelin, & Zeithaml (1993) offer both experimental and field evidence in support of their conceptualisation. It is worth noting that should and will expectations negatively and positively colour perceived service quality respectively.

2.4.4   Summary and Discussion

From the above review several conclusions might be drawn. First, quality is consistently conceptualised in terms of a multi-attribute attitude. Second, in all of the models service quality is highly complex by nature. Third,

expectations have an all pervasive influence either as a comparison level, adaptation level, or direct causal determinant of attitude.

Although these models share several common constructs their role and causal relationships are far from established. Further, most of the models can offer sound conceptual and/or empirical evidence to show that they are "right". This suggests that much research is outstanding in the area of service quality. However, to date it is the model of Parasuraman *et al* which has attracted most attention. Two reasons are offered for this. First, primarily it was the first model to appear from a systematic research programme into service quality. As a consequence time has been afforded for verification, criticism, and further development. Second, it is conceptually simple and appealing to managers and researchers alike. There follows a review of several important issues relating to the discrepancy conceptualisation of service quality that have arisen over recent years.

Prakash (1984) first criticised the use of gap scores in relation to work carried out in the satisfaction literature. His primary criticism of using discrepancy scores was not conceptual (as it can be justified using a variety of cognitive consistency theories) but rather one of measurement. That is, low reliability scores and low correlations with criterion measures. Babakus & Boller (1991) argue that because Parasuraman *et al's* approach uses desired expectations discrepancy scores are always restricted. That is, desired scores (expectations) are almost always above some current performance level arguably for no other reason than response tendency. This means that discrepancy scores will be dominated largely by current perception scores rendering expectations redundant. This clearly supports a "perceptions only" position favoured by Cronin & Taylor (1992). Indeed, Babakus & Boller (1991) found that perceptions only had a higher criterion correlation than the gap scores (0.66 against 0.59 respectively). Parasuraman, Berry, & Zeithaml (1991b) also found using perceptions only raised adjusted R^2 values from between 0.57 to 0.71 to between 0.72 to 0.81 depending on the service analysed. Babakus & Boller (1991) further argue that discrepancy scores typically yield unstable factor structures from one study to another presumably as a consequence of poor reliability. Bolton & Drew (1991a & b) empirically demonstrate that subjective disconfirmation, perceptions and prior expectations all have an impact on service quality evaluations. In their original study (*op cit.,* 1991a) perceptions were found to have a larger affect than expectations. However, in their subsequent study (*op cit.,* 1991b) disconfirmation was found to have the largest affect. Further, Parasuraman, Berry, & Zeithaml (1991b) refute the reliability

71

problem by noting that studies have consistently shown good alpha scores (Cronbach, 1951). They additionally note that validity checks (concurrent and predictive) on gap scores produce good results.

To conclude, the position with respect to the most "correct" conceptualisation of service quality is highly ambiguous. Both perceptions only and both inferred and subjective disconfirmation have all proved useful conceptualisations for measurement purposes. However, perceptions only usually produces the most powerful conceptualisation when judged on the variance explained in some criterion variable. Still, the additional power is frequently only marginal and the results appear to vary depending on the type of service being evaluated. Additionally gap scores have usually produced good levels of reliability and construct validity on assessment. Similar to Parasuraman, Berry, & Zeithaml (1991b), then, it is concluded that there is insufficient evidence for abandoning the original discrepancy approach to service quality measurement at the present time.

2.5 GENERIC CRITERIA USED IN SERVICE QUALITY EVALUATIONS

2.5.1 Introduction

In this section *"generic"* criteria used by customers in service quality evaluations are described. It will be noted that many of the criteria have been alluded too when discussing evaluations of service more generally in section 2.3. The perspective adopted is, consistent with all the other sections, that of the customer. Consequently, non-visible parts of the service delivery system (i.e. the internal organisation) are not described. In addition, only quality criteria which are *"received"* by the customer are described (i.e. the "get" rather than the "give" components of the service offer). First, two qualitative categories of criteria are briefly discussed. These are broadly described as process and outcome. A further distinction is also made between intangible criteria and tangible criteria. Within this framework service quality criteria are reviewed and categorised accordingly. Finally, SERVQUAL, a multiple-item scale developed by Parasuraman *et al* is discussed in more depth.

Categories of Quality Criteria

Gronroos (1982 and 1984) and Lehtinen & Lehtinen (1982 and 1991) were among the first to propose categories of quality criteria. Gronroos proposed three categories: technical, functional, and image. However, image is better regarded as a quality dimension in its own right rather than a category (Gronroos, 1984). Technical quality is defined as the *outcome* of the production process i.e. *what* is received by the customer. Functional quality, on the other hand, is defined as *how* the customer gets the technical outcome. Lehtinen & Lehtinen (1982) first proposed a three dimensional approach to quality categories: physical quality (i.e. physical elements of service); corporate quality (i.e. image or profile), and interactive quality (i.e. human and human-object interactions). This approach was later described as an *organisational* view of quality, a customer orientation being additionally described in 1991. This latter approach possessed two categories: process and output. Clearly, this corresponds closely to the technical and functional distinction made by Gronroos (1982 and 1984). Lehtinen & Lehtinen (1991) also argue these categories are more abstract than their three dimensional counterparts because they reflect the customers' perspective. "Process" here is regarded as the subjective judgement of the service customers' experience. "Output" is the customers evaluation concerning the *results* of the service production process. Evardsson, Gustavsson, & Riddle (1989) propose four broad categories of criteria: technical, integrative, functional, and outcome. Technical criteria are defined as relating to the skills of service personnel and the general design of the service system. Integrative criteria, alternatively, simply refers to the ease with which different parts of the service are delivered. Functional criteria are regarded as including all aspects of the manner in which the service is delivered to the customer. Finally, outcome criteria is a category which relates the service meeting the customers needs. More recently Kelley, Donnelly, & Skinner (1990) extended the original notion of technical and functional quality of provider delivery to include the customers' delivery also. Therefore, customers are viewed as contributing to overall service quality via their technical and functional contribution to the provider.

To conclude, it is apparent that two conceptual categories of criteria are most pervasive in relation to service quality evaluations: these are termed process (i.e. "how") and outcome (i.e. "what"). Service quality criteria are described under these headings below. A further distinction is also made between intangible criteria and tangible surrogates. In section 2.3 (2.3.4.2.3 and 2.3.4.2.4) it was noted customers use tangible clues to help in the evaluation of service.

This is therefore proposed as a further useful categorisation in the explication of service quality dimensions. Whilst no claim is currently made as to the empirical veracity of such a categorisation two empirical studies do support the position. First, Babakus & Boller (1991) found a two dimensional factor structure when analysing SERVQUAL gap scores (see later review): intangibles and tangibles. They explained this finding by essentially arguing that mixed item wording (i.e. negatively and positively stated wording) had corrupted the analysis. However, using only positively worded statements Foreman, Pitt, & Nel (1993) found an almost identical structure. This suggests that such a distinction might be worthwhile.

2.5.3　　　Qualitative Dimensions

2.5.3.1　　　Process Quality Criteria

2.5.3.1.1　　　*Intangible Criteria*

Albrecht & Zemke (1985, pp185-159) described a study by British Airways into service quality in which the following four criteria were found to be important.

(1)　　Care and concern　staffs' friendliness, courtesy, warmth etc.;

(2)　　Problem solving　finding solutions to customers' problems (both routine and non-routine);

(3)　　Initiative　ability and willingness of staff to solve problems in an imaginative and flexible manner, and

(4)　　Service recovery　ability to deal with service failures quickly and effectively.

Service recovery is an interesting but also an often ignored criteria which might be used by customers in evaluating quality (see Gronroos, 1988 also). Intuitively one might suppose that service failure denotes inherently poor

quality. However, it would appear that customers might expect that sometimes things will go wrong. Hart, Heskett, & Sasser (1990, p148) argue,

"A good recovery can turn angry, frustrated customers into loyal ones. It can, in fact, create more goodwill than if things had gone smoothly in the first place."

Surprenaut & Solomon (1987) argue that the degree of personalised service will also affect quality evaluations. Personalisation is defined as (*op cit.*, p87),

"any behaviours occurring in the interaction intended to contribute to the individuation [i.e. personal differentiation] of the customer".

However, it should be noted that personalisation has to be *appropriate* to the type of service being offered otherwise a negative impact on evaluation might occur. They argue that personalisation is roughly analogous to the courtesy, communication and understanding dimensions presented by Parasuraman, Zeithaml, & Berry (1985) (see below). However, they went on to describe three related personalisation concepts. First, "option" personalisation was described which refers to the ability of customers to choose from a set of service possibilities (e.g. a menu). Second, "programmed" personalisation was described which refers to some pro forma of service staff behaviours towards the customer (e.g. greeting, smiling etc.). Third, "customised" personalisation was described which refers to the "true" shaping of the service to meet the customers needs. Bitner, Booms, & Tetreault (1990) in a critical incident study also found that specific interaction behaviours by front-line staff had a major impact on subsequent evaluations.

Parasuraman, Zeithaml, & Berry (1985) have perhaps presented the most comprehensive and robust list of quality criteria. After a series of focus groups and executive interview the following intangible process criteria were found.

(1)   Responsiveness   the willingness and readiness of staff to provide the service;

(2)	Access	the approachability and ease of contact with service staff;
(3)	Courtesy	involves politeness, respect, considerations and friendliness of personnel;
(4)	Communication	means keeping customers informed in a language they can understand and also listening to them;
(5)	Security	freedom from danger, risk, or doubt, and
(6)	Understanding	knowing what the customer needs and providing individualised attention.

Both Gronroos (1988) and Johnston, Silvestro, Fitzgerald, & Voss (1990) in their reviews of the literature present dimensions entirely consistent with these and will not be repeated. Further, it will be noted that previous criteria (personalisation, problem solving, initiative et cetera) can all be subsumed under the dimensions above.

2.5.3.1.2   *Tangibles*

"Tangibles" are intimately linked to the process category via the service delivery environment and interaction cues. The use of tangible surrogates to evaluate quality is entirely consistent with the service marketing literature (again, see sections 2.3.4.1.3 and 2.3.4.2.4). Bitner (1990), drawing on the environmental psychology literature, describe three environmental dimensions which could be used in service quality evaluations. These were ambient conditions (e.g. temperature, air quality etc.); spatial layout and functionality (i.e. layout of premises, equipment etc.), and signs, symbols, and artefacts (e.g. company signage, style of the decor etc.). Parasuraman, Zeithaml, & Berry (1985) also proposed that "tangibles" would be used in service quality evaluations. This they defined as the physical evidence of the service which might be dichotomised as physical manifestations (i.e. equipment and physical facilities) and company interaction (i.e. employees and communication materials) (Parasuraman, Berry, & Zeithaml, 1991b).

2.5.3.2   Outcome Quality Criteria

2.5.3.2.1   *Intangible Criteria*

Parasuraman, Zeithaml, & Berry (1985) found ten dimensions in total in their exploratory study. In addition to those noted reliability and competence were found to be useful dimensions. Reliability refers to an organisation's ability to consistently perform to a particular standard. Competence on the other hand refers to staff possessing the required skills and knowledge to perform the service. These are classified as outcome dimensions for the following reasons. First, it is argued that reliability is a broad concept. At the basic level it might be seen to simply relate a member of staff calling a customer when they said they would. However, it might also relate to a complete withdrawal of the *core service*. For example, if a train is cancelled it might well render the "core service" promise (i.e. transporting the customer from A to B by 10 a.m.) completely useless. This clearly goes beyond the bounds of simply process to outcome (i.e. what you get) and is therefore classified accordingly whilst recognising that some process elements might be germane. Second, competence is classified by Gronroos (1988) as an outcome dimension. It is difficult to envisage situations when better staff knowledge and skills would not impact the outcome of the service. The professions, for example, are replete with such examples. Consequently, it is classified as an outcome criteria

Another dimension used to evaluate service quality is an organisation's image or reputation (Berry, Lefkowith, & Clark, 1988 and Shostack, 1977). Gronroos (1988) argued that reputation and credibility (i.e. image) were important quality dimensions. That is, an organisation stands for good performance and can be trusted. Parasuraman, Zeithaml, & Berry (1985) similarly describe credibility as a quality dimension whilst subsuming trustworthiness and company name/reputation under this label. Again, whilst it is recognised that a company's reputation might well be enhanced by process elements it is proposed to be closest to have its most important influence on outcome elements.

2.5.3.2.2 *Tangibles*

When discussing goods, services, and products (section 2.3.2) it was noted that whilst services are essentially intangible their benefits might be tangible. "Benefits" are directly associated with "core services" or the driving motive(s) for purchasing from a given service class. This suggests that reliability, under certain circumstances, possesses both intangible and tangible elements. As a consequence reliability is also classified as a "tangible outcome". Note that this conceptualisation goes beyond the typical view adopted by the literature i.e. that tangibles are surrogate cues only. That is, tangible cues can be intimately linked to the service itself. Also note that this conceptualisation views a service as a complex blend of service attributes where an "attribute" might also be a benefit.

2.5.4 Empirical Dimensions

Parasuraman *et al* (1988) made the first empirical investigation into service quality criteria. Using the ten qualitative dimensions presented in 1985 as a base they developed a rigorous five dimensional scale labelled SERVQUAL. The five dimensions were the result of several of the original ten dimension combining in the manner suggested by Figure 2.9 below.

Figure 2.9 : Empirical Combining of Qualitative Dimensions

QUALITATIVE DIMENSIONS
(Parasuraman, et al 1985)

QUANTITATIVE DIMENSIONS
(Parasuraman, et al 1988)

Tangibles	→	Tangibles
Reliability	→	Reliability
Responsiveness	→	Responsiveness
Communication, Credibility, Security, Competence, Courtesy	→	Assurance
Understanding, Access	→	Empathy
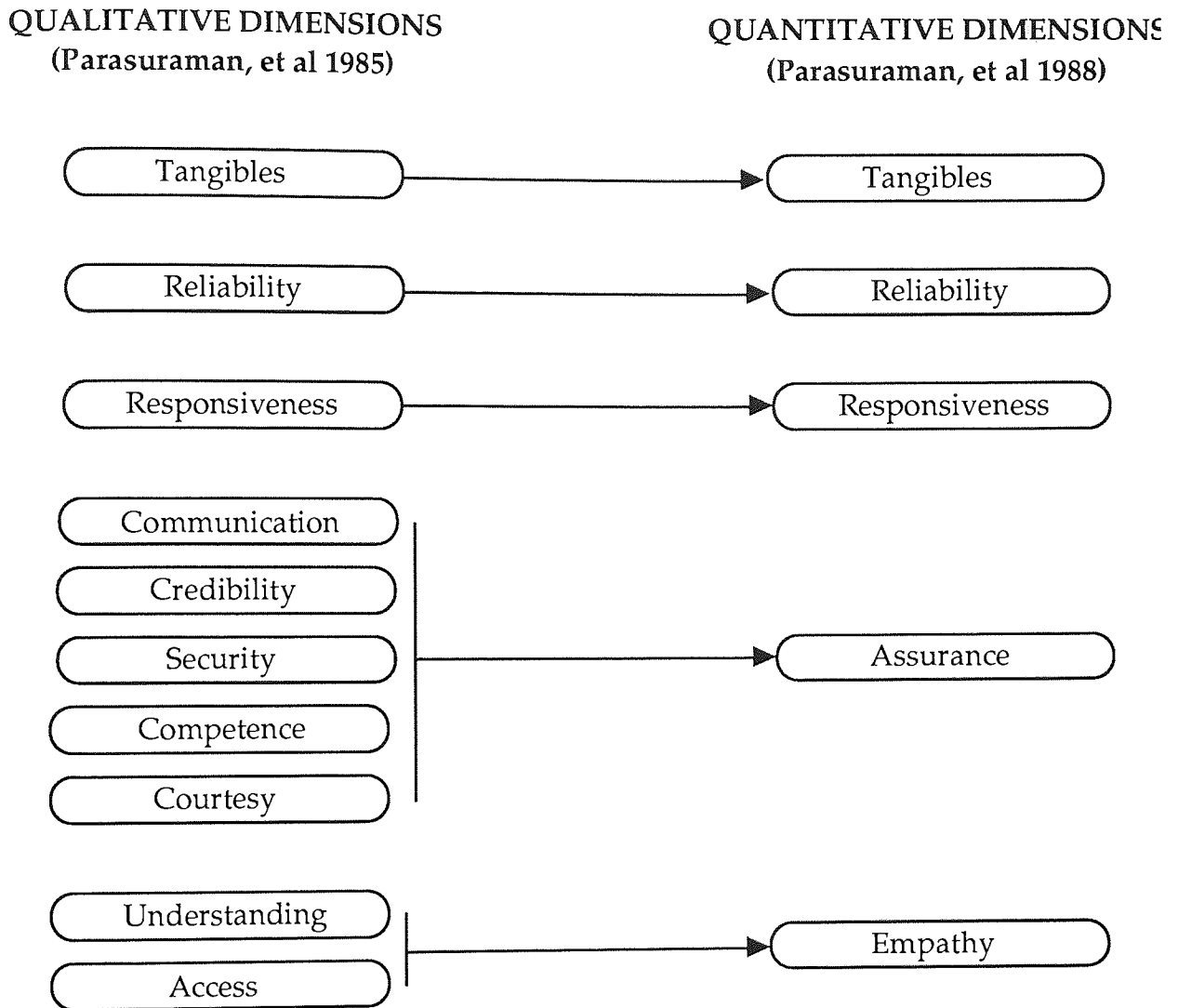
Here, assurance refers to the knowledge and courtesy of staff and their ability to inspire trust and confidence. Empathy, the other "new" dimension, refers to the ready provision of a caring and individualised service (Parasuraman, Zeithaml, & Berry, 1988). The other dimensions retained their original meanings. SERVQUAL items are provided for reference in Appendix 2.1.

The development of SERVQUAL has attracted a great deal of researcher attention which has led to a series of replication studies into the validity of the scale (Babakus & Boller, 1991; Carman, 1990; Finn & Lamb, 1991; Foreman, Nel, & Pitt, 1993 and Parasuraman, Berry, & Zeithaml, 1991) and the consideration of broader operational issues (e.g. Lewis & Mitchell, 1990). Carman (1990) found tangibles, reliability, security, and access in all three services he investigated (a tire store, job placement centre, and dental clinic) and also found responsiveness and courtesy in some. This led him to conclude that the

dimensions presented by Parasuraman *et al* were "impressive" (*op cit.*, p50) though not entirely generic. Babakus & Boller (1990), consistent with Carman, failed to confirm the five dimensional structure of the original SERVQUAL scale and concluded the structure was at best very weak. As noted previously the most viable solution was found to be a two dimensional structure which might be labelled tangibles and intangibles (for gap scores). Finn & Lamb (1991) and Cronin & Taylor (1992) also failed to confirm the five dimensional structure of SERVQUAL the latter study finding a unidimensional scale with an exploratory analysis similar to Brown, Churchill, & Peter (1993). Parasuraman, Berry, & Zeithaml (1991) replicated the five dimensional structure originally proposed with the slight modification that tangibles might be seen to split into two dimensions. Foreman, Nel, & Pitt (1993) found two possible solutions to their application of SERVQUAL. The first, similar to Babakus & Boller (1990), was a two dimensional structure identified as intangibles and tangibles (also previously noted). The second solution was a four dimensional structure produced by responsiveness and assurance combining. Other dimensions remained distinct.

In order to interpret these findings attention must be drawn to the method of analysis used in the respective studies. Essentially three different approaches can be identified. First, some investigations relied on extracting five *a priori* constrained factors (Foreman, Nel, & Pitt, 1993; Parasuraman, Zeithaml, & Berry, 1988 and Parasuraman, Berry, & Zeithaml, 1991). The results produced by this approach are certainly the most impressive reported. However, studies using the eigenvalue criterion of factor extraction (Foreman, Nel, & Pitt, 1993 and Carman, 1990) fail to re-produce the five dimensional structure originally reported. The structures are between two and six and eight respectively. Finally, the studies of Babakus & Boller (1990), Finn & Lamb (1991), and Cronin & Taylor (1992) adopted the more stringent method of confirmatory factor analysis using the LISREL model (Joreskog & Sorbom, 1986). In all three instances the five dimensional model fit was poor and not confirmed. Given that confirmatory factor analysis is the most appropriate method of analysis for a well developed construct it must inevitably be concluded that the five dimensional structure is not robust across services. Similar to Babakus & Boller (1990, p264) it is additionally concluded that the empirical dimensions of the service quality construct is a function of the type of service investigated.

2.5.5   <u>Summary and Conclusions</u>

It has been shown that there are several approaches to categorising and describing generic service quality criteria. At one level a distinction may be drawn between outcome and process criteria as well as intangible and tangible criteria. Although the literature suggests different types of qualitative criteria exist only Parasuraman *et al's* were based on a systematic and formal research effort. Alternative propositions can be subsumed under their comprehensive and robust ten dimensional conceptualisation. Table 2.2 summarises the position developed in this section.

Table 2.2 :   A Summary of Generic Qualitative Service Quality Dimensions

	Process Criteria	Outcome Criteria
Intangible	• Responsiveness • Access • Courtesy • Communication • Security • Understanding	• Reliability • Competence • Credibility
Tangible Surrogates	• "Tangibles" (including physical manifestations and interaction criteria)	• Reliability • Competence • Credibility

In addition to the criteria above five empirical criteria have been proposed as generics'. However, these have repeatedly remained unverified in rigorous confirmation studies. Empirical dimensions are therefore viewed as a function of the type of service under consideration.

2.6 SERVICE QUALITY EXPECTATIONS

2.6.1 Introduction

This section reviews the concept of service quality expectations and their suggested determinants.

2.6.2 The Concept of Service Quality Expectations

When referring to the expectations construct researchers have frequently failed to adequately define the concept despite arguing its importance to service quality evaluations (e.g. Gronroos, 1982 & 1984 and Lewis & Booms, 1983). Furthermore, no standard or "accepted" definition permeates the literature either at the conceptual or operational level.

Parasuraman, Zeithaml, & Berry (1988) whilst accepting the notion of perceived quality as "excellence" (*op cit.*, p15) operationalise service quality expectations as what the service provider feels "should" be offered (*op cit.*, p17). This contrasts to satisfaction based expectations which they view as being operationalised as what "will" occur (*op cit.*). In short service quality expectations are conceptually anchored in "desires" whereas satisfaction based expectations are anchored in "predictions" of performance (*op cit.*). However, in a later paper Parasuraman, Berry, & Zeithaml (1991a) describe the desired level of expectations (i.e. service quality expectations) as a blend of what a service "can be" and what a customer feels "should be" (*op cit.*, p412). Note that although the concept remains the same (desires) what may be regarded as the operational terms are extended to include a new "type". Later in the same year Parasuraman, Berry, & Zeithaml (1991b) operationalise the expectation construct in terms of "what an *excellent* company *will* deliver".

Boulding, Kalra, Staelin, & Zeithaml (1993: see section 2.4.3.3.2 also) suggest two types of expectations are related to the service quality construct: "will" and "should" expectations. However, the "should" standard is distinguished from the corresponding concept used by Parasuraman *et al* by defining it in terms of what "ought to happen" or what customers feel they "deserve". However, they operationalised the "should" concept in their first study by asking

respondents what they consider "reasonable" or "should be provided". Subjects were asked to respond on a scale anchored by "poor" and "excellent". In their second study using adapted SERVQUAL items they operationalise their "should" expectations in an identical format to the original SERVQUAL instrument. It is far from clear how such an approach could empirically distinguish between "desired" expectations and "deserved" expectations and their results must be interpreted in that light.

Several roles have been suggested in the literature for service quality expectations. Originally, it was suggested service quality expectations act as a comparison standard in quality judgements (see section 2.4.3.1). More recently it has been suggested they act both as an adaptation level and a causal determinant of performance perceptions (Boulding, Kalra, Staelin, & Zeithaml, 1993). However, it has also been suggested that they are best ignored from an evaluative perspective (Cronin & Taylor, 1992). It should be noted that expectations as comparison standards, adaptation levels, and performance determinants are not mutually exclusive concepts (Oliver, 1977, 1980b & 1981).

To conclude, the concept of service quality expectations remains ambiguous in the literature due to multiple conceptual and operational definitions and insufficient delineation from the satisfaction construct. Furthermore, the role of expectations in the evaluation of quality remains unclear.

2.6.3   Determinants of Service Quality Expectations

Determinants of expectations received only the most cursory of treatments in the 1980's (Gronroos, 1984 and Parasuraman, Zeithaml, & Berry, 1985). However, in the early 1990's more attention has been paid to defining and proposing their possible determinants (Berry & Parasuraman, 1991; Boulding, Kalra, Staelin, & Zeithaml, 1993; Parasuraman, Berry & Zeithaml, 1991 and Zeithaml, Berry, & Parasuraman, 1993). The integrated service quality model presented by Brogowicz, Delene, & Lyth (1990) summarises the proposed determinants of expectations in the 1980's service quality literature. They distinguish between external influences, traditional marketing activities, and corporate image. The term "external influences" refers here to external to the corporate entity or their control. It includes word-of-mouth, culture, social structure and exposure to media and competition, and also includes personal needs and past experiences. Marketing activities includes the usual

advertising, public relations, personal selling, pricing, sales promotion and so on. Company image is left largely undefined. Lewis (1991) found significant differences existed between expectations of bank users in the United States and bank users in Britain. Riddle (1992) also proposed that cultural values was an important influence on service expectations. This suggests that culture, consistent with the model presented by Brogowicz, Delene, & Lyth (1990), might be an important determinant of expectations.

A more grounded and detailed set of propositions linking determinants to categories of desired and adequate expectations is also currently afforded by the literature (Berry & Parasuraman, 1991; Boulding, Kalra, Staelin, & Zeithaml, 1993; Parasuraman, Berry & Zeithaml, 1991a and Zeithaml, Berry, & Parasuraman, 1993). These are now considered.

2.6.3.1   Desired Expectations

Boulding, Kalra, Staelin, & Zeithaml (1993) offer the only empirical support for determinants of service quality expectations. Whilst noting that Boulding *et al* distinguish between their "should" and "desired" expectations experimental manipulations suggests that competitor information will affect desired expectations. On the basis of focus groups Zeithaml, Berry, & Parasuraman (1993) propose the following determinants.

(i)   *Enduring service intensifiers-* variables which intensify or raise customer expectations on an ongoing basis. Intensifiers include "derived" expectations(e.g. business customers purchasing for their company) and personal service philosophies;

(ii)   *Personal needs-* customer-specific variables which are defined in broad terms to include physical or psychological well-being.

2.6.3.2   Adequate Expectations

Again Boulding, Kalra, Staelin, & Zeithaml (1993) offer the only empirical support for determinants: word-of-mouth and "expert" information. Note this was in relation to "will" or predictive expectations which may be taken as

analogous to adequate expectations for the purpose of this review. Zeithaml, Berry, and Parasuraman (1993) propose four further factors.

(i)   *Transitory service intensifiers-* temporary individual factors which might increase a customer's sensitivity to the service e.g. personal emergency;

(ii)   *Perceived service alternatives-* the extent to which customers feel they can seek alternative but equivalent services elsewhere i.e. perceived choice;

(iii)   *Self-perceived service role-* the degree to which customers' believe they influence the service outcome;

(iv)   *Situational factors-* this reflects service performance contingencies that customers regard as beyond the reasonable control of the service provider e.g. the weather.

2.6.3.3   Dual Determinants

In addition to those variables which might be seen to influence either desired or adequate expectations some variables influence both. Boulding, Kalra, Staelin, & Zeithaml (1993) empirically demonstrate that word-of-mouth communications determine both "should" and "will" expectations. However, word-of-mouth had a weaker affect on "should" expectations. Zeithaml, Berry, & Parasuraman (1993) propose the following dual determinants.

(i)   *Explicit service promises-* the more traditional notion of company marketing communications (e.g. advertising, personal selling);

(ii)   *Implicit service promises-* cues from which the customer might infer expectations e.g. price and tangibles;

(iii)   *Word-of-mouth-* communications by parties other than companies i.e. personal sources (e.g. friends) and "expert" sources (e.g. consumer reports);

(iv) *Past experiences-* broadly defined in terms of any direct customer experience with relevant services.

2.6.3.4 Summary and Conclusions

The proposed determinants of service quality expectations summarised by Brogowicz, Delene, & Lyth (1990) are seriously deficient. The expectation construct remains undefined and proposed determinants are all but totally unsubstantiated. The determinants presented by Zeithaml, Berry, & Parasuraman (1993) has intuitive appeal and represents the only comprehensive attempt to develop our understanding of expectations. However, no empirical grounding is offered and the conceptual development and delineation of determinant variables is sparse. Boulding, Kalra, Staelin, & Zeithaml (1993) present the only empirical evidence in support of proposed determinants. However, evidence was restricted to only three communication variables. In addition due to the ambiguous nature of the service quality expectation construct some doubt remains as to what precisely is being determined. It should also be noted that the model presented by Zeithaml, Berry, & Parasuraman (1993) pays little attention to the dynamics of expectations. However, Boulding, Kalra, Staelin, & Zeithaml (1993) suggest additional information and service experiences will change expectations (see section 2.4.3.3.2 for an elaboration on this point).

2.7 OPPORTUNITIES FOR CONTRIBUTIONS TO MARKETING SCIENCE

The previous review has shown that the concept of service quality is not an idiosyncratic notion restricted to the service marketing literature but is rather highly consistent with that of a wider body of quality literature. Indeed, it might well be seen as a natural and logical development *from* that literature Furthermore, the concept of service quality clearly draws on the service marketing literature in a rather integrative manner. Over more recent years substantive models of service quality have been presented making precise and verifiable propositions. However, a great deal of research is needed to investigate a whole range of fundamental questions. For example, what is the precise causal pattern between the satisfaction and service quality constructs ? How do customer notions of satisfaction, service quality, and value interact to determine behaviour ? If service quality *is* an attitude then how is it best

measured (is a multiplicative expectancy-value conceptualisation worth considering ?) ?

Amongst the large number of potential research projects relating to service quality the concept of expectations was selected for the basis of this thesis. Whilst service quality evaluations have attracted a great deal of attention, particularly model building and empirical testing, the conceptual development and empirical work surrounding the expectation construct is relatively impoverished. Indeed, only two papers are noteworthy in the literature and both fail to address the phenomena adequately[1]. Given the central role of expectations to substantive models of service quality and the potential expectations management offers to practitioners this imbalance needs to be redressed. The object of this thesis, then, is to contribute to our understanding of service quality expectations through developing a deeper understanding of their nature, determinants, and dynamics[2].

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1 These papers are Zeithaml *et al* (1993) and Boulding *et al* (1993) respectively.
2 It should be noted the conceptual work surrounding this thesis had matured by early 1992 and the fieldwork commenced by Easter that year. As a consequence much of the reviewed service quality literature was not available to the researcher at that point in time. However, recent developments have been largely supportive of the concepts and approaches adopted in this thesis and confirms the importance of the subject matter. Developments since the inception of the research have been integrated into the thesis as much as reasonably possible. Chapter 8 makes explicit distinctions between recent work and the findings reported in this thesis.

CONCEPTUAL DEVELOPMENT OF RESEARCH ISSUES

3.1   INTRODUCTION

The purpose of Chapter 3 was to develop and conceptually explore the three research issues by drawing on a variety of literature's. This eclectic approach was adopted as a heuristic and was judged necessary because of the limited and ambiguous literature surrounding the service quality expectations concept.

Each research issue is treated separately. First, the nature of service quality expectations is explored and distinguished from other concepts. Then, the relationships between two proposed categories of service quality expectations, generic and service-specific, are stated. On the basis of this discussion a basic model framework is proposed. Second, determinants of service quality expectations are proposed by synthesising work from the service marketing, satisfaction, and attitude literature's. Integrating the nature and determinants discussions a model of service quality expectations is then presented. Issues relating to the dynamics of service quality expectations are then explored and hypotheses made. Finally, Chapter 3 is summarised and conclusions drawn.

3.2   THE NATURE OF SERVICE QUALITY EXPECTATIONS

3.2.1   Introduction

This section describes and develops the concept of service quality expectations by drawing heavily on the extant service quality literature. Service quality expectations are then delineated from other types of expectations paying particular attention to those used in satisfaction evaluations. Descriptive categories of service quality expectations are subsequently presented and a key relationship proposed.

3.2.2 <u>The Concept of Service Quality Expectations</u>

Expectations have been conceptualised at the desired, deserved, adequate, and predicted levels. Further, these "anchors" have been operationalised and further described as what "will be", "should be", "can be" and "ought to be" in addition to what is "excellent" or some blend thereof (see section 2.6.2). Suggested roles for service quality expectations have been a comparison level, adaptation level and causal determinant of performance perceptions (again, see section 2.6.2). The purpose of this section is to argue that service quality expectations are best conceptualised in terms of some normative "excellence" benchmark. It is further proposed that this concept is empirically robust across several operationalisations. Assumptions arising from the literature review are first presented and discussed.

3.2.2.1 Major Assumptions from the Literature Review

From the outset it is assumed that services differ from goods (see section 2.3). Consequently expectations are primarily discussed throughout this study in relation to services only i.e. the service component of products. Furthermore, expectations are discussed in relation to the limited sphere of the non-business customer (i.e. the consumer).

Service quality has been defined as a customer's judgement of service superiority or excellence which is not unlike an attitude towards a company (see section 2.4.2.). Consistent with the literature this approach is adopted. Furthermore, it is assumed that customers evaluate a company's quality of service by comparing perceptions of performance against some common expectancy level (see section 2.4.3.1). Whilst acknowledging alternative conceptualisations are viable it is apparent evidence proposing a perceptions only approach is ambiguous. Furthermore, the use of discrepancy scores is empirically and conceptually pervasive throughout the literature. Similar to Parasuraman, Berry, & Zeithaml (1991b & 1993), then, given the ambiguous findings in the literature and the superior diagnostic power of a discrepancy conceptualisation of service quality a "gap" approach is adopted. Note underlying this assumption is that expectations and performance perceptions are deemed to lie along the same dimensions (Parasuraman, Zeithaml, & Berry, 1985). In addition, the discrepancy construct is taken to represent a separate and reasonably distinct construct from both expectations and

89

perceptions (e.g. Brown, Churchill, & Peter, 1993). One consequence of this assumption is that expectations used in service quality evaluations can only be "known" via gap scores. The observation that factor structures of expectations and perceptions sometimes differ demonstrates the importance of this assumption (e.g. Babakus & Boller, 1992).

Another assumption concerns the "level" at which service quality evaluations take place. Implicit in several consumer behaviour models (Engel, Blackwell & Miniard, 1991; Fisk, 1981; Howard & Sheth, 1969) is that customers have the capacity to learn and generalise from one consumption experience to another. Generalisations might often be envisaged to take place in relation to a certain class of product or service (Howard & Sheth, 1969, p26). Consistent with this underlying theory it has been proposed that quality is evaluated either at the product class or category level (see section 2.2.2.2). The approach adopted by Parasuraman *et al* when developing SERVQUAL was also to regard service quality assessments at the general class level. In relation to satisfaction Wilton & Nicosia (1988) argue evaluations take place at the class level, each class representing a different level of involvement. Woodruff, Cadotte, Jenkins (1983, p301) also propose that,

"the relevant product class necessarily dictates the experiences upon which a consumer can draw to form a standard for evaluating focal brand performance".

Consistent with this literature it is assumed service quality evaluations take place at the service class level. Note any situation or company-specific criteria are therefore inconsistent with the service quality concept (see 3.2.3.2, 2.2.2.2, 2.4.2, and other relevant sections).

Finally, it is assumed that the ten generic dimensions offered by Parasuraman, Zeithaml, & Berry (1985) are robust across service sectors and provide an adequate framework for conceptualising service quality criteria (see section 2.5). As Zeithaml, Parasuraman, & Berry (1990, p20) themselves comment,

"We are confident that the set of ten general dimensions of service quality is exhaustive and appropriate for assessing quality in a broad range of services. Even though the *specific* [their italics] evaluative criteria may vary from

service to service, the general dimensions underlying those criteria are captured by our set of ten".

3.2.2.2   Service Quality Expectations

Conceptualising service quality as an attitude has at least three important consequences. First, evaluations of service quality are seen as global judgements which span multiple encounters (Brown & Swartz, 1989; Cronin & Taylor, 1992, and Parasuraman, Zeithaml, & Berry, 1988). Second, they are seen as relatively enduring evaluations (*op cits.*). Third, they are typically conceptualised with respect to disconfirmation against desires (Parasuraman, Zeithaml, Berry, 1988 and Zeithaml, Berry, & Parasuraman, 1993). Researchers have long drawn distinctions between situationally oriented evaluations and more general ones typically labelling the former satisfaction and the latter service quality (Bitner, 1990; Bolton & Drew, 1991a; Holbrook & Corfman, 1985; Oliver, 1981; Olshavsky, 1985). However, recently the notion that some desired level of expectations is inappropriate to the service quality construct has been forwarded (Boulding, Kalra, Staelin, & Zeithaml, 1993: see sections 2.4.3.3.2 and 2.6.2 for elaboration). That is "deserved" expectations and "will" expectations are argued more appropriate. Both of these expectation types are refuted as *comparison levels* relevant to the service quality construct in this thesis. Deserved expectations can only be properly assessed when an individual takes their "investments" into account (Miller, 1977, p76/7). Not only does this raise serious measurement problems about this type of expectation but it is problematic to delineate them from equity levels commonly associated with satisfaction evaluations (e.g. Oliver & Swan, 1989a & b). In addition, as Miller (1977, p77) rightly notes "investments" might include being caught in traffic jams on the way to a shop. Such an occurrence is situation specific and not related to a service attribute which makes it conceptually incompatible with the service quality concept. Further, "will" or predictive expectations are also situationally oriented and more commonly associated with satisfaction evaluations (see section 3.2.3.2 for an elaboration).

Boulding, Kalra, Staelin, & Zeithaml (1993, p8/9) criticise a desired standard on conceptual grounds. They argue that because it is associated with an ideal standard it is unrelated to what is either reasonable or feasible. In addition, it is seen to represent an enduring want which might remain unaffected by exposure to marketing or competitor communications and experiences. The desired standard has also been additionally criticised from a measurement

perspective (see section 2.4.4). However, the concept of desired expectations was not intended to capture unrealistic desires. Parasuraman, Zeithaml, & Berry (1988) originally derived the concept from experienced-based norms or "should expectations" (Woodruff, Cadotte, & Jenkins, 1983). This benchmark was described in the following manner (*op cit.*, p298).

"Experiences beyond those with the focal brand raise the possibility that different kinds of standards can be used to evaluate performance. More specifically, breadth of experience may cause consumers to form norms or standards that establish what a focal brand *should* [their italics] be able to achieve. These norms are constrained by the consumer's experiences with real products and brands and, thus, are not likely to be unattainable ideals".

Indeed, there would appear to be two distinct usage's of the term "ideal" in the literature. One is a Utopian meaning being grounded in everything that is "imaginable" and "most desired" by a respondent (e.g. Boulding, Kalra, Staelin, & Zeithaml, 1993 and Oliver, 1980a). Second, it is used to reflect everything that an individual would hope for given their experiences (Cadotte, Woodruff, & Jenkins, 1987 and Tse & Wilton, 1988).

The use of desired expectations in any Utopian sense described above was rejected in this study because it is incompatible with the service quality concept (i.e. grounded excellence). The expectation construct associated with service quality evaluations is labelled "service quality expectations" in this thesis and refers to a normative standard of service excellence. The "excellence" operationalisation is conceptually favoured for several reasons. First, it has remained unused in the satisfaction literature despite its proposal as a normative standard (Cadotte, Woodruff & Jenkins, 1987). This avoids qualitatively confusing service quality with the satisfaction construct. Second, it is consistent with the definition of perceived service quality adopted for this study (i.e. excellence). Third, as a normative benchmark, it transcends any specific consumption situation or brand which is again more consistent with the approach adopted in this study. Fourth, companies concerned with gaining competitive advantage in their service provision must be identified as delivering superior service *vis a vis* the service class.

Whilst proposing expectations of "excellence" as a conceptual standard it is further argued that this benchmark relates to a broader category of expectations

i.e. desires or "high" expectations. It is therefore hypothesised that "high" expectations are practically robust to several operationalisations most notably the "should" and "excellence" expectations discussed here and proposed by Parasuraman, Berry, & Zeithaml (1991b). In way of summary the following Hypothesis is made.

H 1 : The concept of service quality expectations is robust across several operational definitions of "high" or "desired" expectation levels

3.2.3   The Delineation of Service Quality Expectations from Related Concepts

3.2.3.1   Goods Expectations

It has been assumed that goods differ in several important ways from services. At the most fundamental level service products almost always involve human interactions (see section 2.3.3). This is most clearly identified in the service encounter literature where customers are thought to attach certain expectancies to the *behaviours* of those involved in dyadic or polyadic encounters (e.g. Solomon, Surprenaut, Czepiel & Gutman, 1985 and Surprenaut & Solomon, 1987). Role expectations are singularly unique to the service component of products and their inclusion in quality evaluations can be used to partly delineate service quality expectations from those associated with goods. This leads to the following hypothesis.

H 2 : Service quality expectations can be partly delineated from goods' quality expectations because they incorporate role expectations

3.2.3.2   Satisfaction Expectations

Although several constructs have been linked to satisfaction (Tse, Nicosia & Wilton, 1990) the expectancy-disconfirmation paradigm has dominated the literature (Engel, Blackwell, & Miniard, 1990; LaTour & Peat, 1979; Olshavsky & Miller, 1972; Olson & Dover, 1979; Oliver, 1977; Swan & Trawick, 1980; Tse & Wilton, 1988, and Woodruff, Cadotte & Jenkins, 1983). This paradigm states

93

that customer satisfaction/dissatisfaction (CS/D) is an individual's response to comparing the perceived performance of a product or service against some pre-consumption standard. This paradigm is clearly closely related to that used in explaining service quality evaluations and therefore needs to be delineated. This is achieved by first noting the temporal orientation of the satisfaction and quality constructs. Then, proposed comparison standards relating to satisfaction are discussed and delineated from the quality standard.

Satisfaction has been defined as some (Oliver, 1981, p27),

"evaluation of the surprise inherent in a product acquisition and/or consumption experience".

It was also proposed that any surprise rapidly decays into an overall attitude (Oliver, 1981). Later, studies identified the "overall attitude" as "quality" such that satisfaction is seen to be a situational antecedent of service quality judgements (see section 2.4.3.3.2). In sum, satisfaction has a situational orientation whereas quality has a cumulative more global orientation. By extension, it is proposed that the comparison standard used in satisfaction evaluations is also more situationally oriented and lacks persistence relative to norms of excellence.

Two main groups of satisfaction expectations can be distinguished in the literature: classic and complex. Olson & Dover (1979) conceptualise satisfaction expectations as pre-trial beliefs about a product. In other words, expectations are proposed to be some subjective probability of a product-attribute association. In this sense expectations are not seen to differ from attitudinal beliefs (Fishbein & Ajzen, 1975). This approach of viewing expectations at some level of *predictive* performance was incorporated into much of the early work on satisfaction particularly that of Oliver (e.g. 1979 and 1980a & b). Furthermore, it has continually been recognised as a distinct "type" of expectation (e.g. Prakash, 1984; Swan & Trawick, 1980 & Summers & Granbois, 1977) and is described here as classic satisfaction expectations. An often overlooked feature of predictive expectations is that they will generally represent at least an adequate level of performance. As Swan & Trawick (1980, p7) note,

"It does not seem reasonable to suppose that if a consumer expected a product to perform poorly and it did so, that the consumer would be satisfied".

Further, Howard & Sheth suggest (1969, p147/8),

"the buyer admits into his evoked set only those brands that offer him adequate expected satisfaction".

Thus, there would appear an implicit assumption that in clear markets (i.e. markets where significant choice alternatives exist) a customer will not be motivated to purchase an "inadequate" brand. As such, predictive expectations are synonymous with *at least* adequate expectations except when monopolies or other restricted markets exist. Howard & Sheth (1969, p145) also introduce the notion of buyers being rewarded in a given purchase situation relative to the amount of sacrifice they have made. This is consistent with more recent satisfaction work which has found equity a useful explanatory construct (Oliver & Swan, 1989a & b and Oliver & DeSarbo, 1988). Therefore, satisfaction expectations in a refined classic approach presented here are predicted performances anchored in situationally oriented notions of adequacy or equity.

In addition to this classic approach an increasing number of expectation types have been named in the satisfaction literature during the 1980's. For example, Miller (1977, p76/7) conceptually describes four types of expectations: ideal (i.e. "wished for"), expected (i.e. predicted), minimum tolerable (i.e. the least acceptable level of performance below which purchase would be worse than nothing), and deserved (i.e. what it "ought to be" given individual investments). Swan & Trawick (1980, p7) describe a desired level of expectation which is,

"the level of product performance that would be necessary in order to satisfy or please the customer".

They further argue that this level of expectation is conceptually close to Miller's (1977) deserved expectations (and therefore equitable expectations). Sirgy (1984) distinguishes five types of expectations: ideal (i.e. desired), expected

(i.e. predicted), deserved (i.e. equitable), least expected (i.e. minimum tolerable), and significant other (i.e. the product performance received by another person). Woodruff, Cadotte, & Jenkins (1983) and Cadotte, Woodruff, & Jenkins (1987) also suggest a variety of experienced based norms (e.g. best brand norm). The variety of expectations and varying empirical support for each type of expectation led Tse & Wilton (1988) to conclude that multiple standards are used in satisfaction evaluations. This latter approach is identified as the complex view.

Cadotte, Woodruff, & Jenkins (1987) forward the novel explanation that individual's use different standards depending on the evaluation situation. Parasuraman, Zeithaml, & Berry (1988) suggest another explanation for different types of expectations. That is, different types of expectations are related to different types of constructs or judgements. This latter approach is adopted in this thesis. Thus, service quality can be seen to use a relatively enduring normative excellence standard whereas satisfaction evaluations use more situationally oriented expectations of equity and adequacy. Note the similarity between this latter concepts and that of "deserved" expectations proposed by Boulding, Kalra, Staelin, & Zeithaml (1993).

To conclude, service quality expectations can be delineated from satisfaction based expectations because the former are anchored in terms of "excellence" whereas the latter are anchored in terms of what is "adequate" or "equitable". In addition, the excellence benchmark is persistent extending beyond any company or situation whereas the latter is not.

3.2.4 Categories of Service Quality Expectations

3.2.4.1 Process/Outcome and Intangible/Tangible Categories

In section 2.5 categories of service quality criteria were extensively discussed. Conceptually it is generally assumed that parallel expectations and perceptions are used in service quality evaluations. At the very least it is assumed that expectations exist along certain quality dimensions. By extension, and consistent with this, the two broad categories of "process" and "outcome" criteria are used to describe categories of service quality expectations. In addition, a distinction is drawn between "intangible" and "tangible" service

quality expectations (again, see section 2.5). This leads to the two following hypotheses.

H 3   :   Service quality expectations can be categorised as being either "process" or "outcome"

H 4   :   Service quality expectations can be categorised as being either " intangible" or "tangible"

3.2.4.2   Generic and Service-Specific Expectations

In section 2.5 both qualitative and empirical generic service quality dimensions were presented. Whilst generic empirical dimensions were not considered to have been demonstrated the ten dimensions presented by Parasuraman *et al* were judged a useful framework. Section 3.2.3 explicitly makes this assumption. However, whilst providing a useful framework it is acknowledged that specific criteria will vary from one service to another (Parasuraman, Berry, & Zeithaml, 1991b and Zeithaml, Parasuraman, & Berry, 1990). Consequently, the ten qualitative dimensions will be termed "generic" dimensions henceforth. In addition, empirical criteria relating to a particular class of service will be termed "service-specific" dimensions. Examples of more service-specific criteria are provided by studies into healthcare services (e.g. Boscarino, 1992; Lythe & Mokwa, 1992 and Schlegelmilch, Carman, & Moore, 1992), hospitality services (e.g. Saleh & Ryan, 1991) and the professions (e.g. Brown & Swartz, 1989 and Haywood-Farmer & Stuart, 1988). The basis for the generic and service-specific distinction is now further elaborated.

From the literature two observations can be made (again, see section 2.5). First, the ten generic dimensions subsume other dimensions (e.g. credibility subsumes reputation). Second, empirically these dimensions both collapse (e.g. understanding and access to form empathy) and separate (e.g. tangibles into "facilities" and "communication materials") in a variety of ways during factor analyses. Further, the manner of this combining or separating depends on the type of service being evaluated. This suggests that some of the ten dimensions are indistinguishable in relation to certain services (hence collapsing), unidimensional in relation to other services (hence dimensions sometimes remain distinct), and finally multidimensional in yet other services (hence dimensions sometimes separate). It is proposed that this

complex service evaluation process arises primarily as a consequence of the weak discriminant power of service quality dimensions (Brown, Churchill, & Peter, 1993 and Foreman, Pitt, & Nel, 1993). That is, the weak discriminant ability of the generic quality dimensions essentially makes them fickle to the type of service being evaluated. The type of service being evaluated is important because the very nature of service changes from one type to another and so the customer *focus* might also be envisaged to change. In other words, customers' might focus on different dimensions from a *common pool* of evaluative criteria (i.e. the generic criteria). This is akin to the concept offered by Carman (1990) where important SERVQUAL dimensions are assumed to be separated when of particular importance. However, it is a richer concept because it assumes the "common pool" as the ten and not five dimensional (SERVQUAL) structure. Further, it is proposed that once a particular dimension(s) has been selected for special customer attention in relation to a focal service it might be elaborated. Subsequently, elaborated dimensions might become multidimensional. Alternatively, residual dimensions not attracting special attention might well be "lumped" together and hence become unidimensional (i.e. collapse). By extension the two following research hypotheses can be made in relation to service quality expectations.

H 5 : Service-specific quality expectations are partly a function of generic service quality expectations

H 6 : Service-specific quality expectations are partly a function of the nature of service being evaluated

In addition to service-specific expectations being determined by generic expectations it is also argued that service-specific expectations exclusively determine generic expectations. That is, generic expectations are more abstract expectations derived (*viz* deduced) by an individual from cumulative sources of service-specific expectations relating to particular classes of service. Thus, the causal order of determinant variables discussed in this thesis flows from the specific to the generic ie. service-specific expectations are viewed as an intervening variable between determinants and generic expectations. However, once formed generic expectations are deemed to influence service-specific expectations in the described manner. This relationship is treated as exogenous to the current model.

From the above discussion the following hypothesis is also made in relation to the importance of service quality criteria.

H 7 : Generic dimensions which separate into more than one service-specific criteria will be of particular importance to customers' compared to those dimensions which either combine or remain distinct

A review of the attitude literature suggests that service class involvement might also be an important feature of service quality evaluations (e.g. Bettman, 1979; Engel, Blackwell, & Miniard, 1990, and Petty & Cacioppo, 1986). For example, a high involvement service suggests personal relevance which in turn is reflected in both cognitive effort (Petty & Cacioppo, 1986, p88) and information search behaviour (Zaichkowsky, 1985). Both Oliver & Bearden (1987) and Wilton & Nicosia (1986) suggest service class involvement might have important implications for satisfaction evaluations. High involvement services would be expected to illicit extensive information search and more elaborate evaluation processes. As a consequence of this expectations might be anticipated to be held with greater certainty (as a result of more search effort and more active processing) and use more extensive criteria (as a result of cognitive effort) in relation to a high involvement service. Involvement is therefore treated as an exogenous variable in the development of the service quality expectations model.

Formally, Hypotheses 5 and 6 can be summarised in the below equation.

$$SSQE = f\ (GSQE, TS, X)$$

where,

SSQE   = service-specific quality expectations
GSQE   = general service quality expectations
TS   = type of service
X   = all other determinants

The basic concepts and Hypotheses discussed so far form the basic model framework shown in Figure 3.1.

Figure 3.1 : A Conceptual Framework for Describing Service Quality
Expectations
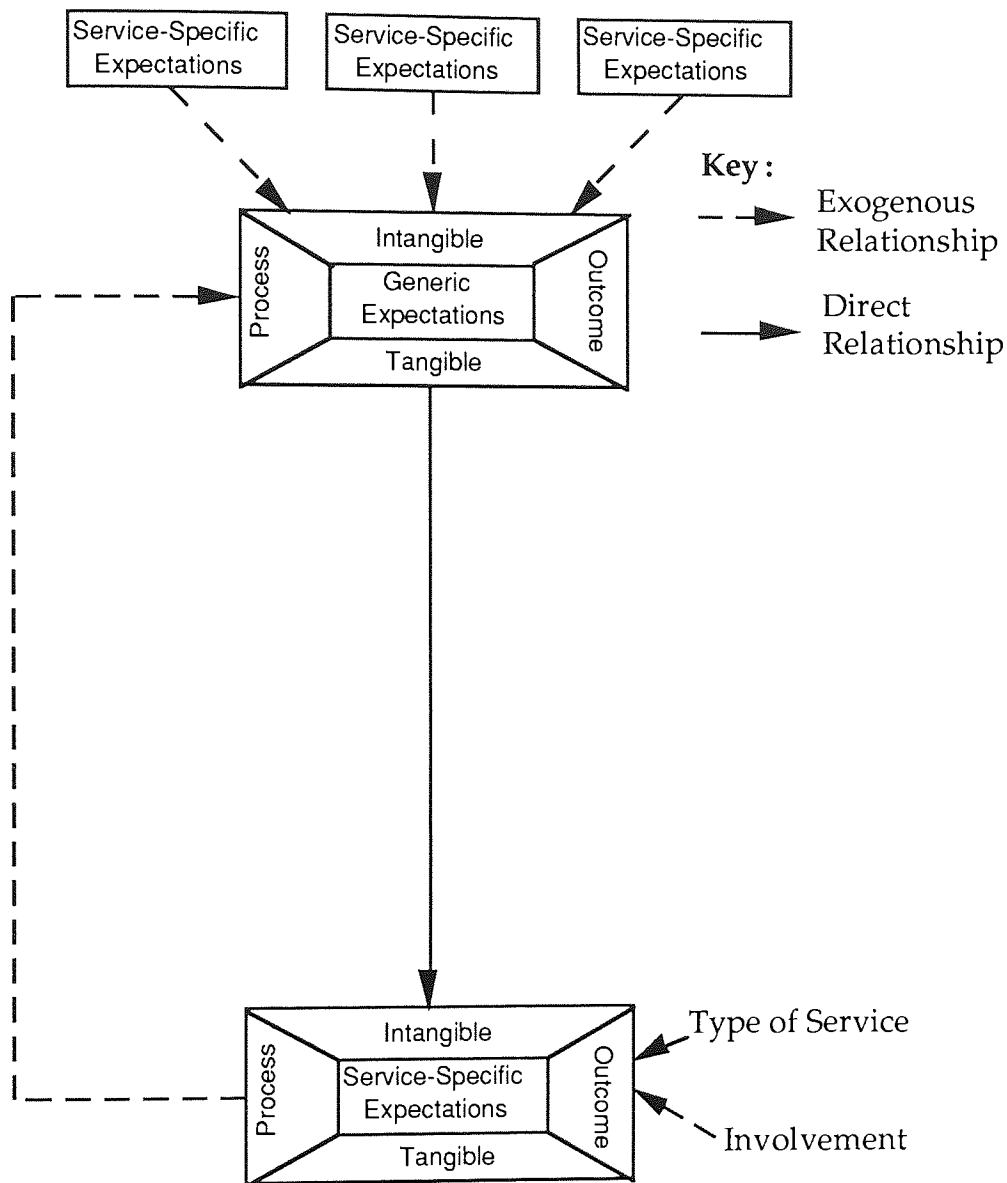
3.2.5 **Summary and Conclusions**

Service quality expectations are anchored in service excellence and represent a distinct and robust group of expectations. These expectations can be categorised as being either process or outcome and intangible or tangible. Further, these categories are applicable to both generic (ten base dimensions) and service-specific (k empirical service class dimensions) quality expectations. Table 3.1 summarises the major hypotheses made regarding the nature of service quality expectations.

Table 3.1 : Summary Hypotheses Relating to the Nature of Service Quality Expectations

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Hypotheses Suggested by the Service Quality and Related Literature's Regarding the Nature of Service Quality Expectations

H 1: The concept of service quality expectations is robust across several operational definitions of "high" or "desired" expectation levels

H 2: Service quality expectations can be partly delineated from goods' quality expectations because they incorporate role expectations

H 3: Service quality expectations can be categorised as being either "process" or "outcome"

H 4: Service quality expectations can be categorised as being either "intangible" or "tangible"

H 5: Service-specific quality expectations are partly a function of generic service quality expectations

H 6: Service-specific quality expectations are partly a function of the nature of service being evaluated

H 7: Generic dimensions which separate into more than one service-specific criteria will be of particular importance to customers' compared to those dimensions which either combine or remain distinct

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3.3 A CONCEPTUAL MODEL OF SERVICE QUALITY EXPECTATIONS

3.3.1 Introduction

This section first synthesises possible determinants of service quality expectations by drawing on the satisfaction and attitude literature's. On the basis of this review determinants are linked specifically to service quality expectations and the generic and service-specific categories thereof. A richer conceptual understanding of an expectations model and its determinants is then developed through an eclectic process which draws on the larger consumer behaviour and social psychology literature's.

The two most closely allied constructs to service quality expectations are expectations relating to the satisfaction construct and attitudinal beliefs. Consistent with other researchers, then, the satisfaction and attitude literature's were deemed capable of making a valuable conceptual contribution to the understanding of service quality expectations (e.g. Bitner, 1990; Bolton & Drew, 1991a; Boulding, Kalra, Staelin & Zeithaml, 1993; Oliver, 1980 and Zeithaml, 1988). However, it is to be noted that no direct parallels may be drawn because service quality expectations form a distinct construct whose nature differs from related constructs (see section 3.2.2 amongst others).

3.3.2.1   Determinants from the Satisfaction Literature

The satisfaction literature makes a variety of propositions regarding expectation determinants. Consistent with the attitude literature (see below) Gioia & Sterns (1980) argue expectations are a function of learning. They distinguish three processes. The first category they describe as "observational learning" which includes vicarious learning from friends' experiences and the like. The second category they describe as "cognitive learning". This refers to the reading of advertisement copy, promotional brochures and so on (i.e. information). The third category, which they argue to be the most powerful determinant, is experiential learning. Cadotte, Woodruff & Jenkins (1987, p313) suggest experience-based norms are rooted in a customer's total experience with the focal and *related brands*.. This in turn is regarded as including personal use experiences, word-of-mouth and/or marketing efforts by companies in the product class. Miller (1977) suggested that determinants of expectations could be conceptualised as either existing *among* customers inceptively or *within* a customer temporally. The former he argued would include personal experiences, traits, demographics, and psychological characteristics. The latter he suggested would include recent experiences, information, and the situation. In sum, Miller argued any given set of expectations will be a function of past history and the current situation faced by a customer. Expectations are also modified by selective information search.

Oliver (1980a, p461) drawing on the work of Helson's (1959) adaptation theory suggested three determinants of expectations :

(1)	The product itself including prior experience, brand connotations, and symbolic elements;

(2)	The context including the content of communications from sales people and social referents, and

(3)	Individual characteristics including persuasability and perceptual distortion.

Oliver (1980b) when discussing the conceptualisation of the expectancy construct in relation to consumer satisfaction argued the "should" level of expectations was determined by such diverse considerations as equity, personal values, cultural norms, socio-economic and political philosophy, and the quality of life. Oliver (1981) in his model of satisfaction in retail settings argued that expectations were also determined by the retail image and the attitude towards the store based on prior patronage. Drawing on the work of Lindquist (1974-75), Oliver (1981, p34) argued that seven criteria would establish a retail image. These are listed below.

(1)	Merchandise assortment;

(2)	Service (including sales personnel);

(3)	Clientele;

(4)	Physical facilities;

(5)	Convenience;

(6)	Store atmosphere, and

(7)	Effects of promotional campaigns.

Using expectation states theory Oliver & Swan (1989) found that expectations of "fairness" or "equity" in consumption experiences were also an important determinant of satisfaction. The notion of the sense of equity being an important determinant of expectations is also supported by Fisk & Young (1985). Olson & Dover (1979) defined expectations in terms of product beliefs and explicitly adopted an information processing perspective which regarded

expectations as being determined by product information, pre-trial communications about a product's physical or performance characteristics, and experience. Westbrook (1980) argues that experience and what he describes as "external sources" (e.g. advertising, word-of-mouth and sales presentations) determine expectations.

Like Oliver (1980b), Tse & Wilton (1988) made some attempt to link determinants with particular types of expectations. They argue that when a product was novel (i.e. pre-experience) expectations were essentially based on notions of equity. However, they argued that an ideal level of product performance was based on previous product experiences, learning from advertisements and word-of-mouth. Expected (predicted) expectations were regarded as being determined by some average of experienced product performances and advertising effects.

What is immediately apparent from the satisfaction literature is that whilst frequently adopting information processing and learning perspectives (implicitly at least) consistent with the attitude literature both wider determinants (e.g. culture and equity) and narrower determinants (e.g. situation and consumption) are speculated. However, no theoretical or empirical linkages are made between satisfaction expectations and underlying theory (e.g. learning and information processing). Indeed, no attempt is made to justify expectation-determinant linkages. Further, the expectancy construct itself is frequently left undefined making interpretation in relation to service quality expectations problematic. However, the main themes arising from the satisfaction literature are summarised below.

(1) Learning from direct experience with the focal brand, product class, or related brands;

(2) Learning from information supplied by social (e.g. word-of-mouth) and commercial sources (e.g. marketing communications);

(3) Individual characteristics such as personality traits, demographics, notions of equity, attitudes, and personal values;

(4) Situation variables, and finally

(5) "Environmental" characteristics such as culture.

Whilst many issues relating to attitudes remain in contention (e.g. the structure of attitudes, causal relationships to behaviour) the view that beliefs are in some way *learnt* is axiomatic. No one is assumed to be born with pre-conscious beliefs. Due to the vast array of observable "attitudes" (e.g. political parties, political issues, organisations, companies, products) determinants of beliefs are defined in necessarily broad terms. Fishbein & Ajzen (1975) and Ajzen & Fishbein (1980) argue that beliefs are formed by direct experiences (or observations), information, or inferred from other beliefs. Bem (1970) similarly argues that beliefs are formed by experience but extends the notion of inference to include inferences from "relevant" attitudes and values. Further, he recognises the importance of the social background of individuals in forming beliefs and distinguishes between mass media, interpersonal influences (direct contact), social norm setting (e.g. opinion leaders), and reference groups. Rokeach (1969) also argues that beliefs are learnt through direct encounters (experiences) with the belief object or indirectly from reference groups, other people, and their like. Rokeach also notes the importance of other beliefs and values in belief formation processes due to the interdependency or "architectural" cognitive structure of such constructs.

In addition to this classic learning or information processing approach to belief formation and change Ajzen & Fishbein (1980) suggest "external variables" might also determine beliefs which relate to behavioural outcomes and social norms. Three variables were expressly noted : demographics (age, gender, occupation, socio-economic status, religion and education); attitudes toward targets (people and institutions); and personality traits (introversion-extroversion, neuroticism, authoritarianism and dominance). However, unlike the previous determinants which are regarded as operating through learning and inference processes no explanation is given as to how such variables might determine beliefs.

Summarising from this brief but representative discussion of the attitude literature beliefs, as a generic component of attitude, are viewed as being determined by the following.

(1)   Learning from direct experiences with the attitude object;

(2)   Learning from information about the attitude object;

(3)   Related attitude and value constructs;

(4)   Demographics;

(5)   Inferences from other beliefs;

(6)   Personality traits.

3.3.2.3   Linking Determinants to Service Quality Expectations

The satisfaction and attitude literature's share several common determinants of expectations and beliefs.   Section 3.3.2.1, however, adopts "situation variables" as a summary descriptive category.   Variables likely to fall under this category are deemed inappropriate to the service quality expectation construct.   That is, unique situationally oriented variables are conceptually incompatible with the more global and enduring quality judgement.

Comparing the determinants suggested by the satisfaction and attitude literature's with those suggested by the service quality literature (see section 2.6.3) it is apparent that many are shared.   Indeed, it is argued only *"personal needs"* requires additional inclusion.   Here, the general category of "enduring service intensifiers" is rejected as being more relevant to business customers. "Personal service philosophies" is argued to be captured by generic service expectations (i.e. a general service attitude).   The dual determinants suggested by Zeithaml, Berry, & Parasuraman (1993) are captured by direct experience and information constructs in a more consistent manner with other literature's.

Table 3.2 below represents a summary of the determinants suggested by all three literature's.

Table 3.2 : Summary Determinants of Service Quality Expectations

Broad Category of Determinants	Relevant Information
(1) Learning from direct experience	relevant and focal brands
(2) Learning from information	social (e.g. word-of-mouth) and commercial (e.g. marketing communications)
(3) Individual characteristics	personality traits, demographic variables, past history, equity, attitudes, beliefs, personal needs, and personal values
(4) Environmental characteristics	culture

Table 3.2 reflects categories of determinants which are much broader than those generally described in the service quality literature but at the same time includes constructs which are much richer than might have been originally envisaged. At this stage of model development it is argued that there are insufficient grounds for rejecting any variables suggested by Table 3.2 but the tentative nature of any possible linkages is noted.

3.3.3 Theoretical Development of Determinant Variables and their Links to Service-Specific Quality Expectations

The determinants presented so far are quite numerous but frequently remain ambiguous and ill-defined. It is suggested that many of the concepts are in fact indistinct. A major objective of this section therefore is to generate a conceptually rich but parsimonious set of determinants. These determinants are discussed in relation to service-specific quality expectations because it is proposed these expectations form the comparison level in quality evaluations (see section 3.2). Generic expectations, therefore, are seen as a general service expectancy or "philosophy" which is deduced from service-specific expectations.

First, past history, information, and experience constructs are discussed under the proposed construct of service sophistication. Subsequently, culture,

personal values (and equity), personality traits, and personal needs are considered. Under these broad issues all of the above constructs are integrated.

3.3.3.1   Service Sophistication

The underlying theory and justification for including experience and information based determinants of service quality expectations is highly compelling.   The essential point is that both experience and information variables are supposed to capture the process whereby customers learn about services *in general* and in relation to specific service classes. "Learning", of course, involves experiences far beyond those that are just associated with services. When learning in this wider sense is combined with possibly innate dispositions other important determinants such as those discussed are formed (e.g. personality). Whilst it is beyond the scope of this section to consider precisely *how* individual's learn some comment is appropriate. It is apparent from the general language used in this thesis so far that a cognitive and information processing orientation is favoured. One reason for this bias is that cognitive theories are generally favoured in the literature on which the expectations model draws. Whilst this offers no justification in itself the term "expectations" is a concept steeped in cognitive overtones in its own right. A behaviourist (stimulus-response) perspective, therefore, would be logically inconsistent.

It is proposed individuals learn about services in general. "Past history", a term first used by Miller (1977), also attempts to capture some sense of all past service experiences arising from both direct service experiences and information exposures. "General service sophistication" is used here to describe the cumulative impact of all service experiences and exposures to service information. This incorporates the notion that it is not just service experiences which matter but rather the amount individuals learn and filter experiences and information. This leads to the following research hypothesis.

H 8 :   General service sophistication partly determines service-specific
              quality expectations

The possible relationship between service sophistication and demographic variables is worth noting at this point. Clearly, other things being equal, as age

increases the cumulative experience and information encountered will increase. Further, both income and gender might influence the type of service experiences and information encountered. As Thibault & Kelley (1959, p82) argue,

"A person who has experienced superior outcomes ..... in alternative relationships will have a higher CL [comparison level] and therefore will be less satisfied with the level in the present relationship than will another person who has known only the mediocrity of the present situation".

This leads to the following research hypothesis.

H 9 : Demographic variables are capable of capturing underlying movements in the general service sophistication construct

The above review not only suggests customers will learn about services in general but specific service classes also. It is therefore argued that "service-specific sophistication" will also determine service-specific quality expectations. However, it is further argued that information as a construct remains relatively distinct and therefore a relatively direct determinant in the service class context. Based on the review of the satisfaction and attitude literature a qualitative distinction was drawn between social and commercial information. Howard & Sheth (1969) draw a similar distinction and it is adopted here as a useful description. Social information is defined as information emanating from non-commercial sources (e.g. word-of-mouth, referent groups, family and friends). Commercial information on the other hand is defined as concerted efforts, or information associated with those efforts, to communicate with customers (e.g. advertising and public relation exercises). In addition, it was suggested that social information was more influential in services than commercial information. This discussion leads to the three following hypotheses.

H 10 : Service-specific sophistication partly determines service-specific quality expectations

H 11 : Service-specific information (social and commercial) partly determines service-specific quality expectations

109

H 12 : Social information has a relatively large impact on service-specific quality expectations compared to commercial information

In Chapter 2 it was suggested that services are dominated by experience properties (see section 2.3.4.2.1). Theoretically personal experience is supposed to be the strongest determinant of expectations (Hoch & Deighton, 1989). By extension service-specific quality expectations might be anticipated to be largely determined by service experience constructs (sophistication) when compared to other determinants. This leads to the final research hypothesis in this section.

H 13 : Experience based constructs have a relatively large and pervasive impact on service-specific quality expectations

It is worth noting the literature also supports the notion that information and experiences of "related" services, which might not fall directly within a particular class domain, are also influential (e.g. Berry & Parasuraman, 1991). This to some extent makes delineating unique class-specific expectations from related services problematic. To accommodate this phenomena a distinction is drawn, however, between direct service-specific expectations and inferred service-specific expectations. The former are based on experiences and information directly anchored in the service-class to be evaluated whereas the latter are inferred from fringe or perceptually related services. Whilst this conceptual distinction might be drawn with ease empirically it might be impossible to accurately delineate the two concepts. For this reason "actual" and "inferred" service quality expectations are treated as practically the same.

3.3.3.2   Culture

Culture, particularly norms and values, has been widely argued to have a profound affect on human behaviour, attitudes and interpersonal conduct (Kassarjian & Robertson, 1981, p482; Harris & Moran, 1987 and Riddle, 1992, p306). These influences, whilst operating on general modes of conduct, manifest in relation to classes of service. For example, queuing is widely described as a cultural norm in Britain which notably influences all services but has no "special" impact in any. Section 2.3.3 noted the humanistic nature of services. By extension, therefore, we can envisage culture will influence

expected service behaviours. An empirical study in the service encounter literature suggests this to be the case (Goodwin & Verhage, 1989) as does the study by Lewis (1991: see also section 2.6.3).

In addition to the sound grounding for including culture as a determinant it is desirable from a modelling perspective because its inclusion is generally acknowledged to improve the scope of a theory or study (Gudykunst & Ting-Tooney, 1988). The following research hypothesis is therefore made on the basis of this discussion.

H 14 : Culture partly determines service-specific quality expectations

3.3.3.3 Personality Traits

Personality has been defined as (Mischel, 1981, p2),

"the distinctive patterns of behaviour (including thoughts and emotions) that characterise each individual's adaptation to the situations of his or her life".

This definition reflects one of the major problems associated with personality studies, that is, measurement. However, one approach to the concept of personality is trait theory. Traits are essentially continuous, enduring dimensions on which individual differences can be empirically measured in terms of the amount present. This theory clearly holds that certain traits are common to everyone (though some might be unique). The combinations of traits are, however, idiosyncratic to the individual and produce general dispositions or patterns of behaviour.

Traits are perhaps best conceptualised as mental structures in the classic tradition of factor analysis (Cattell, 1957). This approach views traits as underlying structures (factors) which cause surface manifestations or behavioural responses. Perhaps not surprisingly trait-factor theory has become the most popular and productive approaches to personality in the marketing literature (Engel, Blackwell & Miniard, 1991, p331).

111

One might intuitively assume that an individual's personality could influence what is associated with service quality. Schaninger (1976) empirically demonstrated that personality is related to perceived risk. In section 2.3.4.1 the relationship between perceived risk and service was noted. Furthermore, the impact on information acquisition and tangiblisation strategies was noted. Both of these might reasonably be anticipated to influence service quality expectations given previous discussions. In conclusion, personality might affect risk perceptions associated with service products which in turn influence quality expectations. Another study by Phares & Davies (1966[1]) linked personality to the stability of expectations following disconfirmation experiences. This also lends support for the notion that personality might influence expectations. Once again, whilst personality is a pervasive influence its consequences are viewed as manifesting in relation to particular classes of service. This leads to the following hypothesis.

H 15 : Personality traits partly determine service-specific quality expectations

3.3.3.4 Personal Values

There are essentially two traditions of values research in consumer behaviour (Munson & McQuarrie, 1988). The first is concerned with value hierarchies the strongest exponent of which was Rokeach (1973). Rokeach (1973, p5) defined a value as,

"an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence".

This definition captures two types of values distinguished by Rokeach: terminal and instrumental. Terminal values are seen to exist at both the personal (i.e. self-centred) and societal (i.e. societally centred) levels and describe desirable end-states of existence. Instrumental values, alternatively, are viewed to exist at the moral (i.e. interpersonal) and competence (i.e. personal) levels and describe desirable modes of behaviour. One of Rokeach's major assumptions in relation to these values is that to some greater or lesser

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[1] Taken from Schaninger, op cit.

112

extent they are common to all people. This assumption is clearly reflected by his favoured measurement approach which relies on rank ordering pre-defined lists of values. Another assumption made by Rokeach was that all human values influenced all phenomena of interest to the social scientist. These two assumptions are sharply contrasted in the more recent value instrumentality approach.

The value instrumentality approach is based on means-end theory which focuses on linkages between product attributes ("means"), the consequences of those attributes for the customer and personal values ("ends") (Gutman, 1982). This approach does not distinguish between terminal and instrumental values and does not assume *a priori* that common values exist. This is also reflected by its "measurement" approach which relies on laddering techniques designed to push an individual up the ladder of abstraction from attribute to values (Reynolds & Gutman, 1988). In this sense it is also more focused than the hierarchy approach because it assumes particular values are used for particular products. For customer oriented research this has clear advantages. Indeed, one of the major criticisms of the hierarchy approach is that individual items making-up value scales are often seemingly irrelevant (Prakash & Munson, 1985 and Vinson, Scott, & Lamont, 1977).

To summarise so far, the value instrumentality approach is generally favoured by the literature for customer based research because it demonstrates higher empirical relevance (Munson & McQuarrie, 1988). Furthermore, both conceptual and empirical support links personal values to expectations. First, means-end theory and Expectancy-Value theory are conceptually allied (Reynolds & Gutman, 1988). Second, an empirical relationship between instrumentality expectations and values has been demonstrated (Prakash & Munson, 1985). This discussion further justifies the inclusion of personal values as a possible determinant of service quality expectations.

In addition to suggesting personal values as a potential determinant Table 3.2 also suggests "equity". Given the definition of values individual notions of equity are classified under the umbrella of "personal values". The equity concept is elaborated below.

Equity theory holds that an equitable exchange prevails between parties if a person scrutinising the relationship concludes that participants receive equal

relative gains (Walster, Walster & Bersheid, 1978). In other words equity prevails when the ratio of outcomes to inputs is constant across participants. However, in terms of measurement it is immediately apparent that any quantification of equity is fraught with conceptual and methodological problems. It is for this reason that viewing equity from a social exchange perspective has been rejected by many consumer scientists (e.g. Oliver & Swan, 1989a). In the same study (*op cit.*) the notion of distributive justice or expectations states theory was favoured as it allowed for disparate roles and differential, multidimensional inputs and outcomes in equity evaluations. This was argued to be most appropriate for commercial exchange scenarios.

Kelly & Thibault (1978) adopt a social psychological approach to interpersonal relations and describe several strategies which an individual might adopt to achieve satisfaction from relationships. These strategies are maximising one's own outcomes; maximising both parties outcomes; maximising one's own relative advantage or minimising the difference in outcomes. This classification is interesting because it essentially reveals various values of equity in relation to interpersonal relationships. Two strategies are anticipated to be particularly relevant. The first strategy concerns notions of "fairness" or justice. This relates specifically to "minimising the difference" between parties (Kelley & Thibault, 1978) which in turn is close to the concept of "weak proportionality" proposed by Messick & Sentis (1979). The second strategy of interest is "maximising one's personal outcome" which is argued to be close to the concept of preference i.e. the hypothesis that one party feels less distress than the other party when inequity is in the first party's favour. These two approaches might further be classified as being individually versus societally biased. Other strategies, such as altruism, are not thought to be applicable for commercial exchanges. It is worth noting that personal values and equity values are likely to be influenced by culture (Oliver & Swan, 1989a) and personality (Rokeach, 1973).

In section 2.3.4.1.1 it was noted that one customer perceived purchase risk is loss of time. It was empirically demonstrated that services are regarded as carrying higher risk on this dimension than comparable goods. Again, by extension, one might anticipate that a customer's perception of time can influence service quality expectations (i.e. time value). A useful distinction can be drawn between subjective and objective time (Hornik, 1984). Subjective time involves the frequently occurring notion of customer perceived time rather than "actual" or standard time which is measured by a clock. Hornik (1984) empirically demonstrated that the two concepts are distinct and that the

common practice of measuring standard (clock) time was perhaps ill-founded. This suggests that the notion of the value of time and its corollary time urgency are of interest. Although "time" is frequently not afforded much attention in the marketing literature the concept has been found useful in a variety of other disciplines (see Jacoby, Szybillo, & Berning, 1976 for a review). In addition, Howard & Sheth (1967) treat time as an exogenous variable in describing buying behaviour as do Engel, Blackwell, & Miniard (1990). The work of Landy, Rastegary, Thayer, & Colvin (1991) suggests that time urgency is a rich multidimensional construct capable of being measured along the five dimensions of competitiveness, eating behaviour, general and task hurry, and speech patterns. Of these, however, the general and task related dimensions of urgency seem particularly relevant to service and quality expectations.

To conclude, personal values are proposed to influence expectations of which equity and time urgency have been identified as particularly relevant examples. These are viewed as manifesting themselves in relation to specific classes of service. The following hypothesis is made to summarise.

H 16   :   Personal values (e.g. equity and time) partly determine service-specific quality expectations

3.3.3.5   Personal Needs

Needs have been given numerous classifications such as utilitarian versus value-expressive (Park & Young, 1986); affectional, ego bolstering, and ego defensive (Bayton, 1958), and utilitarian versus expressive (MacInnis & Jaworski, 1989). There is some divergence amongst researchers regarding the relative importance of emotion and cognition in defining needs as well as the extent to which needs are personality or product based (MacInnis & Jaworski, 1989). However, there is consistency in believing that needs stimulate some kind of motivation. Overall, there appear several traditions in need research. The first is concerned with a social psychological perspective (e.g. Maslow, 1970). The second concerns consumer research (e.g. Park & Young, 1986; Park & Mittal, 1985; Rossiter & Percy, 1987 and MacInnis & Jaworski, 1989). They can be distinguished in the sense that the social psychological perspective regards needs at a more fundamental level than the consumer perspective i.e. needs that are viewed as transcending   any   particular   time   or   space.   For

example, Maslow (1970) in his five way classification of needs considered physiological needs (e.g. food, water, gender); security and safety needs (e.g. shelter, defence); affiliation needs (e.g. love, belonging); status (e.g. self-respect) and self-actualisation as important. These needs, ordered in terms of prepotency, are fundamental and basic in the sense that lower order needs are necessary for the continuation of life. However, in contrast to this consumer behaviourists have tended to regard needs in terms of specific brands, products and so on which are less generalisable and less fundamental. For example, MacInnis & Jaworski's (1989, p2) define utilitarian needs as,

"requirements for products that remove or avoid problems".

Expressive needs, on the other hand, are defined as product requirements of an aesthetic or social utility. Clearly, such needs are less generalisable.

It is argued that both traditions are useful in explaining quality expectations. To distinguish between the two approaches and refine the concepts for the purpose of this model the social psychological perspective is termed "psychological needs" and the consumer behaviour perspective "purchase motives". The concept of purchase motives will be linked to service-specific quality expectations and is covered later in this section. This type of need is close to the utilitarian concept suggested by MacInnis & Jaworski (*op cit.*).

In section 2.3.4.1 the concept of perceived risk was reviewed in relation to services. Social and psychological risks (particularly self-esteem) were identified as being potent in relation to service when compared to goods other things being equal. By extension one might anticipate that personal, psychological needs could influence what an individual associates with service quality given its high human content and interactive nature. From a self-concept perspective Sirgy (1986, p9) notes,

"many personologists, social psychologists, and clinical psychologists regard the need for self-esteem to be one of the most fundamental motives in human behaviour".

Relating self-concept theory to consumer behaviour Sirgy argues (1982, pp289/90),

"From a self-esteem perspective the consumer will be motivated to purchase a positively valued product to maintain a positive self-image (positive self-congruity condition) or to enhance herself by approaching an ideal image (positive self-congruity condition). The consumer will be motivated to avoid purchasing a negatively valued product to avoid self-abasement".

This reinforces the notion that self-esteem might play an important role in service and leads to the following Hypothesis.

H 17 : Psychological needs (e.g. self-esteem) partly determine service-specific quality expectations

Chase & Hayes (1991) suggest three levels of service: core (i.e. that essential set of services for the firm to participate in the market), peripheral (i.e. services facilitating the core), and amenities (i.e. non-essential add-ons). This is quite consistent with many other product concepts which also emphasise core and surrounding services (e.g. Gronroos, 1990: see section 2.3.3.2 for elaboration, and Levitt, 1980). Chase & Hayes (1991, p16) suggest,

"As a general principle, the firm must provide basic competency in core and peripheral services to survive .... the core and primary peripheral services define the lower limit of customer expectations about performance".

Haywood-Farmer & Stuart (1988) argue that "core services" are critical when evaluating service quality. Empirical support for this contention was also offered. Lythe & Mokwa (1992) defined three types of benefits which might accrue from a healthcare service: core (i.e. the fundamental benefit the customer seeks and the provider attempts to offer), intangible (e.g. trust and reliability), and tangible (e.g. appearance of personnel and facilities). The importance of "core services" was again empirically supported. Bitner, Booms, & Tetreault (1990) in a critical incident study of services also demonstrate the importance of core services in service evaluations. Note that core services are captured at least in part by the generic reliability construct.

In section 3.3.3.1.5 psychological needs and purchase motives were distinguished. The motivation for purchasing from a particular class of service is based on the expectation that certain basic outcomes will be delivered (Howard & Sheth, 1969, p32). Based on the preceding discussion purchase motive(s) are linked directly to core services which are in turn linked to service quality expectations. This leads to the final hypothesis of this section.

H 18 : The purchase motive(s) associated with a particular class of service partly determines service-specific quality expectations

Integrating these hypotheses with the schema in Figure 3.1 produces the theoretical model of service quality expectations shown in Figure 3.2.

Figure 3.2 : A Theoretical Model of Service Quality Expectations
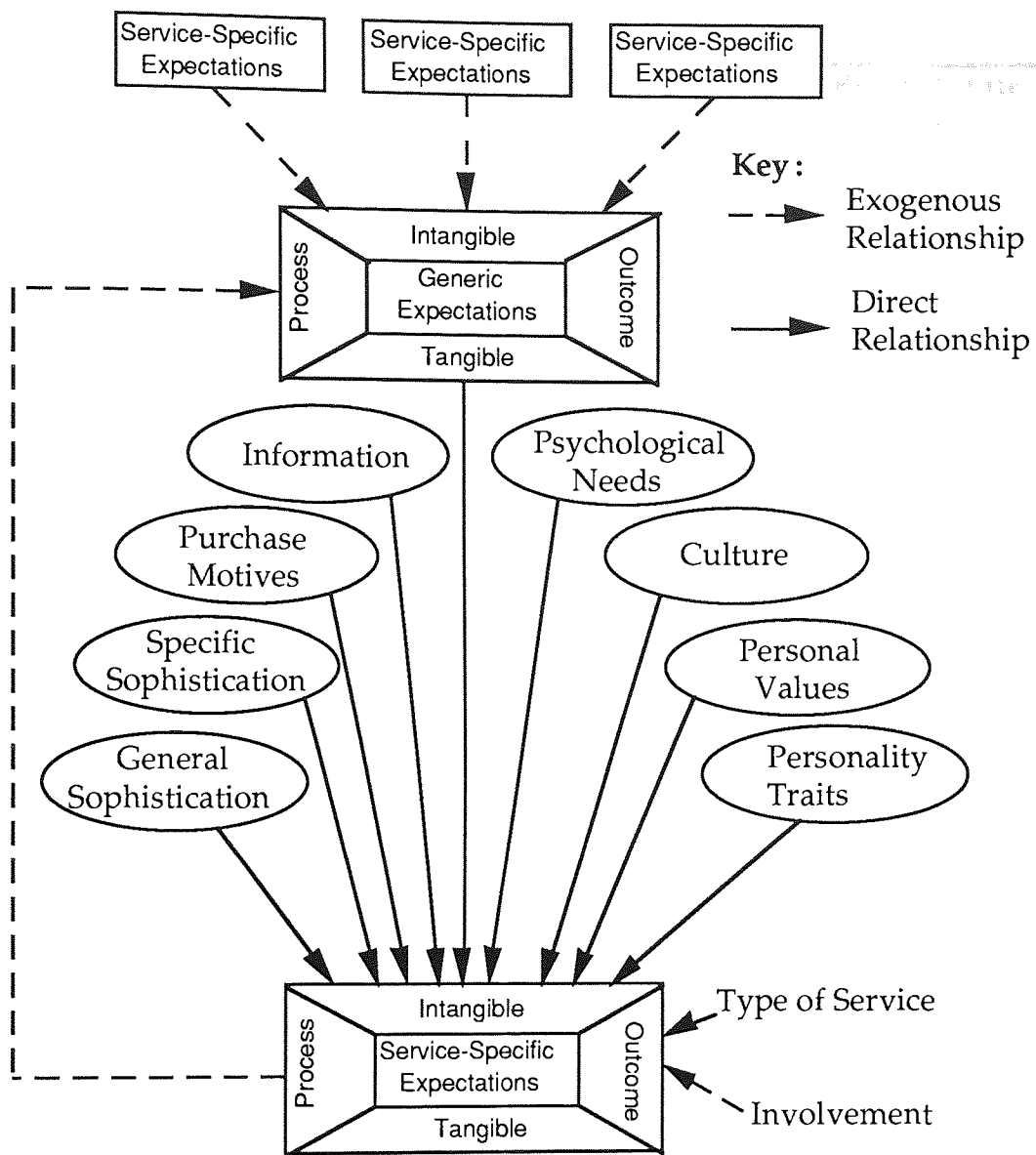
3.3.4   Summary and Conclusions

Table 3.3 summarises the hypotheses made in this section.

Table 3.3 : Summary Hypotheses Relating to Determinants of Service Quality Expectations

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Hypotheses Suggested by the Service Quality and Related Literature's Regarding the Determinants and Theory of Service Quality Expectations

H 8:   General service sophistication partly determines service-specific quality expectations

H 9   Demographic variables are capable of capturing underlying movements in the general service sophistication construct

H 10:   Service-specific sophistication partly determines service-specific quality expectations

H 11 :   Service-specific information (social and commercial) partly determines service-specific quality expectations

H 12 :   Social information has a relatively large impact on service-specific quality expectations compared to commercial information

H 13:   Experience based constructs have a relatively large and pervasive impact on service-specific quality expectations

H 14 :   Culture partly determines service-specific quality expectations

H 15 :   Personality traits partly determine service-specific quality expectations

H 16 :   Personal values (e.g. equity and time) partly determine service-specific quality expectations

H 17 :   Psychological needs (e.g. self-esteem) partly determine service-specific quality expectations

H 18 :   The purchase motive(s) associated with a particular class of service partly determines service-specific quality expectations

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3.4   THE DYNAMICS OF SERVICE QUALITY EXPECTATIONS

3.4.1   Introduction

"Dynamics" refers to the phenomena whereby service quality expectations are modified or updated and can also be used to describe a pattern of change over time (Webster's, 1966). Section 3.4 deals with this phenomena by briefly

reviewing the relevant attitude literature[1]. Drawing on this work, section 3.3, and the main literature review (see section 2.4.3.3) some general hypotheses are made regarding the dynamics of service quality expectations.

3.4.2 A Review of Concepts

Models attempting to describe attitude formation and change fall into three broad categories: static models (e.g. Fishbein & Ajzen, 1975), cognitive response models (e.g. Greenwald, 1968 and Olson, Toy, & Dover, 1982) and integrative models (e.g. MacInnis & Jaworski, 1989 and Petty & Cacioppo, 1986). Static models might also be described as attitude structure models because they are largely concerned with predicting behaviour and consequently emphasise attitude components (attributes) and construct measurement. Cognitive response models, alternatively, are largely concerned with assessing the power of persuasive communications and mediating cognitive responses (e.g. source derogation and counter arguments). Integrative models, the most recent type of model, are designed to capture the strengths of both static and response models by incorporating elements from both. Each of these types of models are now illustrated by drawing on suitable examples.

3.4.2.1 Static Models of Attitude

An attitude is usually conceptualised as unidimensional affect (Lutz, 1991) although alternative perspectives are quite feasible (Bagozzi & Burnkrant, 1985). When adopting this approach beliefs are regarded as being the most central cognitive component (Lutz, 1975). The most popular and generally most powerful conceptualisation of static attitude models is the expectancy-value approach (Lutz, 1991). Out of this group of models the Fishbein-Ajzen model has proved particularly valuable. This model postulates that out of some pool of beliefs salient evaluative beliefs will sum to form an affective response towards an attitude object (Fishbein & Ajzen, 1975). In other words, evaluative beliefs are seen as a direct causal antecedent of overall affect. The Fishbein-Ajzen model is shown below (Fishbein & Ajzen, 1975, p29).

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1   This literature was chosen as being particularly relevant partly because service quality has been conceptualised as an attitude and partly because it has proved useful in previous studies in this area (Bolton & Drew, 1991a and Boulding, Kalra, Staelin, & Zeithaml, 1993).

$$A_o = \sum_{i=1}^{n} b_i e_i$$

where,

A_o = overall attitude towards object;

b_i = belief i about O i.e. the subjective probability that O is related to attribute i;

e_i = evaluation of attribute i;

n = number of salient beliefs.

In words, an attitude towards an object is the sum of salient evaluative beliefs. Beliefs in turn form and change by direct experience with the attitude object (descriptive beliefs), indirect links between the subject and object (informational beliefs), and by inferring from other beliefs (inferential beliefs) (Fishbein & Ajzen, 1975, p134).

In one of the first studies of its kind Lutz (1975) investigated how changes in cognitive structure (beliefs) are related to changes in brand attitude. He found that multi-attribute models were indeed a useful vehicle for managing attitude change strategies and proposed three relevant strategies. First, beliefs themselves can be changed. Second, the evaluation of a particular belief can be changed (i.e. good-bad). Third, new dimensions or attributes can be introduced. To aid in the manipulation of beliefs and evaluations Lutz used only neutral attributes which calls into question the generalisability of the results to more centrally held beliefs. In addition, only information was used to manipulate beliefs which leaves the issues of direct experience and inference largely unexplored.

3.4.2.2   Cognitive Response Models

Holbrook (1978) identified cognitive responses to persuasive communications as one of the most important areas in the understanding of attitude formation and change. Cognitive response models were explicitly designed to assess the affective impact of mass communications (Greenwald, 1968). The basic

premise of such models is that subjects will respond to messages (e.g. ads) by mentally putting up counter arguments, discrediting the message source and the like before accepting or rejecting the given message. In short, cognitive responses to communications are presumed to mediate attitude formation and change.

3.4.2.3 Integrative Models

Integrating structural and response models was an inevitable and intuitively appealing step. Olson, Toy, & Dover (1978) in an early attempt to integrate the two models described the respective approaches schematically as shown below.

Schema of Static Models:

Beliefs ➡ Attitude ➡ Behavioural Intentions ➡ Behaviour

Schema of Response Models:

Ad Exposure ➡ Cognitive Responses ➡ Attitude Change

Schema of Integrative Models:

Ad Exposure ➡ Cognitive Responses ➡
Beliefs ➡ Attitude ➡ Behavioural Intentions ➡ Behaviours

In addition to the rather simple conceptual effort shown above most integrative models are more complex and extensive than their earlier parents. For example, Petty & Cacioppo (1986) in their monograph on attitude change describe two qualitative routes to persuasion: central and peripheral. The central route describes a process where extensive consideration is given to issue relevant information before change. The peripheral route, alternatively, attempts to capture attitude changes induced by cues associated with the message alone (e.g. an attractive source). A central tenet of their theory, all other things being equal, is that the more an individual engages in message elaboration (i.e. the evaluation of the merits of issue relevant arguments) the more persistent and predictive of behaviour any subsequent cognitive change will be.

From this brief review it is apparent that information is viewed as a key element of attitude change in all three models although Fishbein & Ajzen (1975) additionally postulate direct experience and inference processes as forces of change (see section 3.3.2.2 also). One possible reason for this information bias is that an organisation's external communication effort (e.g. advertising) can be directly controlled and persuasive communications have traditionally played an important role in an organisation's efforts. However, this approach is seriously deficient in relation to service quality expectations as it fails to incorporate the potential impact of concepts such as personality and psychological needs (see section 3.3.4). Whilst these models are noted, therefore, a more heuristic approach is adopted to generate hypotheses than these models would immediately suggest.

3.4.3   The Development of Hypotheses Concerning the Dynamics of Service Quality Expectations

Theoretically all determinants of a given phenomena should be capable of either creating or changing that phenomena to some greater or lesser degree over time. If the model presented in section 3.3.3 is a realistic description of the service quality expectation phenomena this argument must extend to that also. However, it is also likely that certain determinants are of particular importance in driving service quality expectations for any given service. This reasoning leads to the following general Hypothesis.

H 19 : Determinants of service quality expectations also act as change agents in relation to those expectations

Oliver (1980 & 1981) suggested that adaptation level theory might afford a useful theoretical basis for the explanation of attitude change in relation to satisfaction evaluations. Further, Bolton & Drew (1991a) used it as a theoretical base in the development of a model of attitude/service quality change (see 2.4.3.3.2 for an elaboration). The concept of adaptation level theory (Helson, 1964) is rooted in the biological notion of homeostasis which describes the process where human behaviour changes to accommodate different environments. Adaptation (*op cit.*, p58) in the behavioural sciences is taken

more precisely as the pooled and weighted affect of focal stimuli, context stimuli and residual stimuli. This latter concept of residual stimuli is particularly interesting in relation to Figure 3.2 because it captures the affects of variables such as needs, motives, and personality variables. Residual stimuli are described as "inner-determinants" and are proposed to have a general dampening affect on any focal and context stimuli. This suggests service quality expectations might be insensitive to any single service encounter and will be relatively stable over time when compared, say, to adequate expectations which are more situationally oriented. In addition to adaptation level theory the centrality concept proposed by Rokeach (1969) also predicts that service quality expectations might be relatively stable. The centrality concept states beliefs vary along some central-peripheral continuum of importance. Simply, the more central a belief the more resistant to change it will be and the more widespread the repercussions if it does change (op cit., p3). Rokeach uses the idea of "connectedness" in explicating the importance concept where (op cit., p5),

"the more a given belief is functionally connected or in communication with other beliefs, the more implications and consequences it has for other beliefs and, therefore, the more central the belief".

Four criteria were proposed to establish the level of connectedness. First, if beliefs are existential in nature (i.e. of concern to one's own existence and identity) then they are deemed to be highly connected. Second, if they are shared beliefs about existence and self-identity they are also deemed to be highly connected. Third, if they are derived (i.e. learnt by indirect encounter e.g. reference groups) against underived (i.e. learnt by direct encounter with the attitude object) they are deemed less connected. Finally, if they are related to personal taste then they are deemed to be less connected. Reviewing the hypothesised determinants we can see that related expectations would fall into a highly connected web and are therefore anticipated to be stable. This discussion leads to the following two Hypotheses.

H 20 : Pre-encounter service quality expectations form an adaptation level

H 21 : Service quality expectations are relatively stable over time

Note Hypothesis 20 implies service quality expectations have a dual role. That is, service quality expectations are used both as a comparison level in service quality evaluations (see section 2.4.4) and as an adaptation level (albeit an insensitive one). The general conclusion that service quality expectations are stable has been proposed by other researchers (Boulding, Kalra, Staelin, & Zeithaml, 1993 and Zeithaml, Berry, & Parasuraman, 1993) but no theoretical justification has been offered for this phenomena.

Several models of attitude and satisfaction change incorporate assimilation and contrast theory (Sherif, Taub, & Hovland, 1958 and Sherif & Hovland, 1961) which allows predictions to be made about the relationship between expectations and outcomes (i.e. performance perceptions). That is, it is proposed that when initial experiences do not match expectations an individual will either diminish the difference (i.e. assimilate) or exaggerate the difference (i.e. contrast) by modifying perceptions. Satisfaction studies using expectations akin to product attribute beliefs have reported positive correlations with performance perceptions suggesting the assimilation model is the most powerful predictor (Cadotte, Woodruff, & Jenkins, 1987; Churchill & Surprenaut, 1982; Oliver, 1977, and Tse & Wilton, 1988). However, studies using a more ideal level of expectation have reported negative correlations with performance perceptions suggesting a contrast model is the most powerful predictor (Tse & Wilton, 1988). The findings of this latter study have recently been replicated by Boulding, Kalra, Staelin, & Zeithaml (1993). However, the hypotheses presented so far assume service quality expectations are a normative comparison and adaptation level which are *not* directly modified by perceptions of performance. Implicitly this assumes service quality expectations and performance perceptions should not be directly related constructs and therefore no assimilation or contrast affect observable. This leads to the following hypothesis.

H 22 : Service quality expectations and perceptions of a focal organisation's performance are independent

Finally, section 2.3.4 describes the process of tangiblisation as a strategy customers use to mentally grasp and evaluate service. Whilst tangibles are essentially high in search properties (see Chapter 2) it is proposed that "tangibles" are in fact open to greater revision with early experiences than intangibles simply because they are easier to mentally grasp and learn about directly. However, once formed in this manner they are likely to be stable

126

because they are held with greater certainty. The following Hypothesis is tested.

H 23 : Service quality expectations of tangibles are relatively unstable compared to intangibles during early service experiences

3.4.4 Summary and Conclusions

Models accounting for attitude change have been found wanting in providing a full explanation of changes in service quality expectations. However, adopting an eclectic approach adaptation level theory, contrast theory, and section 3.3 have all proved useful in generating hypotheses regarding the dynamics of service quality expectations. Table 3.4 below summarises relevant hypotheses.

Table 3.4 : Summary Hypotheses Relating to the Dynamics of Service Quality Expectations

Hypotheses Suggested by the Attitude and Service Quality Literature Relating to the Dynamics of Service Quality Expectations
H 19 : Determinants of service quality expectations also act as change agents in relation to those expectations
H 20 : Pre-encounter service quality expectations form an adaptation level
H 21 : Service quality expectations are relatively stable over time
H 22 : Service quality expectations and perceptions of a focal organisations performance are independent
H 23 : Service quality expectations of tangibles are relatively unstable compared to intangibles during early service experiences

CHAPTER 4

EXPLORATORY STUDY

4.1   INTRODUCTION

Because the conceptual foundations for investigating service quality expectations is not yet rich enough Chapter 3 adopted an eclectic approach as a heuristic for developing a number of research hypotheses. Many of the hypotheses, but by no means all, were of a highly tentative nature. As a consequence of this and the need to further explore potential concepts and issues not arising from the literature's an exploratory study was judged appropriate. In addition, from a marketing science perspective qualitative research is most desirable an early stage of theory development (Anderson, 1983; Deshpande, 1983; Yin, 1989, and Zaltman, LeMasters, & Heffring, 1982).

Chapter 4 opens with a discussion on the selection of relevant methodologies for exploratory work in relation to the three research issues. Following this the service category selected for study is noted and implications discussed. Sampling and general fieldwork issues are then considered along with the relevant analytical methodology. Finally, findings are discussed in relation to the research issues.

4.2   METHODOLOGY

4.2.1   Operational Context

The specific service investigated at both this exploratory and later empirical stage was Master of Business Administration (M.B.A.) courses provided by Business Schools. In section 3.2.5.2 involvement was identified as an exogenous variable noting that it might influence information search behaviour and evaluation effort. A high involvement service, such as M.B.A. courses, was therefore judged appropriate to allow a rich picture of determinants to enter the model (see Appendix 4.1 for empirical evidence regarding customer involvement with M.B.A. courses). It is noted, however, that this restriction reduces the applicability of findings to low involvement

services. In addition, only full- and part-time students were used as subjects. It has been noted that direct experience and the environment can have an important impact on service quality expectations which suggests distance learning students might form and change their expectations by different means. In order to minimise any confounding affect this might have on results this group was eliminated from subsequent investigations.

Lovelock (1983b) suggests that a useful approach from a management and research perspective is to classify services to gain a deeper insight into research implications. He proposed five classificatory criteria. First, the nature of the service act. M.B.A.'s are quite simple to classify here because service acts are directed at people and involve intangible actions. Consequently, the M.B.A. service is classified alongside broadcasting, theatres and the like. Second, the type of relationship between the organisation and customer. M.B.A. students have a "membership" type relationship with Business Schools and receive some part of the service continuously which allows them to be classified with similar services and organisations like insurance and the Royal Automobile Club respectively. Third, the ability for service providers to customise and exercise judgement. It is harder to classify an M.B.A. course under this criteria. At one level academics have a large amount of freedom to exercise their judgement but with peripheral services, such as the library, this might not be the case. Further, depending on volumes services may or may not be customised. For example, a lecture with a large number of students will have a low level of customisation but a project supervisor will provide a high level of customisation. This makes classification under this criteria problematic and unuseful. Fourth, the nature of demand and supply. Again, classification is problematic depending on whether core or peripheral services are considered and will not be used here. The final criteria to consider is how the service is delivered. This is quite straightforward because M.B.A.'s are essentially delivered on a single site where students travel to the respective service. This leads to a classification of M.B.A. courses with theatres, barber shops, et cetera.

In order to keep the research project manageable in terms of time a single institution was chosen to conduct a series of research investigations. Aston Business School was chosen for three reasons. First, the School is well established having been founded in 1972. This was thought to be an important characteristic because associated information networks should be relatively well established (e.g. word-of-mouth). Such networks are of potential importance to the proposed expectations model. Second, the School is one of

129

the largest in Europe with over four hundred postgraduates. The availability of reasonable numbers of subjects for data collection was also judged a desirable characteristic. Third, Aston Business School offered both financial support and co-operation which was essential for the successful completion of the research.

The selection of a single institution, however, is not without its limitations. One of the major concerns is statistical generalisability. This problem is also applicable to choosing a single service. Quite clearly it is not possible to statistically generalise beyond the confines of the organisation's student population or particular class of service. However, the object of the thesis is not to enumerate frequencies to larger populations but to provide generalisations about theoretical propositions much like an experiment. In other words, the object is to provide analytical generalisations (Yin, 1989). Indeed, the relative homogeneity of the population under investigation increases the power of significant findings. That is, if within a relatively small and homogenous group variables are found to significantly discriminate then one might anticipate them to significantly discriminate in larger more heterogeneous populations also. In conclusion, the operational context can be seen to provide a *specific* ground to test a *general* model derived from literature which allows analytical but not statistical generalisations.

4.2.2 General Methodology

Two discrete qualitative exploratory studies were undertaken. The first was intended to yield information primarily about the nature of expectations (Investigation A). However, it was also envisaged that an important outcome of this study would be items for a service quality scale (see Chapter 5). The second study was intended to provide information exclusively about the determinants and change dynamics of service quality expectations (Investigation B). The undertaking of two studies to explore the research issues was necessary because different methods were appropriate depending on the issue under consideration (see below). Further, it was judged that the demands on individual interviewees would be inhibitive if all three research issues were covered simultaneously.

4.2.2.1 Investigation A

Two methods were adopted to explore the nature of service quality expectations and generate scale items: personal interviews with providers and customers (students and academics respectively) and a focus group with students. Both personal interviews and focus groups have proved successful in previous studies in this area (e.g. Parasuraman, Zeithaml, & Berry, 1985) and are consistent with scaling guidelines (Churchill, 1979).

Personal interviews are seen as being particularly appropriate for gathering information about attitudes and sensitive issues. Furthermore, they are seen to be appropriate when interviewing professionals or when strong social norms might exist (Tull & Hawkins, 1990, p393). From informal discussions with the course director at Aston Business School it was clear that certain "norms" might exist with students and academics. It was also known that some issues concerning lecturing and course management were regarded as being sensitive by academics. From this perspective personal interviews were deemed an appropriate method. A semi-structured format was used to enable directed but flexible questioning with both groups.

A commonly cited advantage of focus groups is synergy. In other words the stimulation from group participation is meant to generate comments which would not ordinarily arise from a one-to-one interview (Tull & Hawkins, 1990, p400). Furthermore, it can be seen as an efficient means of collecting information with regard to the ratio of expended time to quantity of information gathered. Given that labour was restricted to the researcher alone the latter was a particularly desirable benefit. However, a potential problem with the use of focus groups within the research context was group acquaintanceship (e.g. Fern, 1982 and Nelson & Frontczak, 1988) and norms. In order to minimise any possible effects the technique of secret pooling was judged appropriate (Robson & Foster, 1989). This technique provides an opportunity for members of the focus group to anonymously write down topics or comments they have found too sensitive to openly voice in the course of group discussions. The pieces of paper are then "pooled" and the moderator randomly picks a piece of paper and introduces the topic for discussion.

4.2.2.2 Investigation B

Investigation A chronologically preceded B. Based on the experience of conducting interviews for Investigation A it was judged that personal interviews produced not only more but a better quality information than the focus group within the research context. For this reason personal interviews alone were conducted with students in Investigation B.

An appropriate technique for uncovering determinants of service quality expectations is a laddering-type approach (Gutman, 1982 and Reynolds & Gutman, 1988). Strictly speaking this technique is best used to reveal terminal values only (see section 3.3.3.1.4) but it is argued that many personal "values" in this sense can be related to culture, personality traits, and their like either directly or indirectly. Furthermore, it is the process of pushing individuals up the level of abstraction from product attribute to deeper meanings that is of key interest here.

4.2.3 Research Design and Sampling

4.2.3.1 Investigation A

Academic interviews consisted of a judgement sample of ten M.B.A. lecturers and the course director. Interviews were focused on customer expectations and desires of M.B.A. courses and Business Schools in general. Lecturers were selected on the basis that they were currently teaching at least one full module which they had taught the previous year. Furthermore, at least one lecturer was chosen from each discipline. The judgement sample was drawn to ensure that experienced M.B.A. lecturers from a variety of departments was obtained. Finally, the course director was interviewed. This was a natural choice because it was known that complaints and information from student feedback committees were provided to the course director. When no objection was made interviews were audio taped. This allowed for more detailed notes and analysis at a later stage. When this was not done key notes and phrases were recorded by hand.

132

Based on Chapter 3 a small number of questions were designed to yield potentially useful information and to provide a basic interview framework. These are shown in Appendix 4.2. Further preparation was made by reviewing a variety of promotional material drawn from a random sample of Business Schools and the academic interviews. This was done essentially to give the researcher some common frame-of-reference and an appreciation of the language and subject matter being discussed by subjects. The sampling frame for the selection of promotional material from Business Schools was the British list of Schools provided by A.M.B.A. (Paliwoda & Harrison, 1989).

Nineteen students were interviewed from a random sample (41% response rate) taken from an alphabetical list of registered students. Complete sampling frames like this are known not to contain any systematic bias (Beaumont & Stray, 1983). All students were currently engaged on a full- or part-time basis and so had direct experience with the Business School. All full-time students had attended the course for at least two terms. Part-time students had attended the course for mixed periods of time ranging from two terms to over two years. Interviews were conducted both by telephone and face-to-face. Whilst many advantages are seen to accrue from face-to-face interviews (e.g. the ability to record physical behaviour and the ease of building rapport) it was judged important to give students a choice. By adopting such a flexible approach it was hoped that a reasonable response rate would be obtained without restricting potential subjects who held full-time jobs or lived some distance from Aston. In other words the loss of rapport etc. in some instances was judged to be outweighed by the potential reduction of sampling bias. Face-to-face interviews were again audio taped when no objection was made and key notes hand recorded in the other instances.

In addition a single focus group was held on campus. Seven students took part in the exercise. Ten students agreed to co-operate from a random sample drawn similarly to the personal interview subjects (20% response rate). One of those agreeing to participate was unable to attend on the set day whilst the others failed to arrive at the appointed time. The focus group was conducted following relevant guidelines (Tynan & Drayton, 1988 and Robson & Foster, 1989). The researcher/moderator notes are shown in Appendix 4.3.

4.2.3.2   Investigation B

Twenty four students were interviewed from a random sample (56% response rate) in a similar manner to Investigation A above. All full-time students had attended the course for one term. Part-time students had attended the course for mixed periods of time ranging from one term to over two years. Note that a new year of students were included in this sample. All students were interviewed face-to-face and the majority audio taped. A face-to-face scenario was deemed more appropriate because potentially sensitive issues would arise (e.g. personal values etc.). Further, including students who had just completed their first term of study was judged desirable because they would be closer to a possible period of major expectations change (i.e. the first period of service exposure). However, students who had attended the course for longer periods of time were also included to provide a perspective from a more experienced frame-of-reference.

The process of elucidating determinants was approached in the following manner. The interview was split into two parts. First, what individuals associated with excellent service companies in general was discussed along with how these expectations might have changed over recent years. Second, what individuals associated with excellent Business Schools was discussed with how they might have changed also. Expectation attributes were followed-up using a laddering type approach using relevant guidelines (Reynolds & Gutman, 1988). The transcript of an interview is given in Appendix 4.4 to illustrate the approach further.

4.2.4   Analysis

The analysis of qualitative data is often regarded as being highly subjective simply because more often than not any such analysis relies heavily on a researcher's personal interpretation of transcripts/interviews. This makes any conclusions drawn from qualitative work open to criticism. Most formal analysis of qualitative data, however, relies on some form of content analysis. Content analysis has three defining characteristics. These are objectivity, system and generality (Holsti, 1969). Objectivity refers simply to defining rules and procedures which can be followed by one or more researchers. System is concerned with developing a number of categories in a consistent manner into

which words, phrases, sentences and so on can be classified. Generality means that findings generated from any such analysis are theoretically relevant.

Developing valid categories and definitions for research problems and interviews, however, is both time consuming and open to many of its own validity issues. Furthermore, content analysis requires full verbatim transcripts of interviews for analysis. Frequently, if a computer is used to read the transcripts, a customised programme is required. In short though content analysis has the strong advantage over any informal analysis of reliability it is a very time consuming technique to apply. For this project an informal Key Word in Context analysis (KWIC) and frequency count was conducted for determinants and scale items. Clearly, the use of hand notes precluded verbatim reports. However, key phrases and sentences were available. General impressions were also used extensively to consider the nature of expectations and their stability. The analysis was informal to the extent that formal categories were not developed with formal definitions. Rather, categories based on the researcher's judgement were used and keywords in sentences from interviews classified thereof. Frequencies were also recorded for recurring words and issues. If a word or issue was mentioned repeatedly in a single interview it was recorded once only. This was justified because some interviewees repeatedly moved back to the same issue. This was judged to unduly bias overall results. Clearly, the use of a semi-structured format in both personal interviews and the focus group to some extent prompted the use of certain words, phrases and so forth. This could obviously unduly bias frequencies if allowed to go unchecked. However, the issue was problematic because whilst undue bias was not desirable it was also not desirable to omit words, phrases, and so forth which clearly expressed the interviewees sentiment. Again, the researchers judgement was relied upon.

From the above description it is clear that the analytical methodology adopted for this stage of the research was not scientifically rigorous. The reliability of conclusions drawn from such a method are therefore open to question. However, the qualitative work as described here is exploratory and as such "pre-scientific". Indeed, no firm conclusions are intended to be drawn from this exploratory phase and the qualitative work is not intended to stand alone but rather "flesh out", "confirm", and refine hypotheses.

4.3   EXPLORATORY FINDINGS

4.3.1   The Nature of Service Quality Expectations

Consistent with the literature and theoretical development subjects appeared to use two "bands" of expectations which might be described "high" and "low". This corresponds to the notion of "quality" and "satisfaction" type expectations respectively. In the former band subjects would frequently use words such as "very good", "should", "ideally", and "want" in an interchangeable and non-specific manner. "Low" expectations appeared to involve more complex and nebulous ideas which was shown by subjects finding it difficult to formalise and describe their experiences. This finding warrants further investigation in later studies.

Overall ten dimensions[1] were found to be especially useful in the M.B.A. environment. These are shown in Figure 4.1 in relation to the dimensions presented by Parasuraman *et al.* Frequently occurring service features tapping these qualitative dimensions are shown in Table 4.2.

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1 In fact although certain features were clustered together a priori the label "lecture delivery" was not given until after empirical analysis. As a matter of expediency it is presented in the same manner as the other pre-labelled dimensions.

Figure 4.1 : Qualitative Dimensions in the Research Context

QUALITATIVE DIMENSIONS
(Parasuraman, et al 1985)

QUALITATIVE DIMENSIONS
(M.B.A. Environemnt)

(Parasuraman, et al 1985)	(M.B.A. Environemnt)
Tangibles	Tangibles
Reliability	Personal Development
	Reliability
Responsiveness	Responsiveness
Communication	Communication
	Lecture Delivery
Security	Security
Courtesy	
Competence	Competence
Credibility	Credibility
Understanding	Understanding
Access	

Table 4.1 : Service Quality Dimensions Resulting from Exploratory Work

Quality Dimensions	Relevant Service Features
Tangibles	Up-to-date equipment

Visually appealing physical facilities

Neat-appearing staff

Physical facilities which appear in keeping with the type of service

A place where students can meet lecturers in informal surroundings

Attractive campus.

Course activities centred in one building |
| Reliability | Providing service at the promised time

Sympathetic and reassuring help

Performing the service right the first time

Error-free records |
| Credibility | Premium price for course fees

Good industrial contacts

Continual effort to improve service

High calibre students on course

Good reputation

Lecturers with good commercial experience

Course well tuned to the needs of industry |

Communication	Kept well informed about when services will be performed
	Kept well informed about what is going on
	Timely information about relevant activities
Competence	Organisation support given to staff
	"Smooth" and well organised course
	Knowledgeable staff
	Professional staff
	Guidance to subjects
	Up-to-date knowledge
	Easily transferred concepts and skills
	Opportunities to learn a lot
	Provision of analytical techniques and frameworks
	New ideas at the front-end of management thinking
Understanding	Individual and personal attention
	Clear knowledge of specific needs
	Staff have best interests at heart
	Make you feel like a "paying customer"
Security	Behaviour of staff instils confidence
	Feel safe in their transactions
	Reasonable steps taken to ensure personal safety
Responsiveness	Prompt service
	Willingness of staff to help
	Approachability of staff

Personal Development	Student feedback on course performance
	Personal challenge
	Opportunities for all round personal development
	Career prospects enhancement
	Opportunities to draw on other students practical experience and knowledge
	Participation and contribution of students on course
	Opportunities for interacting on courses
Lecture Delivery	Lecturers' ability to get their point across to students
	Lecture preparation
	Interesting lectures
	Presentation skills of lecturer
	Ability of lecturers to be clear and to the point

Both of these tables offer support for the main Hypotheses presented in Section 3.2. Note particularly the notion of service-specific dimensions stemming from generic dimensions did appear. Also, subjects readily accepted the interview plan in Investigation B which suggests students had no problem with the concept of general and service-specific expectations. Indeed, when discussing such categories a diverse set of appropriate examples was often readily forthcoming from subjects trying to communicate their expectations to the researcher. That is, subjects would move from the abstract (i.e. generic, such as "I expect friendly staff") to giving plenty of specific examples (i.e. service-specific, such as "I expect waiters at a reasonable restaurant to smile and be welcoming"). This suggests that subjects hold expectations at different levels of abstractness which, consistent with Chapter 3, can be described as generic and service-specific. It is worth noting that a small proportion of

subjects found it difficult to think in general, abstract terms and were happier with the notion of service-specific expectations.

4.3.2 The Determinants of Service Quality Expectations

4.3.2.1 Service Sophistication

Interviews were replete with examples of some general service sophistication construct determining quality expectations. Four demographic variables were also found to be of interest: age, income, gender, and work experience. With respect to age, one student noted,

"As you get older you've got more experience to base your judgement on".

Other examples include the following.

"Since my mid-twenties I started to have more responsibility- I'm less care free now and I expect others to do as I'm doing and be more responsive"

"I feel I expect more now- when you get older your expectations are higher than when your younger"

"I expect more now because I'm more sophisticated and older"

"I expect people to be more respectful now I'm older, more professional ...... I'm more aware and therefore more demanding"

From the above quotes age appears to impact sophistication. In other words age is directly related to the number of service and related experiences a person might have had which in turn leads to more discerning judgement. However, in another sense age also appears related to self-concept and values. This refers to how an individual sees themselves as more mature (self-concept) and therefore more worthy of respect (value).

In addition to age, income was found to be an important variable. Indeed, one interviewee said,

"Expectations depend on income".

Examples of other relevant quotes include the following.

"Expectations change as your salary improves"

"As my income's grown I'm not so value dependent, not so much into the pounds and pence of it".

There are at least two ways in which income might capture some general service sophistication construct. First, consistent with the theoretical discussion the quality of general consumption patterns might change with income which will impinge on some comparison level (Thibault & Kelley, 1959). Second, changes in income might lead to an increase in the number of purchases and/or type of services used which in turn leads to greater service sophistication. Note, however, these points are not mutually exclusive.

Gender was also found to be relevant, though not so overtly important. One female interviewee said,

"As a woman I expect more respect".

It was generally observed that female interviewees emphasised assurance related issues of service compared with their male counterparts. In addition to age, income, and gender it was also found that some work experiences might be influential in determining quality expectations. Relevant quotes are as follows.

"I think just general life experience, from work and things, has significantly determined my expectations"

"I'm being demanded more of [at work] myself now so I expect more"

"Maybe it's [i.e. rising expectations] because I feel as though I have to work harder for my money these days ..... it seems more effort goes into it"

"I expect more because I make a living from service".

These quotes bring out perhaps some sense of a cultural shift in the workplace that as an individual is educated and demanded more of in terms of service the more demanding they themselves become.

To conclude so far, general service sophistication seems a potentially useful determinant. It also appears to be a general, experienced-based construct which draws on *all* service encounters (i.e. both as a consumer and provider). Whilst certain demographic variables, particularly age, income, and gender appear to be related to this construct they also seem to be related to other potential determinant variables also (e.g. self-esteem).

The fact that experience of a specific service might in some way form or change expectations is axiomatic in the literature. Subjects reported experience as influential in determining expectations particularly in terms of "homing-in" on areas of importance and generally "sharpening" them. This is consistent with the concept of service-specific sophistication and is reflected in the following examples.

"I realised in hindsight what I expected because it was what was not there"

"By being here I've 'homed-in' on areas of importance"

"I have more awareness from being there [i.e. at Aston]- more detail"

Further, experience with competing services was recognised as being important in raising levels of discernment and determining quality expectations.

It is worth noting that students did not appear to infer service-specific expectations from closely related services in terms of what they associated with

"excellence". Younger foreign exchange students and recently graduated students did appear to rely on inferential processes in terms of what would be predicted and adequate, however. It is surprising that other possibly related services such as management training programmes and other business education programmes did not appear to influence associations with quality. This finding might have been a consequence of the small sample and/or the nature of Aston Business School's students which for some reason might lack such experiences.

Social information was also found to be an important element of building quality expectations in a the specific-context of study not just before but also during the service encounter. Word-of-mouth (W-O-M), consistent with the literature, was found to be important but also reference groups were found to be influential in this context.

Examples of typical student statements relating to W-O-M are as follows.

"People talk about which is best [i.e. Business School] ...... word-of-mouth is important because you need a comparative standard- experience with others"

"I spoke to other people at other Business Schools. I felt that was important"

"Word-of-mouth has given me a more global picture of what I want"

"I didn't have a clear idea [of what I wanted] as the last thing I did was 'O-Levels' so I relied on word-of-mouth from my friends and work colleagues"

"Reputation is just word-of-mouth really and asking people, 'what do you think of Aston University ?' [and] 'what do you think of Warwick University?'. And asking people on other courses"

"Well, as the months have gone by I have found more and more people who are going through M.B.A.'s and I've met a couple of people doing more assignment based grading which would have suited me better".

From these examples we can see that W-O-M is generally regarded in terms of broadening an individual's perspective. It was also found to be important part of determining *perceptions* of reputation.

144

Statements by students relating to reference groups are as follows.

"Good Business Schools should be held in esteem outside, command commercial attention in the world- general media and that sort of thing"

"Well, I mean to some extent it's as reported in the press. You know Warwick have now got great whatever in their research rating and therefore the government have given them so much extra thousand"

"It's important that they're recognised- A.M.B.A. approved- it gives them credibility"

Apart from the first quotation it is apparent that reference groups (A.M.B.A., general business media, and employers) are important in determining perceptions. However, it is also apparent, as clearly communicated in the first statement, that to some extent it is implicit that good Schools are expected to have good reputations.

Information provided by staff and brochures by Business Schools were both found to be important sources of information with respect to forming quality expectations (i.e. commercial information). As one student stated,

"I either misread the sales blurb at the start or have been given misinformation because I did believe that the Business School M.B.A. would be more in tune with the wants and needs of industry".

Conversely, an academic stated,

"I think they're expecting a mixture of both theory and practice. I believe we sell the M.B.A. in that way, perhaps more than some other M.B.A. programmes around".

In both of these cases it is evident that promotional efforts by Business Schools do form some picture of desirable characteristics in the general rather than just

the specific sense and that these expectations in turn are used for evaluative purposes.

To conclude, information was found to be a potential determinant of service quality expectations. In addition, the categories of social and commercial information appeared a useful distinction to make.

4.3.2.2 Personality Traits

Many statements relating to personality were of an anecdotal nature. In other words, interviewees often attributed their wants and expectations to their personality. However, it was also observable that the perceived risk associated with services interacts with some sense of internal control and worry to determine quality expectations. The following are examples of statements reflecting these two points.

"I like helpful, friendly staff who will carry out the service in an unobtrusive way. It's a personality thing really, I just don't like being sold too"

"because that's the type of person I am"

"I think personality is important. I take a purely functionalist view of why servers should have a good relationship with customers- so they do a better job"

"I want to feel informed, comforted and reassured that I bought the right service so I feel good and [do] not worry"

"You want to be made to feel confident that you're making the right purchase and getting the benefits you're paying for"

"You make sure it's in the best possible hands so you minimise the risks of things going wrong ...... it's about peace of mind in transactions"

The first three statements clearly supply anecdotal evidence of personality being important and the latter three statements refer specifically to some sense of internal control or worry traits. Given the amount of time available in any

one interview, the diverse nature of the subject matter to be covered, and the non-clinical training of the researcher it was not possible to identify any other specific personality traits. However, it was felt that sociability might be an important trait given the social nature of many service encounters and perceived risk literature (see section 2.3.4). Villani & Wind (1975) presented a shortened personality trait measure which measured the traits of internal control, relaxedness and sociability. It is proposed that this is a useful conceptualisation of traits in the service context reflecting internal control, anxiety, and some social interaction orientation.

4.3.2.3 Personal Values

When describing why friendliness and helpfulness were important to a particular student the following statement was made.

"It's the way I would like to be treated and the way I would like to think I treat other people, it's a normal sort of decent human response".

This quote clearly captures the sense in which values, be they personal or more widely held at the cultural level, might determine quality expectations. The two values which were found to be of importance to the group interviewed correspond to those suggested in Chapter 3, namely equity and time. Examples of statements made by interviewees in relation to these values are given below.

"It's about treating you right .... if they want you to go back you need contentment on both sides [i.e. not just the organisations side]"

"[It's an] I'm OK your OK philosophy ..... if it's not you're made to feel small and valueless"

"You want to be getting a fair deal for a fair amount, don't you"

"They've [i.e. service companies] got to get it right .... I don't want to be wasting my time, particularly if it's not my own free time"

"Time is an important commodity because I've very little of it with working, family, M.B.A.'s and all the rest of it"

"Timeliness in my mind is a key element in all service provisions .... because I'm very busy, most people are ...... I value my time very highly"

The meaning in the first three examples, relating to equity, is relatively straight forward to interpret. Quite simply it is about the customer receiving a fair outcome. Whilst this might be anticipated to be most important in determining adequate expectations it was still constantly referred to when discussing desired expectations also. At this level of model development it was therefore retained in the manner discussed in Chapter 3.

4.3.2.4   Personal Needs

It was immediately apparent during the interviews that one psychological need was very important in setting service quality expectations, namely self-esteem. When discussing service personalisation two interviewees made the following statements.

"I think it perhaps makes you feel special and they actually want to try and help you"

"It's about personal relationships. Feeling wanted. Attended to. Self-importance, a little bit above the masses".

This communicates a clear need of self-worth which in turn is a desirable characteristic of service. Other examples include the following.

"I suppose it's about making you feel valued when you walk into a shop ..... you don't want to be just fobbed off- 'Oh, big deal, we've got plenty of other customers and you're not that important'"

"As a customer it [pleasantness and cheerfulness] makes you feel as if your wanted by the organisation. Why go into a shop and effectively be insulted when you can go into a shop and not be insulted. That's the difference isn't it"

"You perceive yourself as being more important in the way people react and treat you- not one of the masses but *you*".

To conclude, psychological need (self-esteem) appears to offer a pervasive and strong explanation regarding service and quality expectations.
When discussing examples of specific services the benefits sought, or motive for purchase, formed a clear criteria in subsequent quality assessments. The following statements are examples which illustrate this point.

"They [excellent service companies] identify what the customer wants and then deliver it. They solve the problem properly"

"My motive for taking an M.B.A. is still the same, it's still very important and the overriding basis for evaluating the course"

"It [excellent service] relates to you as you are and then solves the problem"

This appears to support the notion that "core services" are determined by basic purchase motive(s) which are vital to quality evaluations and forming expectations.

4.3.2.5   Conclusions

Overall, the conceptual development offered in Chapter 3 proved impressive in its ability to provide a framework for capturing variables uncovered in the exploratory phase. This not only provides some evidence towards the veracity of the determinant hypotheses but additionally yields a sound basis for empirically operationalising and testing determinant categories. Regrettably, however, "culture" was not identified as an explanatory construct. However, one interesting feature of both equity and time based values (see section 4.3.2.3) is that they are a subject to variance both at the individual (e.g. Kelley & Thibault, 1978 and Engel, Blackwell, & Miniard, 1991, respectively) and cultural levels (e.g. Oliver & Swan, 1989a and Graham, 1981, respectively). This provides indirect evidence that "culture" might be another useful explanatory concept. At this stage of development, therefore, the culture variable was retained.

4.3.3   <u>The Dynamics of Service Quality Expectations</u>

Many subjects found the abstract notion of changes in levels of service excellence difficult to conceptualise but it appeared overall most felt their expectations of service quality had remained fairly stable which is reflected by the two following student comments.

"My expectations of excellence hasn't changed, particularly as I haven't experienced other Business Schools".

"My expectations haven't changed very much with my experience of the course. I knew what I wanted- though not necessarily how it would be delivered".

However, several academics felt that expectations changed over the degree which are captured by the two following comments.

"People have expectations at different stages of the process. They have one set of expectations even when the idea of doing an M.B.A. is just dawning on them .... and then they revise their expectations again during the first few days of the course".

"I think when their expectations actually change is when they get here. I think their expectations before they come are these sorts of high ones".

The contrast between student and academic comments are argued to arise from two sources. First, there was an underlying heterogeneity within those students interviewed. That is, whilst most service quality expectations with most students appeared to remain stable this belies the fact some service quality expectations did change both up *and* down. Second, the academics' comments do not specifically refer to quality expectations. Indeed, within the student population notions of predicted and adequate expectations appeared to be volatile.

Whilst conclusions about the stability and determinants of service quality expectations were reasonably forthcoming from the exploratory work little support and few refutations were provided for the remaining "dynamic"

hypotheses. At this stage of the research they were therefore retained as a heuristic.

4.3.4 <u>Conclusions</u>

The findings from the exploratory study generally supported the hypotheses made in Chapter 3. In addition, they enable a richer picture to be built in relation to the three research issues and provide a useful grounding for the development of operational constructs.

CHAPTER 5

AN EMPIRICAL INVESTIGATION INTO THE NATURE OF SERVICE QUALITY EXPECTATIONS

5.1   INTRODUCTION

Chapter 5 empirically investigates Hypotheses 1 to 7 regarding the nature of service quality expectations.   The general methodology and operational constructs are first described.   Subsequently research design, sampling, and analysis issues are considered. Results are then presented and discussed.

5.2   METHODOLOGY

5.2.1   General Methodology and Construct Measurement

Exploratory findings presented in section 4.3.1 suggested subjects had several notions of "high" expectations. Hypothesis 1 was investigated by statistically comparing two independent groups of student responses to service features anchored in "should" and "excellent" expectations. These two anchors were chosen because they frequently appear in the literature (e.g. Parasuraman, Zeithaml, & Berry, 1988 and Boulding, Kalra, Staelin, & Zeithaml, 1993) and are therefore of particular interest. The expectations battery of a service-specific quality measure was used to capture service features with respective anchors (see below).   In comparisons this measure showed the greatest explanatory power and construct validity and was therefore the natural choice.   Non-statistically significant differences between features were judged capable of demonstrating the efficacy of this hypothesis.

Hypotheses 2 to 6 were initially investigated by developing a service-specific measure of quality. When developing the service-specific scale of quality a classic measurement paradigm was adopted. Consistent with this the work of Churchill (1979) and in particular Nunnally (1978) were very influential. The underlying proposition in developing a scale is that relevant supporting dimensions (and expectations) will be used to evaluate service quality in a

service-specific context. Hypotheses 5 and 6 were further investigated in the following manner. To further investigate Hypothesis 5 SERVQUAL expectation battery items were oriented to service in general and an overall index used as a dependent variable. Note that using an index in this manner is independent of the factor structure of SERVQUAL which obviates many of the problems discussed (see Chapter 2). This was proposed to capture generic service quality expectations. The empirical relationship between these expectations and service-specific expectations was then statistically investigated where the latter acted as the dependent variable. This study used data collected from the same students at the same point in time. Hypothesis 6 was further investigated by comparing the performance of a service-specific measure against a generic measure of quality (SERVQUAL) in a fully symmetrical study using the same subjects. SERVQUAL in this instance was oriented towards the specific context and used discrepancy or gap scores in the typical manner (see Chapter 2). Comparing different measures using the same subjects in this manner is generally accepted as a particularly powerful means of detecting differences in model performance (e.g. Keppel, 1982). The rationale for this comparison is that for a service-specific conceptualisation of quality expectations to be useful it should offer both greater construct validity and explanatory power as a model than the more parsimonious generic conceptualisation.

On generating a valid service-specific quality measure the relative importance of "splitting" dimensions was assessed statistically to test Hypothesis 7. The exploratory work (see Figure 4.1 and Table 4.2) suggested *a priori* that personal development and lecture delivery would both be relatively important compared to other dimensions.

5.2.2   Research Design and Sampling

Collecting the data required to generate a scale follows much the same process as generating and administering any questionnaire. The following two sections specifically discuss issues relating to the construction and administration of a service quality questionnaire with the object of building a scale. Sampling issues are also discussed.

5.2.2.1 Construction of Questionnaire

Churchill commented (1987, p271),

"Although much progress has been made designing questionnaires is still an art and not a science. Much of the progress has been in the form of admonitions, such as "Avoid leading questions" or "Avoid ambiguous questions". It is much easier to embrace the admonitions than it is to develop questions that are indeed not leading or ambiguous".

It is still desirable to embrace such admonitions whenever practically possible, however. Consequently, relevant guidelines were followed closely when constructing instruments (Bailey, 1982; Churchill, 1987; Fowler, 1988, and Tull & Hawkins, 1990). At the most basic level this involved detailed consideration of both questions and response options. Substantive issues are briefly considered below.

Questions should be relevant to both the study and respondents in hand. Relevance concerning the study is largely dictated by the research objective and relevant theory. Clearly, the objective here is to develop a service quality scale for a specific service and test respective Hypotheses. Churchill (1979) described a systematic process to act as a guide in developing valid marketing scales. Based on his guidelines 37 statements were generated from Table 4.2 to supplement and extend SERVQUAL items and dimensions respectively. These statements form the basis of the questionnaire shown in Appendix 5.1. Several points are worth noting about this questionnaire. First, it includes all 22 SERVQUAL items (Parasuraman, Zeithaml, & Berry, 1988). This was necessary to facilitate a direct comparison between a service-specific and purely generic measure. In addition, they had already proved useful items. Second, items were taken from the *original* SERVQUAL (i.e. 1988 rather than 1991 version) because on the basis of the exploratory work these were judged to be more meaningful in this context. However, consistent with the literature review and Chapter 3 the statements were anchored in terms of excellence. Third, the inclusion of SERVQUAL items effectively allowed generic items to compete against service-specific oriented items to enter the factor solution. The issue of relevance noted above was satisfied because subjects were relatively homogenous with a direct interest in the subject matter (i.e. they were all currently using the service in question). With respect to terminology

statements had either been used in previous studies or were grounded in exploratory work which considerably reduces the chances of statements being unfamiliar. Finally, three items suggested by Parasuraman, Zeithaml, & Berry (1988) were also included to investigate validity issues and to form a basis to test the competing generic and service-specific models. The criterion item had five response options (terrible-poor-fair-good-excellent). The inclusion of an additional response option over that used *op cit.* was designed to increase the discriminable abilities of the item. In addition, two categorical questions were asked. The first was concerned with student complaints and the second recommendations of Aston to a friend (see section 5.2.4.2 for an elaboration of the construct validity issue). Again, all of these items had been used extensively in previous studies and were judged relevant to both the study needs and subject group.

Response relevance and format must be appropriate to both the individual questions and the study as a whole. Three types of attitude scales are frequently used in marketing namely the semantic differential, the Stapel scale and the summative or Likert scale. The semantic differential anchors a scale with suitable adjectives stated in opposite form at each end of the scale. An example would be anchoring a scale with "staff are unpleasant" and "staff are pleasant" respectively. The semantic differential has most often been used to develop product profiles in marketing with "snake" diagrams. A Stapel scale is really a modification of the semantic differential. It involves respondents rating how well a particular word describes a product in the respondents opinion. Churchill (1987, p335) describes three key differences between the semantic differential and the Stapel scale. First, the Stapel scale has adjectives or descriptive phrases which are tested separately. Second, the scale has numbers attached to it. Third, there are ten and not seven scale positions. Likert rating scales, on the other hand, allow for some expression of the intensity of belief along some "strongly agree" to "strongly disagree" continuum. Here the respondent rates their intensity of agreement in reference to some statement reflecting qualities of the attitude object being measured. When measuring constructs with rating scales a consistent response option to the item is critical. Furthermore, response items must lend themselves to the chosen data analysis technique and presentation. When measuring service quality in the past researchers have used summated or Likert-type scaling (e.g. Cronin & Taylor, 1992 and Parasuraman, Zeithaml & Berry, 1988). Consistent with previous studies a seven point response format was used to build a summated scale. It is worth noting that summative models are generally highly reliable (Nunnally, 1978, p604) and have produced meaningful results in a wide range of previous studies. It should be further

noted that attribute importance's could not be measured at this point in time because the factor structure was essentially unknown.

5.2.2.2 Administration of Questionnaire

Data was collected via a mailed survey to M.B.A. students in preference to either a personal or computer administration. When selecting this method the following seven criteria were considered (Tull & Hawkins, 1990, p148).

(1) Complexity;

(2) Required amount of data;

(3) Desired accuracy;

(4) Sample control;

(5) Time requirements;

(6) Non-response;

(7) Cost.

Although *general* strengths and weaknesses are associated with each administration method in relation to these criteria many are ultimately project specific. In this particular investigation there were few *a priori* methodological grounds for discriminating between the different types of administration. Questionnaire complexity favours a personal administration but in this investigation the questionnaire was simple. This is demonstrated by the readily understandable expectations-perceptions format (Parasuraman, Zeithaml, & Berry, 1991) and by statements which refer to accessible service features. Despite a reasonably large amount of data being required from the survey (44 SERVQUAL and 70 additional items) studies using larger numbers of items have apparently not suffered from respondent fatigue (e.g. Parasuraman, Zeithaml, & Berry, 1988 and Brown & Swartz, 1989). Again, personal interviews would be favoured over mailing and computer administrations if fatigue was considered a problem. "Accuracy" refers to errors introduced by the survey method itself. With personally administered

questionnaires an obvious source of error is interviewer-respondent interactions arising from ethnic affects, gender affects, non-response to sensitive questions et cetera. Computer and mail administered questionnaires largely eliminate this source of error and are unambiguously favoured on this criteria. Sample control, the ability to chose subjects, is high in this particular research context with all administration methods because of the "membership" type relationship with students and availability of an accurate sampling frame. As a consequence this criteria was not useful for discriminating between methods. The amount of time required to complete the data collection phase is also unuseful for discrimination purposes in this investigation. Personal interviews, particularly when conducted by telephone, are generally regarded as being quicker than mailed surveys (Tull & Hawkins, 1990, p154) but given the restricted amount of labour this was highly unlikely to be the case in this project. There again seemed few *a priori* grounds for discriminating between methods on the non-response criteria because all tend to fluctuate widely depending on the project under consideration and do not clearly differ in practice (Tull & Hawkins, 1990, p155). The final criteria, cost, was not an important consideration because labour was free and other costs minimal. From this discussion only the "accuracy" criteria appears to discriminate well and this favours either a mailing or computer administration. Mailing was the most preferred of these because students were familiar with being contacted by mail. Furthermore, this method of administration is common for scale development. In an attempt to raise response rates multiple follow-ups were used, however, which is consistent with findings in this area reflecting "best practice" (Conant, Smart, & Walker, 1990).

5.2.2.3   Sampling

The sampling procedure was relatively complex because the number of discrete studies was large. Before discussing each study, however, the general position adopted *vis a vis* random sampling in this thesis is noted. Random is defined throughout this thesis in the following manner (Curwin & Slater, 1985; Keppel, 1988; and Tull & Hawkins, 1990).

"A sample is said to be random when subjects are drawn from a specified population and each member of that population has an equal chance of being selected with an associated probability lying between 0 and 1".

Hypothesis 1 was tested by drawing a random sample of 60 full- and part-time students from an alphabetical list of all registered students. Alphabetical sampling frames are known not to suffer from any particular systematic bias (Beaumont & Stray, 1993). An 82% response rate (i.e. 49 returns) was achieved after two follow-up letters. This data was then compared with that arising from the scale development sample described below[1]. Both student groups had a mixture of experienced full- and part-time M.B.A. students and were independent of each other (i.e. there was no overlap of subjects).

In order to develop the quality scale (and hence provide a means of testing Hypotheses 2 to 7) a sample of 254 students was drawn from an alphabetical list of all registered students. After two follow-up letters a respectable response rate of 43% (i.e. 110 returns) was achieved. The survey period lasted three weeks and no time affects were anticipated.

To further investigate Hypothesis 5 another independent random sample of 226 experienced full- and part-time M.B.A. students was drawn from an alphabetical list of registered students (see Chapter 6 also). A 49% response rate was achieved after three follow-up letters.

5.2.3 <u>Analysis</u>

5.2.3.1 Comparison of Means

Hypothesis 1 was statistically assessed in the following manner[2]. Using Levene's homogeneity of variance test the observed variance in both groups were compared. If the probability associated with this statistic was large (> 1%) the variances were deemed equal and were subsequently pooled for a t-test. This procedure negates the problem of an exaggerated significance level which arises if the traditional separate-variance t-test is used with homoscedastic data (Norusis, 1990). Alternatively, when variances were unequal the usual t-test statistic was used. This is consistent with the suggested approach presented by Norusis (1990). A two-tailed probability was calculated because there was no *a*

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[1] Chronologically this followed the data collection for scale development
[2] Unless otherwise stated all analysis was carried out using SPSS/PC+ with standard algorithms. Cases with missing data on any variable being included for analysis was deleted.

priori reason for believing either "should" and "excellent" anchored expectations would be greater or less than the other.

5.2.3.2   Scale Purification and Construct Validity Assessment

When developing a new scale the basic aim is to generate a set of internally consistent items and "common core" or reliability. This "common core" can be calculated in two ways. First, the instrument's items could be split in two and the inter-correlation calculated. Here, the higher the correlation the more common core is proposed to be present. However, this is not a useful way of capturing any common core simply because no single coefficient can be justified. In other words any splitting of items is arbitrary regardless of the method involved (e.g. random assignment into halves) and different assignments will yield different coefficients. An alternative approach, and the one adopted throughout this study, is to calculate the average of all correlations for all possible splits. By far the most common statistic used to do this is Cronbach's (1951) coefficient alpha (Churchill, 1979; Nunnally, 1978, and Peter, 1979). In addition to alpha, item-to-total correlations were also used to investigate the association of individual items with the total construct score (Churchill, 1979 and Nunnally, 1978). Product-moment correlations were first adjusted to eliminate the spurious raising of coefficients by including the item to be correlated with the total score in the calculation of that total score. Consistent with the guidelines in this area an iterative approach was adopted and items falling below a rule-of-thumb 0.25 or causing alpha to drop below 0.8 were deleted and coefficients re-calculated (Churchill, 1979 and Nunnally, 1978).

In addition to the above common factor analysis was judged an appropriate analytical method to both investigate the dimensional structure of the data set and to refine the item pool (Cattell, 1978; Churchill, 1979; Gorsuch, 1974; Nunnally, 1978, and Parasuraman, Zeithaml, & Berry, 1988). Using a true scientific factor model is consistent with treating service quality as a perceived, psychological construct, and contrasts with principal component analysis which is insufficient as a scientific model for this purpose (Cattell, 1978, p17). Principal component analysis is purely of a descriptive nature which decomposes the total variance in the data set into related "components". A true factor model on the other hand seeks to explain the covariance among variables by common factors (Dunteman, 1989, p55) and ignores the unique variance associated with each variable. Given one of the key objectives was to

159

reduce the item pool principal axis factoring analysis was judged most appropriate means of factor extraction (Nunnally, 1978). As Gorsuch notes (1974, p108),

"The appeal of principal factors is that they represent the greatest proportion of the variance of the variables in the fewest possible dimensions".

The ability to identify psychological constructs in a statistically parsimonious fashion was clearly desirable. Due to the qualitative grounding and encouragement from good alpha coefficients the factor solution was constrained *a priori* to ten factors (e.g. Hair, Anderson, Tatham, & Black, 1992, and Parasuraman, Zeithaml & Berry, 1988). Consistent with the underlying theory surrounding the chosen factor analysis technique the response was treated effectively as a full population (Nunnally, 1978). In other words inferential statistics were not used to describe the data (such as those epitomised by Maximum-Likelihood factor analysis) and the achieved response was regarded as *a priori* representative of the larger population.

Similar to Parasuraman, Zeithaml & Berry (1988) it was anticipated that some reduction in dimensions and reassignment of items would be required. Furthermore, due to SERVQUAL replication studies it was anticipated that some items would load above the rule-of-thumb level of 0.3 (Kim & Mueller, 1978, p70) on several dimensions. This was not deemed desirable and such items were deleted as far as possible on the grounds of poor factor discrimination and parsimony. The purpose here was to find the fewest number of items which captured a particular dimension most. Using factor analysis for the analysis of items in this manner is one of its suggested uses (Gorsuch, 1974, p317). The above description of calculating a factor solution, subsequently deleting or reassigning certain items and then re-calculating alpha scores, item-to-total correlations and new factor solution was carried out in an iterative fashion.

It was decided *a priori* that the initial factor solution would be rotated. The object of rotation in this study was to make the results interpretable. As Kim & Mueller (1978, p29) note factoring per se is an,

"arbitrary imposition placed on data to make the solution unique and definable in some sense".

This is most particularly true for principal axis factoring which is not expected to produce an immediately interpretable solution (Gorsuch, 1974). Subsumed under "interpretation" is the question of simple structure (Cattell, 1978). One criteria for judging simple structure is the hyperplane count. The hyperplane count is simply an analytical criterion that uses the number of zero loadings on factors as some indication of the complexity of the factor pattern. Allowing for some randomness in variables Gorsuch (1974, p165) suggests this practically means counting loadings between +0.1 and -0.1. In an attempt to find the solution with the simplest structure both an orthogonal and oblique rotation were judged appropriate. More specifically the VARIMAX (Kaiser, 1958) and OBLIMIN criteria were used. VARIMAX is an analytical procedure which maximises the sum of variances of squared loadings in the columns of the factor matrix. In effect this tends to drive factor loadings either upwards or towards zero making interpretation easier. VARIMAX was the preferred orthogonal rotation technique because it has been found to provide good results in a wide range of studies (Stewart, 1981) and is generally regarded as the "best" orthogonal technique (Nunnally, 1978, p385). In addition no general factor was expected in this study (Gorsuch, 1974). OBLIMIN was used because it is consistent with Parasuraman, Zeithaml & Berry (1988) thus allowing for simple comparison if adopted. Further OBLIMIN yielded the most interpretable results in that study. It should be noted that no single oblique rotation method has been found superior to its counterparts (Hair, Anderson, Tatham, & Black, 1992, p235) and choice is therefore subjective. The technique OBLIMIN describes a general criterion which makes use of reference axes to simplify the factor loading pattern. Delta, which controls the amount of "obliqueness" of the rotation, was set at zero (Cattell, 1978).

At the end of the above analysis it was appropriate to assess the validity of the new scale. Construct validity was assessed under the two rubrics of trait (internal) and nomological (external) validity (Peter, 1981). Trait validity is primarily concerned with delineating the construct as something different from other constructs, validation being shown by reliability, convergent validity and discriminant validity (Peter, 1981). It has previously been noted that reliability was assessed using Cronbach's alpha. Convergent validity was assessed for each dimension using an overall quality rating as a categorical variable and identifying significant differences between the dimension ratings of various groups. Planned multiple comparisons followed the guidelines

offered by Keppel (1982, p147) in which a less severe correction for Type I error affects was made than would usually be associated with equivalent post hoc comparisons. The Bonferroni test was therefore judged appropriate (Keppel, 1982, p146). The underlying proposition is that subjects giving an overall rating of excellent will have systematically higher gap scores than those giving an overall rating of good, fair et cetera. Discriminant validity is indicated if items *and* factors are truly different from one another. In practice the iterative process described above should produce reasonably discriminant items. In addition, a reasonably clean (simple) factor loading matrix with few items loading higher than 0.3 on any one factor would show item discriminant validity as would items loading only on the one factor expected. With regard to factor discriminant validity the retention of an orthogonal rotation or a low inter-factor correlations adds general to support to this. Finally, the ability for a scientific model such as common factor analysis to elucidate clear dimensions at all lends general support for trait validity (Cattell, 1978).

Before a measure can be accepted as construct valid the measure must also show nomological validity (Peter, 1981, p135). Nomological validity often refers to "lawlike" validity. In other words the question is whether the measure behaves consistently with some external validatory theory (i.e. external to the measure). Nomological validity is shown first and foremost by items loading where the qualitative work suggests. Two additional questions were asked to facilitate the assessment of nomological validity (e.g. Parasuraman, Zeithaml, & Berry, 1998). The first of these refers to whether a customer would recommend the institution to a friend, the second to whether a problem had been reported to the institution in question. The propositions here are that both complainants, and those who are not prepared to recommend an institution, will have systematically lower scores than their opposite. Statistical t-tests were used to assess differences between the respective groups (see section 5.2.4.1).

5.2.3.3 Generic-Specific Relationship and Model Comparison Testing

Hypothesis 5 was further investigated by formally testing the generic-specific expectations relationship using a simple bivariate regression with the summed score of generic service quality expectations acting as the independent variable and the service-specific score as the dependent variable. Parameters were estimated using an ordinary least squares (O.L.S.) algorithm which is the most commonly accepted method of fitting a regression line (Berry & Feldman, 1985,

p12). Using regression analysis to test a relationship in this manner is one of its primary uses in the social sciences (e.g. Aaker, 1971 and Tull & Hawkins, 1990).

Hypothesis 6 was also investigated using regression analysis. In this instance the relative power of SERVQUAL and the service-specific measure was assessed using a regression of summed dimension gap scores (independent variables) with an overall quality rating (dependent variable). Goodness-of-fit was assessed using two criteria (Berry & Feldman, 1985 and Lewis-Beck, 1980). The first of these was the adjusted-R^2. This value, lying between nought and one, shows the proportion of total variance in the dependent variable accounted for by the full model. Clearly, the more variance a model "explains" the better the fit. The second criteria used was the standard error of the estimate of the dependent variable. That is, the estimate of the standard deviation of the dependent variable from the predicted dependent variable. The standard error can be seen to represent some average error in the prediction of the dependent variable. Again, the more error the worse the model is assumed to be.

Hypothesis 7 was also tested using regression analysis. Using regression to test for dimensions importance is consistent with its suggested uses (Tull & Hawkins, 1990, p621) and related studies (e.g. Haywood-Farmer & Stuart, 1988 and Parasuraman, Zeithaml & Berry, 1988). Importance was directly assessed using the standardised beta values which were interpreted as "weights" (i.e. the relative strength of contribution of each dimension to the explanation of dependent variable). Standardised values were used to enable direct comparisons. Interpreting beta in this manner is again consistent with suggested guidelines (Berry & Feldman, 1985).

5.3 RESULTS

5.3.1 Expectation Comparison

Table 5.1 shows the results regarding the comparison of "excellent" (x_2) and "should" (x_1) anchored service quality expectations.

Table 5.1 : t-Scores for Differences Between "Excellent" and "Should" Expectations

Dimension	Levene's Test	t-value	p-value (x_1-x_2)
Reliability	Accepted	(1.88)	0.063 n=49/108
Reputation	Accepted	(0.11)	0.909 n=49/107
Lecture Delivery	Accepted	(2.30)	0.023 n=49/108
Personal Development	Accepted	(1.23)	0.221 n=49/105
Personalisation	Accepted	(0.22)	0.829 n=49/106
Security	Accepted	(0.91)	0.363 n=49/109
Facilities	Rejected	3.28	0.001 n=49/108
Responsiveness	Accepted	(0.74)	0.459 n=49/109
Overall Score	Accepted	(0.94)	0.348 n=49/100

Reviewing Table 5.1 only "facilities" would be considered significantly different at 1% with "lecture delivery" being included at the 5% level. The remaining six dimensions and overall index would not be considered significantly different at either of these two commonly accepted cut-off levels. In other words the null hypothesis of "no difference" cannot be rejected in at least seven out of the nine opportunities. The lack of any consistent pattern of differences between the two groups leads to the acceptance of Hypothesis 1 i.e. quality expectations are robust across "should" and "excellent" anchors.

5.3.2   Service-Specific Quality Measure Construction

5.3.2.1   Reliability and Factor Analysis

The initial statistics for reliability analysis are shown in Table 5.2. Corresponding statements are shown in Appendix 5.2.

Table 5.2 : Initial Reliability Statistics for Service-Specific Scale

Dimension	Item No.	Corrected Item-Total Correlation	Alpha	Alpha if Item Deleted
Tangibles	1	0.482	0.705	0.659
	2	0.640	n=77	0.621
	3	0.597		0.625
	4	0.604		0.631
	5	0.273		0.715
	6	0.297		0.702
	7	0.206		0.738
Reliability	1	0.663	0.835	0.795
	2	0.559	n=77	0.823
	3	0.710		0.781
	4	0.826		0.752
	5	0.470		0.854
Credibility	1	0.002	0.618	0.716
	2	0.578	n=77	0.512
	3	0.395		0.566
	4	0.384		0.567
	5	0.487		0.550
	6	0.429		0.550
	7	0.327		0.584
Communication	1	0.520	0.746	0.728
	2	0.623	n=77	0.601
	3	0.585		0.655
Personal Development	1	0.145	0.665	0.692
	2	0.427	n=77	0.614
	3	0.456		0.605
	4	0.249		0.660
	5	0.398		0.622
	6	0.577		0.557
	7	0.368		0.631
Lecture Delivery	1	0.598	0.855	0.844
	2	0.641	n=77	0.832
	3	0.699		0.823
	4	0.747		0.804
	5	0.694		0.819
Competence	1	0.318	0.791	0.788
	2	0.172	n=77	0.827
	3	0.594		0.761
	4	0.669		0.752
	5	0.333		0.789
	6	0.685		0.745
	7	0.652		0.748
	8	0.546		0.764
	9	0.255		0.795
	10	0.625		0.753

Understanding	1	0.653	0.736	0.626
	2	0.643	n=77	0.631
	3	0.459		0.705
	4	0.365		0.734
	5	0.398		0.736
Security	1	0.505	0.529	0.138
	2	0.590	n=77	-0.025
	3	0.033		0.857
Responsiveness	1	0.646	0.794	0.724
	2	0.704	n=77	0.692
	3	0.617		0.746
	4	0.482		0.798

The item pool was refined initially by deleting all items with unacceptably low adjusted item-to-total correlations (i.e. less than 0.25). Furthermore, all items which caused coefficient alpha to drop were excluded from further analyses. Alpha was then re-calculated for each dimension and the process repeated several times. The object, where possible, was to raise Cronbach's alpha above 0.8. Deleting items beyond this level was deemed wasteful at this stage of the analysis (Nunnally, 1978). All alpha scores were raised above 0.70 by this iterative sequence.

Before submitting the items to factor analysis the correlation matrix was assessed its overall adequacy for this type of analysis. Guidelines offered by Norusis (1990) were used for this purpose. First, the item correlation matrix was calculated. Most variables had at least one high loading with another variable and a reasonable proportion of intercorrelations with others. Second, the anti-image correlation matrix was calculated. This was done to investigate whether the unique variances' associated with each variable were inter-correlated. An underlying assumption of the factor model is that the unique variance of each variable should be uncorrelated with other variables. Here a low proportion of variables in the anti-image matrix had high correlations which satisfied this assumption. Third, the sampling adequacy coefficient for each variable was calculated. This coefficient measures the magnitude of correlations to partial correlations for each individual variable. These ranged between 0.56 and 0.84, 86% being above 0.6 which would appear adequate. Further, the sampling adequacy was calculated for all pairs of variables rather than a single variable. This index of adequacy is commonly referred to as the Kaiser-Meyer-Olkin index and is the best measure of a correlation matrix suitability (Stewart, 1981). A coefficient of 0.73 was achieved for the total matrix which is in the middling range of adequacy (Kaiser, 1974). Finally, the squared multiple correlation coefficients (initial communality estimates)

between each variable and all other variables were calculated. These were generally observed to be of a reasonable level, 86% being above the 0.6 mark. Overall, this would generally suggest that the original correlation matrix was quite acceptable for factor analysis with the deletion of a few items[1].

Having assessed the suitability of the correlation matrix it was factor analysed using the principal axis method with VARIMAX and OBLIMIN rotations. No clear ten factor pattern emerged from the first solution regardless of whether an orthogonal or oblique rotation was used. Communication and reliability items were found to load heavily on one factor (labelled reliability). Credibility and competence behaved similarly (labelled reputation). This suggested a reduction in dimensions to eight factors. Several items which discriminated poorly were deleted at this stage. New alpha scores were then calculated, relevant items deleted and a new eight factor solution calculated. After deleting several more items which discriminated poorly or caused alpha to drop below 0.8 twenty eight items remained. Table 5.3 summarises the latent roots, variance explained, factor loadings and alpha scores for the final VARIMAX rotated solution (n=90: the relevant latent roots and variance explained were calculated by hand because SPSS/PC+ does not provide this information for the rotated solution). It should be noted that no item included in the final measure loaded on other items above the 0.3 mark. The one exception to this was item number 28 which had loadings of 0.31 and 0.35 on personalisation and reliability dimensions respectively. This was not considered a serious breach of discriminatory power. Corresponding items are shown in Appendix 5.3.

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[1] The iterative sequence adopted to delete items and refine the item pool during factor analyses resulted in a different final correlation matrix. The deletion of many items caused some deterioration in estimated communalities in the final matrix. However, overall the suitability of the correlation matrix improved somewhat with 90% of individual variables having a sampling adequacy over 0.6 and a Kaiser-Meyer-Olkin index of 0.75. The proportion of large to small coefficients also decreased in the anti-image correlation matrix.

Table 5.3 : Results of Final Service-Specific Scale

Dimension	Alpha	Item Number	Latent Root/ Variance Explained[1]	Factor Loadings
Reliability	0.89 n=90	1 2 3 4 5	3.41/12	0.90 0.81 0.70 0.69 0.67
Reputation	0.81 n=90	6 7 8 9 10 11 12	2.98/11	0.87 0.66 0.58 0.56 0.50 0.44 0.40
Lecture Delivery	0.84 n=90	13 14 15 16	2.53/9	0.80 0.72 0.66 0.58
Personal Development	0.72 n=90	17 18 19 20	1.91/7	0.73 0.67 0.62 0.48
Personalisation	0.84 n=90	21 22	1.71/6	0.87 0.67
Security	0.86 n=90	23 24	1.63/6	0.89 0.76
Facilities	0.80 n=90	25 26	1.51/5	0.94 0.65
Responsiveness	0.76 n=90	27 28	1.29/5	0.77 0.62

For each factor extraction the initial solution was rotated. Both the oblique and orthogonal rotations yielded substantively the same results in each case. The oblique rotation, however, yielded a consistently simpler factor pattern than the orthogonal case on the hyperplane count (65% versus 46% respectively on the final measure). The average pairwise correlation of factors on the OBLIMIN rotation was low (again, 0.176 on the final measure) suggesting that an oblique rotation was not applicable, however. In addition there was no difference between the two rotation techniques in terms of complexity when looking at loadings above 0.3. The orthogonal rotation was duly retained as the simpler of the two techniques.

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[1] In total 61% of the variance was explained

To investigate the reliability of the eight factor solution a random sample was drawn from the data set and re-analysed. This approach is consistent with the general guidelines in this area (Aaker, 1971). The underlying premise is that if an eight factor solution truly existed then this pattern should be present in any sub-sample also. The VARIMAX rotated solution using 50% of the cases is shown in Table 5.4. Only loadings of 0.3 and above are shown.

Table 5.4 : Investigation into Reliability of Service-Specific Factor Structure

Dimension	Item No.	F1	F2	F3	F4	F5	F6	F7	F8
Reliability	1	0.89							
	2	0.81							
	3	0.81							
	4	0.67							
	5	0.67							
Lecture Delivery	6		0.84						
	7		0.75						
	8		0.69						
	9		0.50						
	10[1]		0.46		0.41				
Reputation	11			0.78					
	12			0.73					
	13		0.34	0.67					
	14			0.41			0.38		
	15			0.40		0.31			0.32
	16		0.30	0.40			0.34		
Personal Development	17				0.77				
	18		0.33		0.68				
	19				0.67				
	20				0.38				
Responsiveness	21					0.80			
	22	0.37				0.65			
Facilities	23						0.94		
	24						0.64		
Personalisation	25							0.81	
	26							0.74	
Security	27								0.93
	28								0.76

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1 This item loaded on "reputation" in the previous solution

From this table we can see that some deterioration in the discriminant ability of certain items occurred. However, the primary "clusters" clearly remain distinct. Overall, then, this was regarded as a very good performance which indicates a robust factor structure.

5.3.2.2 Construct Validity Assessment

5.3.2.2.1 *Trait Validity*

The reliability coefficients reported in Table 5.3 are all of a reasonable magnitude the majority being above 0.8 for each dimension. The overall reliability coefficient for the new measure was 0.93 (see Appendix 5.4 for the calculation of this coefficient). As a rule-of-thumb coefficients above 0.5 to 0.6 are sufficient for basic research (Churchill, 1979). These reliability figures therefore support the trait validity of the construct. Convergent validity is shown to some extent by the dimensions being consistent with other measures of service quality and SERVQUAL items being retained. Indeed, the new measure had a significant (p=0.000, n=83) product-moment correlation of 0.88 with SERVQUAL. The multiple comparison results for criterion validity are provided in Table 5.5. Only three categories were used by subjects when rating overall quality- poor (2), fair (3) and good (4). Group means were calculated using summed dimension and overall gap scores. The significance level was set at 5% for all comparisons (n=90 approximately). Overall the results offer support for convergent validity. Whilst the overall index (OSQ) performs as well as possible five from the eight dimensions have no significant differences at all. It is worth noting that dimensions largely tapped by items developed in context (lecture delivery, personal development, and reputation) are the only ones which exhibit convergent validity.

Table 5.5 : Criterion Validity Multiple Comparison Results for Adapted Measure[1]

	LD 2	3	4	PD 2	3	4	RL 2	3	4	RP 2	3	4	RS 2	3	4
2											*				
3															
4	*	*		*	*						*				

	SC			F			P			OSQ		
2												
3										*		
4										*	*	

Discriminant validity is indicated if the items and factors are truly different from one another. It was found that virtually no items loaded higher than 0.3 on anything other than its salient factor using the full data set. Furthermore, this held with an orthogonal rotation. Indeed, the very fact that an orthogonal rotation could be retained with little impact on the pattern complexity suggests good factor and item discriminant validity. Finally, the ability for a scientific model (Cattell, 1978) such as common factor analysis to elucidate both clear and robust dimensions in a manner found here also lends good support for general trait validity.

5.3.2.2.2   *Nomological Validity*

Nomological validity is broadly shown by items loading reasonably in-line with the exploratory work. Whilst two factors were formed by qualitative dimensions collapsing the overall performance can still be regarded as good on this count simply because the qualitative dimensions were found to be empirically useful. Table 5.6 below summarises the nomological validity results. Here, a one-tailed probability is presented because particular categories were stated *a priori* to have larger values than another.

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1 LD= lecture delivery PD= personal development RL= reliability RP = reputation RS= responsiveness SC = security F= facilities P= personalisation OSQ= overall service quality

171

Table 5.6 : Nomological Validity Tests with the Adapted Measure[1]

Dimension	Levene's Test	t-value (x_1-x_2)	p-value (x_1-x_2)	Levene's Test	t-value (x_3-x_4)	p-value (x_3-x_4)
Reliability	Accepted	1.13	0.131 n=74/21	Accepted	(2.27)	0.013 n=50/48
Reputation	Accepted	4.42	0.000 n=73/19	Accepted	0.64	0.264 n=49/46
Lecture Delivery	Accepted	3.02	0.002 n=70/21	Accepted	(0.52)	0.303 n=47/47
Personal Development	Accepted	3.45	0.001 n=72/22	Accepted	(0.72)	0.237 n=49/48
Personalisation	Accepted	0.45	0.326 n=73/21	Accepted	(2.65)	0.005 n=49/48
Security	Accepted	2.17	0.016 n=75/21	Accepted	(1.13)	0.130 n=51/48
Facilities	Accepted	0.61	0.783 n=73/19	Accepted	(1.36)	0.088 n=48/46
Responsiveness	Accepted	1.03	0.152 n=74/22	Accepted	(2.97)	0.002 n=51/48
Overall Score	Accepted	3.15	0.001 n=65/17	Accepted	(1.55)	0.162 n=41/43

Reviewing Table 5.6 each dimension can be seen to exhibit nomological validity on one of the checks which lends additional support regarding the overall construct validity of the measure.

5.3.2.3 Conclusions

Reviewing the results presented in section 5.3.2 several conclusions can be drawn regarding Hypotheses 2 to 6. From the final service quality scale presented in Table 5.3 it is apparent that role expectations relating to human behaviour are included (e.g. personalisation, responsiveness, et cetera). The inclusion of expectations in this manner offers support for Hypothesis 2 which is therefore accepted. Table 5.7 presents a matrix categorisation of service-specific dimensions. Note, consistent with the argument forwarded in section 2.5.3.2.2, intangible outcomes are argued to be capable of yielding tangible benefits. This clearly demonstrates that process/outcome and intangible/tangible categories can be used in a meaningful manner to describe

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[1] x_1 = no and x_2 = yes to the question regarding recommendations; x_3= no and x_4 =yes to the question regarding complaints.

service-specific expectations. In addition, whilst not reported here Chapter 6 presents results which offer further empirical support for their usefulness in developing theory. Hypothesis 3 and 4 are therefore accepted.

Table 5.7 : Matrix of Categories of Service-Specific Expectation Dimensions

	Process	Outcome
Intangible	Lecture Delivery Personalisation Responsiveness Security	Personal Development Reliability Reputation
Tangible	Facilities	Personal Development Reliability Reputation

The general efficacy of the ten dimensional base presented by Parasuraman *et al* (1985) is also supported by the factor solution in Table 5.3 which clearly shows meaningful empirical factors being formed from this generic base. Furthermore, items from the original SERVQUAL scale were found to be useful in the specific service context also. This offers support for Hypothesis 5. Table 5.3 also includes factors which are clearly relatively unique to the M.B.A. service (lecture delivery, reputation, personal development) and combinations of dimensions (reliability and communication). These and the remaining distinct factors are not hypothesised by the five factor structure presented by Parasuraman *et al* (1988 and 1991). This supports for Hypothesis 6. Hypothesis 5 and 6 are therefore provisionally accepted at this stage.

5.3.3   Generic and Service-Specific Relationship Assessment

Table 5.8 reports the results for the regression of summed generic SERVQUAL expectation items on summed service-specific expectation items (n=107). Regression model assumptions (see Appendix 5.5 for a discussion) were well satisfied in this instance (see Appendix 5.6).

Table 5.8 : Regression Results for Generic-Specific Relationship

Statistic	Value
Multiple Correlation	0.825
R^2	0.681
Standard Error	7.813
F-ratio	224.354 p=0.000
Beta	0.825 t = 14.978 p=0.000

Whilst the previous section offered some support for Hypothesis 5 the results reported above unambiguously demonstrate that service-specific quality expectations are partially determined by general service quality expectations.

5.3.4   Generic and Service-Specific Measure Comparisons

5.3.4.1   Regression Model Comparisons

Table 5.9 (n=80) shows key statistics relating to the service-specific regression model with Table 5.10 (n= 82) showing SERVQUAL results. Overall, regression model assumptions were reasonably satisfied but certain problems, particularly a restricted variance in the dependent variable, had the dual affect of generally lowering adjusted R^2 values and significance levels (see Appendix 5.7).

Table 5.9 : Regression Statistics for the Service-Specific Model

Statistic	Value
Multiple Correlation	0.519
R^2	0.269
Adjusted R^2	0.187
Standard Error	0.554
F-ratio	3.267 p=0.003

Dimension	r	p	Beta	P
Responsiveness	0.109	0.168	-0.078	0.516
Personal Development	0.350	0.001	0.224	0.052
Facilities	0.087	0.221	-0.007	0.946
Security	0.216	0.027	0.056	0.620
Lecture Delivery	0.358	0.001	0.233	0.066
Personalisation	0.077	0.250	-0.066	0.563
Reliability	0.173	0.062	0.023	0.845
Reputation	0.416	0.000	0.253	0.052

Table 5.10 : Regression Statistics for SERVQUAL

Statistic	Value
Multiple Correlation	0.382
R^2	0.146
Adjusted R^2	0.090
Standard Error	0.616
F-ratio	2.595 p=0.032

Dimension	r	p	Beta	P
Tangibles	0.072	0.259	0.034	0.769
Reliability	0.281	0.005	0.232	0.082
Responsiveness	0.096	0.197	-0.198	0.172
Assurance	0.299	0.003	0.227	0.067
Empathy	0.196	0.039	0.150	0.237

175

In terms of the multiple correlation coefficient and adjusted R^2 values the service-specific model unambiguously produces a better model fit. In addition, the overall model has a lower standardised error associated with it which provides further evidence of its superiority over the generic model.

5.3.4.2   Construct Validity Comparisons

SERVQUAL was factor analysed in an identical fashion to the service-specific model. The correlation matrix was first assessed for its suitability and a Kaiser-Meyer-Olkin index of 0.753 suggested the overall matrix was indeed acceptable for analysis. In addition, the anti-image correlation matrix confirmed the adequacy of individual items. Constraining the solution *a priori* to five factors a principal axis solution was calculated. The results were rotated with both a VARIMAX and OBLIMIN (delta=0) criteria. In addition coefficient alpha was calculated for each theoretical dimension. The oblique rotation was retained because an orthogonal rotation altered the interpretation of the solution in addition to its complexity. This was not acceptable because an oblique solution is clearly more consistent with the theory underlying the SERVQUAL scale (e.g. Parasuraman, Berry, & Zeithaml, 1991b). The average intercorrelation of factors was 0.25 which is modest. Results are shown in Table 5.11.

Table 5.11 :   Results of the Factor Analysis of SERVQUAL

Dimension	Alpha	Item	Latent Root/ Variance Explained	Factor Loadings
Tangibles	0.76 n=102	1 2 3 4	2.37/10	0.421 0.956 0.532 0.762
Reliability	0.86 n=105	5 6 7 8 9	3.06/27	0.906 0.601 0.649 0.933 0.379
Responsiveness	0.79 n=105	10 11 12 13	1.56/3	-0.262 -0.725 -0.672 -0.434

Assurance	0.74 n=103	14 15 16 17	2.14/8	0.793 0.964 0.460 0.322
Empathy	0.64 n=101	18 19 20 21 22	1.88/6	-0.837 -0.877 -0.364 -0.037 0.174

The trait validity of SERVQUAL is supported by the reliability coefficients reported in Table 5.11 which are all of a reasonable magnitude with the overall reliability coefficient being 0.90 (see Appendix 5.8 for the calculation of this coefficient). However, they are generally below those reported for the service-specific model. The total variance explained is 54% for the five factor model against 61% for the service-specific counterpart which suggests the latter produced a better overall solution. Table 5.11 also shows that several items do not load onto their proposed factors above the 0.3 mark. An inspection of the full results also reveals that several items also loaded on "incorrect" factors. This, with the retention of an oblique rotation, suggests that neither factors nor items are capable of demonstrating good discriminant validity. This was not the case for the service-specific model. The latter of these problems is a serious breach and the inability for a scientific model such as common factor analysis to elucidate robust dimensions and overshadows the reliability coefficients which supported the measures trait validity (Cattell, 1978).

Using the same dependent variable as with the service-specific model it was found that no groups had significant differences using a modified Bonferroni test (the significance level was set at 5%). Again, this represents a worse performance than the service-specific measure. Table 5.12 below provides the nomological validity results.

Table 5.12 :   Nomological Validity Tests with SERVQUAL

Dimension	Levene's Test	t-value (x_1-x_2)	p-value (x_1-x_2)	Levene's Test	t-value (x_3-x_4)	p-value (x_3-x_4)
Tangibles	Accepted	1.38	0.085 n=73/18	Accepted	(1.29)	0.100 n=47/46
Reliability	Accepted	1.05	0.149 n=73/21	Accepted	(2.94)	0.002 n=49/48
Responsiveness	Accepted	1.16	0.125 n=73/21	Accepted	(3.03)	0.002 n=50/47
Assurance	Accepted	0.98	0.166 n=73/20	Accepted	(1.85)	0.034 n=49/47
Empathy	Accepted	0.89	0.188 n=69/20	Accepted	(3.03)	0.002 n=46/46
Overall Index	Accepted	1.37	.088 n=66/17	Accepted	(3.37)	0.001 n=43/42

The tangible dimension fails to gain nomological support but all other dimensions do at the 5% level. This compares with all other dimensions on the service-specific measure. This again supports the superiority of the service-specific measure in terms of construct validity.

5.3.4.3   Conclusions

The service-specific model unambiguously outperforms the generic model in terms of explanatory power in relation to a criterion variable and construct validity. This adds further empirical support for Hypothesis 6 which is therefore unambiguously accepted.

From an inspection of Table 5.9 it is clear that both lecture delivery and personal development dimensions have relatively large standardised Beta coefficients compared to the remaining dimensions. However, reputation has the largest value which is the result of two dimensions combining (credibility and competence). This refutes Hypothesis 7 which is therefore rejected.

Hypothesis 1 states that service quality expectations are robust across two anchors. To test this two prevalent concepts "excellent" and "should" expectations were compared using two different independent groups. It was found that no pattern in differences existed and Hypothesis 1 was upheld. This finding is consistent with a similar investigation into expectations by Gilly, Cron, & Barry (1983) who found that "deserved" and "ideal" expectations, based on the work of Miller (1977), also did not empirically differ. The researcher receives this finding with mixed feelings. At one level it suggests that researchers need not be unduly worried about how they operationalise service quality expectations (i.e. high expectations). However, it also suggests the two most pervasive operationalisations in the literature lack discriminant validity. In addition, the correlations between expectations and attribute importance's (see Table 6.7) further suggests that current expectation measures might confound several constructs. Whilst most of this work was carried out in early 1992 more recent work by Teas (1993a & b) supports this finding. Based on exploratory work Teas (1993a) argues that much of the reported variance in expectations might be due to different interpretations of the statement rather than true variances in attitude. This was later supported empirically (Teas, 1993b). He additionally argues that "should" and "excellent" expectations cannot discriminate from classic ideal-point models. However, given that ideal performances can also be regarded as "high" expectations this is not surprising. Another related but different issue concerns the high means and relatively low variance of excellence expectations reported in Chapter 6. This problem has also been empirically supported and otherwise noted more recently (Brown, Churchill, & Peter, 1993; Parasuraman, Berry, & Zeithaml, 1993, and Teas, 1993b). Wall & Payne (1973) were the first to formally note this general phenomena and argued that some psychological constraint might be operating that makes people always rate some desired level above what they currently receive. This suggests that new ways of measuring service quality expectations might be needed and that anchors judged to be tapping different conceptual expectation constructs need considerably more empirical verification than has been currently afforded by the literature. For example, Boulding, Kalra, Staelin, & Zeithaml (1993) empirically distinguish "should" and "will" expectations but again the support of Hypothesis 1 suggests their conceptual distinction between "should" as a "deserved" level and "should" as a "desired" level needs empirical verification.

Hypothesis 2 states that service quality expectations can be partly delineated from goods expectations via the inclusion of "human behaviour" expectations. This was unambiguously supported both with the exploratory work and empirical work which showed robust factors relating to human behaviour (e.g. lecture delivery and personalisation). The support of this Hypothesis is again consistent with previous findings of service quality and the literature focused specifically on service encounters or "moments of truth" (e.g. Bitner, 1990; Carlzon, 1987; Czepiel, Solomon, Surprenaut, & Gutman, 1985). Further, it is consistent with the wider service marketing literature which suggests a humanistic paradigm for services (see Chapter 2). Hypothesis 3 and 4 state that service quality expectations can be meaningfully categorised as process/outcome, and intangible/tangible The findings from the exploratory work and empirical work again strongly support these Hypotheses (see Chapter 6 also). Whilst these categories have been conceptually proposed as being useful by the literature far less attention has been given to empirically testing these propositions.

Hypothesis 5 states that service-specific expectations of quality are partly a function of general service expectations. This Hypothesis gains considerable empirical support which provides strong grounds for the vital link between the general and specific expectations in the model presented in Figures 3.1 and 3.2. Closely allied to this point is that expectations are partly a function of the service being evaluated (Hypothesis 6). The efficacy of this Hypothesis and its power as an explanatory concept vis a vis a purely generic concept was tested Considerable effort was expended investigating a purely generic versus service-specific conceptualisation of service quality criteria (and hence expectations). When comparing the general power of the service-specific measure against a generic measure (SERVQUAL) the latter was found to be inferior on almost every useful criteria. Two conclusions are drawn from these hypotheses. First, a service-specific rather than a generic conceptualisation is likely to afford the most powerful means of building a theory of service quality expectations. Second, general expectations of service are a major determinant of service-specific expectations. Together with Hypotheses 2 to 4 the basic framework presented in Figure 3.1 has therefore been empirically supported and verified by the work presented in this Chapter. This is now re-presented in way of summary in Figure 5.1 below.

Figure 5.1 : A Verified Framework of Service Quality Expectations
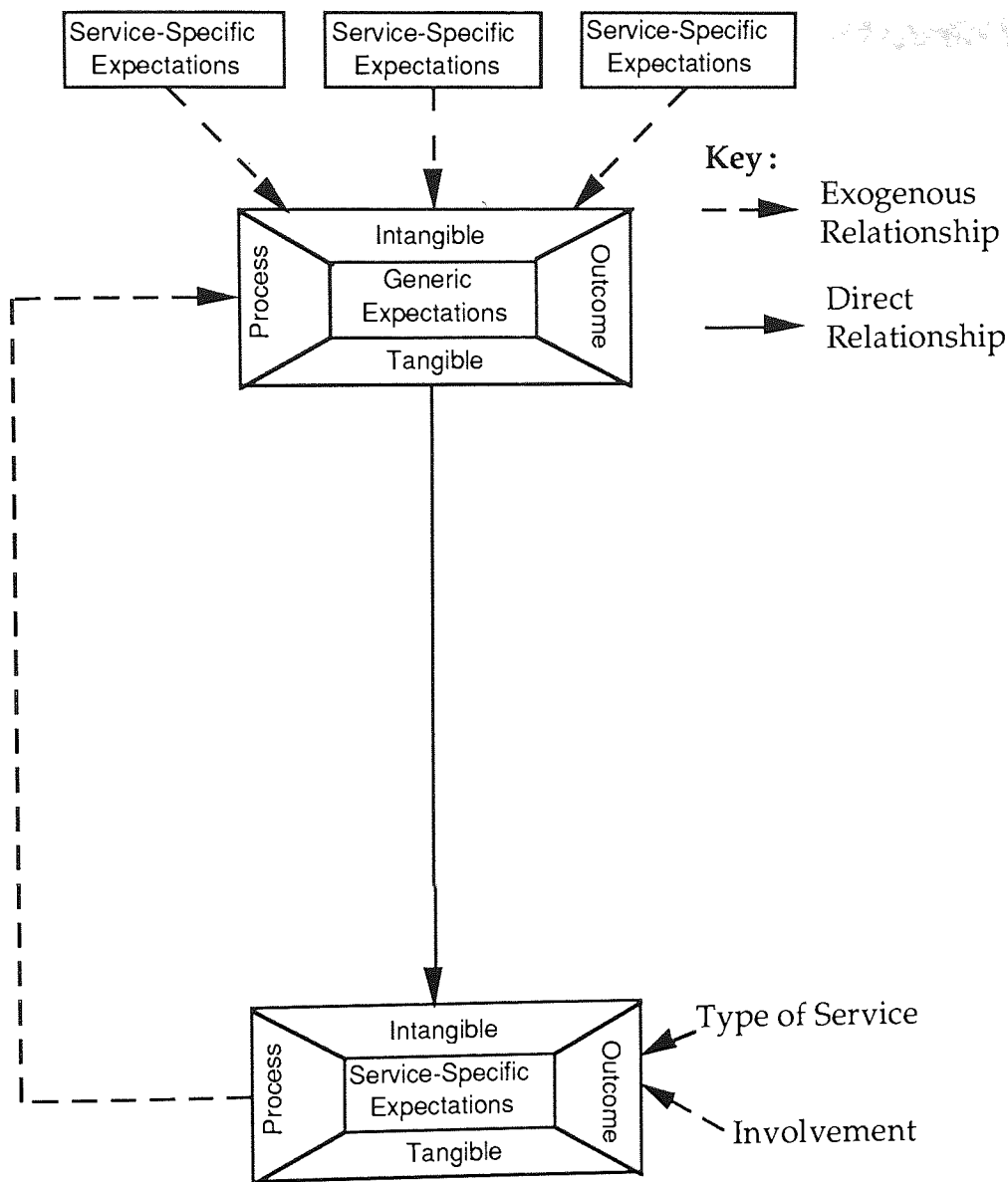
Finally, Hypothesis 7 stated that any "splitting" dimensions (*vis a vis* the ten generic base) would be relatively important to customers compared to other dimensions. This was rejected on the grounds that reputation, the results of two dimensions collapsing, carried a higher standardised regression weight (see Table 5.9 and relevant discussion). One explanation for this is that whilst splitting dimensions through some elaboration process might be a signal of importance (the beta coefficients do signal this) dimensions collapsing need not indicate low importance. This interesting issue is open to further exploration by researchers.

CHAPTER 6

AN EMPIRICAL INVESTIGATION INTO THE DETERMINANTS OF SERVICE QUALITY EXPECTATIONS

6.1   INTRODUCTION

Chapter 6 empirically investigates the model presented in Figure 3.2 which incorporates Hypotheses 8 to 18. The general methodology and operationalisation of constructs adopted to test these Hypotheses is first considered paying particular attention to construct measurement. Following this the research design and sampling is described. The analytical methodology is then described and results presented. Results are then summarised and discussed.

6.2   METHODOLOGY

6.2.1   General Methodology and Construct Measurement

The basic methodology adopted to test the hypothesised determinants presented in Chapter 3 was straightforward. Each construct was operationalised using a variable which appeared either of special importance on conceptual grounds or on the basis of the exploratory work presented in Chapter 4. Respective construct measures were then either adapted from the literature or generated within the study. These were all qualitatively pre-tested and refined where applicable. Data was then collected within the M.B.A. environment and the relationships between determinants and service-specific quality expectations statistically explored. When testing these relationships generic service quality expectations were treated as an additional exogenous relationship having been tested and upheld separately (see Chapter 5).

6.2.1.1 Operationalisation of Determinants

The expectations battery of the service-specific measure developed in Chapter 5 was used to measure service quality expectations (see Appendix 5.1 for specific item statements). Its general validity as an instrument for this purpose was well demonstrated and its superiority over SERVQUAL noted. Each of the eight factors were conceptualised as dependent variables. Consistent with the intangible/tangible and process/outcome dichotomies an index of each was also formed by summing relevant ratings. These scores then formed additional dependent variables in subsequent analyses to provide evidence of their use in developing theory.

It was not possible to measure the self-reported weight importance of each dimension in Chapter 5 because the factor structure was *a priori* unknown. However, this was clearly not so in the second investigation. Whilst Carman (1990) strongly urges the use of importance weights Cronin & Taylor (1992) demonstrate that an unweighted model offers greater explanatory power than its weighted counterpart. After an investigation of competing models Bruno & Wildt (1975) conclude it is ambiguous whether an unweighted or weighted linear compensatory attitude model is "best". It is argued here that expectations are defined by quality dimensions but note this gives no reason to believe that expectations should be weighted. That is, the issue is essentially whether dimension gap scores and not expectations should be weighted. However, to explore the issue further the importance of each dimension was measured by an allocation of 100 points system which conforms to the suggested guidelines (Zeithaml, Parasuraman, & Berry, 1990).

The determinants of service quality expectations, or explanatory variables, are considered below.

It was proposed that "general service sophistication" might be captured by the demographic variables age, gender, income, and work experience (Hypothesis 9). These demographic variables are concrete and easily self-reported. However, the "general service sophistication" variable (Hypothesis 8) was beyond direct measurement except at the perceptual level. Relevant item statements were not suggested by the literature and therefore had to be developed. On the basis of the exploratory work two items tapping a "general service sophistication" construct were designed. Comparable but re-oriented

items were also designed to tap the "service-specific sophistication construct (Hypothesis 10). In both of these instances and whenever practically possible determinant constructs were measured using two items which allowed for a reliability coefficient to be calculated as some minimum validity check. Further, only two items were taken from the standard scales to be described below. Not using all scale items was judged necessary for the measurement of determinant variables because the use of standard multiple-item scales for each determinant would have placed excessive demands on respondents. However, the researcher was sensitive to the fact that adjusting scales in this manner possibly compromises the integrity of construct measurement. To allay concern additional qualitative work was judged appropriate to ensure scales were operating as desired (see section 6.2.1.2).

The main exploratory work suggested many sources contributed to the information construct (Hypothesis 11). These were broadly categorised as "social" and "commercial" constructs. In an attempt to capture these two categories in the most parsimonious fashion they were essentially described using information source examples liberally. Examples used for this purpose arose from the exploratory work. Respondents were then asked to say whether they had personally encountered either social or commercial information of the sort described (this had a dichotomous response option i.e. yes/no). If subjects reported encountering such information they were further asked to assess how influential they felt it had been in determining their service quality expectations. The response option was a seven point Likert-type scale anchored with "not at all influential" and "very influential". This allowed a direct assessment of Hypothesis 12 with regards to the relative importance of the commercial and social information. Measuring information encounters in this manner is akin to the sociometric technique suggested by Rogers (1983) for capturing information encounters with opinion leaders. This approach essentially asks respondents to simply state who they sought information or advice from about a given topic. This is regarded as a valid approach because it measures such encounters through the eyes of the subject (op cit., p279). In the exploratory work it has been noted that a wide variety of social and commercial information sources were freely supplied. This can be seen as a sociometric approach to capturing information sources within this context. However, to make this more manageable for use in a questionnaire a more parsimonious approach was needed to minimise respondent fatigue. As a consequence the described approach was adopted.

"Culture" (Hypothesis 14) was operationalised by classifying individuals as either Western European and North American or "other". The underlying proposition here is that Western Europeans and North Americans share a common cultural heritage which is not so marked in other geographical regions. Personal records of students contained information stating their nationality and history and were used to classify individuals into either group.

"Personality traits" (Hypothesis 15) was operationalised using three variables: sociability, relaxedness, and internal control (see Chapters 3 and 4). The two respective highest loading factor items were taken as an indicator of each trait from a standard measure developed by Villani & Wind (1975).

"Personal values" (Hypothesis 16) was operationalised in terms of equity and time (see Chapter 3 and 4). More specifically equity was operationalised within the framework offered by Thibault & Kelley (1959) regarding interpersonal relationships (i.e. max-own and min-difference strategies). Precise item statements tapping these different strategies were not in the literature and were subsequently developed within the study. However, with regards to time urgency a standard measure developed by Landy, Rastegary, Thayer & Colvin (1991) was judged appropriate. More precisely the dimensions of "general hurry" and "task-specific hurry" are argued to be of special relevance in the consumer behaviour context (again, see Chapter 4). For each of the two latter constructs the two highest loading factor items were taken from the scale to represent each of the two dimensions.

"Psychological needs" (Hypothesis 17) was operationalised as self-esteem (see Chapter 4). Two items from Rosenberg's (1965) self-esteem inventory were taken to capture this variable. However, on the basis of the exploratory work two statements were judged to be particularly appropriate. These were selected instead of the two highest loading factor items.

Finally, the determinant "purchase motive" (Hypothesis 18) was also conceptualised as a perceptual construct. No item statements were suggested by literature and so two items were generated by drawing on the exploratory work.

Except when otherwise stated a 7 point Likert-type scale was used as the response option throughout the questionnaire. This was consistent with the service quality expectations measure and judged appropriate to minimise respondent confusion and any associated measurement error.

6.2.1.2   Qualitative Refinement and Testing of Instrument

Based on the main exploratory work and personal judgement statements were generated in a manner consistent with the above descriptions. All of these items were subsequently pre-tested with a random sample of 26 experienced full- and part-time M.B.A. students (38% response rate). Pre-testing involved respondents reading written statements and orally describing what the statements meant to them personally. If the subjects description differed from the intended meaning the latter was verbally explained by the researcher. Suggested improvements were then requested. Hand notes were taken in face-to-face interviews as appropriate. The use of qualitative work to pre-test quantitative instruments is consistent with guidelines in this area (e.g. Calder, 1977). The instrument arising from this process is shown in Appendix 6.1.

6.2.1.3   Summary of Determinant Measures

Table 6.1 summarises the previous discussion regarding determinants and related measurement issues.

Table 6.1 : A Summary of the Operationalisation and Measurement of Determinant Constructs

Determinant	Hypothesis	Operational Variables/No. of Items	Measurement Basis	Scale Type and Properties
General service sophistication	Hypothesis 8	N/A (2)	qualitatively developed	7 point Likert/interval
Demographics	Hypothesis 9	• age (1) • gender (1) • income (1) • work (2)	qualitatively developed	• ratio • dichotomous • interval • 7 point Likert/interval
Service-specific sophistication	Hypothesis 10	N/A (2)	qualitatively developed	7 point Likert/interval
Service-specific information	Hypothesis 11	• social (1) • commercial (1)	qualitatively developed	dichotomous
Culture	Hypothesis 14	N/A (N/A)	judgement	dichotomous
Personality traits	Hypothesis 15	• sociability (2) • anxiety (2) • internal control (2)	standard scale (Villani & Wind, 1977)	7 point Likert/interval
Personal values	Hypothesis 16	• equity (1) • general urgency (2) • task urgency (2)	• qualitatively developed • standard scale (Landy *et al*, 1991)	• dichotomous • 7 point Likert/interval
Psychological needs	Hypothesis 17	self-esteem (2)	standard scale (Rosenberg, 1965)	7 point Likert/interval
Purchase motives	Hypothesis 18	N/A (2)	qualitatively developed	7 point Likert/interval

6.2.2   <u>Research Design and Sampling</u>

In a similar fashion to section 5.2.1 relevant guidelines were followed in constructing the instrument. Further, the questionnaire was administered by mail using follow-up letters to raise response rates. Both of these points were identified as appropriate in section 5.2.1.

A random sample of 226 full- and part-time M.B.A. students was drawn from a list of registered students (49% response rate after three follow-up letters). All students had at least three terms experience. In addition, a random sample of 35 subjects was drawn from the non-response element of the original sample (69% response rate).

6.2.3 Analysis

6.2.3.1 Sample Representation and Time Affects

Whilst a response rate of approximately 50% would be considered good for most studies there was some concern the non-response group might differ in some way from the main response group. This could have undesirable affects when model building. Using the expectations battery only the non-response group was re-sampled. The proposition here is that if expectations do not differ between the two groups then the main response can be taken as representative. Also time affects might also cause expectations to change. For this reason responses time were dichotomised into "early" and "late". Product-moment correlations were used in both instances (regular Pearson's and point-biserial respectively). The use of robust correlations (Nunnally, 1978) would allow the assessment of the strength and direction of influence if applicable.

6.2.3.2 Weighted Versus Unweighted Dependent Variables

As noted above the literature surrounding the use of weighted versus unweighted expectations is ambiguous. For this reason the efficacy of using unweighted expectations was explored as previously noted. This was done by calculating product-moment correlations between independent variables and weighted/unweighted dependent variables. In addition, regular product-moment correlations between weighted and unweighted expectations were calculated. The regular Pearson's correlation and point-biserial were used as appropriate. Conclusions were then drawn and the set of dependent variables yielding the most significant and largest coefficients were adopted for subsequent analyses.

First, Hypothesis 9 was tested by regressing the demographic variables (independent variables) on a summed general service sophistication score (dependent variable). This regression was executed before the main model building exercise because it was decided the variables, if not found useful in explaining the general service sophistication construct, might have a direct relationship with service quality expectations. This is supported by the exploratory work (see Chapter 4). All variables were entered in the regression because all variables were hypothesised to be related to this construct.

In order to identify pertinent explanatory variables regression analysis was judged an appropriate technique (e.g. Tull & Hawkins, 1990). The main objective of the investigation reported in Chapter 6 was to build a parsimonious model of service quality expectation determinants. It was suspected *a priori* that several of the hypothesised determinants might be empirically related and that some redundancy might therefore have been inadvertently pre-specified. In addition, it was also suspected that whilst some determinants would be important in determining some dimensions this would not necessarily extend to all dimensions. For these reasons a stepwise regression was used as the basic building process. Further, Schroeder, Sjoquist, & Stephen (1986, p70) recommend a stepwise regression for selecting a sub-set of explanatory variables from a larger pool. Separate models were constructed for each dependent variable and category. The stepwise process involves calculating the partial correlation for each variable not already included in the regression equation with the dependent variable. This reflects the linear relationship between the particular excluded variable and the dependent variable having removed all linear affects of the included independent variables from the dependent and excluded variable. To be included the significance was set at 5%. Once entered, its removal was set at 10%. Both of these probability levels used the F-distribution and are suggested by Norusis (1990).

Hypothesis 12, regarding the relative importance of the social and commercial information components, was directly tested using a one tailed t-test comparing self-reported "influence" means (see above and Chapter 5 for the precise statistical process). The relative importance of experience based constructs (Hypothesis 13) was tested by assessing the pervasiveness of general and specific service sophistication constructs entering models (i.e. frequencies)

and the magnitude of standardised Beta weights compared to other variables. Taken together it is proposed these are capable of revealing the overall relative importance of variables.

6.3 RESULTS

6.3.1 Preliminary Analyses

6.3.1.1 Sample Representation and Time Affects

Table 6.2 below summarises the point-biserial correlations between response time (i.e. early/late) and response group (i.e. main/non-response) with expectations.

Table 6.2 : Correlations Between Response Speed and Response with Expectations

Dimension	Correlation with Time	Probability/ Case Number	Correlation with Response	Probability/ Case Number
Reliability	0.098	0.308 n=110	0.055	0.533 n=133
Reputation	-0.069	0.473 n=110	-0.014	0.873 n=133
Lecture Delivery	-0.121	0.207 n=110	-0.023	0.794 n=133
Personal Development	-0.059	0.542 n=109	-0.031	0.728 n=132
Personalisation	0.083	0.394 n=109	0.040	0.646 n=132
Security	0.122	0.207 n=108	-0.108	0.221 n=131
Facilities	-0.161	0.094 n=109	-0.093	0.286 n=132
Responsiveness	-0.055	0.568 n=109	0.011	0.897 n=132

Table 6.2 unambiguously shows that no significant relationship exists between either response speed or response group at either of the two commonly accepted cut-off points (i.e. 1% and 5%).

6.3.1.2   Measurement and Construct Assessment

In order to empirically investigate the construct performance of the dependent and independent variables alpha and factor solutions of related constructs were calculated (see Chapter 5 for a discussion on the analytical methodology). Whilst not providing unequivocal evidence of construct validity a reasonable performance was judged acceptable for basic research. VARIMAX rotated factor solutions are summarised in Table 6.3 below. Pre-rotated factors were extracted using a principal axis common factor model.

Table 6.3   :   Rotated Factor Solutions of Selected Independent Variables

Construct	Items	Factor 1	Factor 2	K-M-O Statistic
Personality	Internal Control 1	0.828		0.563
	Internal Control 2	0.670		
	Anxiety 1	-0.491		
	Anxiety 2	-0.479		
	Sociability 1		0.983	
	Sociability 2		0.734	
Service Sophistication	General 1	0.934		0.533
	General 2	0.565		
	Specific 1		0.825	
	Specific 2		0.378	
Time Urgency	Task Hurry 1	0.838		0.496
	Task Hurry 2	0.814		
	General Hurry 1		0.739	
	General Hurry 2		0.678	
Purchase Motives	Motive 1	0.309		0.500
	Motive 2	-0.309		
Self-Esteem	Self-esteem 1	0.786		0.500
	Self-esteem 2	0.786		

It is first worth noting the Kaiser-Meyer-Olkin values of sampling adequacy, whilst poor, are within the bounds of acceptability (Kaiser, 1974). Several other points are worth noting about the results presented in Table 6.3. First, the two

191

service sophistication and time urgency constructs behave as expected. In addition, the self-esteem and sociability items load heavily onto single factors. This offers some support to the trait validity of the adapted measures. However, "anxiety" and "internal control" load onto a single factor. From the direction of the loadings it appears an underlying factor causes subjects to simultaneously have a relatively high anxiety level (low relaxedness) and a low sense of internal control. This has reasonable face validity and consequently, consistent with the object of building parsimonious regression models, were combined into a single scale (this factor was labelled the AC scale). Items supposedly tapping the purchase motive construct, however, perform poorly. In other words they are directionally different and have small loadings. This suggests that no underlying construct is being captured by the two items. Further, they appear to be negatively correlated. On a visual inspection of the raw data it was apparent that two different groups exist with respect to motives. The first group have only a single motive for taking an M.B.A. whereas another group appear to have at least two motives (i.e. dual motives). Each group was labelled 0 and 1 respectively to produce a dichotomous variable for use in subsequent analyses.

Table 6.4 below summarises internal reliability coefficients for multiple item interval measures. Raw anxiety scores were reversed for the purpose of the following analyses. The dichotomous nature of the information construct required the KR-20 coefficient to be calculated (Peter, 1979). No programme was available for this and the calculation was executed by hand (see Appendix 6.2 for workings).

Table 6.4 : Reliability Coefficients for Dependent and Independent Measures

Scale Label	Alpha	Number of Items in Scale	Case No.
Reliability	0.836	5	103
Reputation	0.763	7	103
Lecture Delivery	0.780	4	103
Personal Development	0.859	4	103
Personalisation	0.908	2	103
Security	0.830	2	103
Facilities	0.799	2	103
Responsiveness	0.759	2	103
Sociability	0.841	2	103

AC	0.716	4	109
Service-Specific Sophistication	0.464	2	103
General Service Sophistication	0.715	2	110
Information	0.500	2	90

An inspection of these values shows that the vast majority fall well within acceptable levels suggested by the literature (Churchill, 1979).

To summarise, it appears that variables assessed in this section demonstrate good levels of trait validity as judged by the factor and reliability results and appear to measure the intended construct.

6.3.1.3 Weighted Against Unweighted Dependent Variables

Consistent with the literature it was anticipated that expectations weighted with attribute importance's were likely to cause a deterioration in relationships with independent variables compared to their unweighted counterparts. Further, it was also anticipated that weighted and unweighted expectations would be correlated. Tables 6.5[1] , 6.6, and 6.7 show the relevant correlation coefficient matrices used to assess these propositions. Only significant correlations are shown (5%). First comparing Tables 6.5 and 6.6 a general deterioration in both significance levels and strength of correlations can be observed when moving from unweighted to weighted dependent variables. Furthermore, reviewing Table 6.7 we can see that for all but one of the eight dimensions (Reputation) unweighted and weighted scores are significantly correlated at the 5% level. This leads to the conclusion that unweighted expectations incorporate a certain amount of "importance" and that the residual weight generally weakens relationships. For this reason unweighted dependent variables were used in all subsequent analyses.

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1 LD= lecture delivery PD= personal development RL= reliability RP = reputation RS= responsiveness SC = security F= facilities P= personalisation OUT=outcome PRO=process INT= intangible CULT=culture AGE=age SEX= sex INC= income WRK= work experience GS= general service sophistication SOC= sociability ANX= relaxedness CON= internal control EQY= equity GH= general hurry TRH= task related hurry SE= self-esteem I= information MO= motives SS= service-specific sophistication

Table 6.5 : Unweighted Dependent Variable Correlation Matrix

	LD	PD	RL	RP	RS	SC	F	P
CULT					0.211 p=0.034			
AGE								
SEX			0.275 p=0.004		0.190 p=0.048	0.257 p=0.007		
INC								
WRK								
GS	0.257 p=0.007	0.191 p=0.047	0.422 p=0.000	0.271 p=0.004	0.371 p=0.000	0.417 p=0.000	0.281 p=0.003	0.503 p=0.000
SOC				0.218 p=0.023				
AC								
EQY					0.194 p=0.046			
GH								
TRH	0.224 p=0.019		0.231 p=0.015	0.236 p=0.013			0.234 p=0.014	0.231 p=0.016
SE			0.331 p=0.000	0.299 p=0.002	0.372 p=0.000	0.205 p=0.034	0.392 p=0.000	0.398 p=0.000
I								
MO			-0.296 p=0.002			-0.235 p=0.015		
SS						0.227 p=0.018	0.333 p=0.000	0.317 p=0.001

Table 6.6 : Weighted Dependent Variable Correlation Matrix

	LD	PD	RL	RP	RS	SC	F	P
CULT						0.229 p=0.028	0.240 p=0.021	
AGE					-0.203 p=0.045			
SEX	0.197 p=0.050							
INC								
WRK								
GS		-0.246 p=0.014				0.233 p=0.020		0.307 p=0.002
SOC								
AC								
EQY								

GH								
TRH	-0.199 p=0.048			0.198 p=0.050				
SE								
I						0.430 p=0.000		
MO		-0.302 p=0.003	0.315 p=0.002					
SS	-0.195 p=0.050	0.274 p=0.004		0.209 p=0.030	0.214 p=0.034	0.273 p=0.006		

Table 6.7 : Unweighted and Weighted Expectations Correlation Matrix

Dimension	RL	RP	LD	PD	P	SC	F	RS
Correlation	0.248	0.140	0.383	0.292	0.556	0.496	0.609	0.367
Probability	0.013	0.167	0.000	0.003	0.000	0.000	0.000	0.000
Case Number	99	99	99	99	99	99	99	99

6.3.1.4 Testing Hypothesis 9

Relevant regression results testing Hypothesis 9 are shown in Table 6.8.

Table 6.8 : Regression Statistics for Hypothesis 9

Statistic	Value
Multiple Correlation	0.195
R^2	0.038
Adjusted R^2	0.000
Standard Error	2.088
F-ratio	1.017 p=0.402

Variable	Beta	P
Age	-0.045	0.704
Income	0.190	0.124
Gender	0.062	0.529
Work	-0.048	0.647

Table 6.8 shows that none of the slopes were significant at 5% and the curve was not useful at explaining a linear relationship between the specified independent and dependent variables. These findings unambiguously refute Hypothesis 9.

6.3.1.5   Summary

From the preliminary analyses it appears the sample was representative of the whole group and did not suffer from systematic time or sampling bias. In addition, the results suggest indicator variables adequately capture the intended construct. The weighted expectation variables were clearly inferior to their unweighted counterparts supporting the use of the latter for model building purposes. Hypothesis 9 was rejected and relevant variables given the opportunity to enter regression models.

6.3.2   <u>Main Results</u>

Because the stepwise model building process relies on inferential statistics, and in an attempt to avoid misbehaving residuals, the model variables were initially inspected for normality. Several distributions which appeared to be non-normal were transformed. This resulted in the square of the general sophistication and intangible dimensions being retained for analysis (see Appendix 6.3). An analysis of the respective model residuals suggests they behave very satisfactorily. However, the Lecture Delivery model residuals did not follow a normal distribution. In addition, the Outcome and Reliability model residuals suffered from heteroscedasticity. Transformations were unable to solve the heteroscedasticity problems but a square transformation did solve the non-normality problem in Lecture Delivery and was therefore retained for analysis. All other key regression assumptions were satisfied (see Appendix 6.4).

The structural equations resulting from the stepwise regressions are shown in Table 6.9 with standardised beta weights.

Table 6.9 : Structural Equation Regression Results

Structural Equations	Adj. R^2	F Ratio
Lecture Delivery = 0.328 Self-esteem + 0.253 General service sophistication	21%	12.767 p=0.000 n=90
Personal Development = 0.338 Self-esteem	11%[1]	11.246 p=0.001 n=89
Reliability = 0.373 General service sophistication + 0.255 Gender - 0.200 Purchase Motive + 0.198 Self-esteem	38%	14.606 p=0.000 n=90
Reputation = 0.284 Self-esteem - 0.269 General hurry + 0.261 General service sophistication	23%	9.782 p=0.000 n=90
Responsiveness = 0.304 Self-esteem + 0.271 General service sophistication - 0.207 Income + 0.190 Equity	24%	8.017 p=0.000 n=89
Security = 0.381 General service sophistication + 0.298 Gender	24%	14.827 p=0.000 n=88
Facilities = 0.366 Self-esteem + 0.206 Service-specific sophistication + 0.240 Gender + 0.234 Information	33%	12.075 p=0.000 n=89
Personalisation = 0.453 General service sophistication + 0.235 Self-esteem + 0.176 Information	34%	16.256 p=0.000 n=89
Outcome = 0.318 Self-esteem + 0.330 General service sophistication - 0.207 General hurry	28%	12.583 p=0.000 n=89
Process = 0.380 General service sophistication + 0.300 Self-esteem + 0.233 Gender	37%	18.377 p=0.000 n=88
Intangibles = 0.366 General service sophistication + 0.298 Self-esteem + 0.219 Gender	35%	16.619 p=0.000 n=89

The above structural equations offer support for all of the determinant Hypotheses except personality traits and culture. This position is summarised in Table 6.10 below.

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[1] Consistent with a bivariate solution no adjustment was necessary.

Table 6.10 : Summary Hypotheses Testing Results

Hypotheses	Operational Constructs	Finding
H 8 General service sophistication	N/A	Supported
H 10 Service-specific sophistication	N/A	Supported
H 11 Information	• social • commercial	Supported
H 14 Culture	North American and Western European versus rest-of-world	Refuted
H 15 Personality traits	• sociability • anxiety/internal control	Refuted
H 16 Personal values	• equity • general time urgency • task time urgency	Supported
H 17 Psychological needs	• self-esteem	Supported
H 18 Purchase motive	N/A	Supported

Table 6.11 shows the results testing Hypothesis 12 using a one tailed t-test. This Hypothesis is clearly supported and accepted.

Table 6.11 : A Comparison of the Influence of Social (x_1) and Commercial (x_2) Information

Null Hypothesis	Levene's Test	t-value	p-value (x_1-x_2)
The influence of social and commercial information is equal	Accepted	(3.73)	0.000 n=97/95

Service sophistication constructs enter nine of the eleven solutions reported in Table 6.9 and have an average standardised slope of 0.327. Self-esteem is the only comparable determinant in terms of frequency entering ten of the eleven solutions with a mean slope of 0.297. This supports Hypothesis 13 which is duly accepted.

6.4   SUMMARY AND DISCUSSION

Hypothesis 8 states general service sophistication determines service-specific quality expectations. As an explanatory this variable appears to be very successful in accounting for service-specific quality expectations entering most of the structural equations and three of the higher order descriptive categories (process, outcome, and intangibles: see Table 6.9). In each instance greater service sophistication is associated with higher expectations. This has considerable face validity and the persistent direction of influence throughout the structural equations offers strong supporting evidence to this finding. Hypothesis 9 which states that demographic variables could capture underlying movements in the specified construct. This was unequivocally rejected (see section 6.3.1.4). However, both gender and income proved to be direct determinants of service-specific quality expectations. The gender of subjects proved a particularly potent variable entering three of the service attribute equations and two of the higher order equations. In each instance females were found to have higher expectations than males. One plausible explanation for this is that females perceive a higher physical, social, and/or performance risk than their male counterparts (see section 2.3.4). One consequence of this could be that females therefore place greater emphasis on security and reliability elements and try to reduce risk through tangiblisation strategies (again, see section 2.3.4). A slightly incongruous finding is that increases in income are associated with *lower* expectations of responsiveness. One possible explanation for this is that higher income groups can afford to buy better quality services which in turn might lead to greater immediate want satisfaction and therefore less emphasis on responsiveness. Conversely, low income groups might have to use poorer quality services and therefore have to follow-up themselves and ensure their own want satisfaction. This in turn could lead to a greater recognition of responsiveness.

Hypothesis 10 states that service-specific sophistication (arising from learning through direct experience) partly determines service-specific quality expectations. This variable was found to operate in relation to only one service feature- facilities. This is an interesting finding because "tangibles" is the most easily mentally grasped service feature (see section 2.3). Consequently, it has some face validity that it is easier to learn what constitutes excellent facilities through direct experience than, say, how responsive staff will be. Overall, service sophistication was found to be the most important

199

determinant of service-specific quality expectations (Hypothesis 13). This is precisely as anticipated with both the general and specific constructs having directionally identical impact on expectations. That is, the more sophisticated students are with services in general and the specific service the more demanding they are.

Hypotheses 11 and 12 refer to the information variable. It was found in this study that when students had *not* encountered information relating to the specific service in question expectations of both facilities and personalisation rose. Once again this is a very interesting finding because it suggests that better informed students have lower and therefore possibly more realistic expectations of what constitutes excellence. Recent related work has also found that word-of-mouth influence's service expectations (Boulding, Kalra, Staelin, & Zeithaml, 1993 and Webster, 1991) which adds support to the general validity of this finding. It was also unambiguously shown that social information is more important in determining service-specific quality expectations than commercial information (Hypothesis 12). Not only is this consistent with predictions from the service marketing theory but it also consistent with the two previously noted studies. This supports the veracity of this finding.

Hypothesis 14 stated the cultural background of an individual would partly determine service-specific quality expectations. This was rejected on the basis of the findings reported in Table 6.9. One reasonable explanation for this is that the sample of subjects was somehow biased. That is, whilst subjects included in the sample originated from non-Western European and North American areas they have been influenced by exposure to these cultures diminishing any distinctions. This suggests that any future effort should use a research design which draws samples from within the respective cultural contexts. The rejection of this Hypothesis is therefore ambiguous but note the exploratory research also failed to support this Hypothesis.

Hypothesis 15 states that personality partly determines service-specific quality expectations. This was operationalised using three traits of conceptual interest. However, each personality trait was rejected as being capable of contributing to the explanation of service-specific quality expectations. The consistency of these findings offers good support for rejecting personality traits as an additional determinant.

Hypothesis 16 states that personal values partly determine service-specific quality expectations. The two most important values were found to relate to notions of equity and time, the latter of which was operationalised in terms of task and general urgency. Both notions of equity and general sense of urgency were found to be important determinants. Equity was found to have a positive affect on expectations of responsiveness. Restated more specifically, those individuals who considered equitable relationships to be based on ensuring balanced outcomes for both parties (i.e. a min. difference strategy) had higher expectations of how helpful (*viz* responsive) staff should be compared to those individuals who considered equitable relationships to be based on getting as much as you possibly can (i.e. max. own strategy). A possible explanation for this is that if customers value ensuring others are happy in a relationship then simply they expect others to ensure they are also happy in the relationship also. It appears this is essentially demonstrated to relevant individuals by staff being at least willing to solve the problem they are trying to solve. Alternatively, those individuals who value helpfulness less might be more inclined to hold themselves responsible for choosing an appropriate product in the first place or in chasing the correct solution. The general sense of urgency had a negative affect on both the "reputation" attribute and higher order variable "outcome". In other words, as individuals' general sense of urgency increased their expectations of the service attribute "reputation" and higher order variable "outcome" fell. This is consistent with the behaviour one might anticipate from those who consider themselves to be in too great a rush to "shop around" and therefore might be willing to accept lower quality outcomes and place less emphasis on tracking down a reputable firm.

Hypothesis 17 stated that psychological needs partly determine service-specific quality expectations. Theoretically self-esteem appeared of interest which was strongly supported by the exploratory work. In addition, strong empirical evidence further supports this Hypothesis with self-esteem entering seven of the eight regression equations and all of the higher order categories. Further, standardised beta weights were consistently relatively large. The finding that higher levels of self-esteem are associated with generally higher expectations of service has considerable face validity. The one exception to this is that self-esteem is not identified with higher levels of security expectations. From this it appears even individuals with relatively low self-esteem expect service organisations to be trustworthy and ensure their personal safety.

In conclusion, the structural equations presented in Table 6.9 and results presented in Chapter 5 empirically verify the model of service-specific quality expectations presented in Figure 6.1.

Figure 6.1 :   A Verified Model of Service Quality Expectations
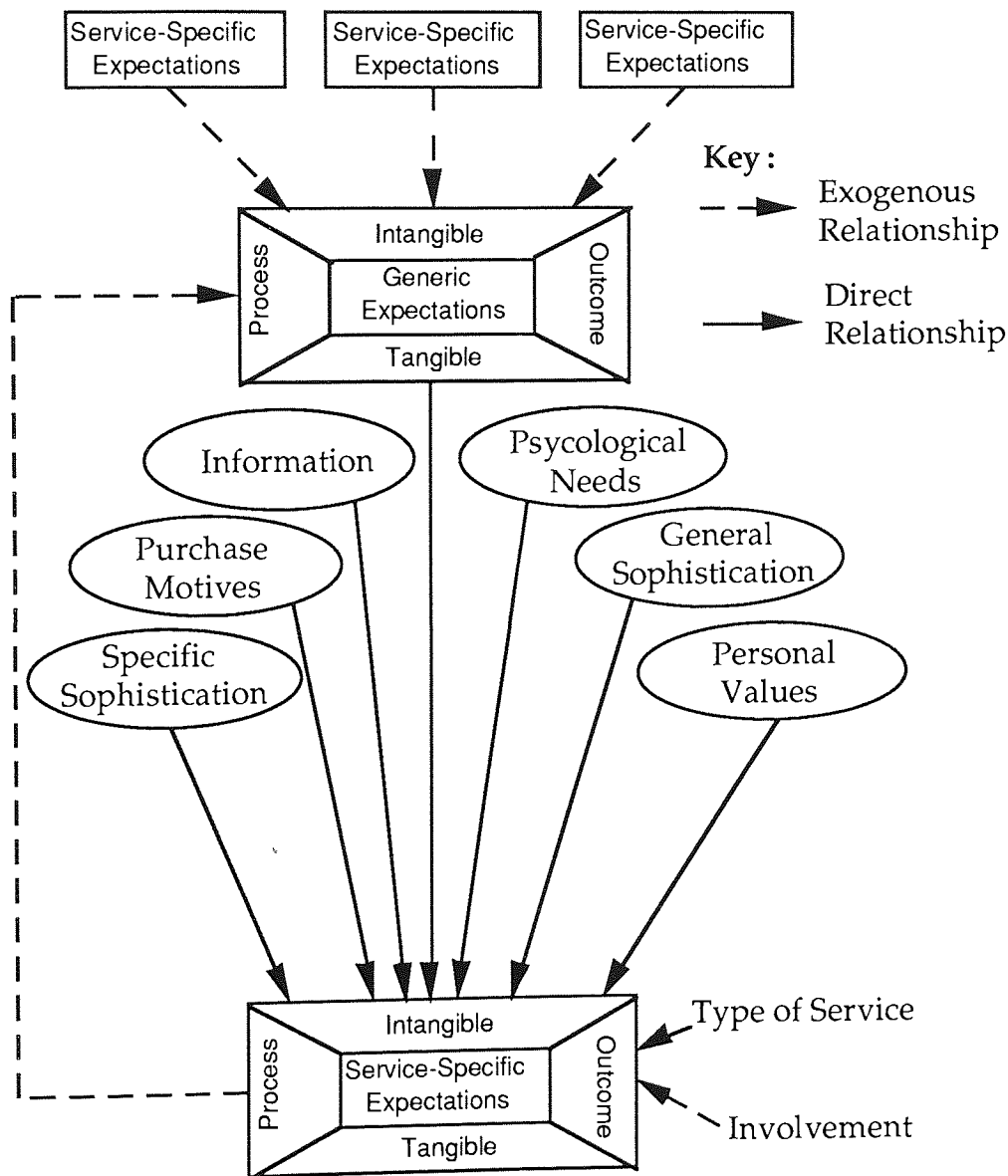
Finally, it was found that an individual's purchase motive partly determines expectations of reliability (Hypothesis 18). The implication of the negative beta coefficient is that those individual's with a single motive for purchasing an M.B.A. have lower quality expectancies than individual's with dual purchase motives. This finding again has some face validity with the relationship between "purchase motive" and "reliability" (or core services) having been noted in sections 3.3.3.5 and 4.3.2.4.

CHAPTER 7

AN EMPIRICAL INVESTIGATION INTO THE DYNAMICS OF SERVICE QUALITY EXPECTATIONS

7.1   INTRODUCTION

Chapter 7 investigates research Hypotheses 19 to 23 regarding the dynamics of service-specific quality expectations.   First, the general methodology and measurement of relevant constructs is described. Following this, research design and sampling is noted. The analytical methodology is then discussed and results presented.   All of these sections draw extensively on the work reported in Chapters 5 and 6 which are referenced as necessary.   Finally, findings are summarised and discussed.

7.2   METHODOLOGY

7.2.1   General Methodology and Construct Measurement

In order to rigorously investigate Hypotheses 20, 21, and 23 two batteries of service-specific quality expectations were collected at two different points in time. The periods selected were pre- and post-service encounter using the same subjects in each period. The first battery of expectations was collected in the immediate two weeks before students started their course with the second being collected in the last three weeks of Term 1. One term of study was judged a sufficient period of time for both full- and part-time students to modify their expectations. A pre- and post-encounter contrast with naive students was selected on the grounds this period was likely to capture most change which in turn afforded the opportunity to uncover determinants which drive the dynamics of service-specific quality expectations. Note that using the same subjects in both periods represents a particularly strong methodology because observed differences in expectations between the two periods must arise from real change when adjustments for measurement error have been made (Keppel, 1982; see section 7.2.3 for further discussion). There was some concern *a priori*, however, that either measurement error or expectation stability might render the experiment invalid through the lack   of   any   discernible   change.   For

this reason a pilot study using a reduced expectations battery was conducted with the 1992/93 student intake and replicated in full with the 1993/94 intake. An identical methodology as just described was adopted in both instances. Note the replication of any findings is particularly desirable from a philosophy of science perspective (Popper, 1962). The expectations battery of the service quality measure developed in Chapter 5 was used to capture respective dimension constructs which had been shown to be a generally valid and empirically useful instrument (see Chapters 5 and 6). In the pilot study the two items which loaded most highly on respective factors were selected (see Table 5.3). The perceptions battery was included in the second battery of the main study to facilitate the testing of Hypothesis 22.

The chronology of the research precluded the collection of determinant variables in the pilot study. However, determinants which had proved to be empirically useful were collected in the main dynamics study to test Hypothesis 19 (see Chapter 6 for further details). Variables which related directly to the service encounter were collected alongside the second battery (i.e. service-specific sophistication and social and commercial information) with the remainder alongside the first battery. The information constructs were oriented towards the post-encounter period since it was judged new information encountered in this period was more likely change expectations than pre-encounter information. Due to the stringent grounding and general success of the determinant measures identical items were used for the dynamics study as previously reported (see Chapter 6 and in particular Tables 6.3 and 6.4).

7.2.2   <u>Research Design and Sampling</u>

Instruments were administered in each study by mail with follow-up letters (see section 5.2.2). The pilot study drew a random sample of 116 students and achieved an initial response rate of 57% (i.e. 66 returns). Of the 66 original returns all were re-surveyed in the second period and a final response rate of 81% was achieved (i.e. 49 returns). In the main study a random sample of 74 students was drawn which achieved an initial response rate of 71% (i.e. 53 returns). Of the 53 original returns all were re-sampled and a final 43%[1] response rate achieved (i.e. 21 returns).

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1 This figure allows for adjustments for one drop-out and three non-traceable questionnaires

7.2.3   Analysis

Any possible time affects in relation to expectations were estimated by correlating dependent variables (summed dimension expectations scores) with an early/late response variable dichotomised at the middle of the response period. In addition, coefficient alpha was calculated for each construct. Point-biserial and Cronbach's alpha were calculated respectively (see Chapters 5 and 6 for an elaboration on these points).

In order to estimate whether expectations had changed between the two periods a Pearson's product-moment correlation coefficient was first calculated. Subsequently, this coefficient was adjusted for attenuation (i.e. measurement error) using the formula suggested by Nunnally (1978, p22). At the theoretical level if service-specific quality expectations do not change a coefficient of 1 should be obtained i.e. expectations are identical both pre- and post-encounter. Conversely, any correlation less than 1 can be attributed to real change given the methodology adopted. Descriptive statistics of change were also calculated by subtracting post- from pre-encounter scores. This was done as an aid to the general interpretation of the results. Note however the latter figures incorporate measurement error and therefore might dampen pre- and post-differences.

Finally, a stepwise regression process was used to identify significant explanatory variables (see Chapter 6 for further discussion). The summed difference between expectations in the two respective periods formed the dependent variable change index for respective attributes. Explanatory variables were formed in the same manner as previously reported in Chapter 6.

7.3   RESULTS

7.3.1   Pilot Study

Reliability estimates of the expectation dimensions are reported in Table 7.1. Reliability coefficients are all of an acceptable level in both periods (Nunnally, 1978).

Table 7.1 : Reliability Estimates

Dimension	Alpha Pre-Encounter	Alpha Post-Encounter
Reliability	0.565 n=44	0.783 n-44
Reputation	0.785 n=44	0.502 n=44
Lecture Delivery	0.790 n=44	0.587 n=44
Personal Development	0.734 n=44	0.689 n=44
Personalisation	0.843 n=44	0.896 n=44
Security	0.721 n=44	0.686 n=44
Facilities	0.481 n=44	0.528 n=44
Responsiveness	0.766 n=44	0.595 n=44

Using the above reliability coefficients correlations between the two periods were corrected for attenuation and are shown in Table 7.2 alongside uncorrected coefficients with one-tailed probabilities (a positive correlation between expectations was predicted).

Table 7.2 : Uncorrected and Disattenuated Product-Moment Correlation Coefficients Between Pre- and Post-Encounter Expectations

Dimension	Uncorrected Coefficients	Disattenuated Coefficients
Reliability	0.559 n=44 p=0.000	0.840
Reputation	0.642 n=44 p=0.000	1
Lecture Delivery	0.395 n=44 p=0.004	0.580
Personal Development	0.555 n=44 p=0.000	0.780
Personalisation	0.435 n=44 p=0.002	0.500
Security	0.637 n=44 p=0.000	0.906
Facilities	0.615 n=44 p=0.000	1
Responsiveness	0.570 n=44 p=0.000	0.844

Several conclusions can be drawn from Table 7.2. First, at the more general level it may be concluded that attribute service-specific quality expectations do indeed change when exposed to a specific service for the first time which is shown by the lack of perfect correlations between periods. Second, some dimension expectations remain stable (Facilities and Reputation). Descriptive statistics calculated using time difference scores are reported in Appendix 7.1. The patterns revealed in this Appendix show that movements in service-specific quality expectations are essentially heterogeneous in nature although the overall mean movement is upwards. Relating the results from the pilot study to research Hypotheses the following are supported/refuted. First, the persistence of significant and generally high correlations unambiguously demonstrates initial expectations form an adaptation level even for previously inexperienced services. This supports Hypothesis 20. Second, the disattenuated coefficients are all high with some demonstrating no change.

Given the service was previously inexperienced this offers support for Hypothesis 21 that service-specific quality expectations are relatively stable. Finally, the pilot study shows that tangibles are relatively stable compared with intangibles the former not changing with the service encounter which refutes Hypothesis 23.

7.3.2 Main Study

Correlations with the dichotomous early/late variable and reliability coefficients are reported in relation to service-specific quality expectations in Table 7.3 below. It should be noted that no time affects were observable which is shown by insignificant results at any commonly accepted cut-off level. Reliability figures are again consistently good (Nunnally, 1978). The exception to this is the reliability of Responsiveness expectations. Given the previously good performance of these items this result appeared rather anomalous but after rechecking the integrity of the data the coefficient was found to truly reflect the data.

Table 7.3 : Time Affects and Reliability Estimates of Expectations

Dimension	Correlation with Time Pre-Encounter	Correlation with Time Post-Encounter	Alpha Pre-Encounter	Alpha Post-Encounter
Reliability	-0.314 n=21 p=0.166	0.076 n=21 p=0.744	0.826 n=21	0.872 n=21
Reputation	-0.053 n=21 p=0.820	-0.205 n=21 p=0.374	0.740 n=21	0.849 n=21
Lecture Delivery	-0.133 n=21 p=0.565	-0.085 n=21 p=0.715	0.797 n=21	0.812 n=21
Personal Development	-0.088 n=21 p=0.705	-0.221 n=21 p=336	0.545 n=21	0.840 n=21
Personalisation	-0.050 n=21 p=0.831	-0.273 n=21 p=0.231	0.877 n=21	0.945 n=21
Security	0.148 n=21 p=0.521	-0.043 n=21 p=0.852	0.918 n=21	0.800 n=21

Facilities	-0.134 n=21 p=0.563	-0.086 n=21 p=0.710	0.889 n=21	0.966 n=21
Responsiveness	-0.336 n=21 p=0.136	-0.237 n=21 p=0.302	0.241 n=21	0.394 n=21

Reliability coefficients for intervally scaled variables are shown in Table 7.4. It should be noted the two information items were not combined for reliability analysis in this study. Once again, the majority of coefficients are good with one exception being the "general sophistication" construct. Again, given the good performance in previous studies this appeared anomalous but reflected the response data.

Table 7.4   :   Reliability Coefficients for Dependent and Independent Measures

Scale Label	Alpha
Reliability Perceptions	0.863 n=21
Reputation Perceptions	0.757 n=21
Lecture Delivery Perceptions	0.892 n=21
Personal Development Perceptions	0.798 n=21
Personalisation Perceptions	0.826 n=21
Security Perceptions	0.976 n=21
Facility Perceptions	0.772 n=21
Responsiveness Perceptions	0.894 n=21
Service-Specific Sophistication	0.624 n=21
General Service Sophistication	0.233 n=21
General Hurry	0.728 n=21

Hypothesis 19 was tested using a stepwise regression with the summed difference score as the dependent variable for each dimension and

independent variables shown in Table 6.11. Descriptive statistics for the difference score are shown in Appendix 7.2. Summary regression results are shown in Table 7.5. An analysis of residuals revealed that key regression assumptions were satisfied (see Appendix 7.3 for detail).

Table 7.5 : Structural Equations for Dynamic Regression Results

Structural Equations	Adj. R^2	F Ratio
Lecture Delivery = 0.503 Equity	21%[1]	5.753 n=19 p=0.028
Personalisation = 0.820 General Hurry - 0.554 Income - 0.474 General Service Sophistication + 0.391 Equity - 0.348 Service-Specific Sophistication	79%	14.158 n=19 p=0.000
Responsiveness = -0.465 Service-Specific Sophistication	22%[1]	4.691 n=19 p=0.045
Security = 0.575 Equity + 0.409 Social Information	49%	9.658 n=19 p=0.002
Intangibles = 0.575 Equity	33%	8.406 n=19 p=0.010
Process = 0.605 Equity	37%	9.818 n=19 p=0.006

Table 7.5 offers additional evidence to that reported in Chapter 6 regarding the general veracity of determinants but it is also evident that changes in certain expectations are not accounted for. Further, not all determinants prove useful. Regarding this latter point, however, the model predicts certain determinants will be more important than others in adjusting service-specific quality expectations with new encounters. The above results therefore support Hypothesis 19 i.e. determinants are capable of modifying service-specific quality expectations.

Correlation coefficients between expectations in the respective time periods are reported in Table 7.6 below.

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1 Consistent with a bivariate solution no adjustment was necessary.

Table 7.6 : Uncorrected and Disattenuated Product-Moment Correlation
Coefficients Between Pre- and Post-Encounter Expectations

Dimension	Uncorrected Coefficients	Disattenuated Coefficients
Reliability	0.535 n=21 p=0.006	0.630
Reputation	0.524 n=21 p=0.008	0.661
Lecture Delivery	0.540 n=21 p=0.006	0.671
Personal Development	0.088 n=21 p=0.352	0.130
Personalisation	0.159 n=21 p=0.245	0.175
Security	0.285 n=21 p=0.115	0.333
Facilities	0.589 n=21 p=0.003	0.636
Responsiveness	0.381 n=21 p=0.044	1

The results reported in Table 7.6 confirm those in Table 7.2 arising from the pilot study. First, service-specific quality expectations clearly change when exposed to a specific service for the first time which is shown by the lack of perfect correlations between periods. In the main study there appears to be a greater revision of expectations than was originally found which is reflected in non-significant and lower coefficients. Second, Responsiveness expectations remain stable or unrevised. The patterns in the descriptive statistics shown in Appendix 7.2 again reflect heterogeneous movements in service-specific quality expectations. Combining the results from the main and pilot studies the following research Hypotheses are supported/refuted. First, the persistence of significant and reasonable correlations unambiguously demonstrates initial expectations form an adaptation level even for previously inexperienced services. This supports Hypothesis 20. Second, the disattenuated coefficients are all of a reasonable level with some demonstrating no change. Since the

service was previously inexperienced this offers support for Hypothesis 21 (that service-specific quality expectations are relatively stable) despite the main study finding some pre- and post-encounter expectations were unrelated. Unfortunately, the main and pilot studies are inconsistent regarding Hypothesis 23 (i.e. that tangibles are relatively unstable compared with intangibles). Whilst in the pilot study tangible expectations did not change in the main this was not replicated. Any conclusions regarding Hypothesis 23 are therefore slightly ambiguous. However, the results reported in Chapter 6 suggest service-specific sophistication is an important determinant of tangible expectations which is consistent with Hypothesis 23 and the results of the main study. The weight of evidence therefore falls towards accepting the Hypothesis.

Table 7.7 shows the correlation coefficients between service performance perceptions and service-specific quality expectations both pre- and post-encounter alongside two-tailed probabilities.

Table 7.7 : Product-Moment Correlation Coefficients Between Performance Perceptions and Pre- and Post-Encounter Expectations

Dimension	Pre-Encounter Correlation	Post-Encounter Correlation
Reliability	0.248 n=21 p=0.278	0.374 n=21 p=0.095
Reputation	0.229 n=21 p=0.317	0.211 n=21 p=0.358
Lecture Delivery	0.075 n=21 p=0.748	0.146 n=21 p=0.527
Personal Development	0.064 n=21 p=0.782	0.411 n=21 p=0.064
Personalisation	-0.280 n=21 p=0.219	0.042 n=21 p=0.856
Security	-0.011 n=21 p=0.961	0.292 n=21 p=0.199

Facilities	0.445	0.007
	n=21	n=21
	p=0.043	0.976
Responsiveness	-0.173	0.283
	n=21	n=21
	p=0.454	p=0.214

Table 7.7 unambiguously supports Hypothesis 22 with no consistent pattern of significant correlations between service-specific quality expectations and performance perceptions being observed. That is, the respective expectations and perceptions can be treated as independent of each other.

7.4   SUMMARY AND DISCUSSION

Hypothesis 19 was supported by the above findings and in the case of explaining the change of personalisation a very good model fit was achieved. However, the determinants failed to account for some of the change in certain dependent variables at all and some did not enter any equations. The latter point was anticipated because one might expect certain determinants to be more important than others in relation to driving change but the former finding was not anticipated. Indeed, the inability to explain the change of some dimension expectations suggests additional, unspecified determinants were operating. Whilst the small sample size might have made it difficult for some variables to achieve significance (Lewis-Beck, 1980 and Sawyer & Peter, 1983) and measurement error generally dampened the strength of possible relationships (Nunnally, 1978) this does raise one key issue. That is, are additional unspecified determinants driving the modification of service-specific quality expectations for previously inexperienced services ? Whilst the service quality literature does suggest a distinction should be drawn between experienced and inexperienced service customers (e.g. Carman, 1990) this has not extended beyond admonitions. This finding presents an empirical basis for making such a distinction.

An interesting finding is that "equity" appears to be a particularly important change agent. In this context, individuals who adopt a strategy of "minimising the difference" in relationships seem more prepared to lower their expectations of quality on exposure to the service. Service sophistication, or the ability to learn from service experience and become a more discerning customer, also appears to be an important change agent. Service-specific

213

sophistication has a negative relationship with the dependent variables. That is, more discerning customers are more likely to modify their expectations upwards. This finding extends to general service sophistication also. The directional consistency of these findings supports the efficacy of the results. An individuals sense of general urgency also changes expectations. In this instance individuals who perceive themselves to be in a rush lower their expectations of personalisation. This has considerable face validity because those individuals with little sense of urgency might well find themselves desiring greater customisation of service than those who are happy with more standard group deliveries. It should be noted the research context necessitates a student to generally spend time seeking a more customised service (e.g. additional information from an academic). In Chapter 6 is was found that income lowered expectations of responsiveness. In this instance it was found that higher income groups were more likely to raise their expectations of personalisation. Finally, social information was also found to change expectations of security. In this instance individuals not encountering social information whilst on the course tended to adjust their expectations downwards. This finding might reveal a tendency for social interaction during service encounters to "talk up" expectations of quality. Note the finding that social information is an important change agent adds further support for Hypothesis 12. Indeed, the consistency of results reported throughout Chapter 7 with those in Chapter 6 strongly adds to the veracity of findings.

Pre-encounter service-specific quality expectations unambiguously formed an adaptation level (Hypothesis 20) in both the pilot and main studies. However, the extent to which pre-encounter expectations were relied on varied according to the individual (as shown by the descriptive statistics of change) and dimensions under consideration. In the light of the fact this was shown with groups of inexperienced students, when the first service encounter might be anticipated to result in large revisions of expectations, this finding suggests service-specific quality expectations form a resistant adaptation level (Hypothesis 21). This finding is important because it is consistent with the notion of generic expectations having a strong influence on service-specific expectations (Hypothesis 5). That is, one would predict that service-specific expectations are relatively resistant to change because a key determinant, generic expectations, are also resistant to change. Note the findings reported here also suggest the proposition by Boulding, Kalra, Staelin, & Zeithaml (1993) regarding the "ratchet affect" (see section 2.4.3) ignores the large heterogeneity which might exist within any given group. That is, whilst aggregate group movements in "should" expectations might always be upwards any individual might revise such expectations downwards.

214

Service-specific quality expectations and perceptions of a focal organisations performance were found to be independent constructs in this study (Hypothesis 22). This runs against several previous reported findings (e.g. Tse & Wilton, 1988) and the recent work of Boulding, Kalra, Staelin, & Zeithaml (1993). Whilst generalisations out of the context of this study are not possible is does suggest the relationship between expectations and performance perceptions are at least dependent on the type of expectation or group of individuals under study. The former of these is argued to be the most likely candidate because conceptually perceptions of an organisation's performance are likely to be related to predictions of a particular organisation's performance (i.e. "will" expectations) but independent of excellent companies or desires (i.e. "quality" expectations). Finally, the weight of evidence regarding Hypothesis 23 suggests service-specific quality expectations of tangibles are relatively unstable compared to intangibles.

CHAPTER 8

IMPLICATIONS AND FUTURE DIRECTIONS

8.1 INTRODUCTION

Results relating to the research Hypotheses have now been presented and discussed. Chapter 8 concludes this thesis by stating the central contributions of the work to marketing science and practical insights for managers. Suggestions are also made for future scholarly efforts and the key limitations of the research are noted.

8.2 CONTRIBUTIONS TO MARKETING SCIENCE

The central thesis contained within this text is that the model of service quality expectations shown in Figure 6.1 adequately represents the major forces that cause customers to form and to a lesser extent update their expectations of quality. Within this central thesis lies three basic issues. First, service quality expectations can be meaningfully described in terms of service-specific/generic, process/outcome, and intangible/tangible categories. Second, these descriptive categories are determined by certain named determinants. Third, a sub-set of these determinants (and possibly additional unspecified determinants) drives the updating of expectations with inexperienced users. By acknowledging that service quality expectations change over time in this manner it is possible to better explicate the relationships between expectations and their determinants.

Almost inevitably any research into a relatively unexplored phenomena raises more questions than it solves and this thesis is no exception to that rule. However, it has made a significant contribution to our current understanding of service quality expectations both conceptually and empirically. Indeed, it is argued that not only have the reported investigations made direct contributions but the findings and methodology adopted should offer considerable grounds for the basis of future research efforts both in relation to service expectations and service marketing more generally.

At the outset of this study only a handful of papers had considered the phenomena of expectations worthy of consideration. This neglect is gradually being redressed with an increasing number of papers to be found in the latter half of 1993. Many of the concepts and issues forwarded in this thesis have found support in these papers which highlights not only the need for research in this area but also the general veracity of the investigation. In Chapter 1 it was stated the primary object of the research was to extend current knowledge in the area of marketing science. Through the conceptual and empirical development of the first verified model of service quality expectations it is argued this object has been well satisfied.

The most important contribution regarding the nature of expectations arising from this thesis is the refinement and development of a variety of descriptive categories of expectations. Whilst the process/outcome and intangible/tangible dichotomies have been pervasive in the literature there has been surprisingly little empirical work demonstrating their usefulness as constructs in building theory and none in relation to service quality expectations. Two new descriptive categories of service quality expectations were also proposed in this thesis and the relationship between them specified. That is, generic expectations are seen to determine service-specific expectations (see Chapter 5). These two categories were directly supported in an unambiguous manner both qualitatively and empirically. The results of the empirical work reported in Chapters 6 and 7 further demonstrate the usefulness of the descriptive categories as noted.

Zeithaml, Berry, & Parasuraman (1993) presented a conceptual model of service expectations (see Chapter 2). Whilst this model was unknown to the researcher when specifying the Hypotheses contained within this thesis several concepts can be seen to overlap. However, several distinctions between the models are readily apparent. First, the model presented in this thesis was theoretically developed through an eclectic approach which drew on several rich literatures. The result of this process was a general model with precise and well defined constructs on which future research efforts will be able to draw. Whilst the model of Zeithaml, Berry, & Parasuraman (1993) does use familiar labels for explanatory constructs the definitions are not obviously linked with any literature (i.e. they are specific to the focus groups used to develop their model e.g. personal needs) which restricts the development of

theory (Jacoby, 1978). In other words, the theoretical structure of this thesis permits marketing researchers to integrate findings from other social science disciplines and apply them in the service marketing setting. Second, operational constructs (e.g. self-esteem, time urgency) were also conceptually identified in this investigation on the basis of the literature and exploratory work. This was not the case in the paper *op cit..* Third, the model considered in this investigation specifically targeted consumer service quality expectations. The model presented *op cit.* considered several types of expectations and determinants which were speculated to be relevant to both the consumer and business customer. Fourth, the model included in this investigation includes determinants not included in the model presented in the paper *op cit.* (e.g. service sophistication, generic expectations, involvement). Fifth, the model considers the dynamics of service quality expectations and attempts to identify change agents. Sixth, the model presented in this thesis is not only of a conceptual nature but also empirically verified. Seventh, the model incorporates descriptive categories of expectations which are of demonstrable use when seeking to uncover the complex pattern of relationships between expectations and determinants. To conclude, even in the light of recent developments the model reported in this thesis provides a comprehensive and innovative framework for developing marketing science.

Finally, no reported study to date has considered the dynamics of service quality expectations or the key change agents. The investigation reported in this thesis offers new insights into the phenomena of changing expectations by identifying determinants and demonstrating distinctions need to be drawn between experienced and inexperienced service users. Furthermore, the traditional role of performance perceptions is questioned in relation to service quality expectations and a conceptual and empirical basis for their stability offered.

8.2.2 Methodological Contributions

When factor analysing SERVQUAL (see Chapter 5) the five dimensional structure was not replicated. This adds to the increasing body of literature which has reported this finding (see Chapter 2). For the first time a service-specific quality measure was allowed to compete against SERVQUAL with the latter measure being found to demonstrate inferior construct validity properties. This suggests researchers need to develop service quality measures

in relation to a specific-class of service. Not only is this critical from a measurement perspective but doing so greatly enhances the understanding of the criteria used by customers when evaluating service quality. The framework presented by Parasuraman, Zeithaml, & Berry (1985 and 1988) is clearly capable generating a valid scale with good discriminant validity which has been a particular problem associated with SERVQUAL. This latter finding also has important implications for a variety of multivariate techniques (e.g. multiple regression and conjoint measurement) which require reasonably orthogonal variables. Future efforts should therefore follow these guidelines when developing new quality scales.

In addition to the above an unweighted expectations model proved more useful than its weighted counterpart. This is consistent with other findings in this area (e.g. Cronin & Taylor, 1992) and suggests an unweighted model is likely to be more appropriate. Several other measures have been developed or adapted in this investigation which can also serve as a basis for future efforts requiring such scales.

8.3   MANAGERIAL INSIGHTS

Management insights are most strongly afforded by the model in relation to five inter-related issues : customer segmentation, product positioning, advertising campaigns, product planning, and market research. Each of these points will now be elaborated.

(1)   **Customer Segmentation :**   For a segmentation scheme to be useful customers should differ along some measurable characteristic that can be used to profitably break-up a total market by making a distinct offer (Hooley & Saunders, 1993, pp137/8). The model presented in this thesis suggests that both service quality expectations and/or their determinants are relevant criteria for such segmentation schemes. The advantage of using service quality expectations over other types of expectations and their determinants is that the segments should be relatively stable and enduring. In addition, for at least two key reasons customer segmentation strategies are likely to prove the most fruitful and important means of managing service quality expectations. First, because service quality expectations are a normative standard determined by largely enduring and non-service-specific variables they are likely to be

difficult to influence by, say, advertising and other communication strategies. To this extent management efforts should concentrate on segmenting quality expectations and attempting to influence predictive expectations which are likely to be more malleable. Second, under the gap conceptualisation of service quality judgements raising or lowering service quality expectations still leaves relative ratings the same relative to competitors. That is, quality judgements are made against a normative standard which, if raised or lowered, will effect competitors equally all other things being equal. Once again, if competitive advantage is to be created a segmentation strategy is likely to be most effective.

(2) **Product Positioning:**   Positioning a product relative to others in the customers' mind is an important part of creating long term relationships and sales (e.g. Wind, 1977). The service quality model presented here provides a sound framework for developing an in-depth profile of customers and their relationship to specific product attributes and attribute categories. This type of knowledge is therefore of intrinsic value to anyone who wishes to develop strategies to cognitively position current and new products (Sheth, 1983).

It should be noted the model includes a diverse set of explanatory variables which interact with quality expectations of service attributes in a highly complex manner. This deep picture of the consumer suggests an integrated marketing communication effort should be made by organisations along the lines suggested by Blackwell (1987) rather than the more customary fragmented efforts (see also Chisnall, 1985). For example, the impact of social interaction in the service encounter is clearly an important part of service and any messages exchanged with contact staff should be consistent with any ad campaign. Particular efforts should also be made to educate customers regarding what is reasonable for a given service class. This is particularly important because of the strong influence of generic expectations which perhaps create unrealistic standards of excellence for any given service class. This type of "expectations leakage" should therefore be minimised whenever possible. Further attempts should also be made by organisations to stress their efforts to create an equitable relationship with the customer particularly with new customers who are likely to be the most receptive group to such appeals all other things being equal.

(3) **Advertising Campaigns :**   George & Berry (1981) noted that advertising intangible services might require different efforts by practitioners than would be typically employed for goods. Little research has been conducted in the area of service advertising but the model presented in this thesis offers some important insights. One of the basic stages in the development of advertising campaigns is uncovering brand associations which lever buyers into action (e.g. Rossiter & Percy, 1987, p22). The model not only provides a framework for developing a good understanding of such levers but also provides a means for creatives to develop strong appeals and copy which often relies on deep meanings (e.g. Chisnall, 1985; Petty & Cacioppo, 1986, and Reynolds & Gutman, 1988). For example, the apparent importance of self-esteem suggests a fear appeal might be appropriate under certain circumstances when attempting to create service loyalty.

In addition to this broader point advertising campaigns are probably best primarily targeted at stimulating positive word-of-mouth (e.g. by targeting opinion leaders) and other social information exchanges which certainly appear to be most influential. Again, consistent with the above two discussions predictive expectations are probably the best target for persuasive communications.

(4) **Product Planning :**   The service expectations model suggests quality expectations are relatively stable which means managers need not worry unduly about the speed with which expectations change. However, the model should prove useful for developing new services and spotting new product opportunities because it incorporates clear links between service attributes and desired states (e.g. Cravens, Hills, & Woodruff, 1980 and Pride & Ferrel, 1987). For example, new services targeted specifically at female quality expectations might offer a rich ground for new product development and augmentation.

(5) **Market Research :**   A final point worth noting in relation to market research is that organisations who benchmark their service   should not concentrate within their service class alone. Whilst this is a "basic" of effective benchmarking (e.g. Brooks & Wragg, 1993) this thesis offers the first unambiguous empirical evidence for adopting such a policy. That is, the quality expectations associated with any specific service will be largely determined by expectations created in all of an

individuals service experiences which will naturally include those outside a given service class. This provides a stark warning to many service providers. In addition, if a sound understanding of the criteria used to judge service quality is to be gained through market research off-the-shelf- instruments like SERVQUAL are not likely to prove sufficient.

8.4 FUTURE DIRECTIONS

At the broadest level the model presented in Figure 6.1 should prove a sound basis for generating new research hypotheses and provides a rich agenda for future research efforts. Indeed, the significance and persistence of many of the relationships reported in this PhD suggests further research is warranted to primarily replicate and extend the reported findings. Special attention should be paid to uncovering the boundaries of the service quality expectations model. Not only does this mean conducting studies with different service settings but also with different levels of involvement, types of expectations (e.g. predictive expectations), and goods quality expectations also. Attention should also be paid to introducing new variables under the broader descriptive determinant categories and new determinants with inexperienced service users. Indeed, the inexperienced service user group deserves more consideration from marketing scholars than has been previously afforded by the literature. New studies should also be conducted into the dynamics of service quality and other types of expectations using multiple adjustment periods.

Fresh research is also required into the discriminant validity of several "high" expectations and the network of relationships between the various types. Measurement issues also warrant further work. One suggestion with respect to this latter point is that all expectations are operationalised as beliefs which are then anchored at different levels and time orientations of service performance. Such expectations could be measured with well developed scales (e.g. Fishbein & Ajzen, 1975). In relation to service quality expectations performance norms could be constructed by selecting a representative sample of companies from a given service class and obtaining probability estimates for service performances from respondents. The top 10%, of service performances (probabilities) say, could then be taken as an excellence benchmark. In addition to service expectations several of the determinants warrant further measurement development. In particular the general usefulness of the service sophistication construct has been sufficiently demonstrated in the investigations to warrant the development of a multi-item scale and studies

into its relationship with a host of other constructs (e.g. perceived risk, complaining behaviour).

Current research in the service marketing literature links either satisfaction or service quality constructs to customer behaviour. However, the economics literature suggests a direct link between expectations and behaviour (e.g. Muth, 1961). In the marketing literature the relationship between price expectations and behaviour has also been noted (e.g. Kalwani & Yim, 1992). This suggests that new research into the links between service expectations generally with purchase intentions and market share might prove fruitful.

Additional research effort is also required into the mental processes associated with service expectations and judgements. For example, little is known about the relationship between memory and judgement or indeed the cognitive process by which customers store and retrieve service quality expectations.

The concepts of risk and control have had a long history in consumer research as a useful explanation of consumer behaviour (e.g. Bateson, 1983; Bateson, 1985 and Bateson & Hui, 1987). The work surrounding this thesis has been peppered with references to this literature and many findings are consistent with the risk concept. Havlena & DeSarbo (1991) recently linked perceptions of consumer risk directly to brand attributes and also found that individual differences affect overall risk perceptions. The relationship between service attributes and risk perceptions, particularly service quality as a means of reducing risk, are additional issues worthy of future research effort.

8.5   RESEARCH LIMITATIONS

When designing the three investigations and associated studies every effort was made to minimise the limitations of the findings. In section 4.2.1 the operational context was discussed taking particular note of service classification and analytical versus statistical generalisation issues. Consistent with this discussion no statistical generalisation is drawn beyond the bounds of this study. However, it is argued the model presented in Figure 6.1 is analytically generalisable beyond this study and has particular relevance to comparable services as discussed. However, replication studies are clearly required to discover both the statistical and analytical boundaries in which the model operates (see section 8.4).

223

The investigations generally use small sample sizes which might have contributed to some hypothesised relationships to be incorrectly found insignificant. Another way in which hypothesised relationships might have been incorrectly rejected is through the operationalisation of certain variables. In other words only a few of all possible personality traits, for example, were selected to test the basic "personality" relationship. Whilst considerable care was taken through both theoretical and exploratory work to select only useful variables other operational constructs might have yielded significant relationships.

Finally, measurement error might have polluted the findings despite strenuous efforts to avoid such attenuation. Where practical reliability coefficients and/or construct validity checks are reported to allow the reader to exercise their own judgement in assessing any such potential impact.

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APPENDIX 2.1

Expectation statements from the original SERVQUAL instrument (Parasuraman, Zeithaml, & Berry, 1988) are provided below anchored in terms of "excellence" and positively worded (Parasuraman, Berry, & Zeithaml, 1991b).

Tangibles

(1)   Excellent XYZ companies will have up-to-date equipment.

(2)   The physical facilities at excellent XYZ companies will be visually appealing.

(3)   Employees of excellent XYZ companies will be well dressed and appear neat.

(4)   The appearance of the physical facilities of excellent XYZ companies will be in keeping with the type of services provided.

Reliability

(5)   When excellent XYZ companies promise to do something by a certain time, they will do so.

(6)   When customers have problems, excellent XYZ companies will be sympathetic and reassuring.

(7)   Excellent XYZ companies will be dependable.

(8)   Excellent XYZ companies will provide their services at the time they promise to do so.

(9)   Excellent XYZ companies will keep their records accurately.

Responsiveness

(10) Employees of excellent XYZ companies will tell customers exactly when services will be performed.

(11) Employees of excellent XYZ companies will give prompt service to customers.

(12) Employees of excellent XYZ companies will always be willing to help customers.

(13) Employees of excellent XYZ companies will never be too busy to respond to customers requests promptly.

Assurance

(14) Customers will be able to trust employees of excellent XYZ companies.

(15) Customers will be able to feel safe in their transactions with the employees of excellent XYZ companies.

(16) Employees of excellent XYZ companies will be polite.

(17) Employees of excellent XYZ companies will get adequate support to do their jobs well.

Empathy

(18) Excellent XYZ companies will give customers individual attention.

(19) Excellent XYZ companies will have operating hours convenient to all their customers.

(20) Excellent XYZ companies will have employees who give customers personal attention.

(21) Excellent XYZ companies will have their customers best interests at heart.

(22) The employees of excellent XYZ companies will understand the needs of their customers.

To empirically assess the involvement level of taking an M.B.A. at a Business School the Zaichkowsky (1985) involvement scale was used. A sample of new full- and part-time students was drawn (n=64 with a 75% response rate). In addition two validity questions were asked (suggested *op cit.*). The first asked whether information was actively sought by students regarding Business Schools and M.B.A. courses. The premise here is that the amount of information sought increases with involvement. The second question asked whether taking an M.B.A. was important to the student's life. Again, the premise here is that the more central an M.B.A. is to a student's life the higher the involvement level. Both questions were rated using a Likert-type 7 point scale anchored with "strongly agree" and "strongly disagree". Summary statistics are shown in Table A4.1.

Table A4.1.1 : Summary Statistics for Involvement Scale

	Involvement	Search	Importance
Mean	122.22	5.70	5.67
Lowest	97	2	2
Highest	140	7	7

Theoretically the range of the involvement index is 20-140 with a mean of 80. As a rule-of-thumb any index above 111 might be regarded as "high involvement" (*op cit.*, p350). The average is comfortably above this level suggesting the M.B.A. service can reasonably be classified as "high involvement". In addition, both the validity questions are consistent with this conclusion. Simple scatter plots of respective ratings against corresponding involvement scores further augment this conclusion. Figures A4.1.1 and A4.1.2 clearly show the main cluster of cases falling in the top right-hand corner consistent with expectations for a high involvement service.

Figure A4.1.1 : Information Search Versus Involvement Plot

Information Search vs. Involvement
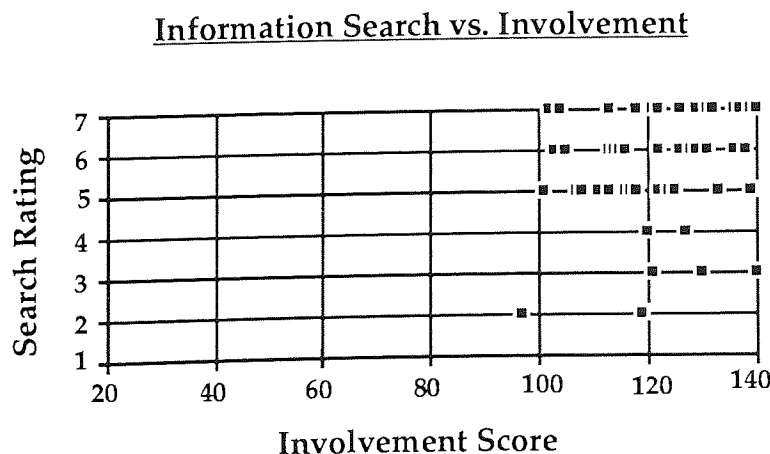
Figure A4.1.2 : Life Importance Versus Involvement Plot

Life Importance vs. Involvement
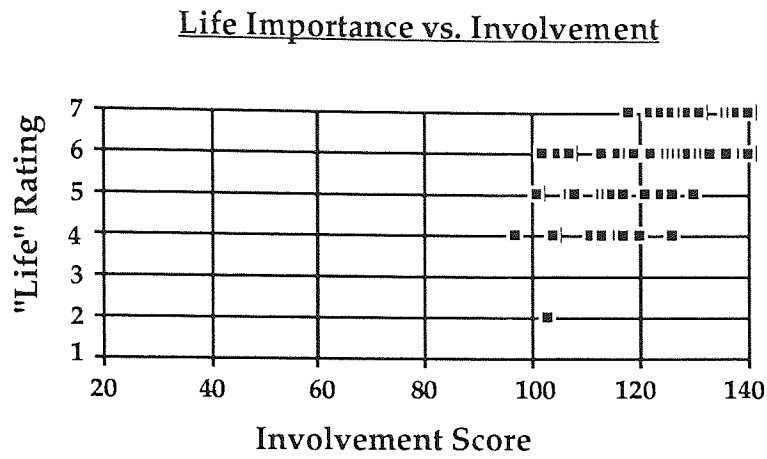
APPENDIX 4.2

The below notes were used to interview students in Investigation A.

(1)   Introduction

(2)   Questions

•   what did you want an M.B.A. and Business School to be like ?

•   what did you think you would find at Aston ?

•   which business schools do you feel are very good ? Why ?

•   what do you think goes into building an excellent business school ?

•   what are the best and worst experiences since you have started the course at Aston ?

•   what do you expect to gain by doing an M.B.A. ?

(3)   Winding Down

•   what else do you feel might be important when considering what yourself or others want to find when taking an M.B.A. ?

•   is there anything else, perhaps not directly related to what we've been talking about, which you feel is worth mentioning ?

•   is there anything you would like to ask me ?

APPENDIX 4.3

Below are the notes used to moderate the student focus group in Investigation A.

(1) Introduction

- thank for coming

- inform open-ended discussion about prior expectations, what want and associate with excellence, experiences at Aston

- inform outcome to be used in questionnaire and PhD

- inform anonymous except for those present

- draw attention to camera (aide memoir, personal/self assessment, not going to be shown elsewhere)

- take names

- inform about manner in which discussion to be conducted
    - do not talk at same time (recording)
    - allow everyone fair share of conversation
    - don't ask me questions

(2) Secret Pooling

- purpose to bring out things not willing to own up to yourself (fun !)

- write down subject on piece of paper

- no name etc. screw up and throw in bin

(3) Winding Down

- any more comments or questions ?
- ask how felt about discussion + if think covered all the main points

(4) Moderator Style of Conduct

- sophisticated naïveté approach (i.e. let them be educators ! e.g. what do you mean ? I'm afraid I didn't understand that ? Could you explain that to me as I'm not an M.B.A. student ? etc. etc.)

- listen and be seen to listen (grunt now and again etc.!)

- maintain rigorous neutrality

- ensure all participate equally. How ?
  - look around all in group from time to time
  - be passive/ignore dominant + body language
  - look at quiet individuals + ask non-directive questions

- keep discussion to relevant limits !

- keep eye on time i.e. do not allow single topic to crowd out

- probe, test new ideas, follow-up etc.
  - how do you feel ...?
  - is that good .....?
  - what do you mean by that ....?

N.B. If asked a question do not answer, simply return with another question e.g. Well, what do you think ....?

Interviewer: What is quality of service to you as a customer ? What do you associate with excellent service ?

Interviewee: A pretty vast question.

Interviewer: Yes, it is.

Interviewee: Quality of service to me .... I think the other person has to be aware that you're the customer and as such, you know, they wouldn't be paid without your presence as it were. So, you expect a certain amount of amiability, they should be nice, polite, smile if possible- it doesn't cost anything.

Interviewer: Why do you feel that smiling and being polite is important to you personally ?

Interviewee: Basically because .... why is it important to me, that's a jolly good question. It puts you in a good mood basically. I mean I think it comes down to that. If someone is pleasant to you, you have an immediately different reaction than if people are surly and rude and downright, you know, pig-headed. So I think that is an important aspect.

Interviewer: Yes, that's right. What other sorts of reasons do you think perhaps make them important to you ?

Interviewee: I don't know. It just makes life more pleasant. I think if you're paying for a service then the person on the opposite side ought to be pleasant to you. You know, this pleasant service I think must be the most important thing- the contact between the customer and the person giving the service.

Interviewer: And what other sorts of things makes-up quality service to yourself ?

Interviewee: Quality service. I think they have to be helpful. I think they have to offer information or to research information.

Interviewer: Why is that important to you ?

Interviewee: Well, for example, my girlfriend has got to go to meet the people that employ her in Germany next week. She phoned up the travel agent and it's a fairly obscure little town in Germany so it's not actually easy to get too, and in the end she had to make the suggestions as to the different airports that she could go to, and it strikes me that if you go to a travel agent you should look on the map, see where the place is and say "well, these are all the different options you have got open to you, this will cost so much and this would be more practical". You know, these are the pros and cons so way them up for yourself. I think as the client you're not the specialist in the field, so I mean, if the other person who has all the knowledge (although that's quite often not

always the case I suppose), that they should be willing to present you with a choice of solutions.

Interviewer: So we have if you like politeness, helpfulness ...... what sorts of other things do you think are important ?

Interviewee: Quality service. Well, efficiency. They should be, they should do the job as well and as quickly as possible.

Interviewer: Right, that's interesting. Why is important that they have to do it quickly for you personally ?

Interviewee: The old adage "time is money". I mean, you don't want to be kept hanging about.

Interviewer: No, that's right. Is it because time really is money or because you just have other things to be doing or you're just naturally impatient or what ?

Interviewee: No on the whole I'm not desperately impatient. So I mean for example, take a restaurant. You don't necessarily expect to receive meals, or the first course and second course and pudding to come out one after the other as quickly as possible. But if someone is being rude to you for example, or unpleasant, which you quite often find in France for example, then you begin to sort of pick on things like, you know, efficiency and speed. Are they being rude and sort of pig-headed about being slow and bringing things out ?. But I think, you know, for example across the counter in a bank or a shop, you want to be served as quickly as possible so you can get on with the rest of the things you have to do.

Interviewer: Are there other sorts of things which make-up quality service to you as a customer ? It's quite a general, difficult question to focus on really. It might be worth thinking about any particularly good service experiences you have had recently.

Interviewee: Well bad ones include restaurants, it wasn't French on that occasion. I must admit I went to America for the first time last year and didn't have any desperate love for the Americans or American way of life and all the stereotypes of America- of what I thought it was all about. But I was pleasantly surprised- everyone was so helpful, friendly, they couldn't do too much to go out of their way and help you. It just sort of hit you in the face. Prior to coming to Aston I was working in Paris and the difference in service between America and France, and the friendliness and so on, and on the whole it seemed, you know, relatively sincere.

Interviewer: That's an interesting point. You mention sincerity ......

Interviewee: Oh yes. It wasn't "have a nice day, have a nice day, have a nice day" to a whole queue of customers when you can see that she's bored or he's bored out his head.

Interviewer: Why do you feel this sense of sincerity is important to you personally ?

Interviewee: I don't know. Personally I feel if someone is being smug and polite just because they want your money sort of thing that would turn you off as well. Or it turns me off.

Interviewer: Why is that ?

Interviewee: Well, it puts you into an automatic sort of situation where you are going to be at loggerheads with the person. You're not going to want to part with your money. Come back to waiters again. If they are genuinely helpful, polite, and you know, friendly, and you can tell that in an instant, then you're more likely to leave a tip. If someone, you know, is being smarmy to you, and then going off and joking with his friend behind the bar about or something- these things do arise- well you think I'm damned if I'm going to leave a tip.

Interviewer: Why do you feel "I'm damned if I'm going to leave a tip" ? Well, not necessarily you but just people in general.

Interviewee: They're questions I've never really sort of dwelt on before. Well, personally I feel I want to return if someone is pleasant or friendly, then I feel I want to give something in return. Whether being polite back, friendly back, giving a tip, you know it's reciprocity-is that an English word ?

Interviewer: Is it something to do with how important you feel as a customer or ....

Interviewee: No. I don't think so. When I was working in Paris it was for a re-insurance company and we visited a client- just before I left in fact- which was a very exclusive bank that was starting to sell insurance- bank insurance is something which is quite big out there at the moment- and there I feel that what made customers feel important was the exclusivity of the whole surroundings and so on, and the fact that not everyone could get into the bank. In fact this was a very exclusive one you had to be recommended by someone who already banked there- it was totally over the top, but I'm sure the French loved it- and so I think that good service doesn't necessarily mean that you feel important, it doesn't make me feel personally important, it makes me feel more open to them, so you get a better exchange.

Interviewer: And what sorts of other things do you associate with very good service ?

Interviewee: Oh dear. Other things associated with good service ? I can't think of anything else off hand.

Interviewer: Have you had any particularly poor service experiences lately ?

Interviewee: Well we did- restaurant experience again, I've just got back from holiday when I ate out a little more than usual- and we ordered some sort of ice-cream that should have had cream and a chocolate flake on it. When it turned-up it had a wafer thing on the top and no cream, and like idiots we didn't complain until the end- we just made a comment about it at the end saying we were surprised to see that there was no cream. And the chap turned around and said "we don't get deliveries of cream today", you know "of course

we don't" as though we should have known. And I was thinking, well, what on earth do you mean. So basically I think with good service you should get what they say you're going to get.

Interviewer: This idea of companies essentially keeping promises they make, why do you feel that's important to you ?

Interviewee: It's very important because it nurtures trust. If you don't get what you expect to get or what a company promises you will get from them first time then it will put you off, or it will put me off, not necessarily for life but for a good while.

Interviewer: And what sorts of other things do you associate with very good service ?

Interviewee: I suppose reputation. I've just gone to Marks & Spencer's actually, which is the sort of shop you associate with good quality and good service- you can always take things back. Reputation.

Interviewer: What do you mean by that.

Interviewee: Well, you know, if someone says "Oh yes, you can go there you know, they're very good and very helpful", that's a good sign. I don't know whether it's a feature of good service but it's an indicator.

Interviewer: And what sorts of other things do you associate with good service?

Interviewee: I think we're getting a bit to the point its all bottomed out.

Interviewer: That's OK Do you think that what you expect as a customer has changed at all, say from four, five or ten years ago ?

Interviewee: I don't know. I think maybe since I've worked I'm a little more demanding. But I've always been someone that thought well, you know, if you're trying to make a living that way you've got to go about it the right way or I'll go somewhere else.

Interviewer: And you've felt this way for a long time ?

Interviewee: Well, I should think that since I've been doing my own shopping and what have you, but it's definitely something you become more aware of and more demanding about since I myself have been working.

Interviewer: Why do you think that is ?

Interviewee: Because I worked in a service industry where client contact was very important. I was in life re-insurance which is hard- re-insurance is basically insuring insurance companies- and they're very long term relationships, they're hard to build up in the first place, and once you've got them in place you've got to service the customer and make sure he's happy and then you'll have a twenty year contract or something. So you have got to be very careful to be nice to the customer or give a good service, give the back-up. That's another thing which I think is important in services, and that's the after sales service which is obviously very important.

Interviewer: Again, why do you feel that is important ?

Interviewee: I say obviously I didn't think of it before. It gives you more confidence, trust in the product, it means that you'll go back and see that company again. I did my first degree at Aston.

Interviewer: Did you.

Interviewee: I did Business Studies and French.

Interviewer: Was that the I.B.M.L. course ?

Interviewee: No, I arrived the year that started, but I wasn't on that course. I can't remember exactly what the difference was, though I think with French and Business there was less co-ordination between the Business Faculty and the French Faculty which meant there was a lot of work.

Interviewer: What other sorts of reasons do feel there are for why you feel your expectations have changed over the past ...... we were talking about work and your experiences from work ....

Interviewee: I suppose it was just basically just having seen the importance of keeping good relations with the customer and being fully aware that when you're being paid a salary that is based on the fact that you're doing business with your customers. If you're not doing good business with your customers then ultimately you're not going to get a pay rise or your going to get sacked or something, and so you go into the street and obviously you've earnt your money and you think, well damn it they're in the same situation. If not worse. So I mean, I haven't often done it, but once or twice you know I have got up and left a restaurant if the foods not been good. You know, someone can tell me I've been anti-social but I'll just go next door out of principle sort of thing.

Interviewer: From what you've just described to me it seems that having worked in a service environment it's made you less tolerant of poor service. Do you feel that's a fair description of what you've said ?

Interviewee: Yes.

Interviewer: Does that mean that what you associate with very good service has pretty much stayed the same, or do you feel that your work experiences have changed what you associate with very good service also ?

Interviewee: Funnily enough until you've actually experienced very good service you don't actually have any pre-conceived idea of what it is. Coming back to the American example, there we had very good service, and we didn't know what good service was until we had it sort of thing. You know, you could go to a theme park, I mean Sea World for an example, there you went in, it was quite expensive to get in, but once you're in there everything is immaculate, everyone was very helpful, everything was laid out so that people there could enjoy themselves as easily as possible despite the enormous numbers of the people there. For example, you could eat- this is an important part of my life as you'll see when you listen to that tape later- you could eat a full meal there as down the main high street, which to me seems so logical. Because you've got a captive audience why charge ridiculous prices. Why not

charge normal prices and get everyone in there. All this strikes me as very good service.

Interviewer: Thinking about the M.B.A. and Business School environment did you have a clear idea of what to expected or what you associated with a very good Business School ?

Interviewee: I think the first thing about M.B.A. courses in my view is reputation. I mean everyone has heard of Harvard, most people have heard of I.N.S.E.A.D.. Having worked in France the French educational system is very elitist funnily enough. They're much more "Old School Tie" than we are in England. And having worked out there for a few years and everyone coming in and saying I've been to this School and I've been to that School I suppose I became a lot more conscious of the prestige that a University had. And also, I mean to back up the point about reputation, it is more and more important given that the M.B.A. is getting more and more marginalised. So, if you can say you've done one at a good School it might hold more sway.

Interviewer: Do you still feel that is important- the reputation- since you've been here ? Have you changed your mind about the reputation of a School being important ?

Interviewee: No.

Interviewer: What sorts of other things were important to you when deciding to come to a Business School ?

Interviewee: To tell you the truth I'm not a very good candidate to ask these sorts of questions, because mine was a fairly split-second decision.

Interviewer: You're not alone there don't worry.

Interviewee: One thing I was worried about, which doesn't really answer your question, was the fact that I had done a business course here before and a number of the people that teach the M.B.A. course have taught me before. So last term was to a certain extent, but not too much, a recap of what I'd already done.

Interviewer: What was your prime motive for taking an M.B.A. ?

Interviewee: It was basically, primarily to change direction from my job. I was in re-insurance and I didn't want to stay in re-insurance. I'm more interested in something like marketing. I've always been interested in marketing but I wanted a job in France initially just to improve my French and get foreign work experience. I wasn't too fussy about the job I went into. Having gone into a job you realise very quickly that in a number of areas you become very specialised, and so it is hard to move about.

Interviewer: Has that remained pretty much the same ?
Interviewee: Absolutely.

Interviewer: Do you feel, having experienced Aston, that what you associated with very good Business Schools has changed at all with your experience of Aston ?

261

Interviewee: Well, this idea of good Business Schools is not the sort of question I ever put to myself. To tell you the truth I never thought I would go back to study after I left University and had the job gone as planned I probably wouldn't have done. As it happens I'm glad I have done- I'm finding it very interesting and stimulating- but good Business School. No, I didn't really have a pre-conceived idea, but I did know that Aston had a good reputation.

Interviewer: I'm interested in how ....

Interviewee: Price was an important factor and actually, the brochure I looked at was 1991 to 92 and Aston's fees were at something like £2 200 and that was another important factor because I'm financing this myself. I hadn't actually given it much thought before hand from the point of view of having put any money aside, so I'm in at the deep end a bit.

Interviewer: Do you feel that people on your course have influenced your attitude towards what's a good Business School or M.B.A. course ?

Interviewee: People on the course ?

Interviewer: Yes.

Interviewee: I'm surprised at the people I've found on the course. There are a lot of people that are a lot younger than I expected. I must admit I'm surprised people aren't more motivated. I expected to find professionals from my age upwards. I expected that I would be one of the younger people on the course. In fact I was worried that I wouldn't have enough work experience.

Interviewer: Before you came did you think an excellent School would only have those sorts of people ?

Interviewee: Yes.

Interviewer: Do you still feel that ?

Interviewee: Yes I do really. You know I thought there'd be a lot of young professionals with get up and go and experience- and were motivated.

The following items were included in the first questionnaire sent to M.B.A. students with a covering letter. For ease of reading relevant items are categorised under their respective dimensions (e.g. "tangibles") and SERVQUAL items are identified by an asterisk. In the actual questionnaire these were not included.

Please rate the overall quality of Aston Business School's M.B.A by ticking the appropriate space:

Terrible ..... Poor ..... Fair ..... Good ..... Excellent .....

Please circle the appropriate response:

Would you recommend Aston Business School's M.B.A. to a friend ?

Yes/No

Have you ever reported a problem with the services you have received from Aston Business School ?
Yes/No

SECTION 1

DIRECTIONS: Please show the extent to which you think excellent Business Schools offering M.B.A.'s and M.B.A. services will possess the features described by each statement. Do this by picking one of the seven numbers next to each statement. If you strongly agree that Business Schools or their M.B.A.'s will possess a feature, circle the number **7**. If you strongly disagree that excellent Business Schools will possess a feature circle **1**. If your feelings are not strong, circle one of the numbers in the middle. There are no right or wrong answers- all we are interested in is a number that best shows your expectations about institutions offering M.B.A.'s and M.B.A. courses themselves. *Please answer all of the questions.*

Tangibles

(1)   Excellent Business Schools will have up-to-date equipment*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(2)   Excellent Business Schools will have physical facilities which are visually appealing*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(3)   Excellent Business Schools will have staff who are well dressed and appear neat*.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(4)   The appearance of physical facilities at excellent Business Schools will be in keeping with the type of services provided*.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(5)   It is unrealistic to expect excellent Business Schools to have a place where course members can meet lecturers in informal surroundings.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(6)   Excellent Business Schools will have an unattractive campus.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(7)   The activities of excellent M.B.A courses will be centred in one building.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Reliability

(8)   When excellent Business Schools promise to do something by a certain time, they will do so*.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(9)   When course members have problems, excellent Business Schools will be sympathetic and reassuring*.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(10)   Excellent Business Schools will be dependable*.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(11)   Excellent Business Schools will provide their services at the time they promise to do so*.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(12)   Excellent Business Schools will keep their records accurately*.

    Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Credibility

(13)   Excellent Business Schools will not charge premium course fees.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(14)   It is unrealistic to expect excellent Business Schools to have good contacts with industry.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(15)   Excellent Business Schools will be continually striving to improve themselves.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(16)   It is unrealistic to expect excellent Business Schools to only allow high calibre people onto their M.B.A. course.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(17)   Excellent Business Schools will have a good reputation.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(18)   Lecturers on excellent M.B.A. courses will have commercial experience.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(19)   Excellent M.B.A. courses will not be well tuned to the needs of industry.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Communication

(20)   Excellent Business Schools will not be expected to tell course members exactly when services will be performed*[1] .

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(21)   Excellent Business Schools will keep course members well informed about what is going on.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(22)   Excellent Business Schools will provide timely information about relevant activities.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

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1   This item fell under the "responsiveness" construct in the SERVQUAL scale. This was judged innappropriate within this context and was therefore re-allocated.

Personal Development

(23) Excellent Business Schools will give feedback on an individuals performance on the course.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(24) Excellent M.B.A. courses will not be challenging.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(25) Excellent M.B.A. courses will provide an opportunity for all round personal development.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(26) Excellent M.B.A. courses will enhance a course members' career prospects.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(27) It is unrealistic to expect excellent M.B.A. courses to provide opportunities to draw on other course members practical experience and knowledge.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(28) Course members will not have to participate and contribute on excellent M.B.A. courses.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(29) There will be plenty of opportunities for interaction on an excellent M.B.A. course.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Lecture Delivery

(30) Lecturers on excellent M.B.A. courses will be able to get their point across to course members.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(31) Lecturers on excellent M.B.A. courses will always be well prepared for teaching.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(32) Excellent M.B.A. courses will always have interesting lectures.

     Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(33) Lecturers on excellent M.B.A. courses will always have good presentation skills.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(34) Lectures on excellent M.B.A courses will always be clear and to the point.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Competence

(35) Staff will get adequate support from excellent Business Schools to do their jobs well*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(36) Excellent Business Schools will not be "smooth" and well organised.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(37) The staff at excellent Business Schools will be knowledgeable about their work.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(38) Staff at excellent Business Schools will be professional.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(39) Excellent M.B.A.'s will have lecturers who give course members guidance to their subjects.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(40) Excellent M.B.A. courses will provide course members with up-to-date knowledge.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(41) Excellent M.B.A courses will provide course members with concepts and skills which can be readily transferred to the real world.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(42) Course members will learn a lot on excellent M.B.A. courses.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(43) Excellent M.B.A. courses will provide analytical techniques and frameworks.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

267

(44) Excellent M.B.A. courses will have new ideas which are at the front-end of management thinking.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Understanding

(45) Excellent Business Schools will not be expected to give course members individual attention*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(46) Staff of excellent Business School cannot be expected to give course members personal attention*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(47) It is unrealistic to expect the staff of excellent Business Schools to know what the needs of course members are*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(48) It is unrealistic to expect excellent Business Schools to have course members' best interests at heart*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(49) Staff at excellent Business Schools will make you feel like a paying customer.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Security

(51) Course members will be able to trust the staff of excellent Business Schools*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(52) Course members will be able to feel safe in their dealings with excellent Business School' staff*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(53) Excellent Business Schools will take reasonable steps to ensure course members personal safety.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Responsiveness

(54)   It is not realistic for course members to expect prompt service from the staff of excellent Business Schools*.

            Strongly Disagree   1 2 3 4 5 6 7   Strongly Agree

(55)   Excellent Business Schools' staff will not always have to be willing to help course members*.

            Strongly Disagree   1 2 3 4 5 6 7   Strongly Agree

(56)   It is OK if excellent Business Schools are too busy to respond to course members requests promptly*.

            Strongly Disagree   1 2 3 4 5 6 7   Strongly Agree

(57)   The staff at excellent Business Schools will be approachable.

            Strongly Disagree   1 2 3 4 5 6 7   Strongly Agree

Courtesy

(58)   The staff at excellent Business Schools will be polite*.

            Strongly Disagree   1 2 3 4 5 6 7   Strongly Agree

Access

(59)   Excellent Business Schools will not be expected to have operating hours convenient to all course members*.

            Strongly Disagree   1 2 3 4 5 6 7   Strongly Agree

SECTION 2

DIRECTIONS: The following set of statements relate to your feelings about Aston Business School and the Aston M.B.A.. For each statement, please show the extent to which you believe Aston Business School or the Aston M.B.A. has the feature described by the statement. Once again, circling a 7 means that you strongly agree that Aston Business School or its M.B.A. has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers- all we are interested in is a number that best shows your perceptions of Aston Business School and the Aston M.B.A.. *Please answer all of the items.*

Tangibles

(1)   Aston Business School has up-to-date equipment*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(2)   Aston Business School has physical facilities which are visually appealing*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(3)   Aston Business School has staff who are well dressed and appear neat*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(4)   The appearance of physical facilities at Aston Business School are in keeping with the type of services provided*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(5)   Aston Business School has a place where course members can meet lecturers in informal surroundings.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(6)   Aston Business School has an unattractive campus.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(7)   The activities on Aston's M.B.A. course is centred in one building.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Reliability

(8)   When Aston Business School promises to do something by a certain time, they do so*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(9)   When course members have problems, Aston Business School is sympathetic and reassuring*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(10)   Aston Business School is dependable*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(11)   Aston Business School provide their services at the time they promise to do so*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(12)   Aston Business School keep their records accurately*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Credibility

(13)   Aston Business School does not charge a premium course fee.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(14)   Aston Business School does not have good contacts with industry.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(15)   Aston Business School is continually striving to improve itself.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(16)   Aston Business School allows low calibre people onto their M.B.A. course.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(17)   Aston Business School has a good reputation.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(18)   Lecturers on Aston's M.B.A. have commercial experience.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(19)   Aston's M.B.A. is well tuned to the needs of industry.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Communication

(20)   Aston Business School does not tell course members exactly when services are performed*[1] .

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(21)   Aston Business School keeps course members well informed about what is going on.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

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1   This item fell under the "responsiveness" construct in the SERVQUAL scale. This was judged innappropriate within this context and was therefore re-allocated.

(22)   Aston Business School provides timely information about relevant activities.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Personal Development

(23)   Aston Business School gives feedback on an individuals performance on the course.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(24)   Aston's M.B.A. is not challenging.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(25)   Aston's M.B.A. provides an opportunity for all round personal development.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(26)   Aston's M.B.A. enhances your career prospects.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(27)   Aston's M.B.A. does not provide opportunities to draw on other course members practical experience and knowledge.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(28)   Course members have to participate and contribute on Aston's M.B.A..

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(29)   There are plenty of opportunities for interaction on Aston's M.B.A. course.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Lecture Delivery

(30)   Lecturers on Aston's M.B.A. are able to get their point across to course members.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(31)   Lecturers on Aston's M.B.A. are always be well prepared for teaching.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(32)   Aston's M.B.A. course always has interesting lectures.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(33)   Lecturers on Aston's M.B.A. always have good presentation skills.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(34)   Lectures on Aston's M.B.A. course are always clear and to the point.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Competence

(35)   Staff get adequate support from Aston Business School to do their jobs well*.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(36)   Aston Business School runs "smoothly" and is well organised.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(37)   The staff at Aston Business School are knowledgeable about their work.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(38)   Staff at Aston Business School are professional.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(39)   Aston's M.B.A. course has lecturers who give course members guidance to their subjects.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(40)   Aston's M.B.A. provides course members with up-to-date knowledge.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(41)   Aston's M.B.A. course provides course members with concepts and skills which can be readily transferred to the real world.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(42)   Course members learn a lot on Aston's M.B.A..

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(43)   Aston's M.B.A. provides analytical techniques and frameworks.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(44) Aston's M.B.A. has new ideas which are at the front-end of management thinking.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Understanding

(45) Aston Business School gives course members individual attention*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(46) Staff at Aston Business School do not give course members personal attention*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(47) The staff at Aston Business School do not know what the needs of course members are*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(48) Aston Business School does not have course members' best interests at heart*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(49) Staff at Aston Business School make you feel like a paying customer.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Security

(51) Course members are able to trust staff at Aston Business School*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(52) Course members are able to feel safe in their dealings with Aston Business School's staff*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(53) Aston Business School takes reasonable steps to ensure course members personal safety.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Responsiveness

(54) Course members do not receive prompt service from the staff at Aston Business School*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

274

(55)   Aston Business School's staff are not always willing to help course members*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(56)   Aston Business School are too busy to respond to course members requests promptly*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(57)   The staff at Aston Business School are approachable.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Courtesy

(58)   The staff at Aston Business School are polite*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Access

(59)   Aston Business School do not have operating hours convenient to all course members*.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

For reference purposes only corresponding statements are given below in brief form. Note these statements are based on the questionnaire reported in Appendix 5.1.

Tangibles

(1) Excellent Business Schools will have up-to-date equipment*.

(2) Excellent Business Schools will have physical facilities which are visually appealing*.

(3) Excellent Business Schools will have staff who are well dressed and appear neat*.

(4) The appearance of physical facilities at excellent Business Schools will be in keeping with the type of services provided*.

(5) It is unrealistic to expect excellent Business Schools to have a place where course members can meet lecturers in informal surroundings.

(6) Excellent Business Schools will have an unattractive campus.

(7) The activities of excellent M.B.A courses will be centred in one building.

Reliability

(1) When excellent Business Schools promise to do something by a certain time, they will do so*.

(2) When course members have problems, excellent Business Schools will be sympathetic and reassuring*.

(3) Excellent Business Schools will be dependable*.

(4) Excellent Business Schools will provide their services at the time they promise to do so*.

(5) Excellent Business Schools will keep their records accurately*.

Credibility

(1) Excellent Business Schools will not charge premium course fees.

(2) It is unrealistic to expect excellent Business Schools to have good contacts with industry.

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* SERVQUAL item.

(3)   Excellent Business Schools will be continually striving to improve themselves.

(4)   It is unrealistic to expect excellent Business Schools to only allow high calibre people onto their M.B.A. course.

(5)   Excellent Business Schools will have a good reputation.

(6)   Lecturers on excellent M.B.A. courses will have commercial experience.

(7)   Excellent M.B.A. courses will not be well tuned to the needs of industry.

Communication

(1)   Excellent Business Schools will not be expected to tell course members exactly when services will be performed*.

(2)   Excellent Business Schools will keep course members well informed about what is going on.

(3)   Excellent Business Schools will provide timely information about relevant activities.

Personal Development

(1)   Excellent Business Schools will give feedback on an individuals performance on the course.

(2)   Excellent M.B.A. courses will not be challenging.

(3)   Excellent M.B.A. courses will provide an opportunity for all round personal development.

(4)   Excellent M.B.A. courses will enhance course members' career prospects.

(5)   It is unrealistic to expect excellent M.B.A. courses to provide opportunities to draw on other course members practical experience and knowledge.

(6)   Course members will not have to participate and contribute on excellent M.B.A. courses.

(7)   There will be plenty of opportunities for interaction on an excellent M.B.A. course.

Lecture Delivery

(1)   Lecturers on excellent M.B.A. courses will be able to get their point across to course members.

(2) Lecturers on excellent M.B.A. courses will always be well prepared for teaching.

(3) Excellent M.B.A. courses will always have interesting lectures.

(4) Lecturers on excellent M.B.A. courses will always have good presentation skills.

(5) Lectures on excellent M.B.A courses will always be clear and to the point.

Competence

(1) Staff will get adequate support from excellent Business Schools to do their jobs well*.

(2) Excellent Business Schools will not be "smooth" and well organised.

(3) The staff at excellent Business Schools will be knowledgeable about their work.

(4) Staff at excellent Business Schools will be professional.

(5) Excellent M.B.A.'s will have lecturers who give course members guidance to their subjects.

(6) Excellent M.B.A. courses will provide course members with up-to-date knowledge.

(7) Excellent M.B.A courses will provide course members with concepts and skills which can be readily transferred to the real world.

(8) Course members will learn a lot on excellent M.B.A. courses.

(9) Excellent M.B.A. courses will provide analytical techniques and frameworks.

(10) Excellent M.B.A. courses will have new ideas which are at the front-end of management thinking.

Understanding

(1) Excellent Business Schools will not be expected to give course members individual attention*.

(2) Staff of excellent Business School cannot be expected to give course members personal attention*.

(3) It is unrealistic to expect the staff of excellent Business Schools to know what the needs of course members are*.

(4)   It is unrealistic to expect excellent Business Schools to have course members' best interests at heart*.

(5)   Staff at excellent Business Schools will make you feel like a paying customer.

Security

(1)   Course members will be able to trust the staff of excellent Business Schools*.

(2)   Course members will be able to feel safe in their dealings with excellent Business School' staff*.

(3)   Excellent Business Schools will take reasonable steps to ensure course members personal safety.

Responsiveness

(1)   It is not realistic for course members to expect prompt service from the staff of excellent Business Schools*.

(2)   Excellent Business Schools' staff will not always have to be willing to help course members*.

(3)   It is OK if excellent Business Schools are too busy to respond to course members requests promptly*.

(4)   The staff at excellent Business Schools will be approachable.

APPENDIX 5.3

Below are 28 retained items from the iterative sequence of scale development. All items are stated in a positive format. SERVQUAL items are identified with an asterisk.

Reliability

(1)   Excellent Business Schools will provide their services at the time they promise to do so*.

(2)   When excellent Business Schools promise to do something by a certain time, they will do so*.

(3)   Excellent Business Schools will provide timely information about relevant activities.

(4)   Excellent Business Schools will perform the service right the first time*.

(5)   Excellent Business Schools will tell course members when services will be performed*.

Reputation

(6)   M.B.A. courses at excellent Business Schools will provide course members with up-to-date knowledge.

(7)   M.B.A. courses at excellent Business Schools will have new ideas which are at the front-end of management thinking.

(8)   The staff at excellent Business Schools will be knowledgeable about their work.

(9)   Lecturers on M.B.A. courses at excellent Business Schools will have good commercial experience.

(10)   Excellent Business Schools will have a good reputation.

(11)   Excellent Business Schools will be continually striving to improve themselves.

(12)   Excellent Business Schools will have good contacts with industry.

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* Retained SERVQUAL items.

Lecture Delivery

(13) All of the course lecturers at excellent Business Schools will have good presentation skills.

(14) The course lectures at excellent Business Schools will always be clear and to the point.

(15) M.B.A. courses at excellent Business Schools will always have interesting lectures.

(16) Lecturers on M.B.A. courses at excellent Business Schools will always be well prepared for teaching.

Personal Development

(17) Course members will have to participate and contribute on their course at excellent Business Schools.

(18) M.B.A. courses at excellent Business Schools will provide opportunities for all round personal development.

(19) M.B.A. courses at excellent Business Schools will be challenging.

(20) There will be plenty of opportunity for interaction on excellent M.B.A. courses.

Understanding

(21) Excellent Business School's staff will give course members personal attention*.

(22) Excellent Business Schools will give course members individual attention*.

Security

(23) Course members will be able to trust the staff of excellent Business Schools*.

(24) Course members will be able to feel safe in their transactions with excellent Business School' staff*.

Responsiveness

(25) Staff in excellent Business Schools will always be willing to help course members*.

(26) Staff in excellent Business Schools will give prompt service to course members*.

Tangibles

(27)   The physical facilities at Excellent Business Schools will be visually appealing*.

(28)   The appearance of physical facilities at excellent Business Schools will be in keeping with the type of services provided*.

Using the equation suggested by Nunnally (1978, p246) the reliability of the full service quality scale was calculated using the covariance matrix. Summed dimension scores formed the raw data matrix. The covariance matrix and workings are given below.

Table A5.4.1 : Covariance Matrix of Service-Specific Measure

	F	RL	RP	PD	LD	P	SC	RS
F	9.468							
RL	0.937	54.455						
RP	6.747	7.392	55.240					
PD	0.861	10.092	15.270	31.547				
LD	1.804	17.564	19.513	5.606	36.240			
P	2.241	7.749	6.281	4.213	6.524	15.433		
SC	1.728	5.396	6.181	3.549	4.236	0.600	8.139	
RS	1.861	8.797	7.646	2.57	7.070	4.608	2.703	11.620
Alpha	0.799	0.887	0.810	0.720	0.843	0.842	0.860	0.760

$$r_{yy} = 1 - (\Sigma\, o_i^2 - \Sigma\, r_{ii}\, o_i^2) / \Sigma\, o_y^2$$

where,

o_y^2 = variance of linear combination
o_i^2 = variance of each dimension in linear combination
r_{ii} = reliability of dimension

$$r_{yy} = 1 - (222.142 - 182.700)/\ 561.074]$$

$$r_{yy} = 0.93$$

APPENDIX 5.5

The following summarises the key issues considered in relation to testing regression model assumptions and associated tests used throughout this thesis (Aaker, 1971; Draper & Smith, 1981; Hair, Anderson, Tatham, & Black, 1992; Lewis-Beck, 1980; Norusis, 1990, and Schroder, Sjoquist, & Stephan, 1986).

Assumption 1 (Linearity)

Independent variables have a linear relationship with the dependent variable.

Tests

When assessing a model as a whole testing Assumption 1 practically means testing the null hypothesis that no variance is accounted for by a linear relationship which is more formally stated as,

$$H_0 : R^2_{pop} = 0$$

This was done with an analysis of variance and F-test (Norusis, 1990). However, stating the probability of a linear relationship is greater than zero can be of little practical use regarding the strength or quality of linear association. As a rule-of-thumb Lewis-Beck (1980, p24) suggests anything below an R^2 of 20% should start raising doubts regarding the quality of a linear relationship. Linearity in relation to individual independent variables was tested using the typical t-test (Norusis, 1990) and partial regression plots (e.g. Hair, Anderson, Tatham, & Black, 1992).

Assumption 2 (Behaviour of Residuals)

Residual are "well behaved" i.e. residuals are randomly distributed with a mean of zero; homoscedastic; independent of each other (i.e. no autocorrelation); uncorrelated with independent variables when estimating structural parameters; and normally distributed (Aaker, 1971; Hair, Anderson, Tatham, & Black, 1992; Lewis-Beck, 1980, and Schroder, Sjoquist, & Stephan, 1986).

Tests

At the most basic level these Assumption 2 can be checked using a plot of residuals against the predicted variable. For this purpose studentised residuals were used against predicted values (Hair, Anderson, Tatham, & Black, 1992 and Norusis, 1990). A series of univariate statistics were also calculated to assess underlying residual assumptions further. First, residuals were summed to confirm a mean of zero. Second, homoscedasticity was assessed by rank

ordering residuals by the absolute size of the predicted value and splitting them into two groups. Levene's test for homogeneity was then calculated (Hair, Anderson, Tatham, & Black, 1992). Third, the independence of error terms was assessed using the Durbin-Watson statistic (Draper & Smith, 1981 and Schroder, Sjoquist, & Stephan, 1986). Fourth, the independence of errors from independent variables was assessed by calculating simple bivariate correlations between terms. Finally, normality was assessed using a normal probability plot and a modified (Lilliefors) Kolmogorov-Smirnov test (Hair, Anderson, Tatham, & Black, 1992 and Norusis, 1990). When samples fell below 30 a Shapiro-Wilks test was used (Norusis, 1990). Adopting a fairly robust view of regression, and noting data transformations can create interpretative problems, a 1% cut-off probability was used with these tests.

Assumption 3 (Multicollinearity)

Independent variables are independent i.e. do not suffer from multicollinearity.

Test

The suggested guidelines for assessing multicollinearity are tolerances (Lewis-Beck, 1980 and Norusis, 1990) which are defined as $1-R^2$ where R^2 represents the squared multiple correlation having regressed the n'th independent variables on all other independent variables. The tolerance of a variable therefore reflects the unique variance attributable to that independent variable alone.

APPENDIX 5.6

Assumption 1 (Linearity)

A significant F-test shows that a linear association exists along with a significant t-test (cut-off = 5%) in this bivariate regression (see Table 5.8). Furthermore a large proportion of the variance is explained suggesting the relationship is strong.

Assumption 2 (Behaviour of Residuals)

Table A5.6.1 provides the relevant statistics for examining the behaviour residuals.

Table A5.6.1   :   Residual Statistics

Dependent Variable	Mean of 0	Linear	K-S Statistic	Levene's Test	Durbin-Watson Statistic	Simple r
Service-specific expectations	Yes	Yes	0.064 p>0.200 n=107	5.562 p=0.020 n=99	1.839	None

Using a two-tailed test the above Durbin-Watson statistic (d) is found to be unambiguously insignificant @1% with d being above the lower limit and 4-d the upper limit which retains the null hypothesis that no serial correlations exist (Durbin & Watson, 1951). The relevant residual plot is provided in Figure A5.6.1 and offers support to the conclusion that residuals are well behaved.

Figure A5.6.1 : Studentised Residual Plot
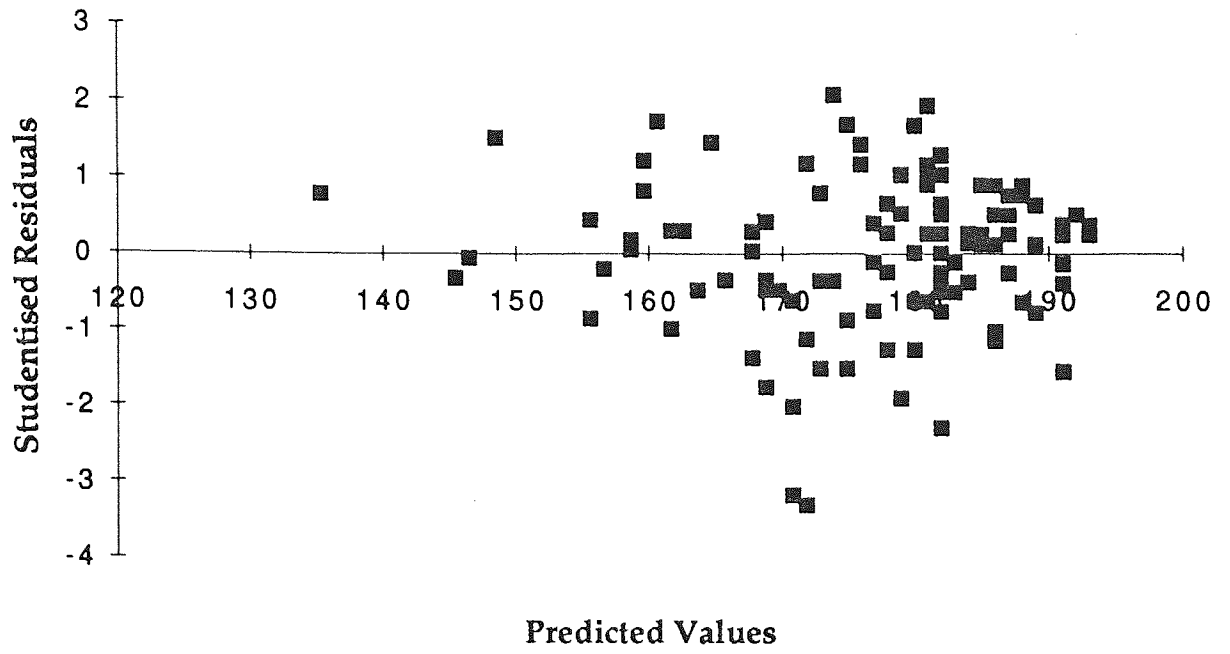
Assumption 1 (Linearity)

Tables 5.9 and 5.10 show small probabilities associated with the F-statistic which leads to the rejection of the null hypothesis for the overall service-specific and SERVQUAL models at a 5% level. However, using the rule-of-thumb $R^2 = 20\%$ suggests the service-specific model is borderline and the SERVQUAL model very suspect in terms of overall linearity. An inspection of service-specific bivariate simple correlations reveals that whilst most variables show moderate and significant linear association responsiveness, facilities, and personalisation do not. An inspection of SERVQUAL bivariate simple correlations reveals that three of the dimensions have low but significant linear association whilst tangibles and responsiveness again do not. The partial regression plots shown in Figures A5.7.1 to A5.7.13 of individual independent variables for both models reveal that no other shaped curve would fit the data better than a linear model. External studies (Parasuraman, Zeithaml & Berry, 1988 and Parasuraman, Zeithaml & Berry, 1991) also support the general veracity of a linear model to describe the relationship.

Figure A5.7.1 : Service-Specific Partial Regression Plot : Responsiveness

Dependent Variable: Quality Rating
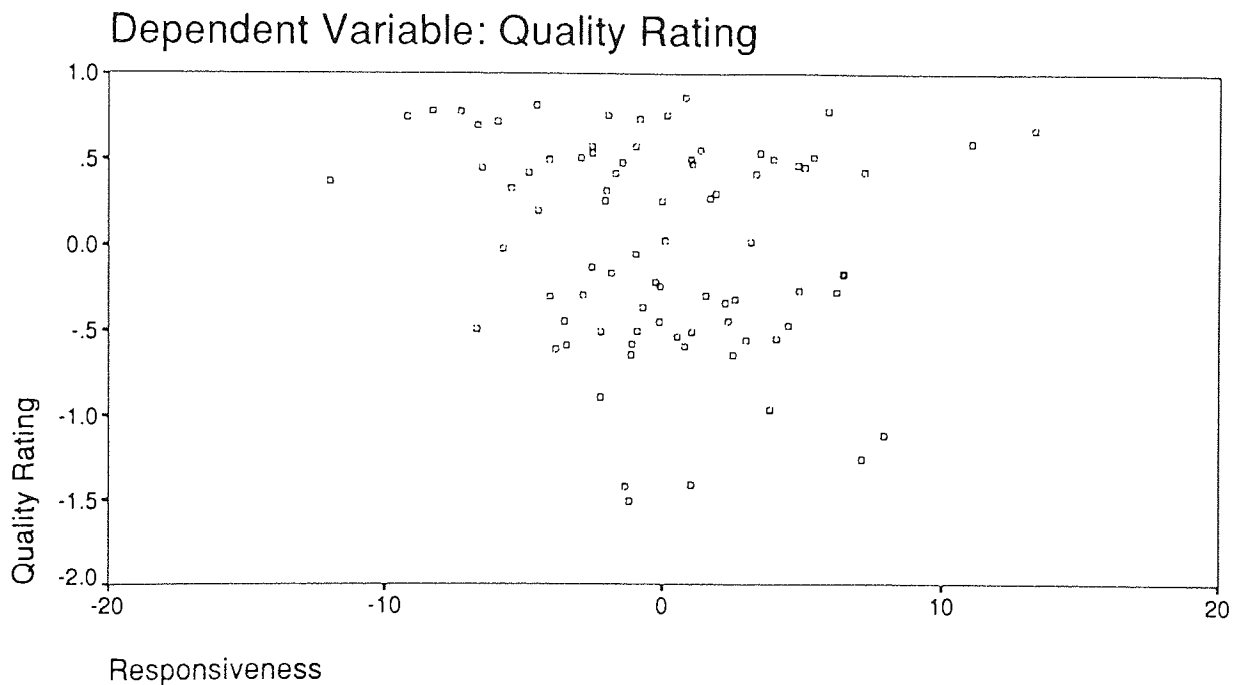
Figure A5.7.2 : Service-Specific Partial Regression Plot : Personal
Development

Dependent Variable: Quality Rating

Personal Development
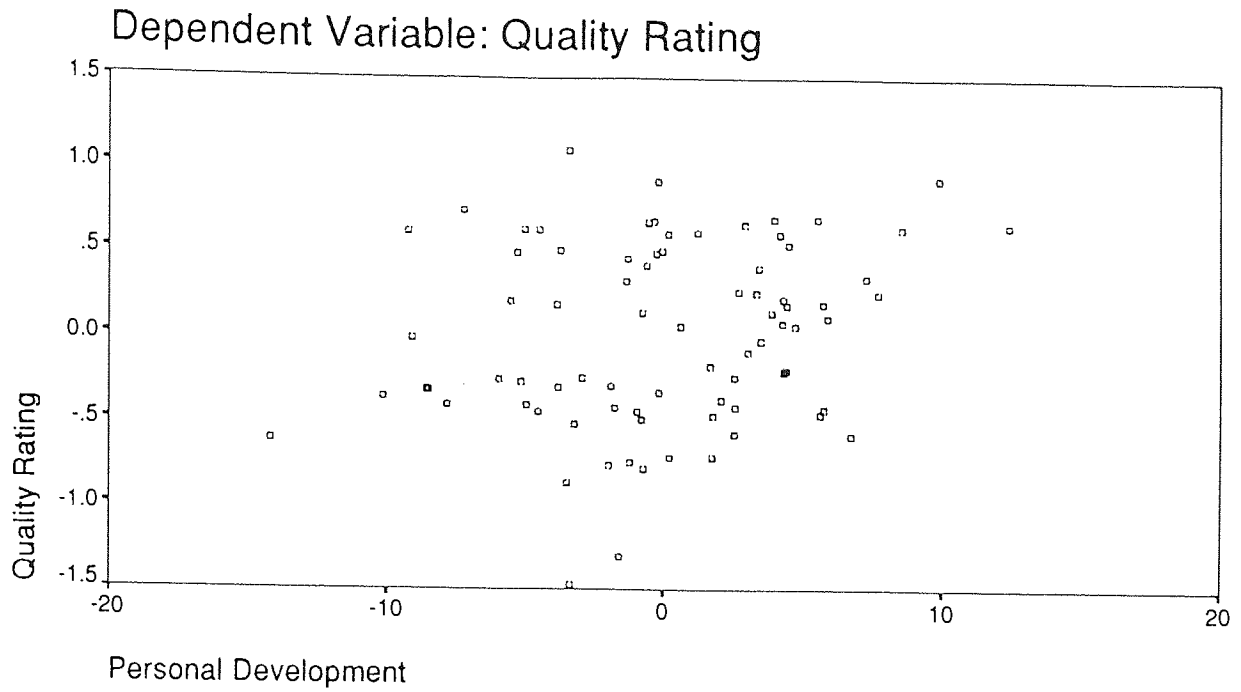
Figure A5.7.3 : Service-Specific Partial Regression Plot : Facilities

Dependent Variable: Quality Rating

Facilities
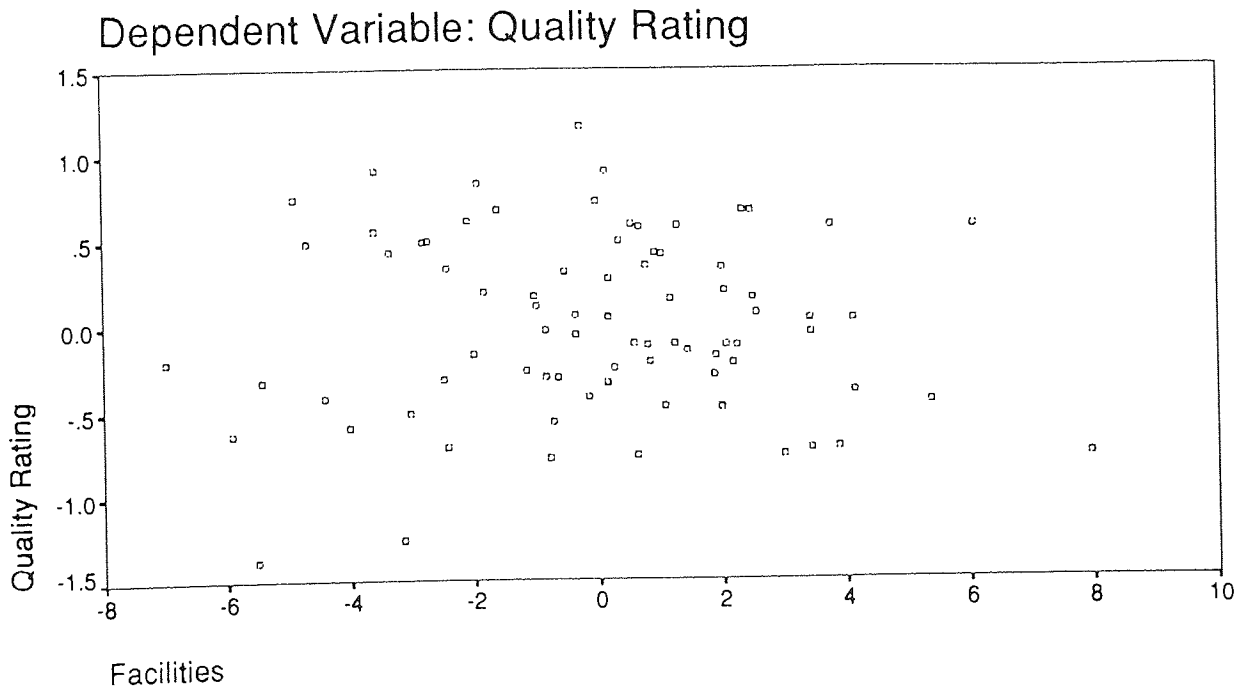
Figure A5.7.4 : Service-Specific Partial Regression Plot : Security

Dependent Variable: Quality Rating

Security
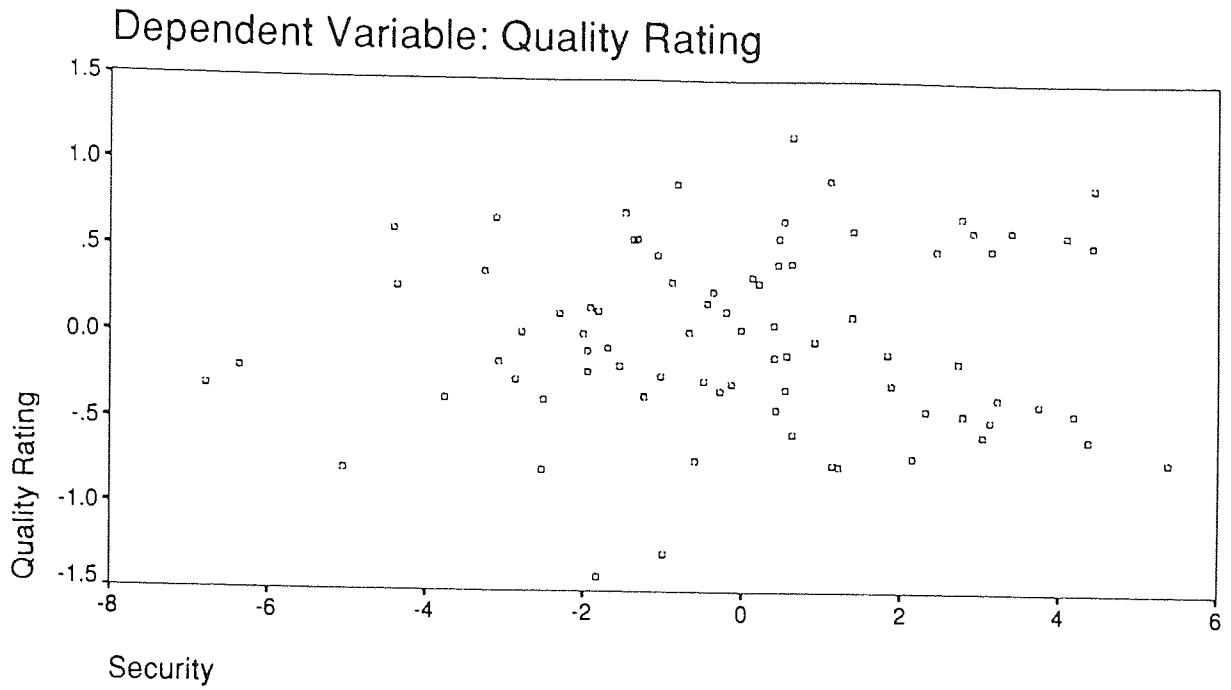
Figure A5.7.5 : Service-Specific Partial Regression Plot : Lecture Delivery

Dependent Variable: Quality Rating

Lecture Delivery
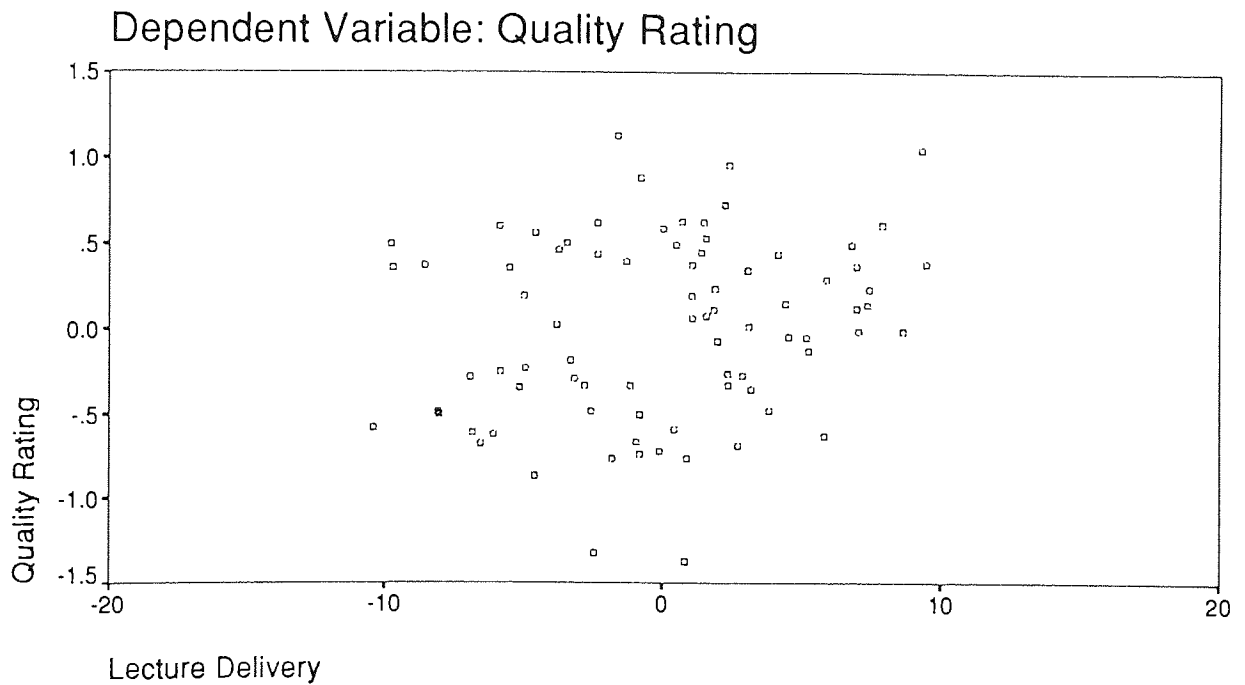
Figure A5.7.6 : Service-Specific Partial Regression Plot : Personalisation

Dependent Variable: Quality Rating
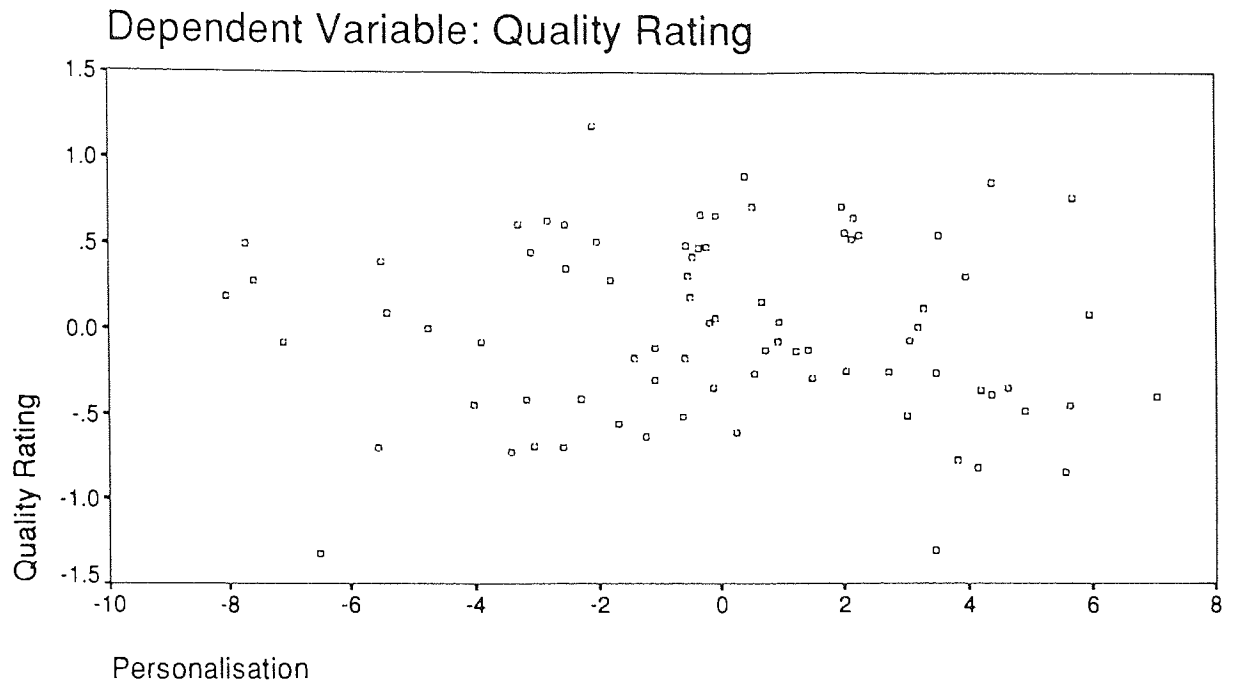
Figure A5.7.7 : Service-Specific Partial Regression Plot : Reliability

Dependent Variable: Quality Rating
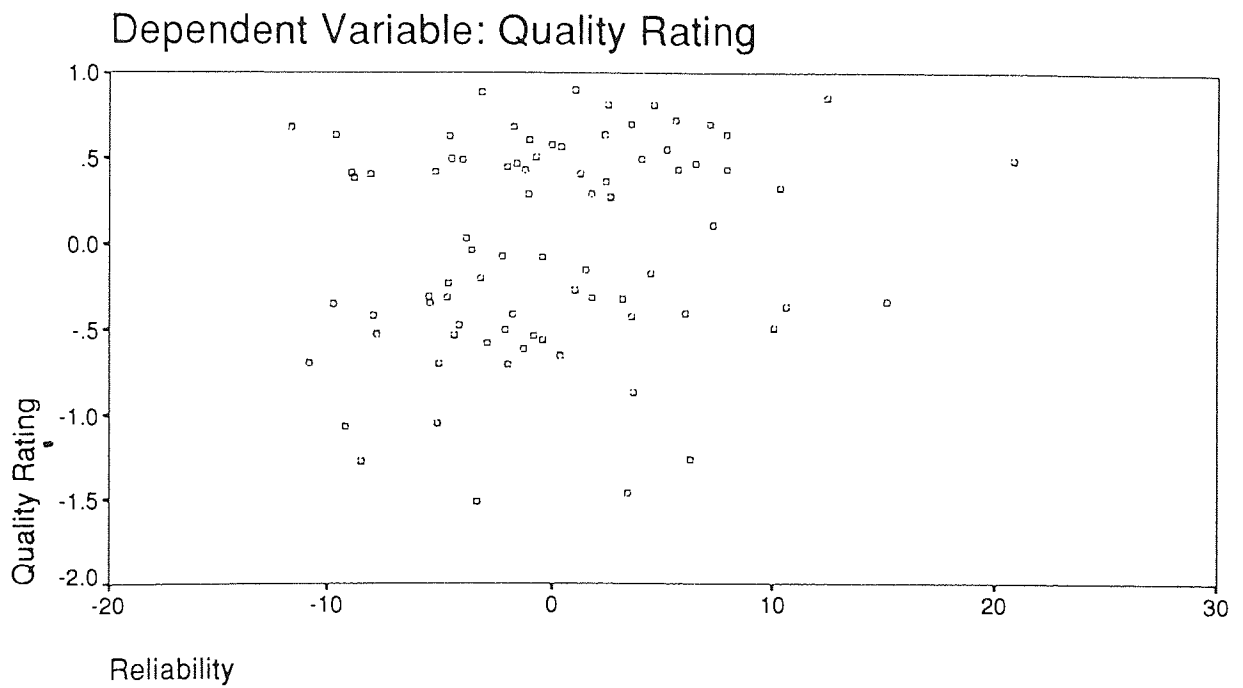
Figure A5.7.8 : Service-Specific Partial Regression Plot : Reputation

Dependent Variable: Quality Rating

Reputation
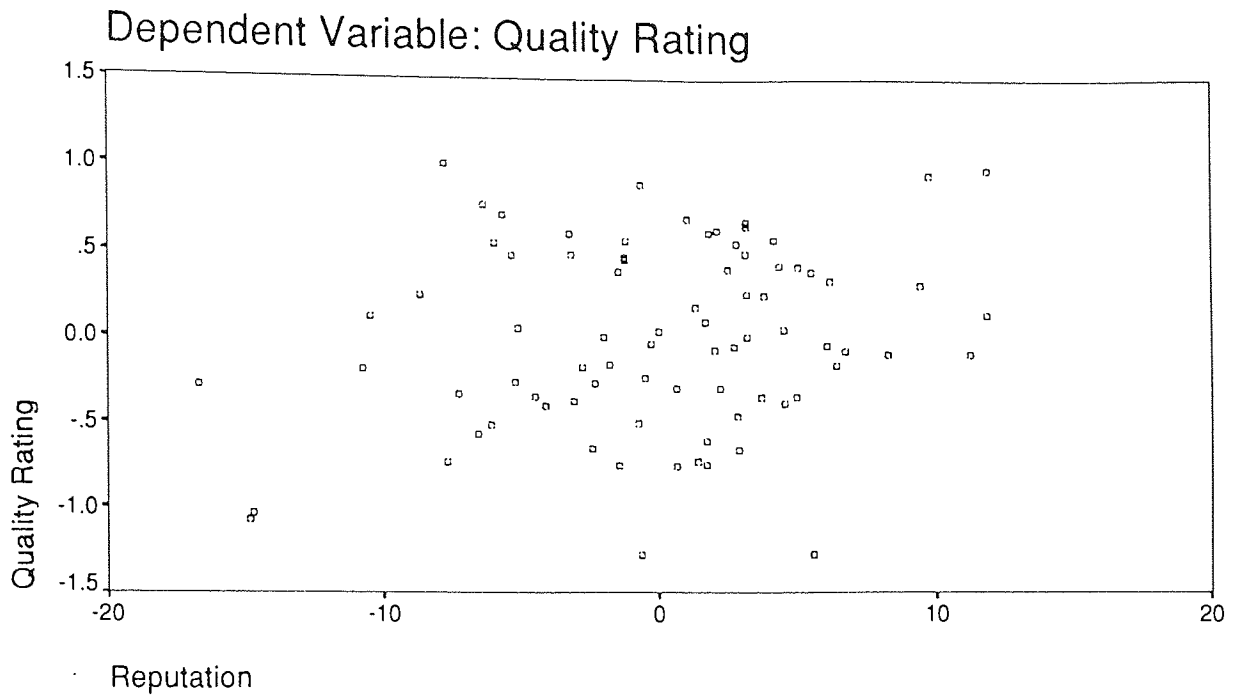
Figure A5.7.9 : SERVQUAL Partial Regression Plot : Tangibles

Dependent Variable: Quality Rating

Tangibles
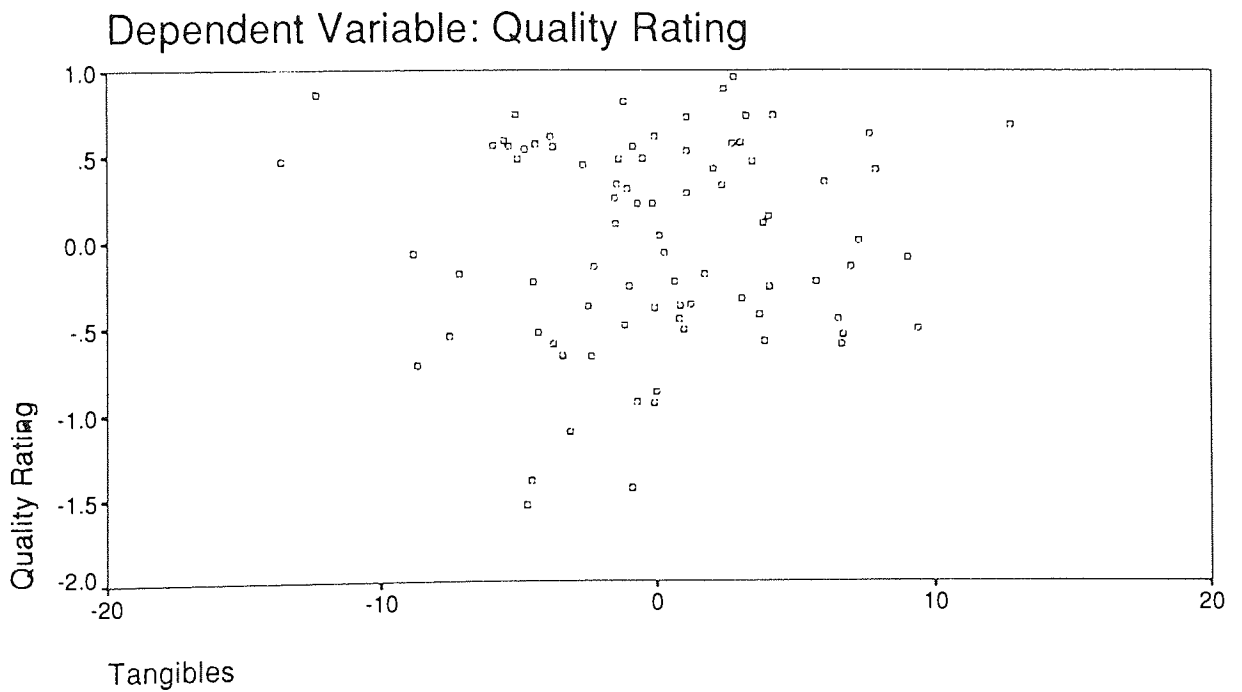
Figure A5.7.10 :   SERVQUAL Partial Regression Plot : Reliability

Dependent Variable: Quality Rating

Reliability
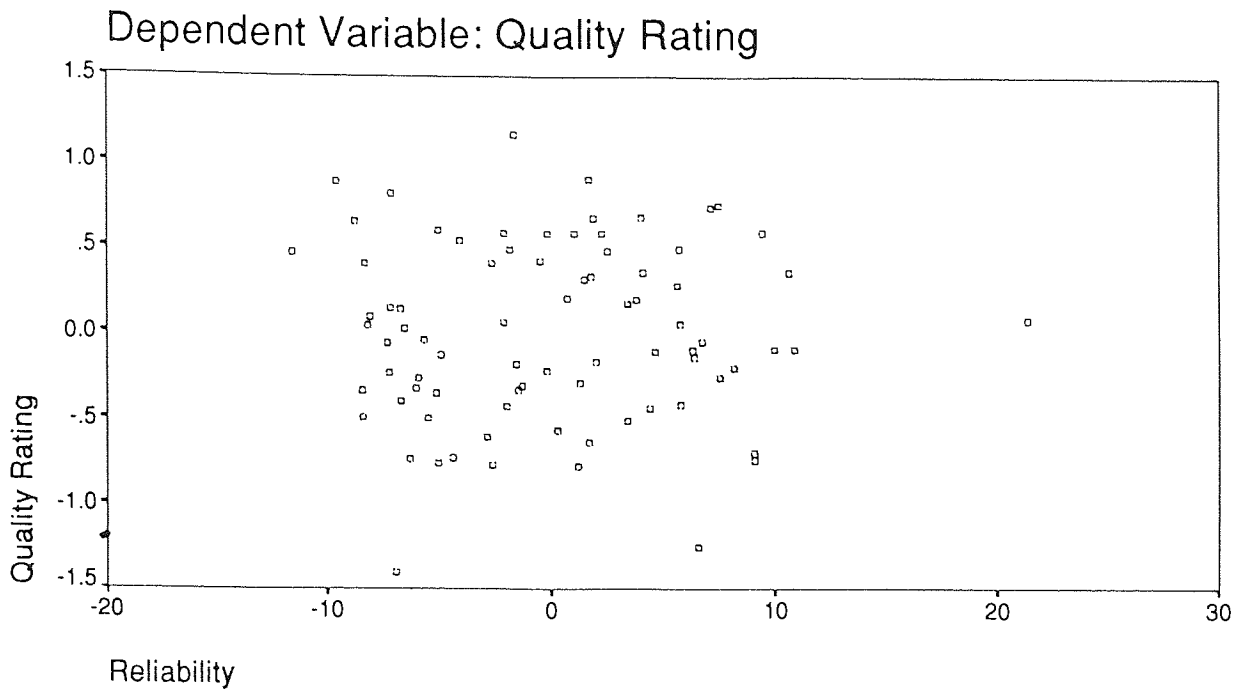
Figure A5.7.11 :   SERVQUAL Partial Regression Plot : Responsiveness

Dependent Variable: Quality Rating

Responsiveness
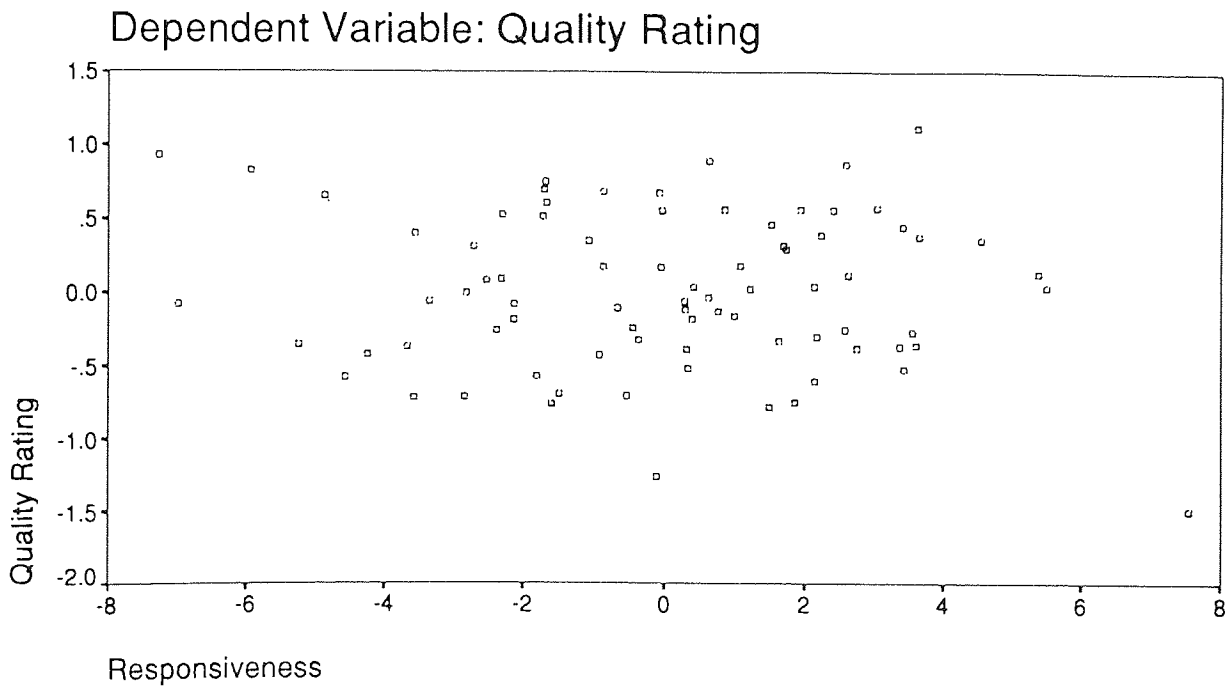
Figure A5.7.12 :   SERVQUAL Partial Regression Plot : Assurance

Dependent Variable: Quality Rating
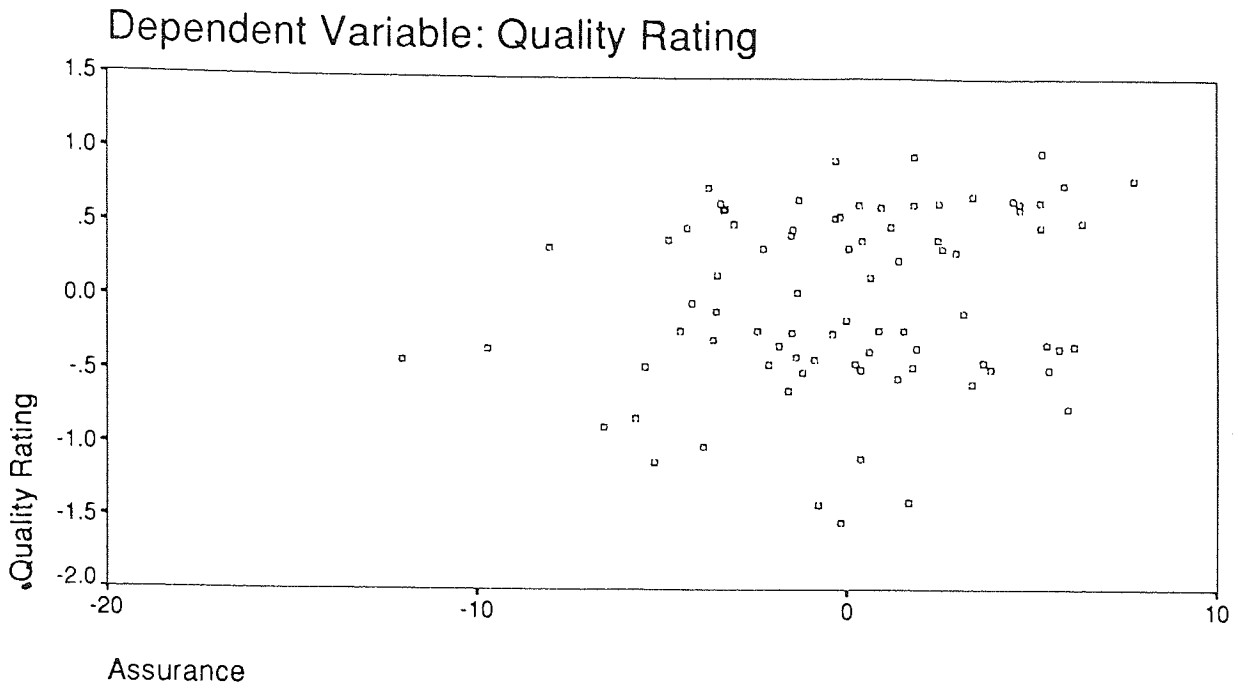
Figure A5.7.13 :   SERVQUAL Partial Regression Plot : Empathy

Dependent Variable: Quality Rating
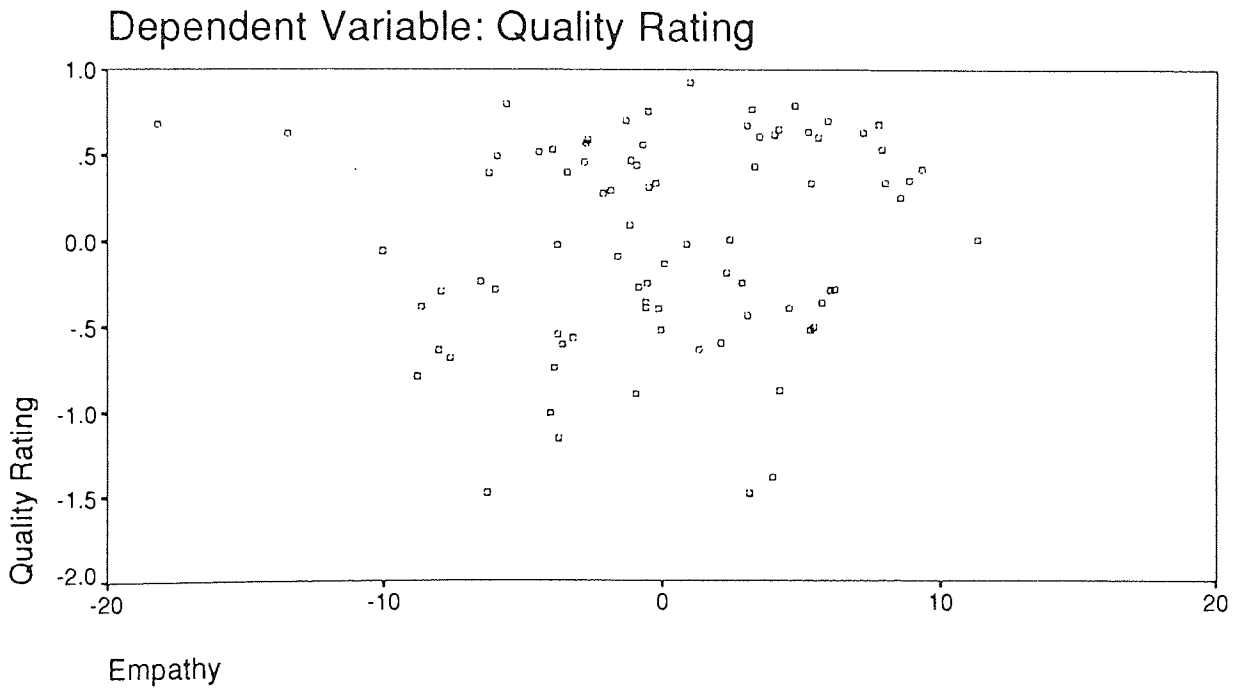
It is suggested the limited scale response options unduly restricted the variance in the dependent variable and consequently the quality of model fit and

statistical significance of slope coefficients. The Table A5.7.1 shows the percentage of respondents using each option of the dependent variable. Over 90% of subjects use two response options which strongly suggests that both the quality of model fit and significance levels of independent variables have been suppressed by restricted variance.

Table A5.7.1 : Response Pattern to Overall Quality Rating

Terrible	Poor	Fair	Good	Excellent
0%	9%	41%	50%	0%

In Chapter 7 a study is reported which includes a new but small sample (n=21) of students with data relating to both service-specific expectations and performance perceptions. Also included in this study was a criterion variable with 11 rather than 5 response options anchored with terrible and excellent (Parasuraman, Berry, & Zeithaml, 1991a). Regressing the eight service-specific dimension gap scores on this new overall rating gave the results shown in Table A5.7.2.

Table A5.7.2 : Replication Test Regression Results

Statistic	Value
Multiple Correlation	0.806
R^2	0.650
Adjusted R^2	0.417
Standard Error	0.813
F-ratio	2.788 $p=0.53$

Dimension	r	p	Beta	P
Responsiveness	0.662	0.001	0.399	0.259
Personal Development	0.516	0.008	0.374	0.194
Facilities	0.316	0.081	0.075	0.777
Security	0.508	0.009	0.179	0.519
Lecture Delivery	0.585	0.003	0.338	0.398
Personalisation	0.448	0.021	-0.219	-0.441
Reliability	0.469	0.016	0.225	0.299
Reputation	0.427	0.027	-0.296	0.343

The results in Table A5.7.2 provide further evidence of the impact of restricted variance in the dependent variable. The adjusted R^2 value doubles and

bivariate correlations increase both in size and statistical significance even with a small sample size. No slope was found significant but this was thought to be due to multicollinearity problems. Overall then, a linear description of the service quality relationship is argued to be sufficiently demonstrated to form a basis for judging the two competing models.

Assumption 2 (Behaviour of Residuals)

Table A5.7.3 contains the relevant statistics for assessing the behaviour of residuals.

Table A5.7.3   :   Residual Statistics

Model	Mean of 0	Linear	K-S Statistic	Levene's Test	Durbin-Watson Statistic	Simple r
Specific	Yes	Yes	0.060 p>0.200	3.770 p=0.027	1.742	None
SERVQUAL	Yes	Yes	0.092 p>0.200	1.511 p=0.228	1.822	None

Using a two-tailed test both of the above Durbin-Watson statistics (d) are found unambiguously insignificant @1% with d being above the lower limit and 4-d the upper limit which retains the null hypothesis that no serial correlations exist (Durbin & Watson, 1951). The residual term in both models was not correlated with other relevant values but an inspection of the residual plots shown in Figures A5.7.14 and A5.7.15 suggests some lack of independence and hence mispecification error (Lewis-Beck, 1980) is present.

Figure A5.7.14 : Service-Specific Studentised Residual Plot
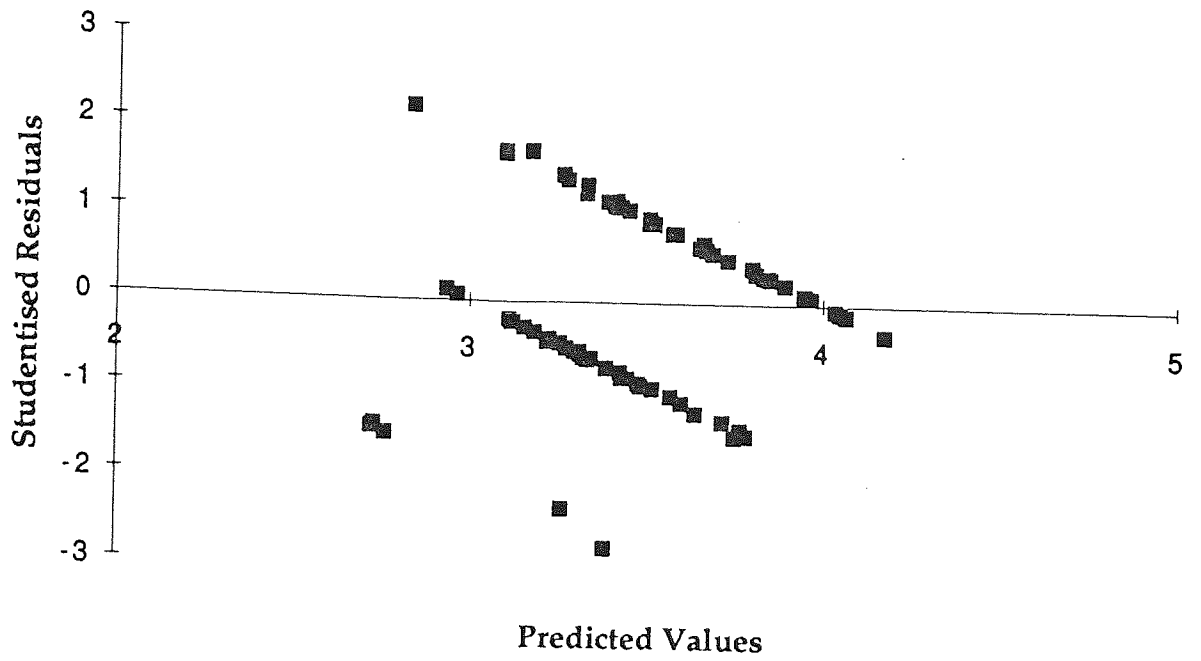
Figure A5.7.15 : Generic Studentised Residual Plot
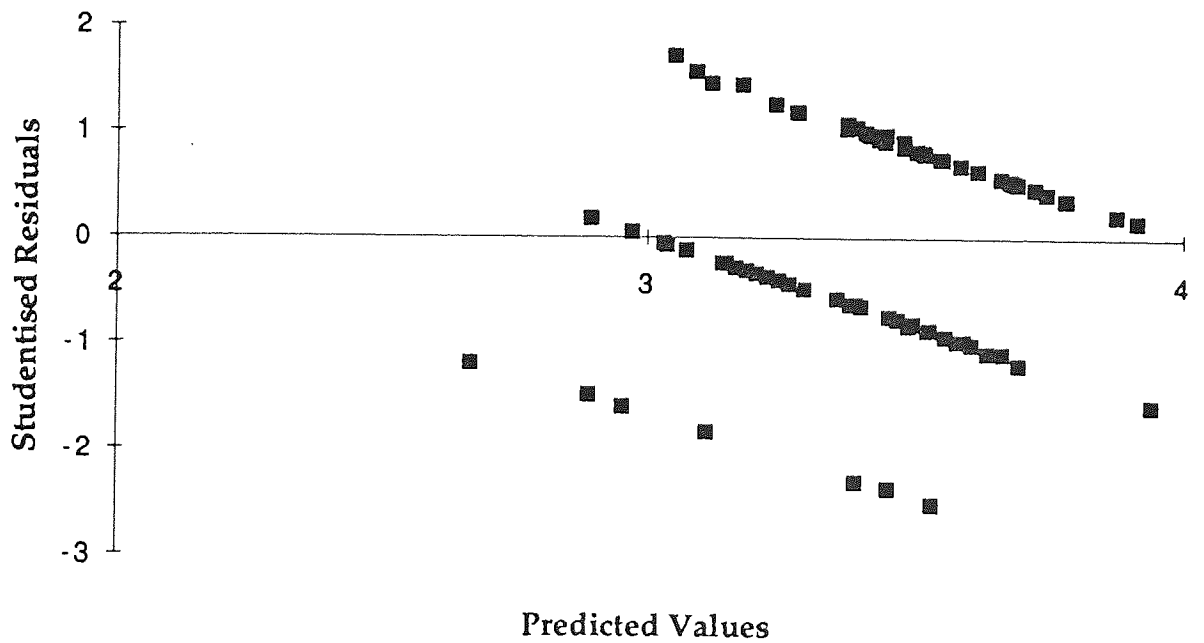
The extent to which the restricted variance in the dependent variable has caused the above problem is difficult to assess. However, the non-independent

297

residuals have not been reported in any relevant external papers so one might deduce that the issue is restricted to this study. In conclusion, overall the residuals are reasonably well behaved but the restricted variance has suppressed important values and possibly led to the apparent non-independence of error terms.

Assumptions 3 (Multicollinearity)

An inspection of the tolerance values revealed that both models independent variables had unique variances of over 60% and 50% respectively. This suggests that multicollinearity is not a real problem in either of these regression models (Hair, Anderson, Tatham, & Black, 1992).

APPENDIX 5.8

Using the equation suggested by Nunnally (1978, p246) the reliability of the full service quality scale was calculated using the covariance matrix. Summed dimension scores formed the raw data matrix. The covariance matrix and workings are given below.

Table A5.9.1 : Covariance Matrix of SERVQUAL

	AS	EM	RL	RS	T
Assurance	22.343				
Empathy	9.864	47.441			
Reliability	14.593	21.670	56.482		
Responsiveness	10.950	24.912	26.601	41.909	
Tangibles	6.826	9.958	5.330	12.787	29.271
Alpha	0.738	0.640	0.857	0.791	0.763

$$r_{yy} = 1 - (\Sigma o_i^2 - \Sigma r_{ii} o_i^2) / \Sigma o_y^2$$

where,

o_y^2 = variance of linear combination
o_i^2 = variance of each dimension in linear combination
r_{ii} = reliability of dimension

$$r_{yy} = 1 - (197.446 - 150.740)/486.428]$$

$$r_{yy} = 0.90$$

Items tapping each construct are clearly identified below in bold italics. In the actual questionnaire these were not included.

SERVICE QUALITY EXPECTATIONS IN THE BUSINESS SCHOOL ENVIRONMENT

Think about the kind of Business School that would provide an excellent quality service and M.B.A course. By Business School we mean any institution that offers M.B.A.'s. Think about the kind of Business School you would be pleased to attend. If you feel a feature is not at all essential for excellent Business Schools and their M.B.A. courses, circle the number **1**. If you feel a feature is absolutely essential for excellent Business Schools and their M.B.A courses, circle **7**. If your feelings are less strong, circle one of the numbers in the middle.

Reliability

(1)   Excellent Business Schools will provide their services at the time they promise to do so.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(2)   When excellent Business Schools promise to do something by a certain time, they will do so.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(3)   Excellent Business Schools will provide timely information.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(4)   Excellent Business Schools will perform the service right the first time.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(5)   Excellent Business Schools will keep course members well informed.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Reputation

(6)   M.B.A. courses at excellent Business Schools will provide course members with up-to-date knowledge.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(7)   M.B.A. courses at excellent Business Schools will have new ideas which are at the front-end of management thinking.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(8)   Staff in excellent Business Schools will be knowledgeable about their work.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(9)   Lecturers on M.B.A. courses at excellent Business Schools will have good commercial experience.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(10)   Excellent Business Schools will have a good reputation.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(11)   Excellent Business Schools will be continually striving to improve themselves.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(12)   Excellent Business Schools will have good contacts with industry.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Lecture Delivery

(13)   All of the course lecturers at excellent Business Schools will have good presentation skills.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(14)   Lectures at excellent Business Schools will always be clear and to the point.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(15)   M.B.A. courses at excellent Business Schools will always have interesting lectures.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(16)   Lecturers on M.B.A. courses at excellent Business Schools will always be well prepared for teaching.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Personal Development

(17) M.B.A. courses at excellent Business Schools will provide opportunities for all round personal development.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(18) M.B.A. courses at excellent Business Schools will be challenging.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(19) There will be plenty of opportunity for interaction on M.B.A. courses.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(20) Course members will have to participate and contribute to their course at excellent Business Schools.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Understanding

(21) Excellent Business Schools will have staff who give course members personal attention.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(22) Excellent Business Schools will give course members individual attention.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Security

(23) Course members of excellent Business Schools will feel safe in their dealings.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(24) Course members will be able to trust the staff at excellent Business Schools.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Tangibles

(25) The appearance of the physical facilities at excellent Business Schools will be in keeping with the type of services provided.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(26) The physical facilities at excellent Business Schools will be visually appealing.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Responsiveness

(27) Staff in excellent Business Schools will always be willing to help course members.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(28) Staff in excellent Business Schools will give prompt service to course members.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

THE RELATIVE IMPORTANCE OF SERVICE FEATURES

Listed below are eight features relating to Business Schools and M.B.A. courses. We would like to know how important each of these features is to you when evaluating the quality of Business Schools and M.B.A. courses. Please allocate a total of 100 points among the eight features according to how important each feature is to you- the more important a feature is to you, the more points you should allocate to it. Please ensure that the points you allocate to the eight features add up to 100.

(1) The appearance of a Business School's physical facilities and equipment. _____ points

(2) A Business School's ability to perform the promised service dependably and keep course members informed. _____ points

(3) A Business School's willingness to help course members and provide prompt service. _____ points

(4) The ability of a Business School's staff to convey trust and confidence. _____ points

(5) The ability of a Business School to provide individualised attention to its course members. _____ points

(6) The competence of academic staff, commercial orientation and reputation of a Business School. _____ points

(7) A Business School having lecturers with the ability to communicate knowledge in an interesting way. _____ points

(8) A Business School's ability to provide
     opportunities for its course members to develop
     personally through challenge and interaction.   _____ points

Total Points Allocated   **100 points**

INFORMATION SOURCES AND THEIR INFLUENCE

In this section we are concerned with establishing what sources of information you have encountered regarding Business Schools and M.B.A. courses. In particular we would like to know how influential the various information sources are in determining what you associate with excellent Business Schools and M.B.A. courses.

Please indicate whether you have encountered the described information source by circling either **YES** or **NO**. If you answer "yes" then please consider how influential the information source was in determining what you expect from *excellent* Business Schools and M.B.A. courses. If you feel the source was very influential, circle **7**. If you feel the particular source was not at all influential, circle **1**. If you feel the influence was somewhere in between circle a number in the middle.

Commercial Information

Commercial information describes any efforts made by Business Schools to promote both themselves and their M.B.A. courses. This includes brochures, information packs, newspaper advertisements and so on. However, it also includes open days, discussions with members of staff and the like.

Have you ever encountered "commercial information" of this nature from Business Schools ?

                                                           YES/NO

If "yes", how influential do you feel the information was in determining what you associate with excellent Business Schools ?

          Not at all influential 1 2 3 4 5 6 7 Very Influential

Social Information

Social information describes information sources other than those directly under Business Schools' control. It includes talking to friends, work colleagues or ex-M.B.A. students about Business Schools and M.B.A. courses (i.e. word-of-mouth). However, it also includes contact with more formal "groups" like employers, official guides (e.g. A.M.B.A., D.O.G. and G.M.A.C.) and possibly

even relevant specialists (e.g. personnel managers, psychologists and career agencies). Finally, social information includes relevant articles in the general media (press, T.V. and radio).

Have you ever encountered any "social information" of this nature regarding Business Schools and M.B.A courses ?

<div align="right">

YES/NO

</div>

If "yes", how influential do you feel the information was in determining what you associate with excellent Business Schools ?

<div align="center">

Not at all influential 1 2 3 4 5 6 7 Very Influential

</div>

PURCHASE MOTIVES AND EXPERIENCE

Please respond appropriately to the three following questions regarding your motives for taking an M.B.A. and the impact of experience with Aston Business School.

Purchase Motives

(1)   One of the main reasons I am taking an M.B.A. is for the personal experience and sense of achievement.

<div align="center">

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

</div>

(2)   One of the main reasons I am taking an M.B.A. is to enhance my career prospects.

<div align="center">

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

</div>

Direct Service Experience

(3)   My experience with Aston Business School and its M.B.A. course has made me more discerning when considering Business Schools and M.B.A. courses in general.

<div align="center">

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

</div>

(4)   My experience with Aston Business School and its M.B.A. course has let me know what Business Schools and M.B.A. course are *really* all about.

<div align="center">

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

</div>

PLEASE ANSWER THE FOLLOWING GENERAL QUESTIONS

Some of the following questions may either not appear to relate to one another or may seem repetitive. Unfortunately, without elaborate explanation this is unavoidable. Further, some of the questions are quite abstract. Remember that there are no "right" answers- interpret the questions in terms of what they mean *to you*.

Age

(1)   How old were you on your last birthday ?   _____ years old

Sex

(2)   What is your sex ? (Circle appropriately)   Male/Female

Income

(3)   Which group best describes **your** annual gross income ? If you are no longer in employment please refer to your last paid work. (Tick appropriately).

£9 999 or less	_ _ _ _	£10 000-£14 999		_ _ _ _
£15 000-£19 999	_ _ _ _	£20 000- £24 999		_ _ _ _
£25 000-£29 999	_ _ _ _	£30 000-£34 999		_ _ _ _
£35 000 or more	_ _ _ _			

Work Experience

(4)   Are you personally in a position responsible for customer service at work? If you are no longer in employment please refer to your last paid work. (Circle appropriately).

                                                                  Yes/No

General Service Experience

(5)   My experiences with service companies over the years have made me a more discerning customer.

          Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(6)   The more service companies I use the more I know what service is *really* all about.

          Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Sociability

(7)   I find it easy to mingle among people at a social gathering.

          Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(8)   I consider myself a very sociable, outgoing person.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Anxiety

(9)   I get tense as I think of all the things lying ahead of me.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(10)   Quite small setbacks occasionally irritate me too much.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Internal Control

(11)   Sometimes I feel that I don't have enough control over the direction my
        life is taking.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(12)   Many times I feel that I have little influence over things that happen to
        me.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Equity

(13)   Overall, which of the following two statements *best* describes your
        general approach/philosophy to relationships ? (Tick *one*
        appropriately)

(a)   I try to get as much out of a relationship as I
        possibly can- it is up to the other party to look
        after him/herself   _ _ _ _

(b)   I try to ensure that any difference in outcomes
        for myself or the other party is as small as possible   _ _ _ _

General Hurry

(14)   I am frequently pressed for time.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(15)   I am never in a rush.

        Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Task-Related Hurry

(16)   I get jobs and things done fast.

> Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(17)   I do jobs and things quickly and energetically.

> Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Self-Esteem

(18)   I feel I am a person of worth, on an equal plane with others.

> Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

(19)   I am able to do things as well as most other people.

> Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

The special formula of internal consistency for dichotomous scales was calculated following the guidelines offered by Peter (1979, p9). The KR-20 formula is given below.

$$KR\text{-}20 = (k/k\text{-}1)(1 - \Sigma pq / o_t^2)$$

where,

k   = number of items in scale
p   = % of responses to first type
q   = % of responses to second type
o_t^2 = total variance of the scale

The total variance of the scale was calculated using a standard equation for linear combinations i.e. the sum of item variances plus twice the item covariance. The covariance for dichotomous items was calculated using the equation provided by Nunnally (1978, p157). This is given below.

$$o_{12} = r_{12} \sqrt{(p_1 q_1)(p_2 q_2)}$$

Using SPSS/PC+ the following values were calculated.

$$r_{12} = 0.321 \text{ (i.e. phi)}$$

$p_1 = 0.882$ $q_1 = 0.118$ $o_t^2 = 0.105$
$p_2 = 0.888$ $q_2 = 0.112$ $o_t^2 = 0.101$

Using these values the KR-20 coefficient was calculated as follows.

$w = 0.321 \sqrt{(0.882 \times 0.118)(0.888 \times 0.112)}$
$w = 0.033$

$w = (0.105 + 0.101) + 2(0.033)$
$w = 0.272$

$$
\begin{aligned}
KR\text{-}20 \quad &= (2/2\text{-}1) \sqrt{((1 - (0.204)/0.272))} \\
&= (2)(0.250) \\
&= 0.500
\end{aligned}
$$

Variables were inspected for violations of normality due to the relatively heavy reliance on inferential statistics in a stepwise model specification. In addition, minimising the impact of any major non-normality problems through data transformations can prevent "misbehaving" residuals in final models (Hair, Anderson, Tatham, & Black, 1992). Univariate normality test statistics are shown in Table A.6.3.1. Only continuous variables were inspected with a critical probability level of 1%. This level was judged appropriate because transformations are usually seen as undesirable on interpretation grounds and because regression lines themselves are robust to normality violations (Aaker, 1971 and Lewis-Beck, 1980).

Table A6.3.1   :   Univariate Normality Statistics

Variable	Skew	Sig. @1%	K-S Statistic	Sig. @1%	Case No.
LD	-0.977	No	0.149	No	110
PD	-1.500	No	0.168	No	109
RL	-1.200	No	0.193	No	110
RP	-0.816	No	0.136	No	110
RS	-0.962	No	0.184	No	109
SC	-0.934	No	0.170	No	108
F	-0.535	Yes	0.116	No	109
P	-0.556	Yes	0.109	No	109
OUT	-0.726	No	0.123	No	109
PRO	-0.571	Yes	0.071	Yes	108
INT	-0.631	No	0.091	Yes	108
AGE	0.576	Yes	0.087	Yes	109
GS	-0.836	No	0.112	No	110
AC	-0.159	Yes	0.094	Yes	109
GH	-0.323	Yes	0.088	Yes	108
SOC	-0.585	Yes	0.100	Yes	108
TRH	-0.033	Yes	0.122	No	110
INC	-0.050	Yes	0.128	No	108
SS	-0.908	No	0.093	Yes	109
SE	-0.439	Yes	0.195	No	110

The above table shows that many of the variables are skewed and do not reflect normal distributions. Whilst the central limit theorem suggests this was unlikely to seriously jeopardise substantive findings (Kerlinger & Pedhazur, 1973) it was clearly desirable to eliminate violations where reasonably possible. For this reason data were transformed with square root (Hair, Anderson, Tatham, & Black, 1992) and square transformations. The square transformation had the most beneficial impact by removing the skew and making the data normal (@ 1%) with the general sophistication variable and

removing the skew with the intangible dimensions index. This supports the efficacy of a square transformation. Neither transformation had a statistically significant impact on any other variable.

Please see Appendix 5.5 for a description of the assumptions and tests.

Assumption 1 (Linearity)

The O.L.S. curves are all significant at 1% and explain over the rule-of-thumb 20% Adj. R^2 suggesting a linear regression adequately captures relationships in all structural equations. One exception to this is "Personal Development". However, it is suggested with a bivariate regression the failure to explain more than 11% of variance is not such a serious breach of guidelines to warrant dismissing the model and is retained for Hypothesis assessment. The partial regression plots are shown on the following pages but do not suggest something other than a linear model to describe the relationship.

Figure A6.4.1   :   Partial Regression Plot : Self-Esteem (Lecture Delivery)

Dependent Variable: Lecture Delivery
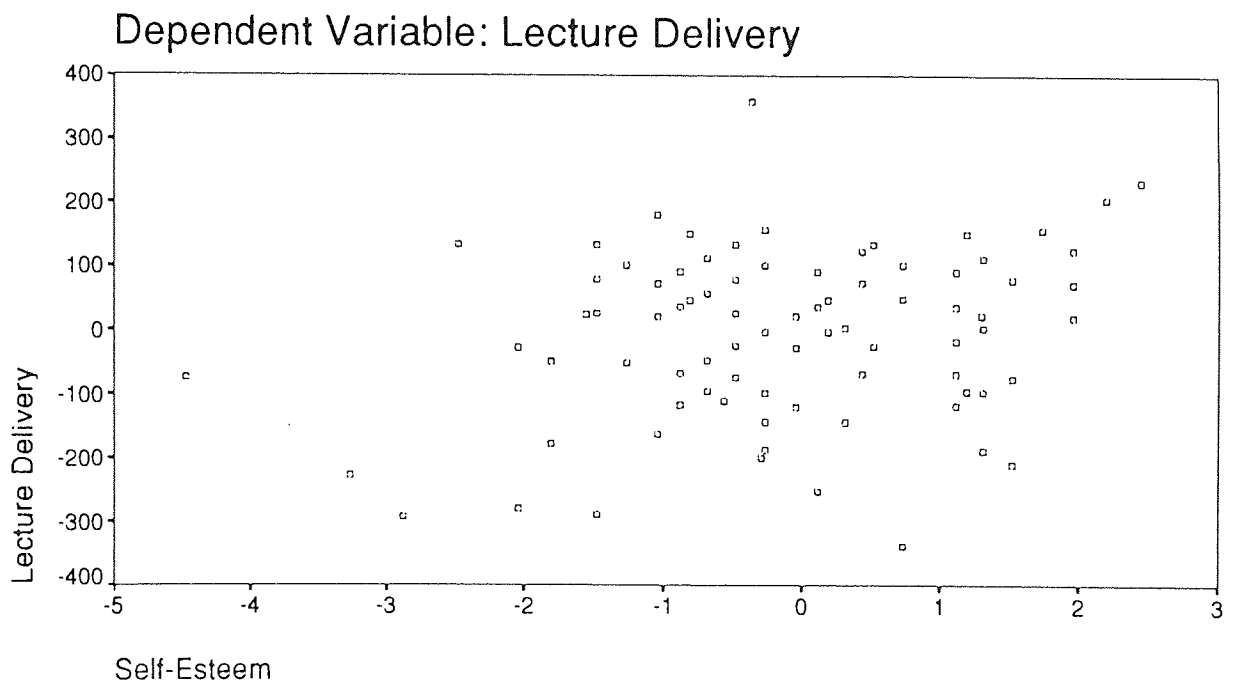
Figure A6.4.2 : Partial Regression Plot : General Service Sophistication
(Lecture Delivery)

Dependent Variable: Lecture Delivery

General Service Sophistication
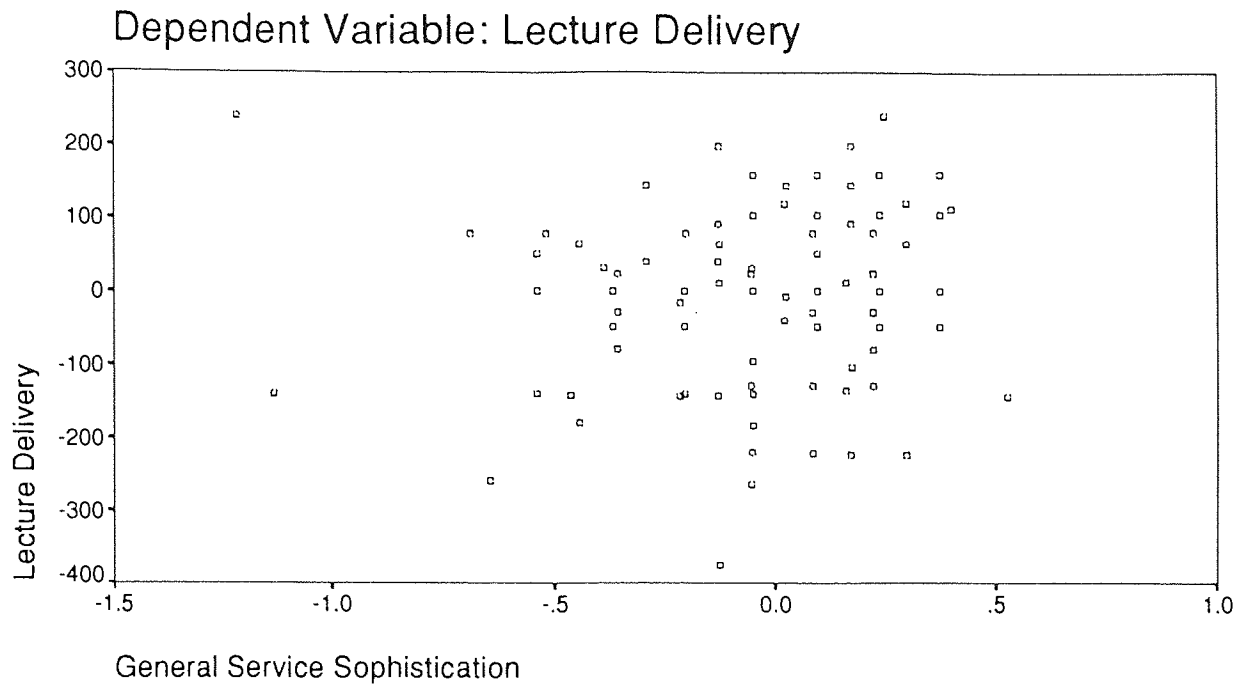
Figure A6.4.3 : Partial Regression Plot : General Service Sophistication
(Reliability)

Dependent Variable: Reliability

General Service Sophistication
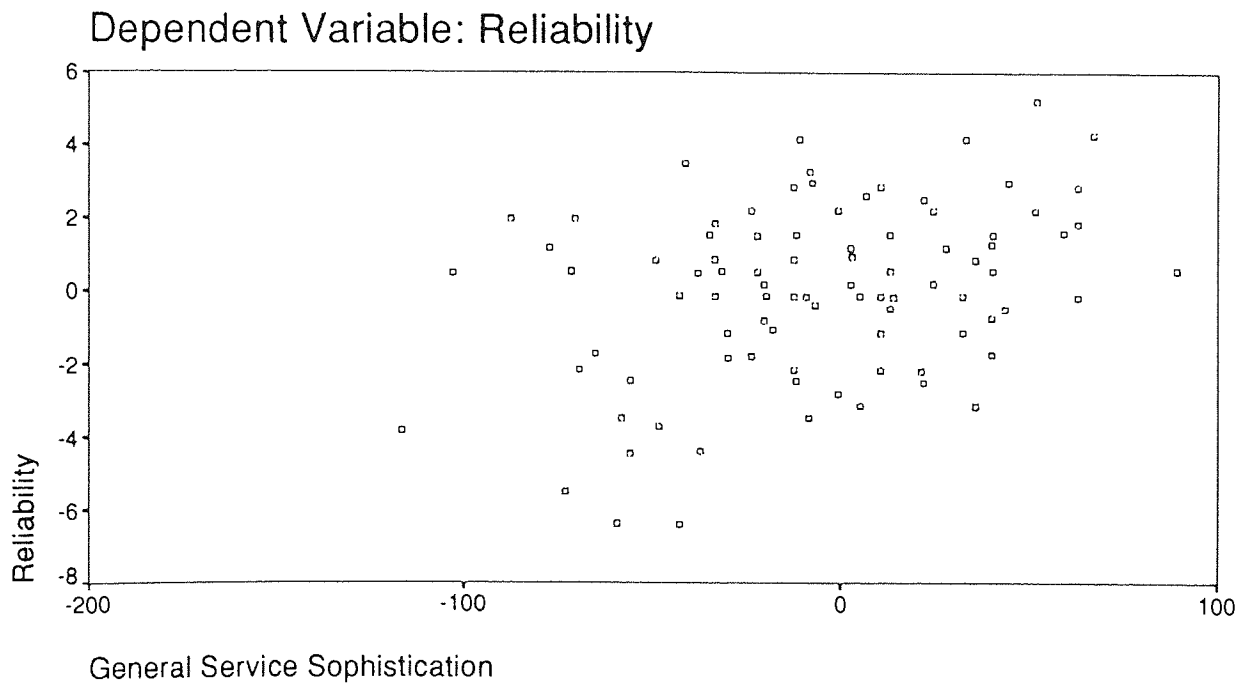
Figure A6.4.4 : Partial Regression Plot : Self-Esteem (Reliability)

Dependent Variable: Reliability
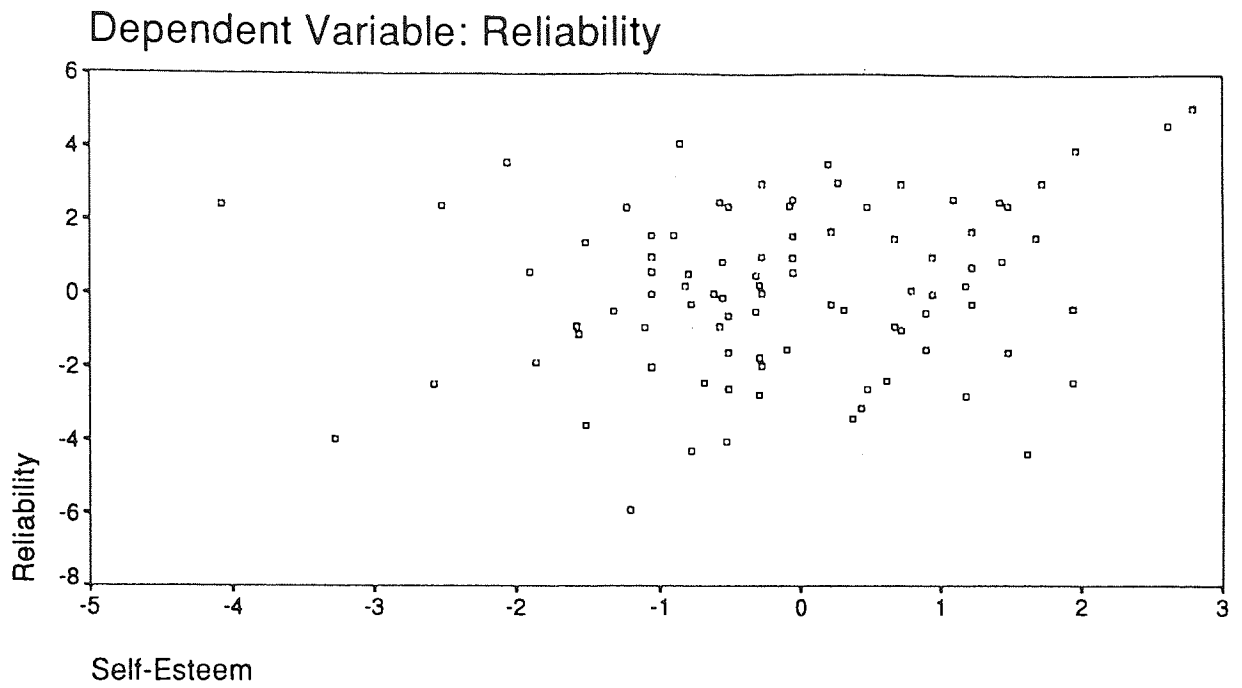
Self-Esteem

Figure A6.4.5 : Partial Regression Plot : Self-Esteem (Reputation)

Dependent Variable: Reputation
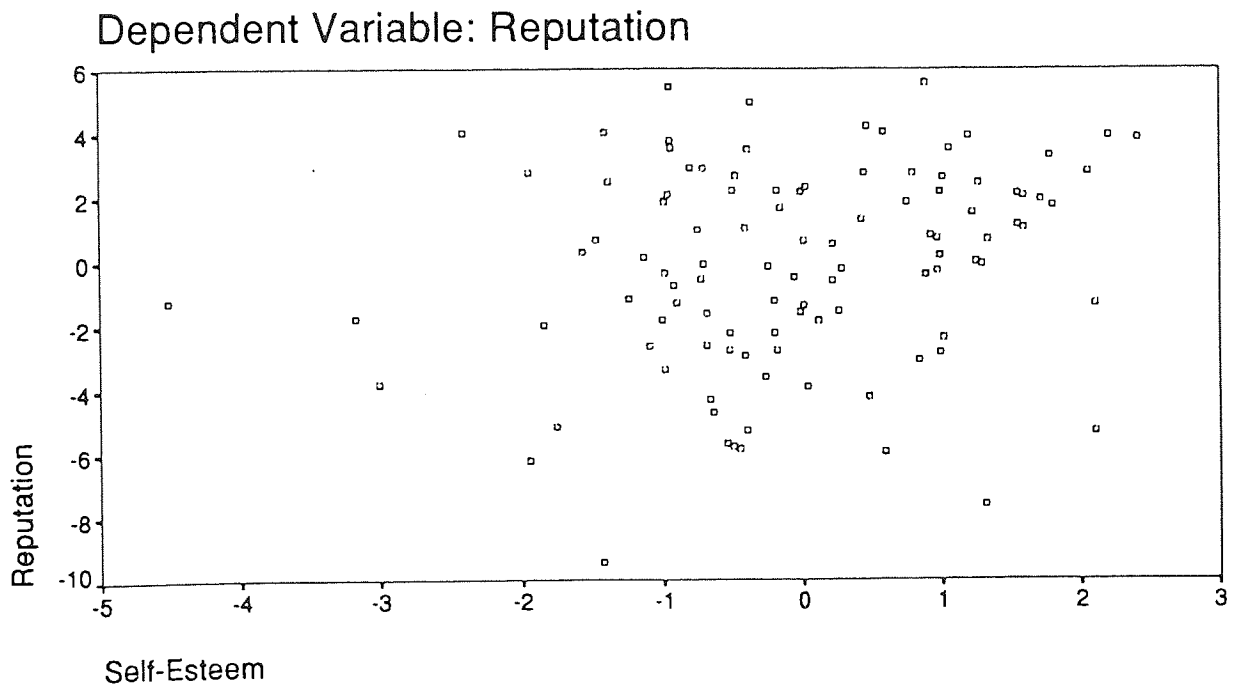
Self-Esteem

Figure A6.4.6 : Partial Regression Plot : General Hurry (Reputation)

Dependent Variable: Reputation

General Hurry
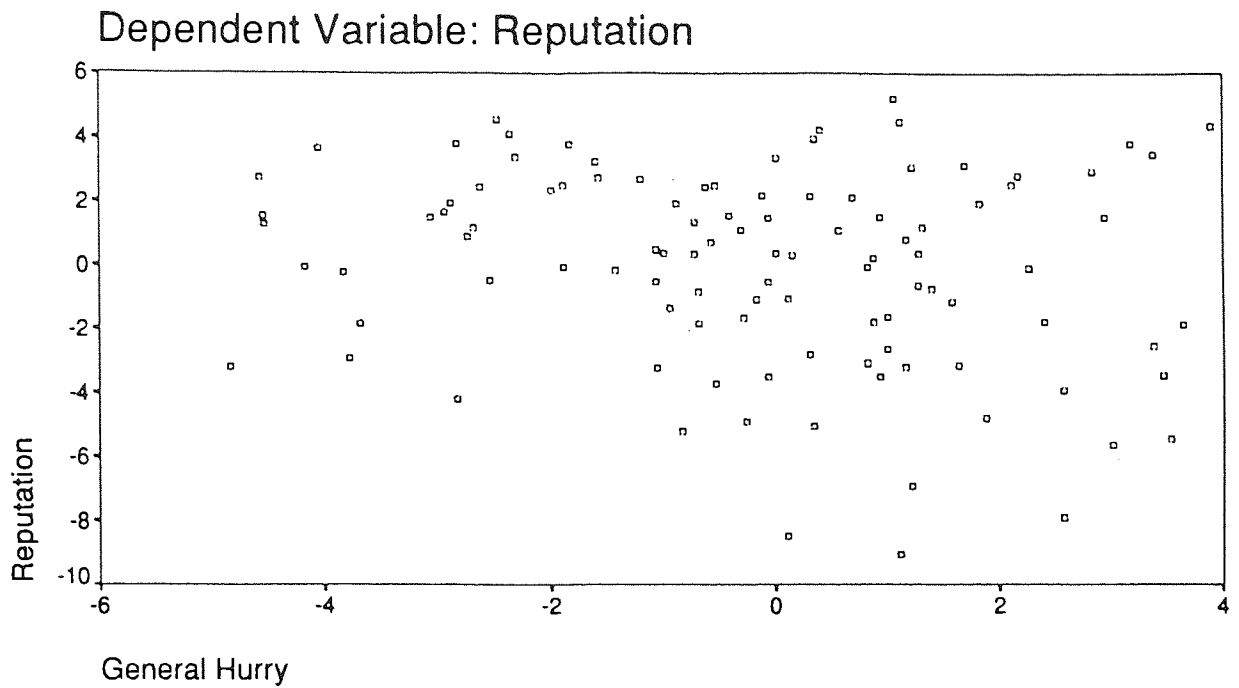
Figure A6.4.7 : Partial Regression Plot : General Service Sophistication
(Reputation)

Dependent Variable: Reputation

General Service Sophistication
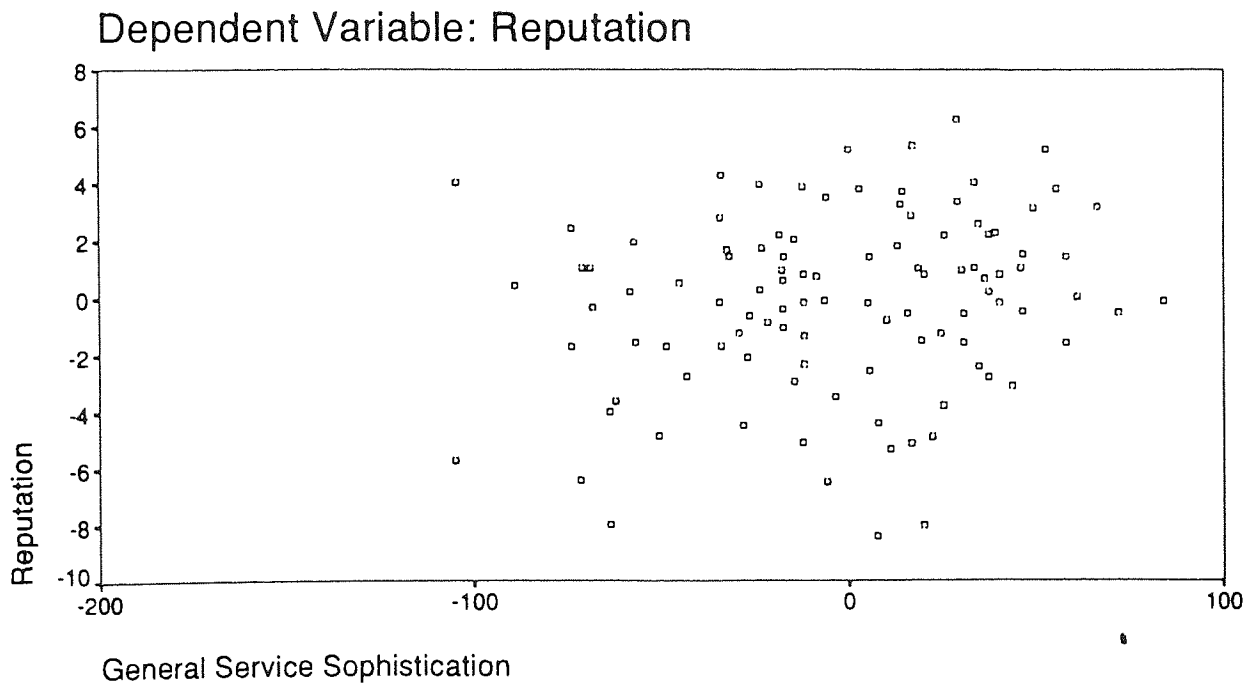
Figure A6.4.8 : Partial Regression Plot : Self-Esteem (Responsiveness)

Dependent Variable: Responsiveness

Self-Esteem
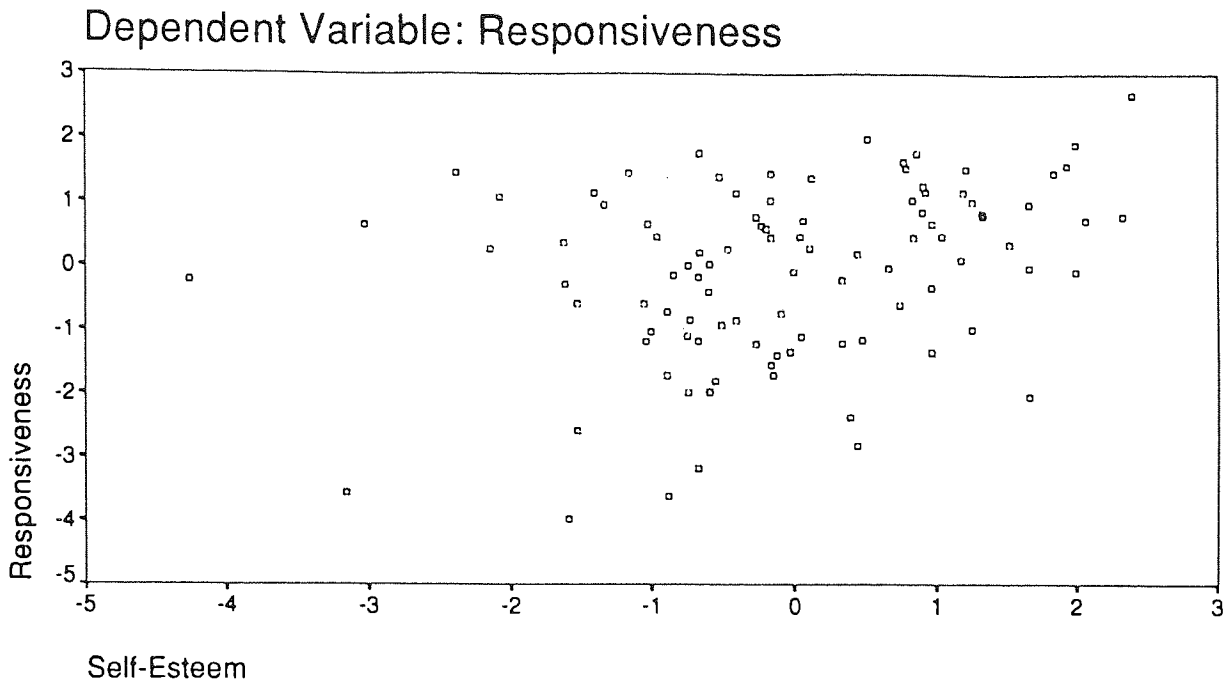
Figure A6.4.9 : Partial Regression Plot : General Service Sophistication
(Responsiveness)

Dependent Variable: Responsiveness

General Service Sophistication
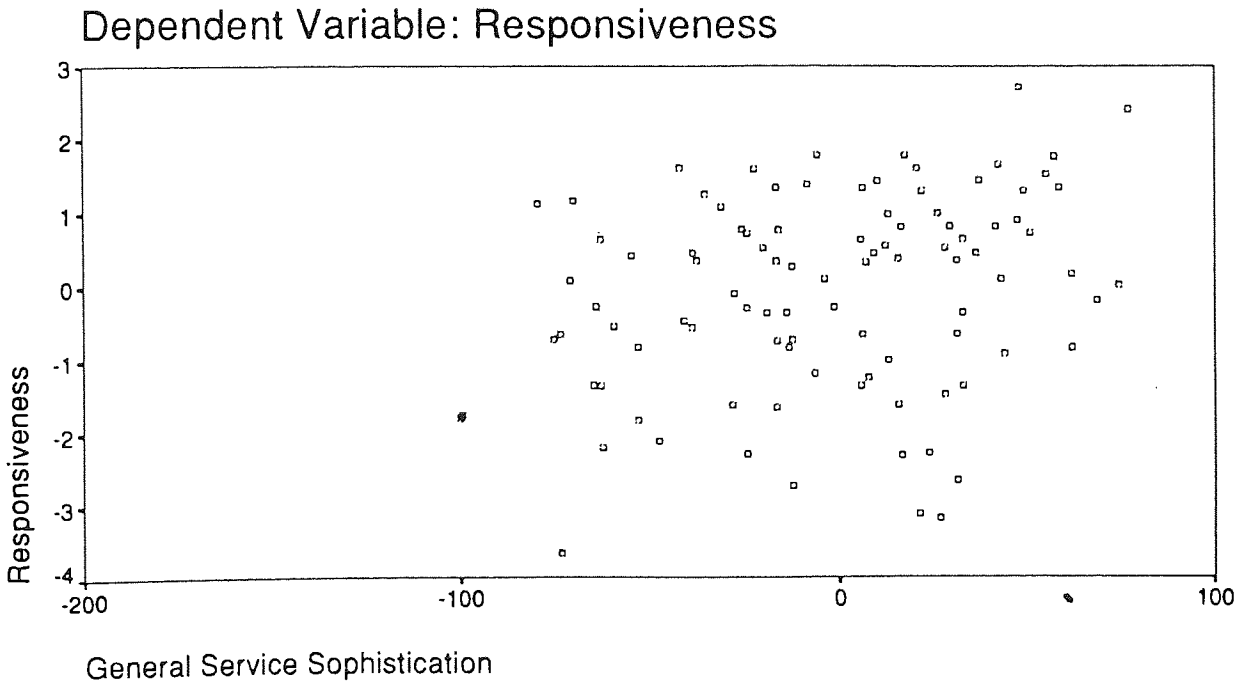
Figure A6.4.10 : Partial Regression Plot : Income (Responsiveness)

Dependent Variable: Responsiveness
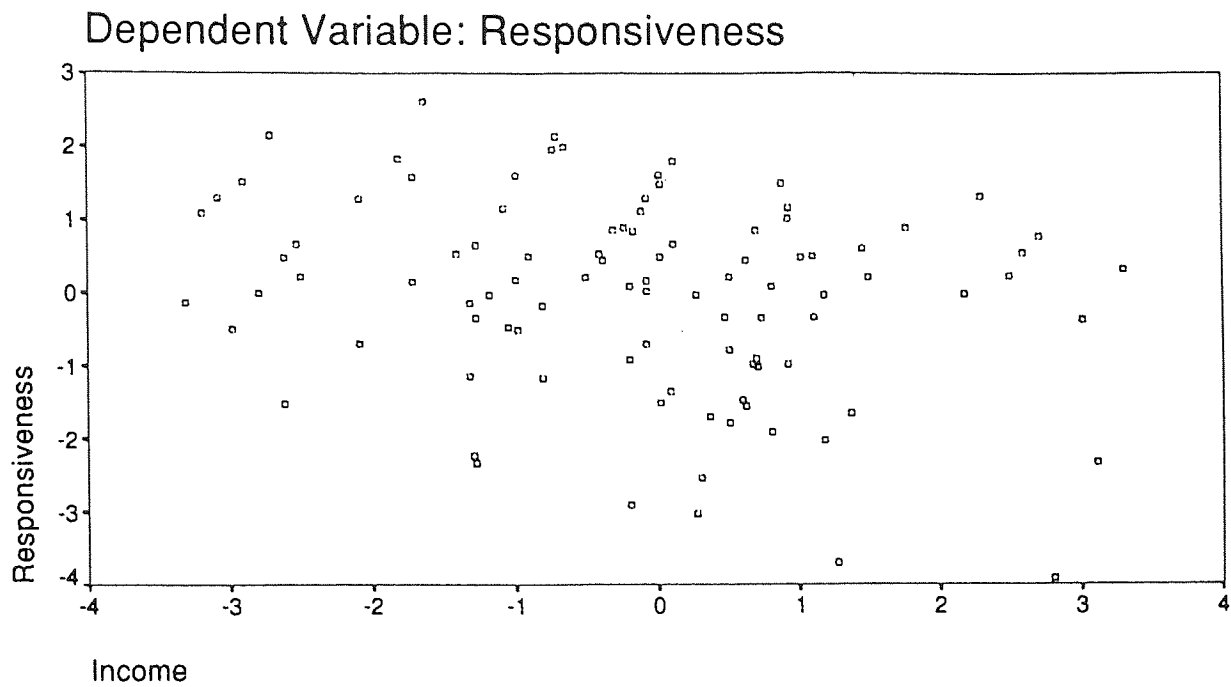
Figure A6.4.11 : Partial Regression Plot : General Service Sophistication
(Security)

Dependent Variable: Security
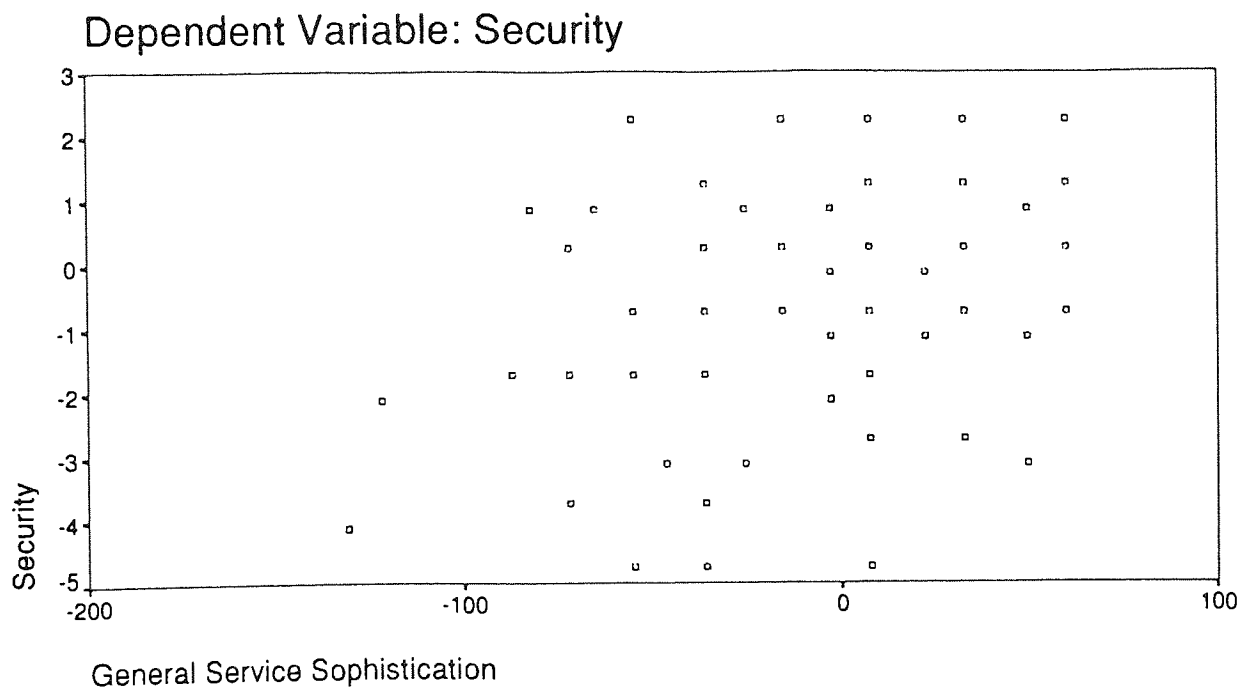
Figure A6.4.12 :   Partial Regression Plot : Self-Esteem (Facilities)

Dependent Variable: Facilities
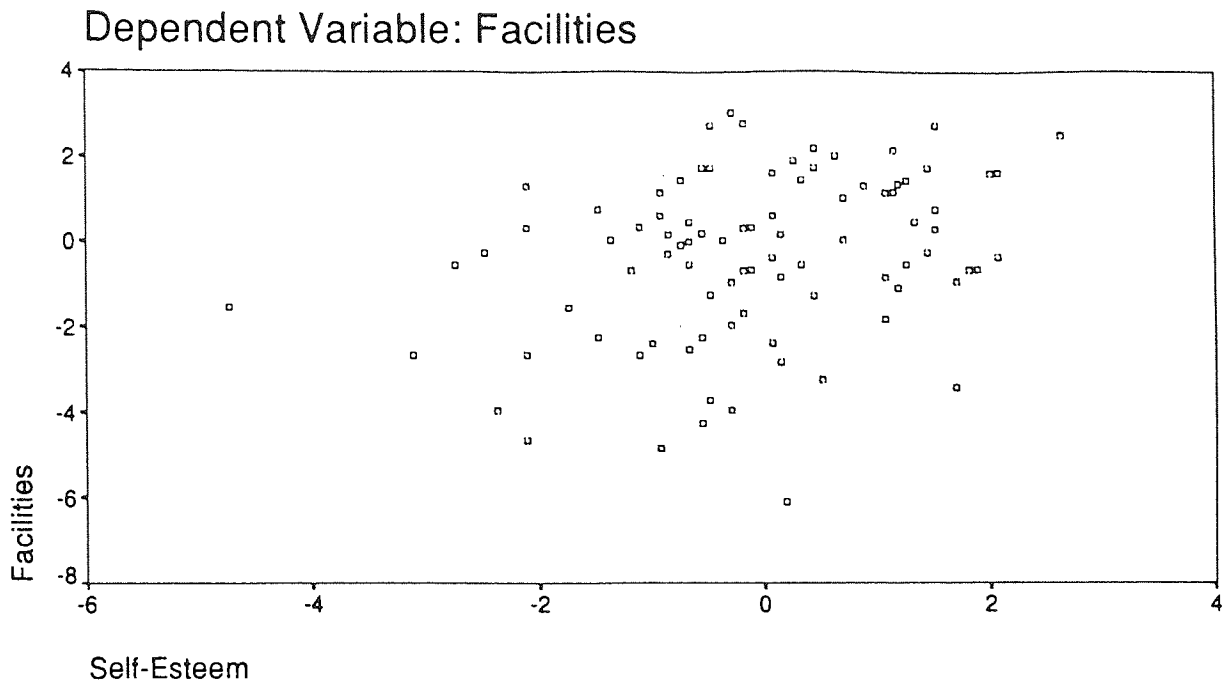
Figure A6.4.13 :   Partial Regression Plot : Service-Specific Sophistication
(Facilities)

Dependent Variable: Facilities
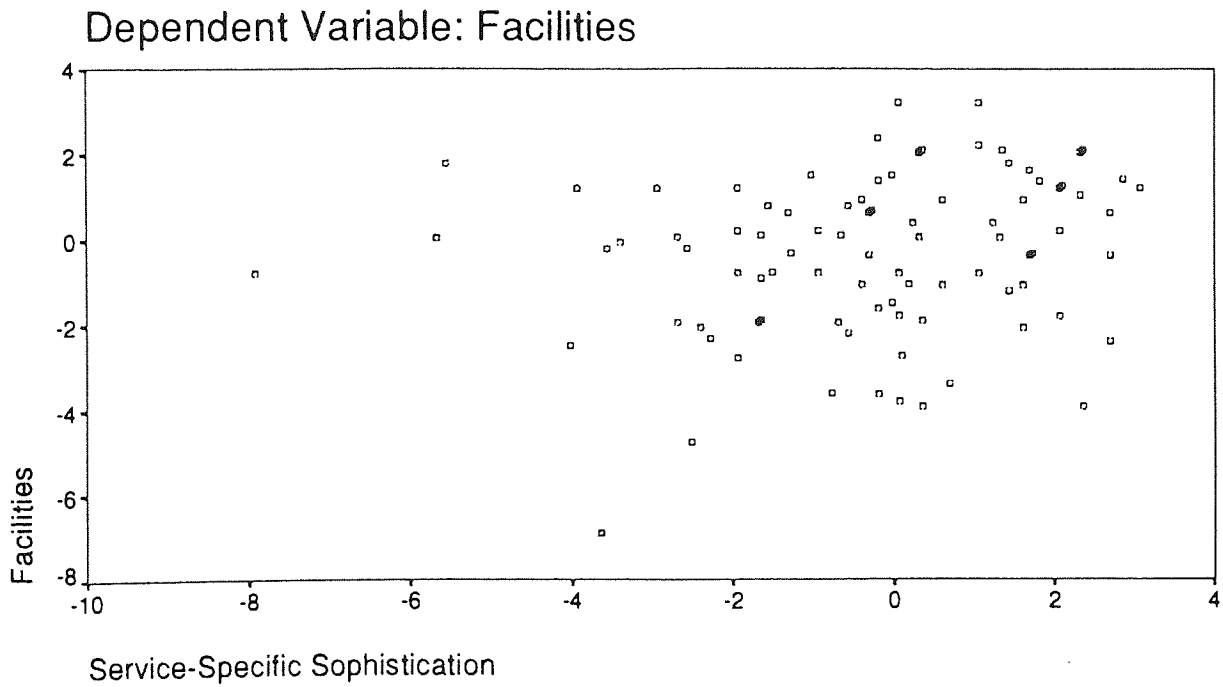
Figure A6.4.14 : Partial Regression Plot : General Service Sophistication
(Personalisation)

Dependent Variable: Personalisation

General Service Sophistication
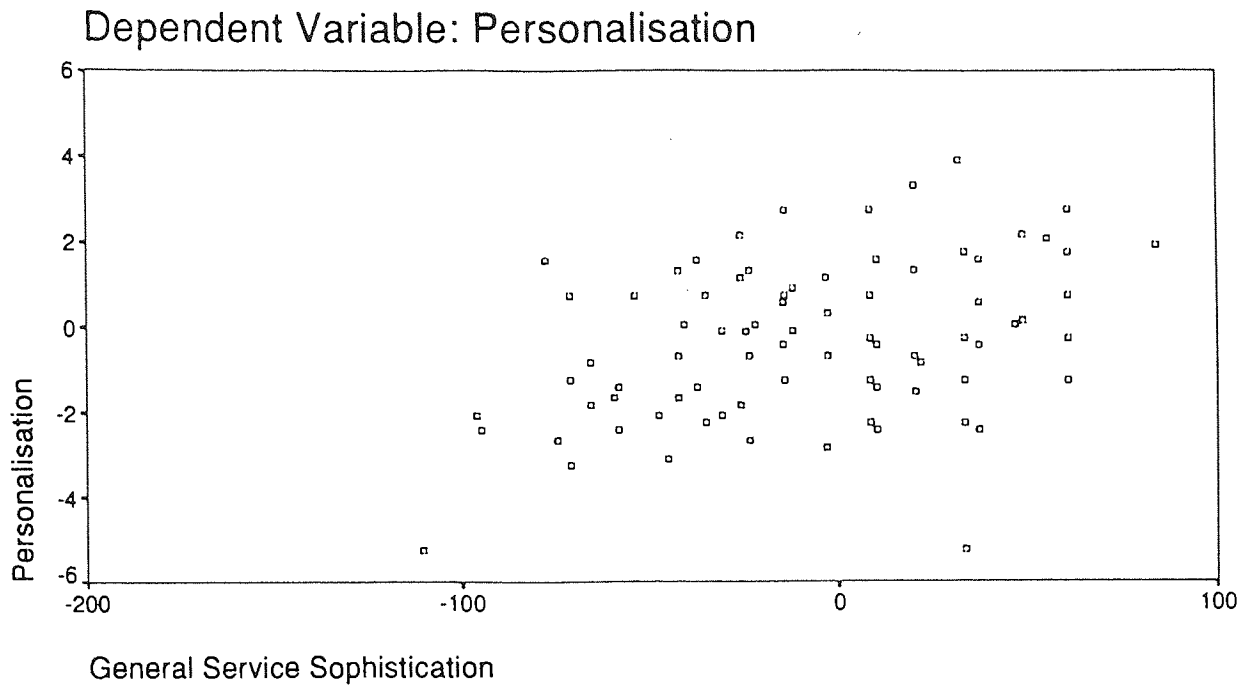
Figure A6.4.15 : Partial Regression Plot : Self-Esteem (Personalisation)

Dependent Variable: Personalisation
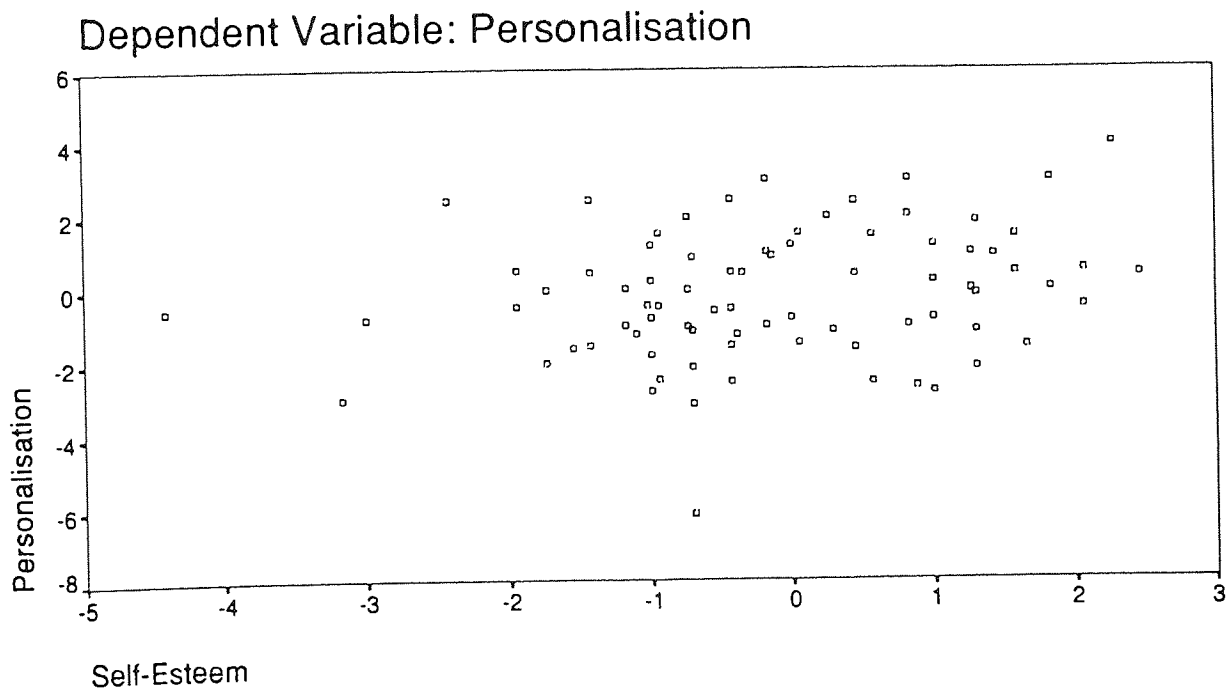
Self-Esteem

Figure A6.4.16 : Partial Regression Plot : Self-Esteem (Outcome)

Dependent Variable: Outcome

Self-Esteem
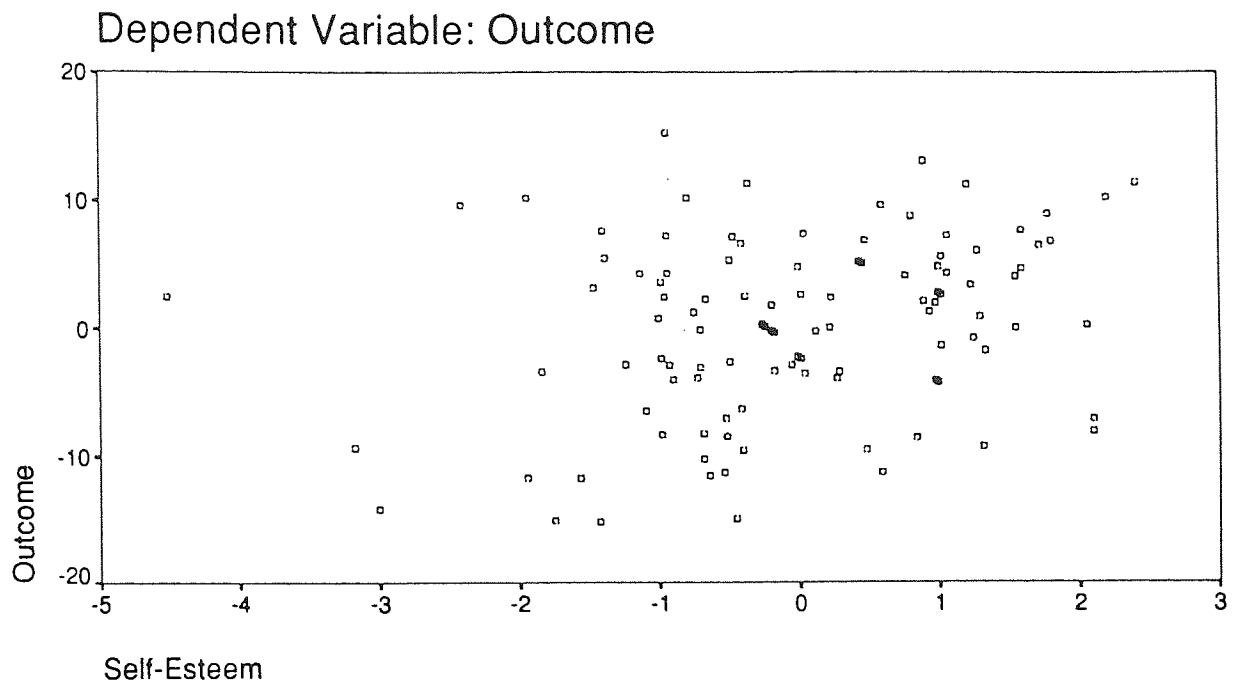
Figure A6.4.17 : Partial Regression Plot : General Service Sophistication
(Outcome)

Dependent Variable: Outcome

General Service Sophistication
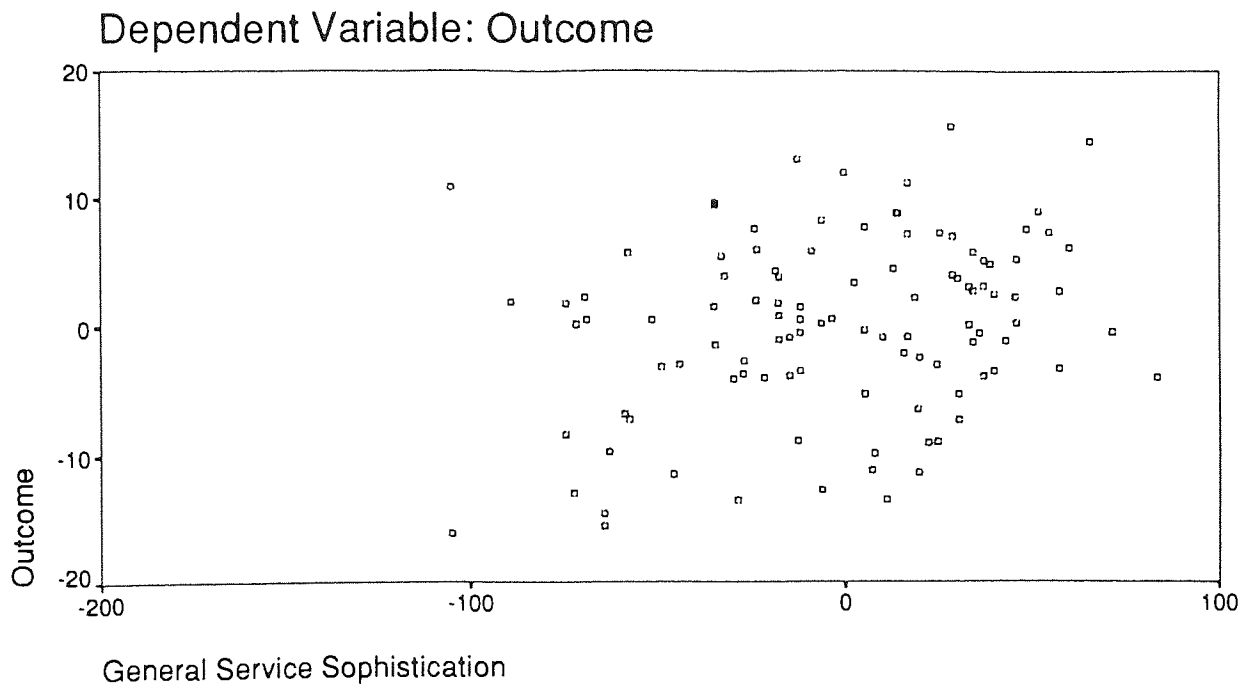
Figure A6.4.18 : Partial Regression Plot : General Hurry (Outcome)

Dependent Variable: Outcome

General Hurry
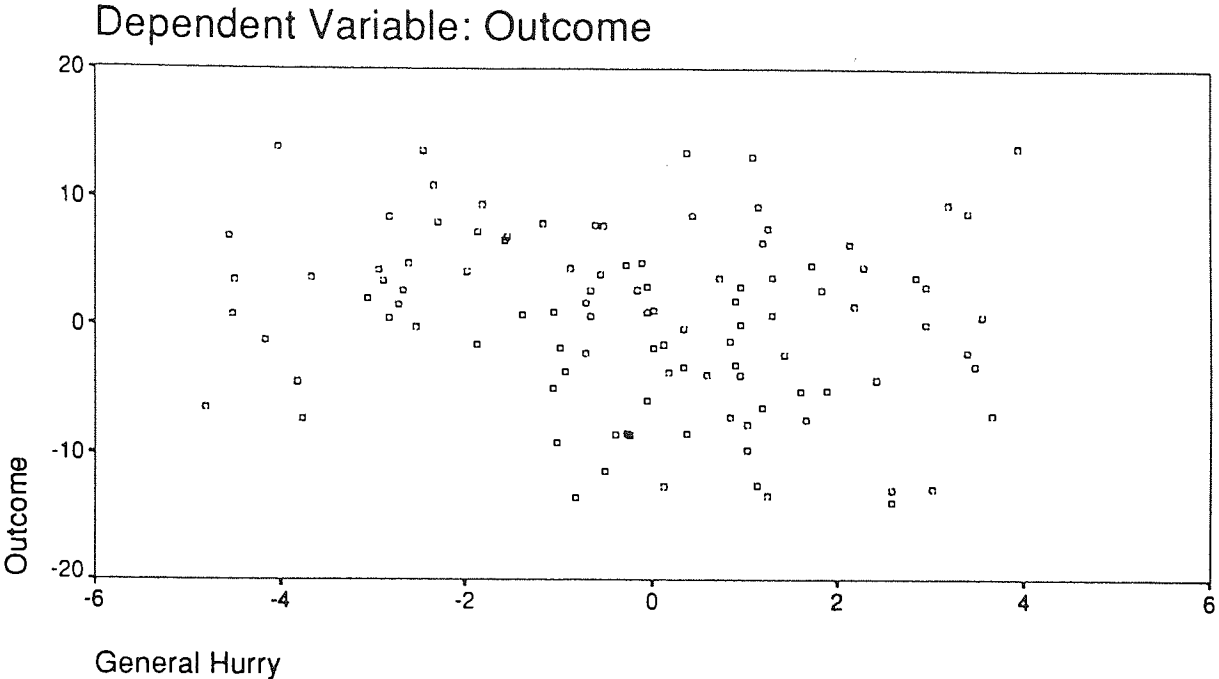
Figure A6.4.19 : Partial Regression Plot : General Service Sophistication (Process)

Dependent Variable: Process

General Service Sophistication

321
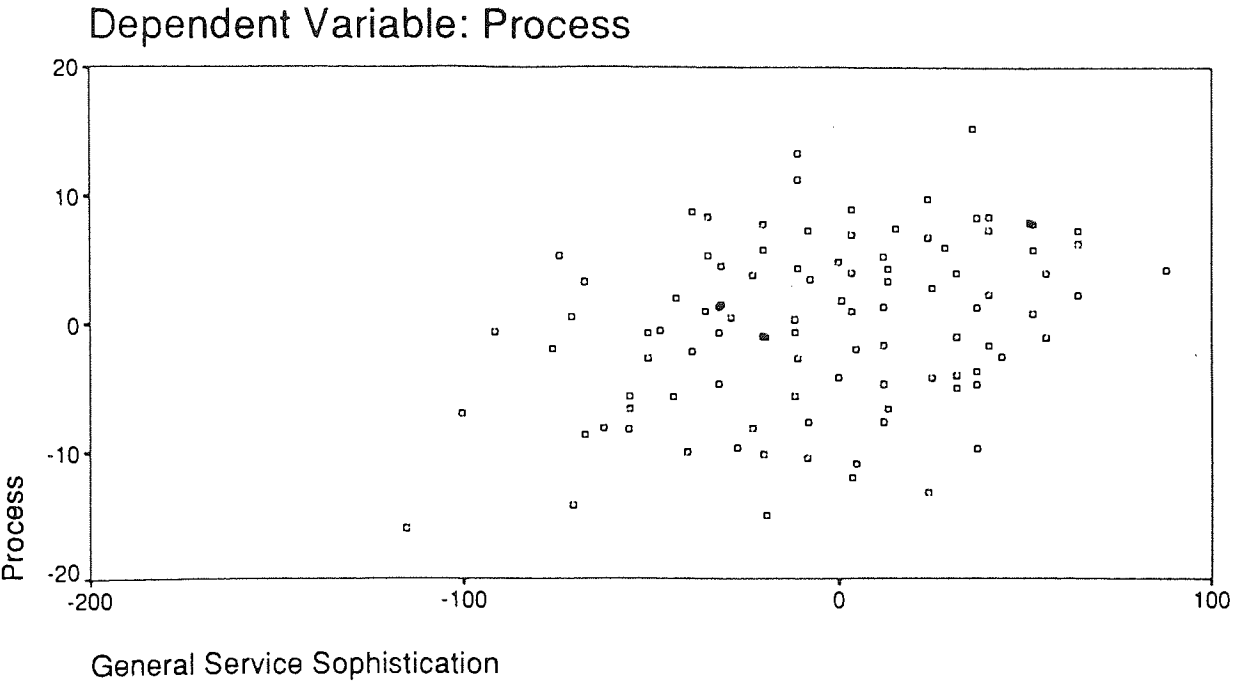
Figure A6.4.20 : Partial Regression Plot : Self-Esteem (Process)

Dependent Variable: Process
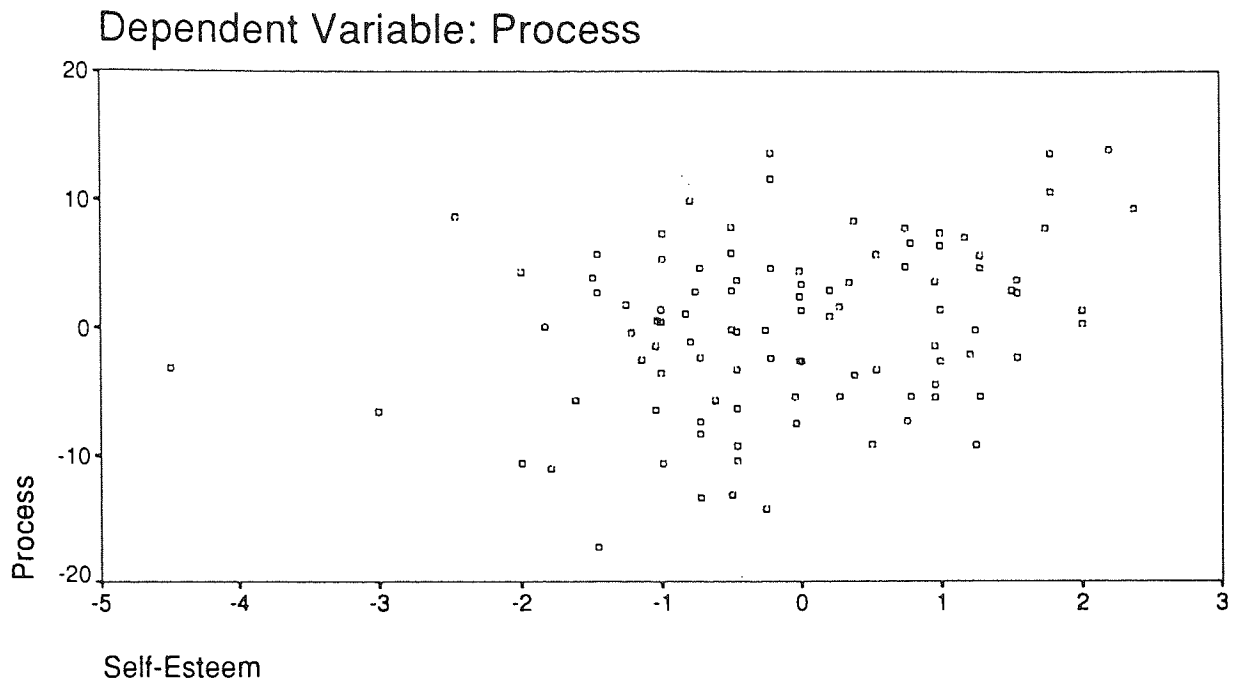
Figure A6.4.21 : Partial Regression Plot : General Service Sophistication (Intangibles)

Dependent Variable: Intangibles
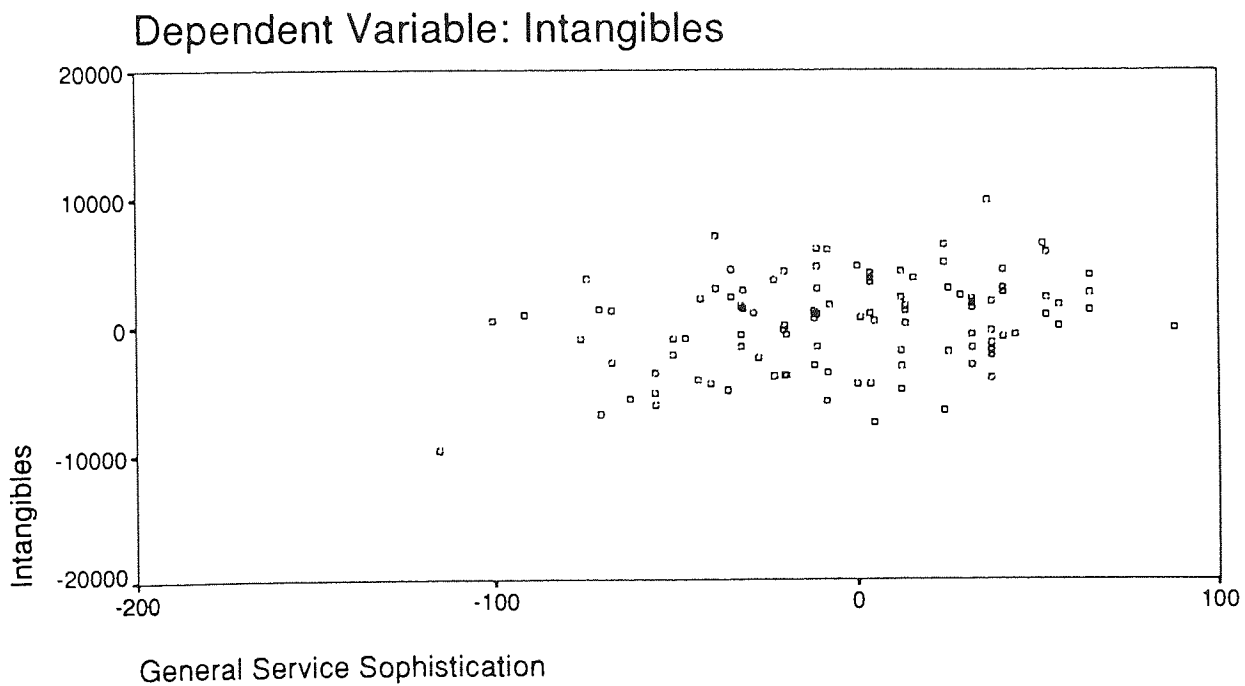
Figure A6.4.22 : Partial Regression Plot : Self-Esteem (Intangibles)

Dependent Variable: Intangibles
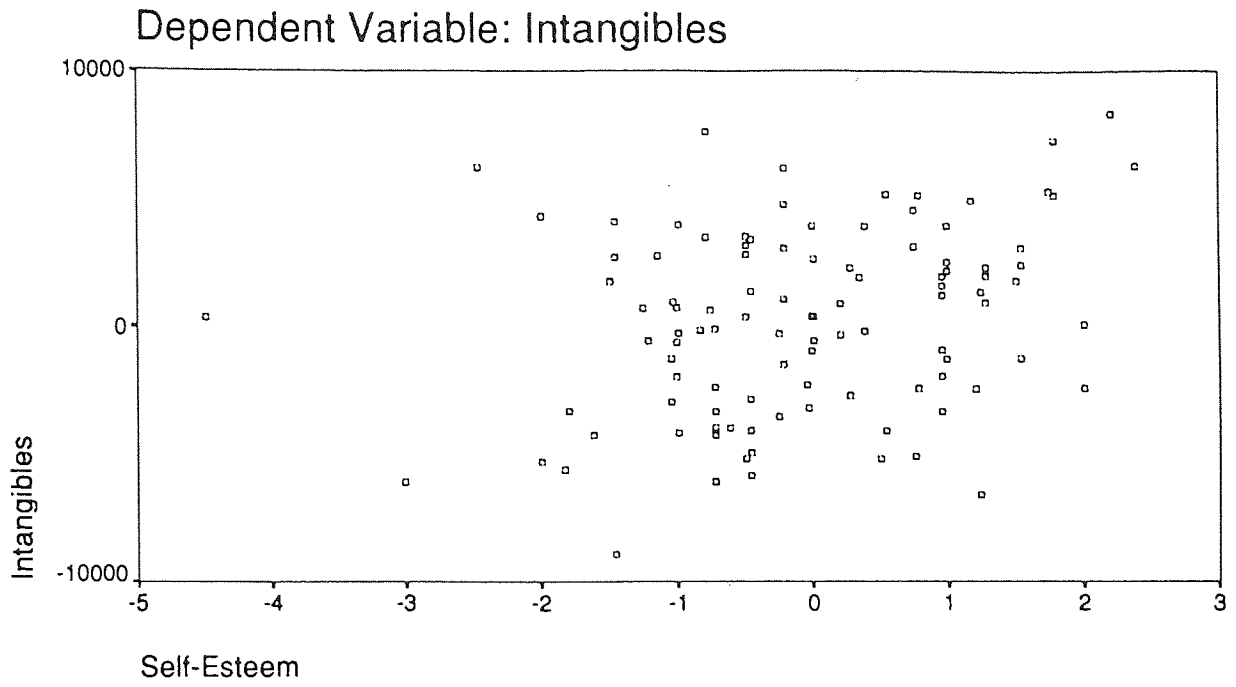
Assumption 2 (Behaviour of Residuals)

Table A6.4.1 shows the relevant residual statistics relating to each of the initial stepwise regression models. Unless otherwise stated all of the below statistics are calculated at a 1% critical value.

Table A6.4.1 : Residual Statistics

Dependent Variable	Mean of 0	Linear	K-S Statistic	Levene's Test	Durbin Watson Statistic	Simple r
Lecture Delivery	Yes	Yes	0.113 p=0.004	1.631 p=0.201	2.111	None
Personal Development	Yes	Yes	0.104 p=0.012	1.847 p=0.163	1.919	None
Reliability	Yes	Yes	0.040 p>0.200	15.08 p=0.000	1.786	None
Reputation	Yes	Yes	0.051 p>0.200	3.693 p=0.028	1.830	None
Responsiveness	Yes	Yes	0.089 p=0.061	4.387 p=0.015	1.987	None
Security	Yes	Yes	0.093 p=0.040	2.327 p=0.103	2.130	None
Facilities	Yes	Yes	0.097 p=0.026	0.089 p=0.915	2.082	None
Personalisation	Yes	Yes	0.069 p>0.200	1.626 p=0.202	1.700	None
Outcome	Yes	Yes	0.045 p>0.200	5.942 p=0.004	1.934	None
Process	Yes	Yes	0.058 p>0.200	1.789 p=0.172	1.880	None
Intangibles	Yes	Yes	0.076 p>0.200	4.290 p=0.016	1.800	None

Using a two-tailed test the above Durbin-Watson statistics (d) are found to be unambiguously insignificant @1% with d being above the lower limit and 4-d the upper limit which retains the null hypothesis that no serial correlations exist (Durbin & Watson, 1951). Overall, this table shows the respective model residuals perform very satisfactorily which is further shown by the residual plots in Figures A6.4.31 to A6.4.41.

Figure A6.4.23 : Studentised Residual Plot : Lecture Delivery

Predicted Values
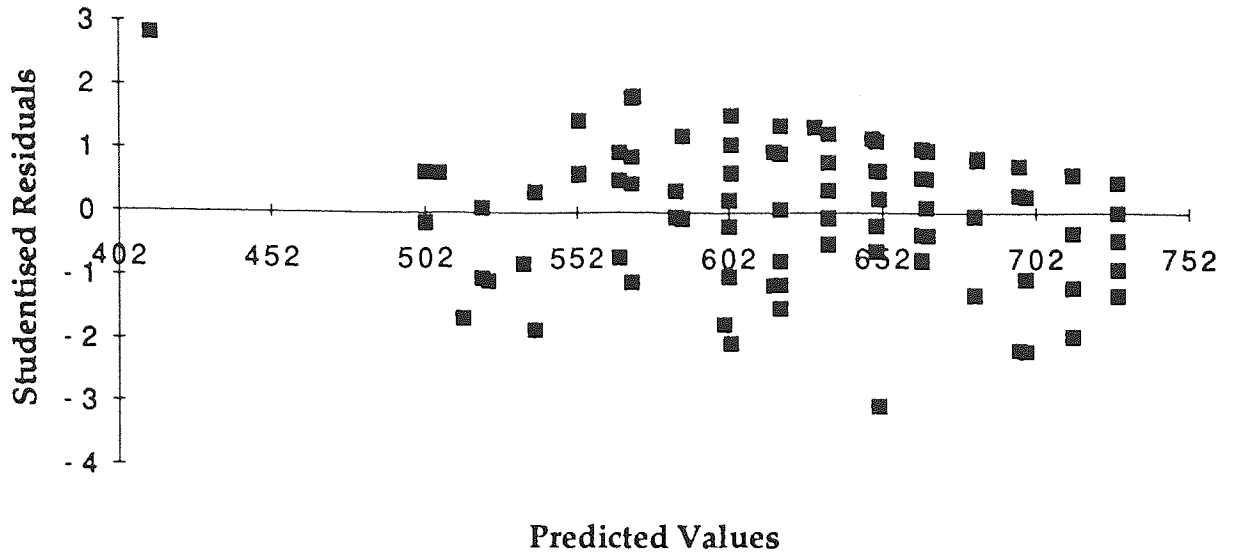
Figure A6.4.24 : Studentised Residual Plot : Personal Development

Predicted Values
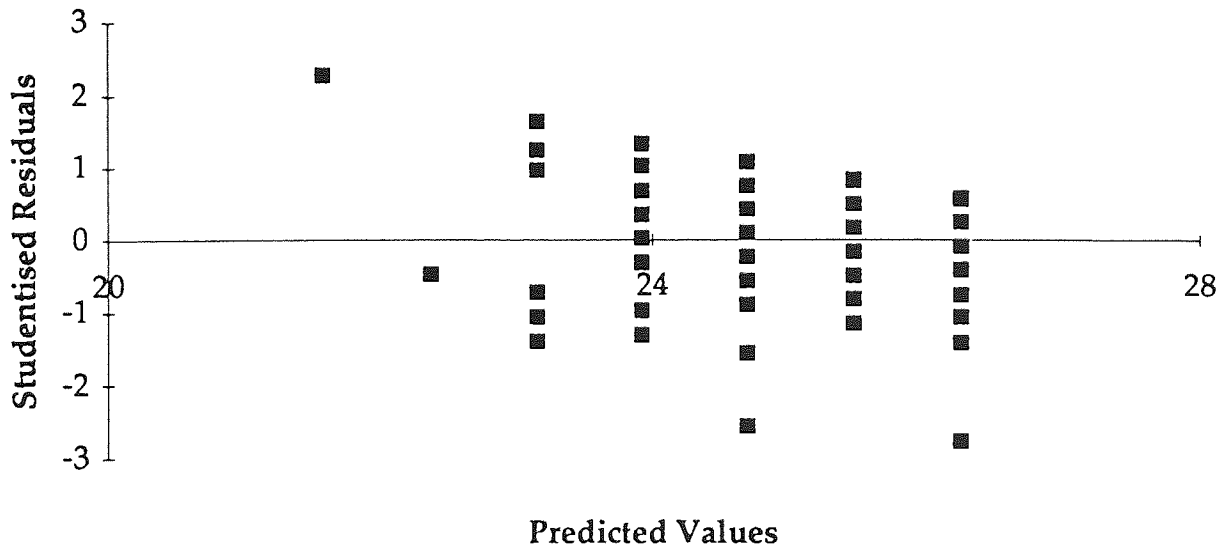
Figure A6.4.25 :   Studentised Residual Plot : Reliability
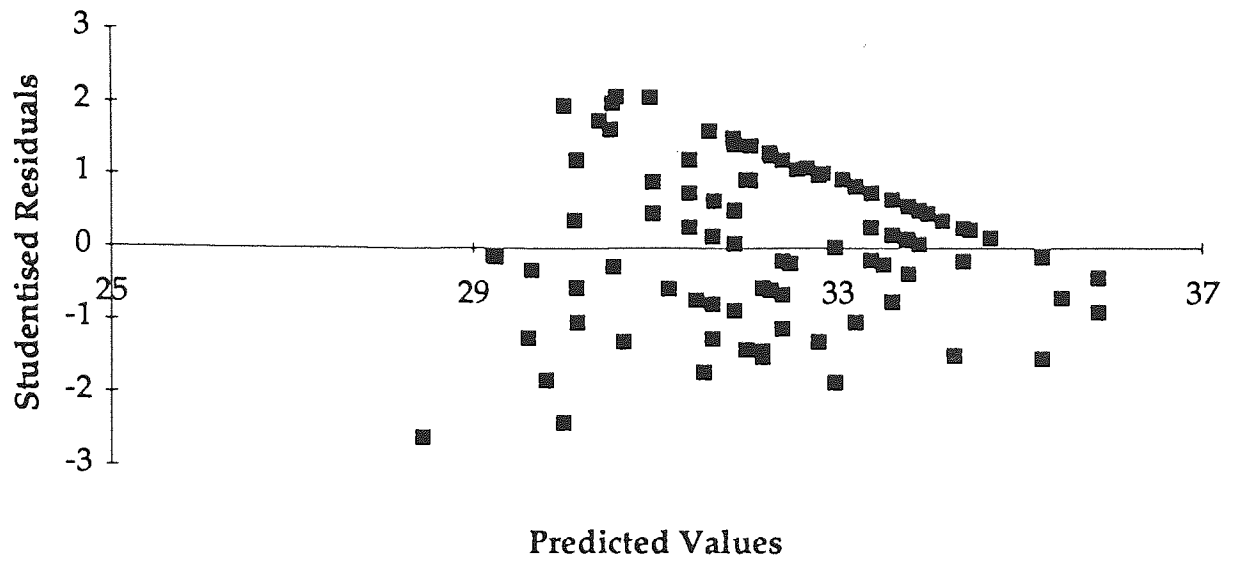
Figure A6.4.26 : Studentised Residual Plot : Reputation
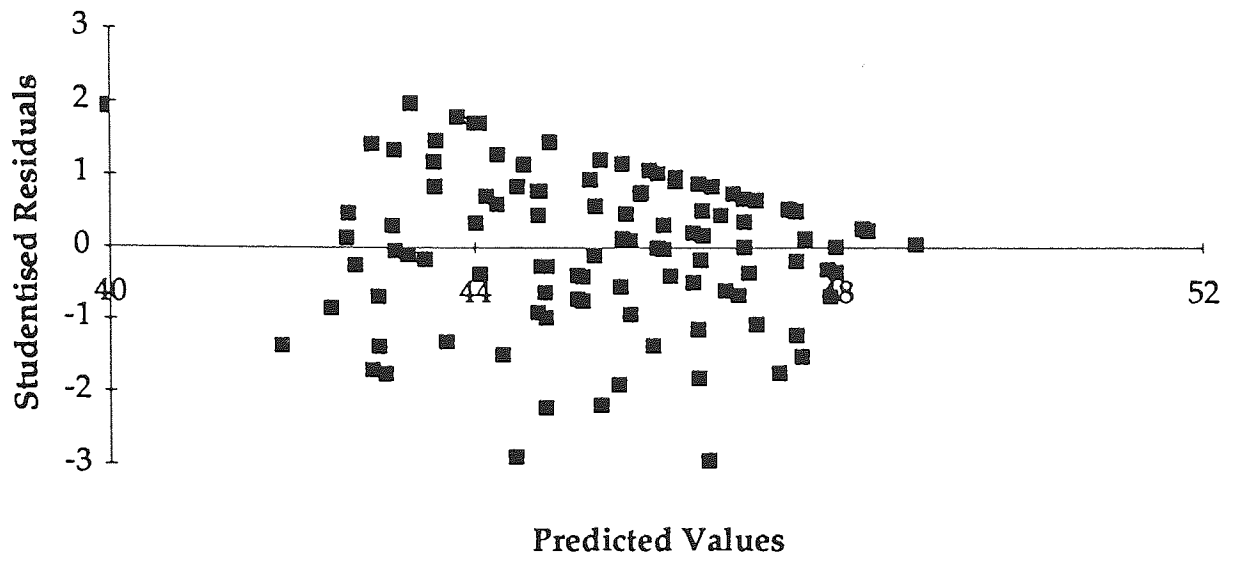
Figure A6.4.27 : Studentised Residual Plot : Responsiveness
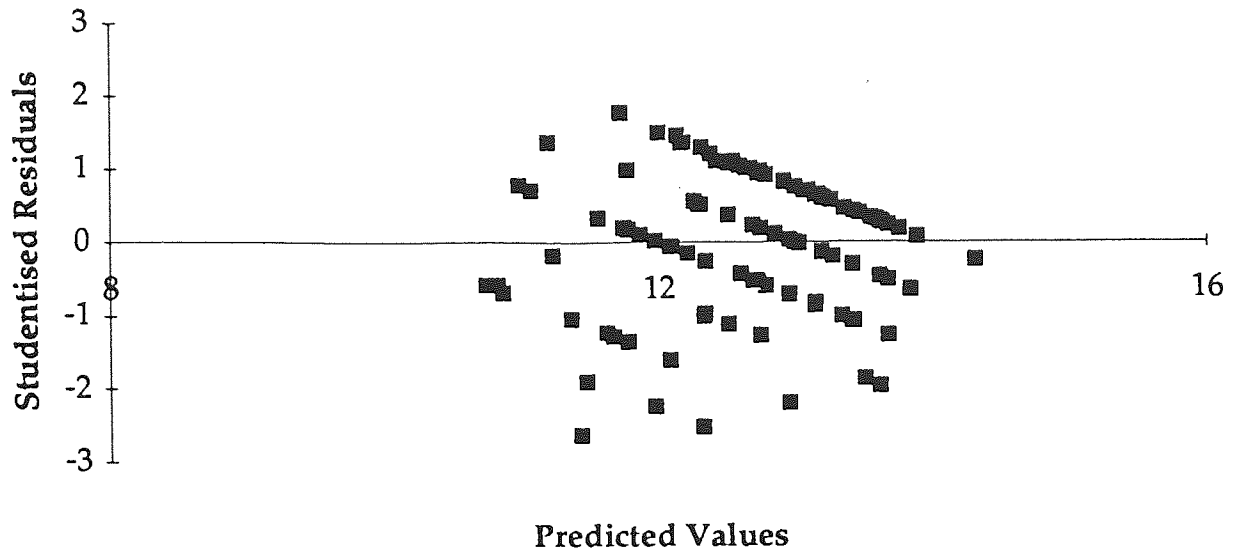
Figure A6.4.28 : Studentised Residual Plot : Security

Predicted Values
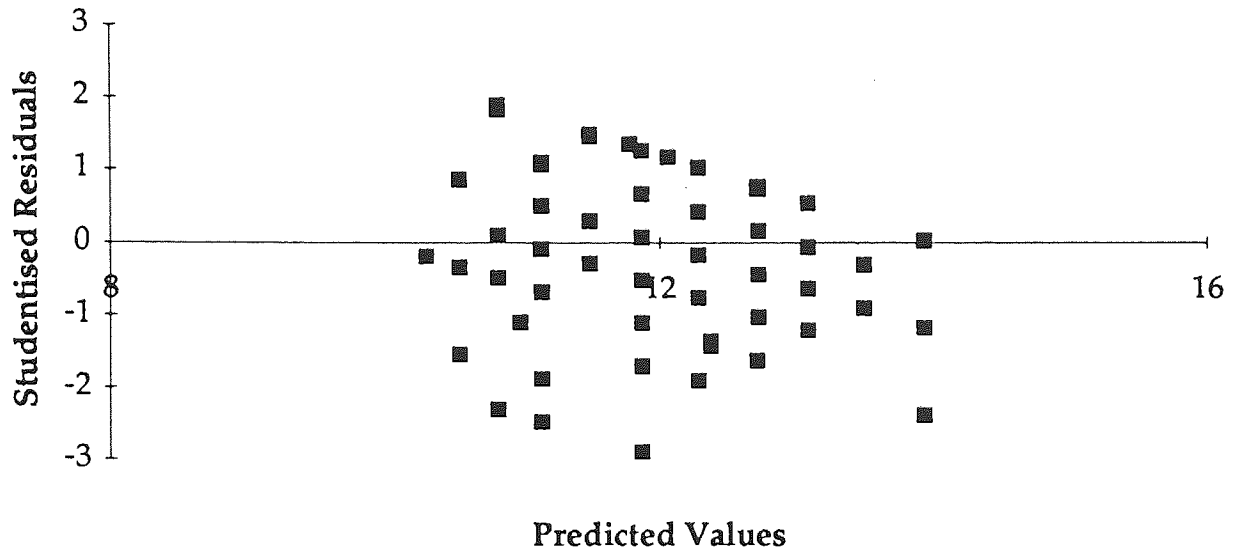
Figure A6.4.29 : Studentised Residual Plot : Facilities
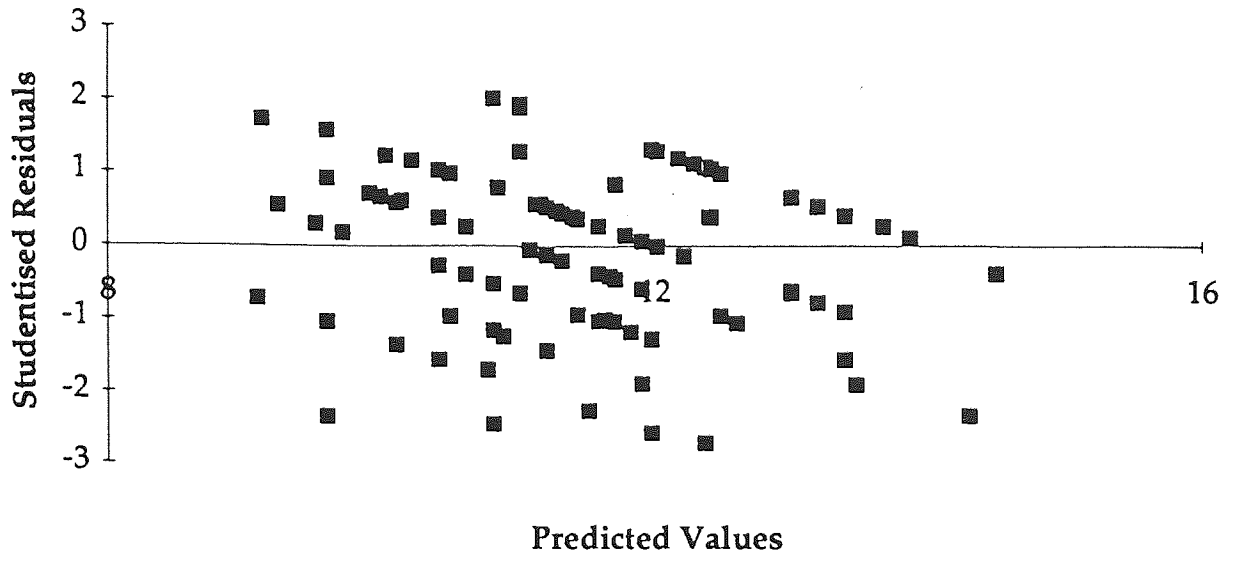
Figure A6.4.30 : Studentised Residual Plot : Personalisation
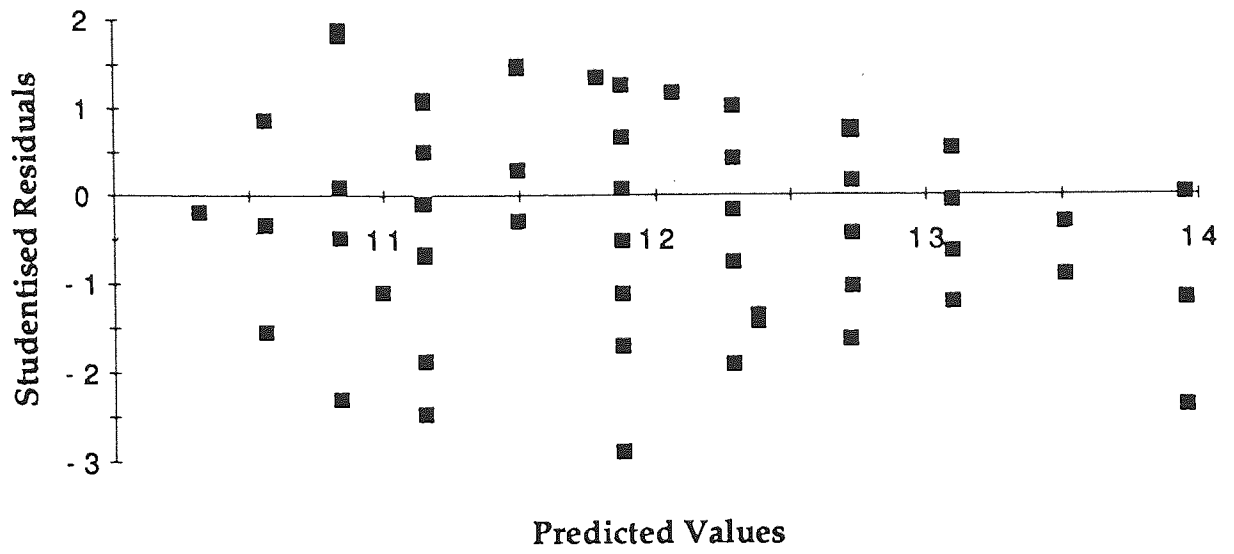
Figure A6.4.31 : Studentised Residual Plot : Outcome
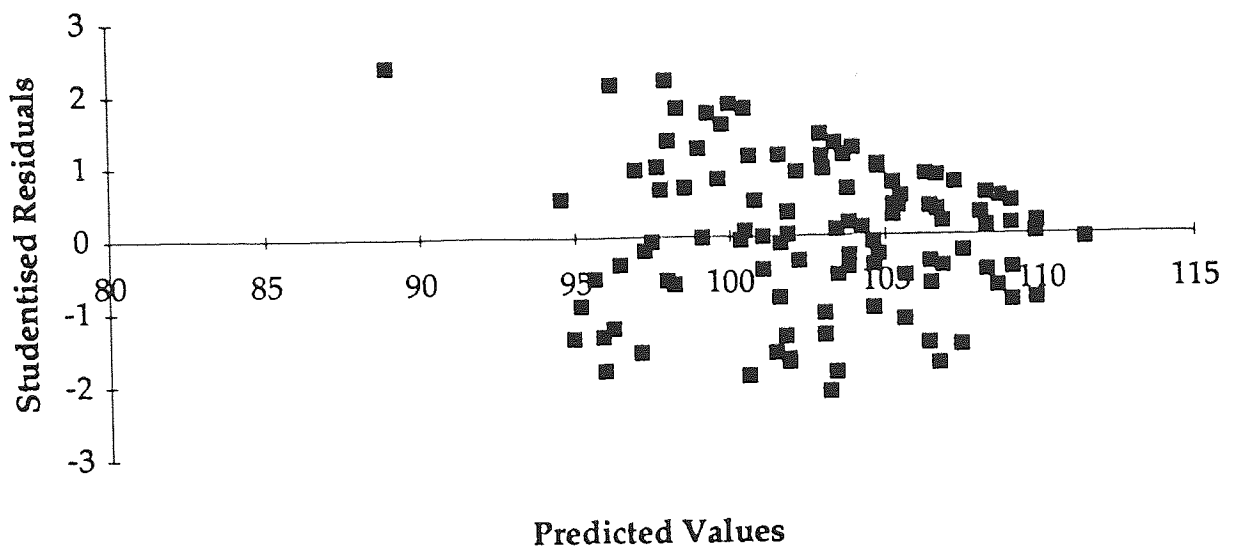
Figure A6.4.32 : Studentised Residual Plot : Process
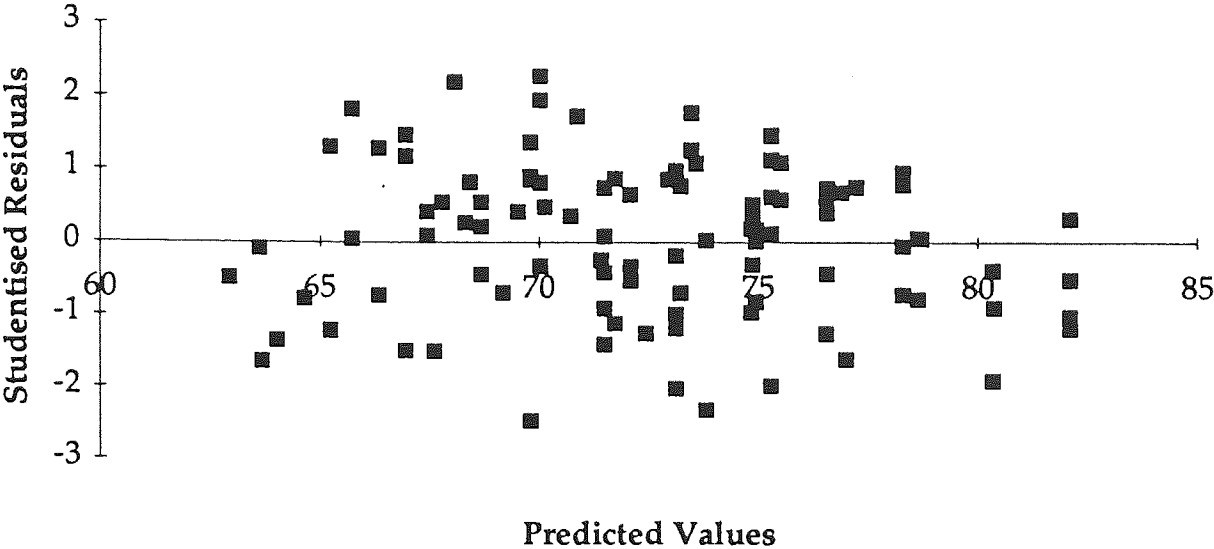
Figure A6.4.33 : Studentised Residual Plot : Intangibles
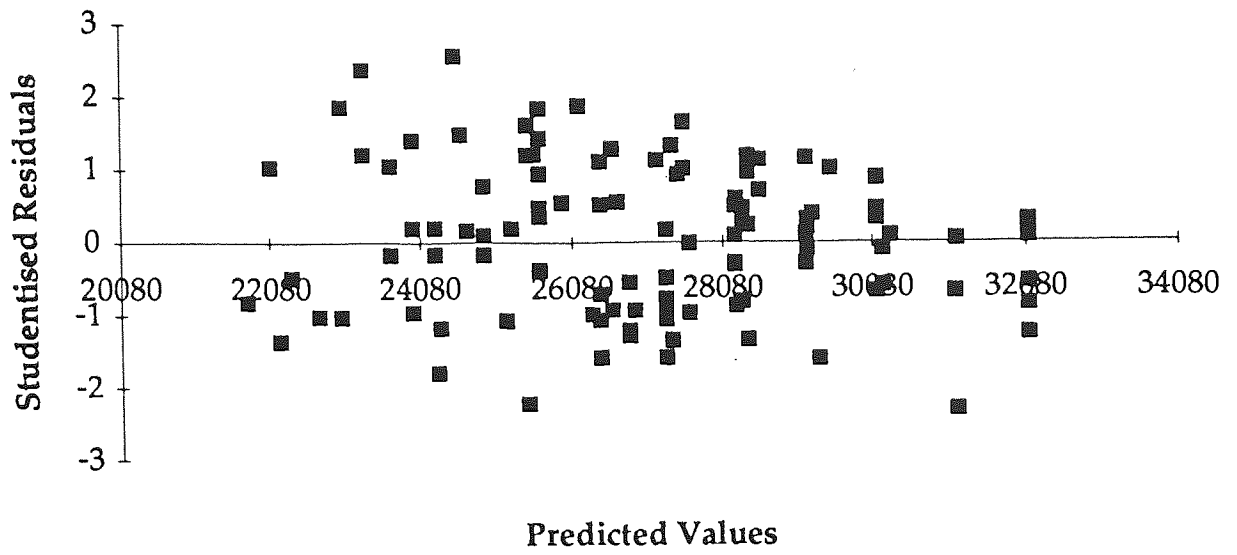
However, the Lecture Delivery model residuals do not follow a normal distribution, and the Outcome and Reliability model residuals suffer from heteroscedasticity. In an attempt to eliminate these breaches the inverse of the dependent variable was taken for the heteroscedastic and non-normal problem (Hair, Anderson, Tatham, and Black, 1992 and Norusis, 1990). Because a square transformation proved useful with previous non-normal distributions this transformation was also performed on the Lecture Delivery model dependent variable. The inverse transformation failed to solve the heteroscedasticity problems. However, a visual inspection of the relevant residual plot suggests the breach was not serious. Furthermore, heteroscedasticity does not bias the O.L.S. parameter estimates although standard errors are affected which can bias hypothesis testing (Lewis-Beck, 1980 and Schroeder, Sjoquist, & Stephen, 1986). The most important consequences this might have is incorrectly including or excluding explanatory variables. With respect to this latter point the number of cases was increased in the second, transformed data analysis. This was possible because full data sets relating to *all* independent variables were not required i.e. only those independent variables selected from the stepwise regression were required. The increase in the number of cases did not change the solution in any meaningful way and all selected explanatory variables remained significant. Whilst this does not offer conclusive evidence regarding the impact of heteroscedasticity it does offer additional support for the robustness of the findings.

Both transformations of the Lecture Delivery model dependent variable made the residual conform to a normal distribution without any adverse affects on the remaining residual assumptions. For the sake of consistency the square transformation was retained for reporting purposes (see Appendix 6.3).

Assumption 3 (Multicollinearity)

No tolerance value for any of the models fell below 0.8 which strongly suggests multicollinearity was not a problem (Hair, Anderson, Tatham, & Black, 1992) (Hair, Anderson, Tatham, & Black, 1992).

APPENDIX 7.1

The below Table and associated Figures provide the relevant statistics for the pilot study.

Table A7.1.1 : Descriptive Statistics

Dimensions	Mean	Min.	Max.	Variance	Number
Reliability	-0.227	-3	2	1.342	44
Reputation	-0.250	-4	1	0.843	44
Lecture Delivery	-0.227	-5	2	2.133	44
Personal Development	-0.023	-3	6	2.348	44
Personalisation	-0.273	-5	4	4.110	44
Security	-0.682	-3	2	1.896	44
Facilities	-1.205	-5	2	2.446	44
Responsiveness	0.045	-3	3	1.533	44
Outcome	-0.500	-10	5	6.535	44
Process	-2.341	-13	7	22.462	44
Intangibles	-1.636	-21	11	31.131	44

Figure A7.1.1 : Frequency Bar Chart : Reliability

336
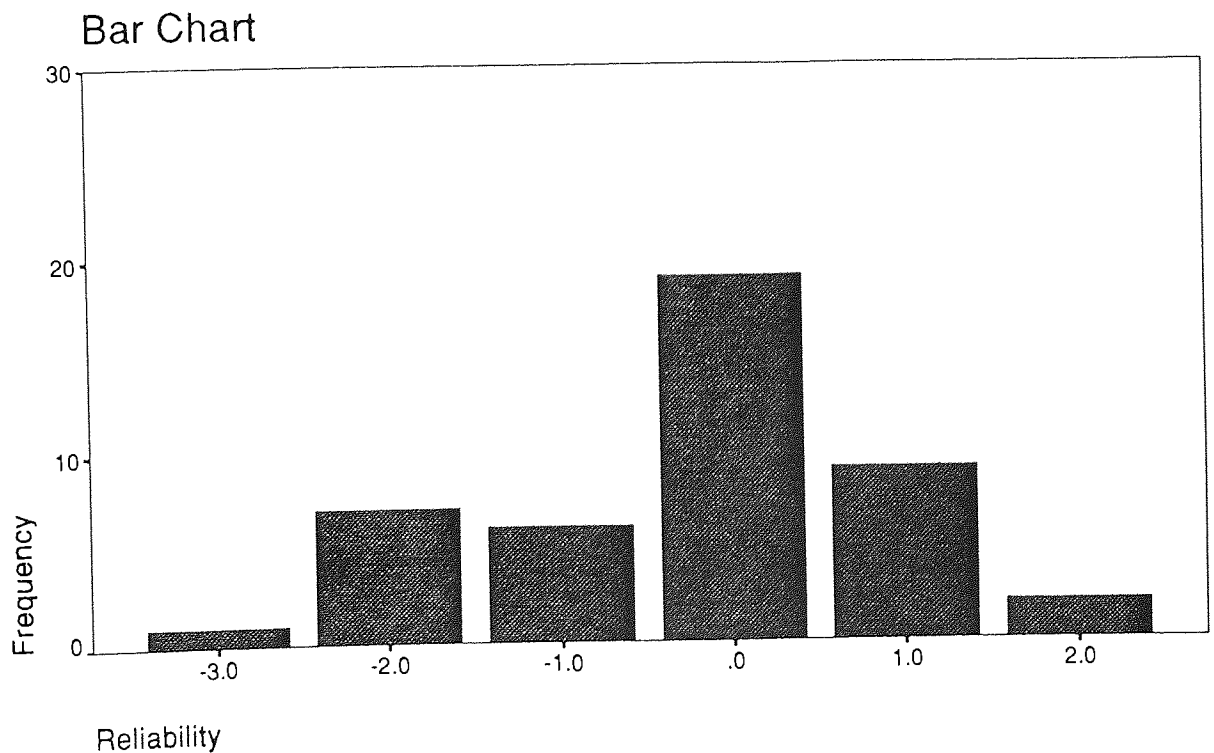
Figure A7.1.2 : Frequency Bar Chart : Reputation

Bar Chart

Reputation
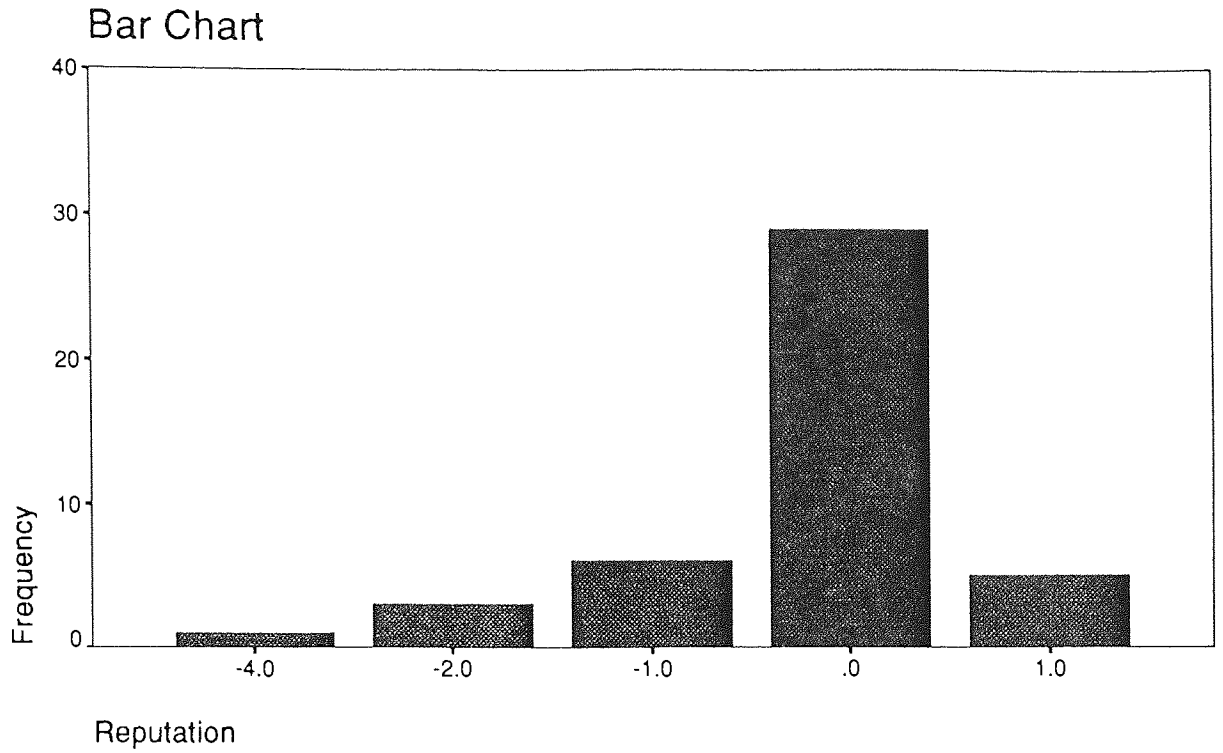
Figure A7.1.3 : Frequency Bar Chart : Lecture Delivery

Bar Chart

Lecture Delivery
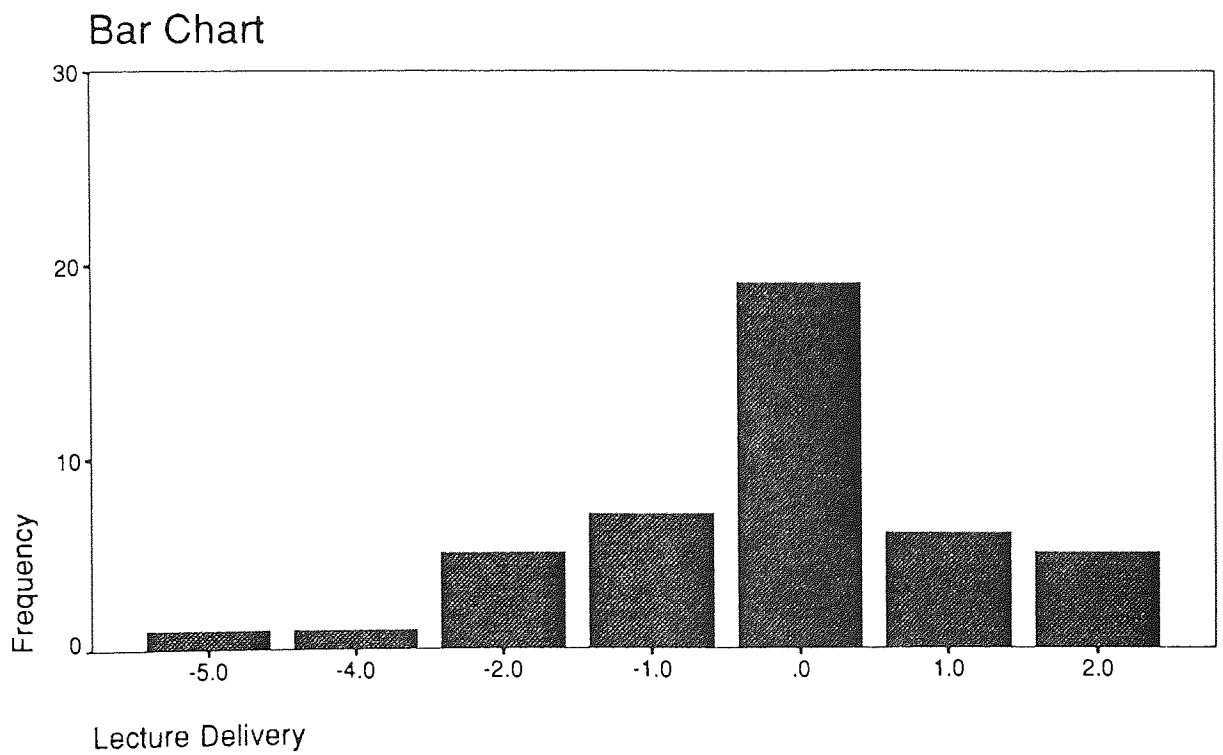
Figure A7.1.4 : Frequency Bar Chart : Personal Development

Bar Chart

Personal Development
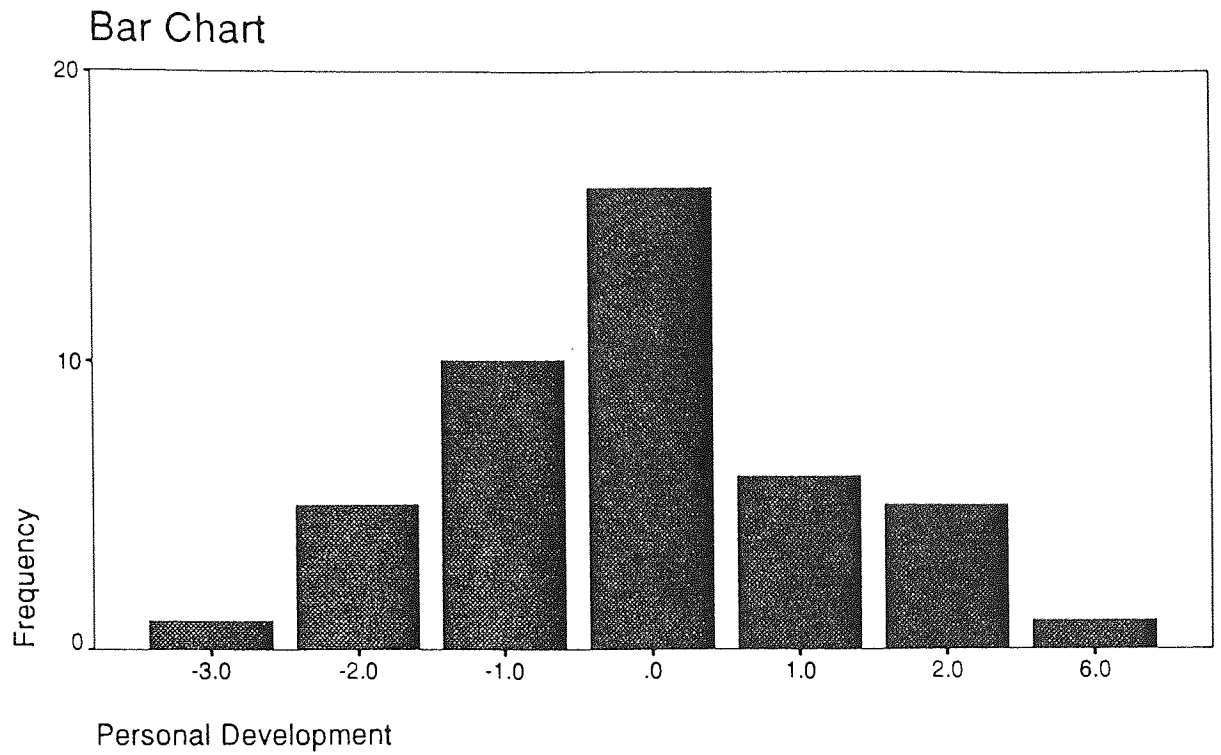
Figure A7.1.5 : Frequency Bar Chart : Personalisation

Bar Chart

Personalisation
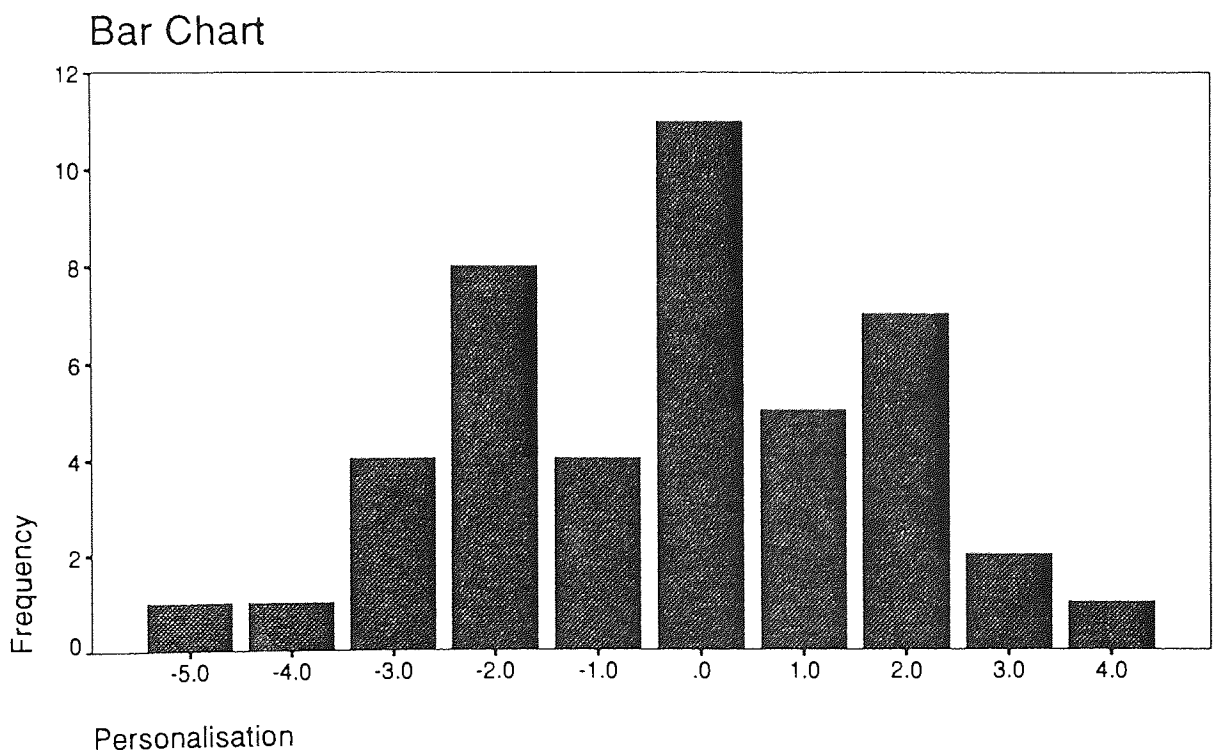
Figure A7.1.6 : Frequency Bar Chart : Security

Bar Chart

Security
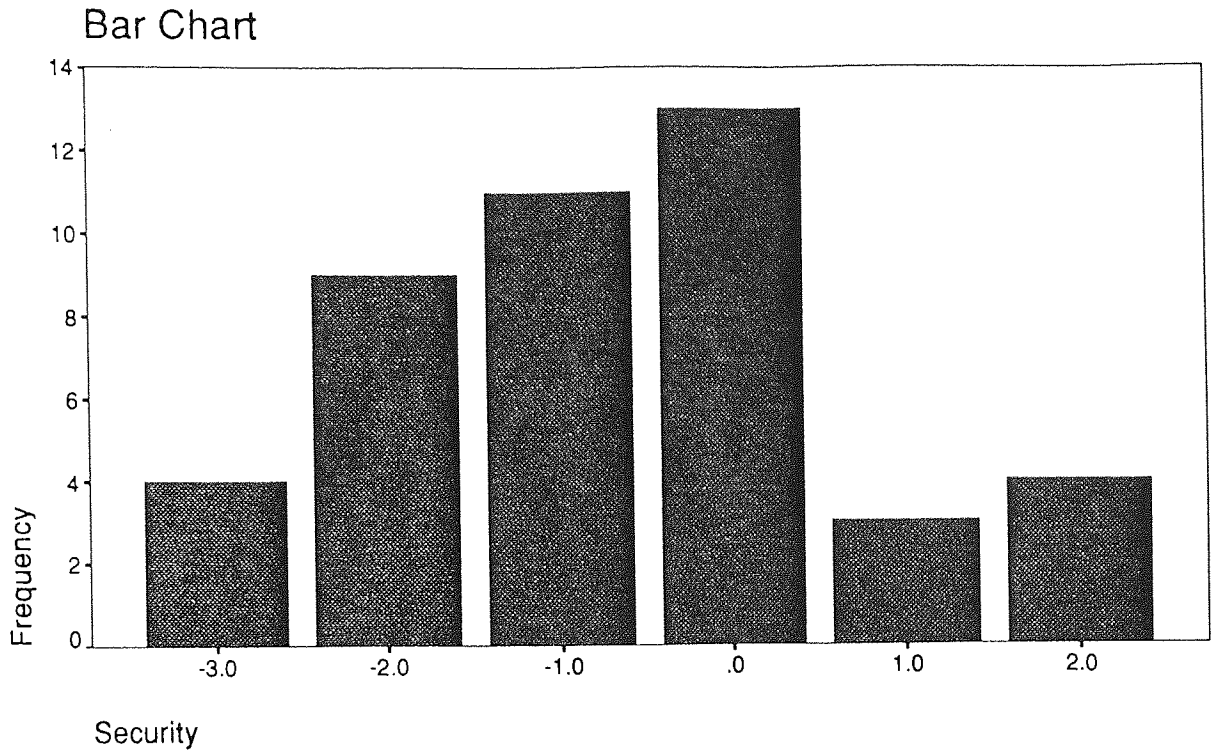
Figure A7.1.7 : Frequency Bar Chart : Facilities

Bar Chart

Facilities
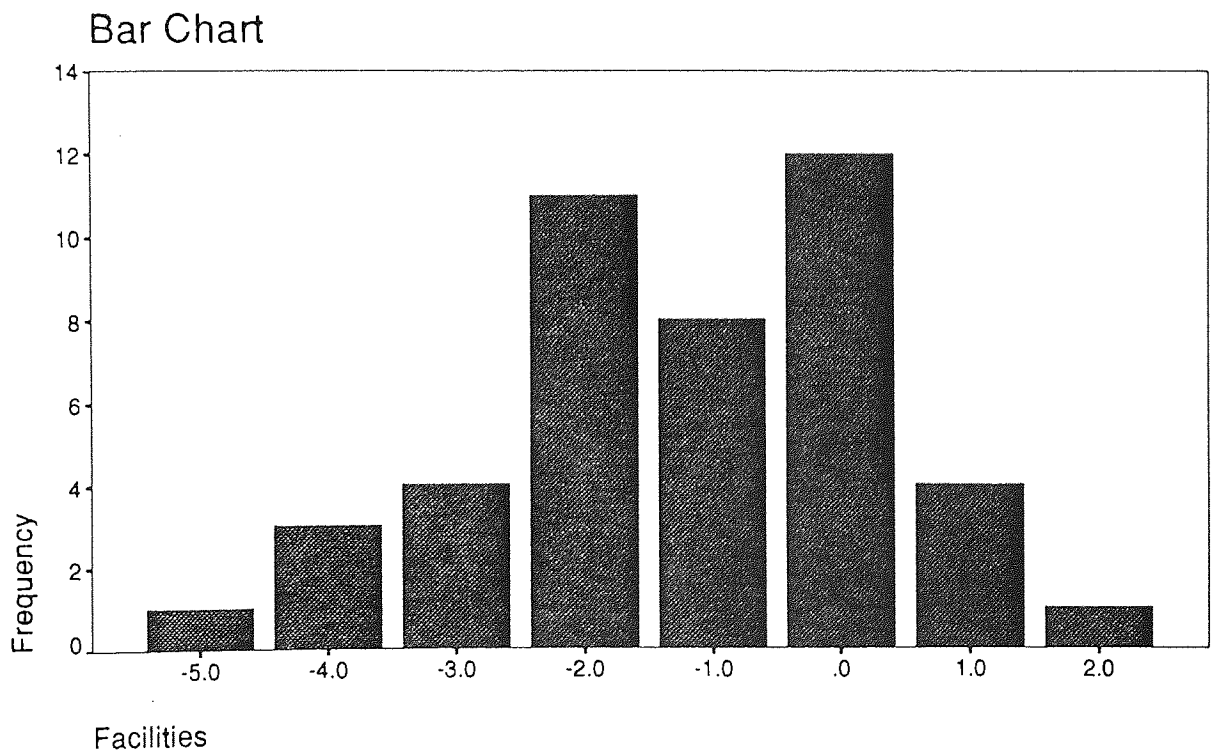
Figure A7.1.8 : Frequency Bar Chart : Responsiveness

Bar Chart

Responsiveness
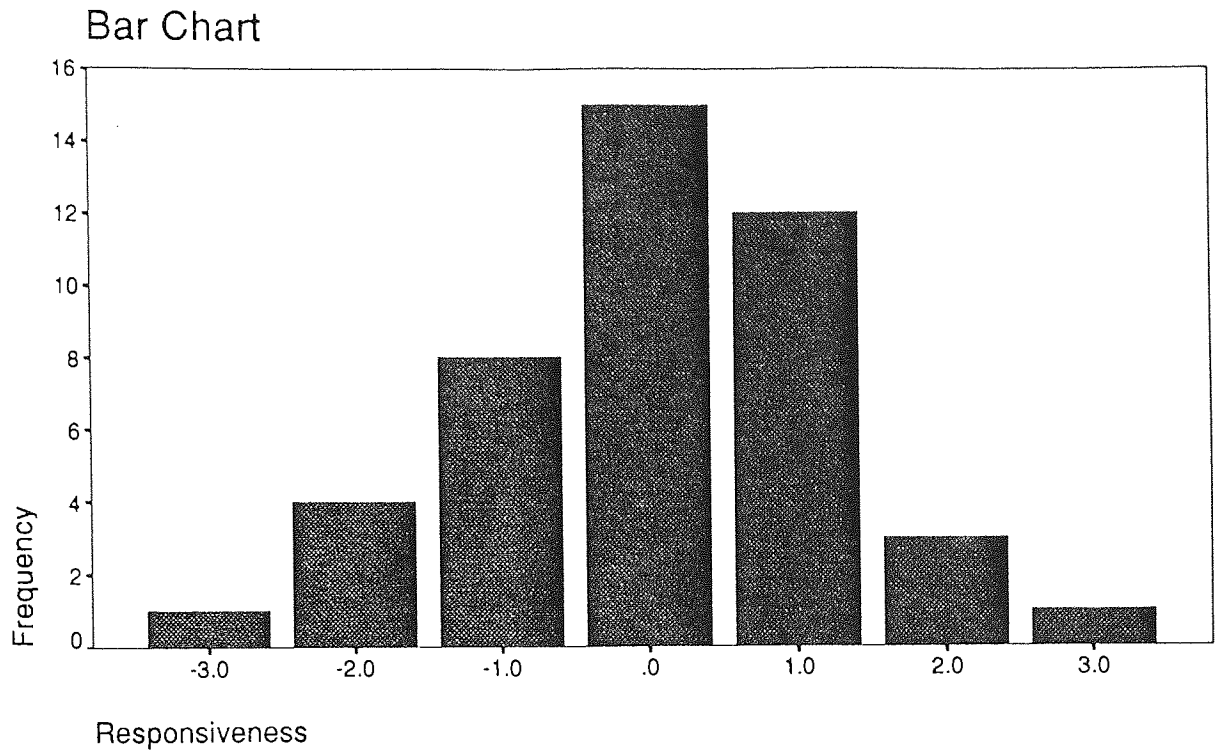
Figure A7.1.9 : Frequency Bar Chart : Outcome

Bar Chart

Outcome
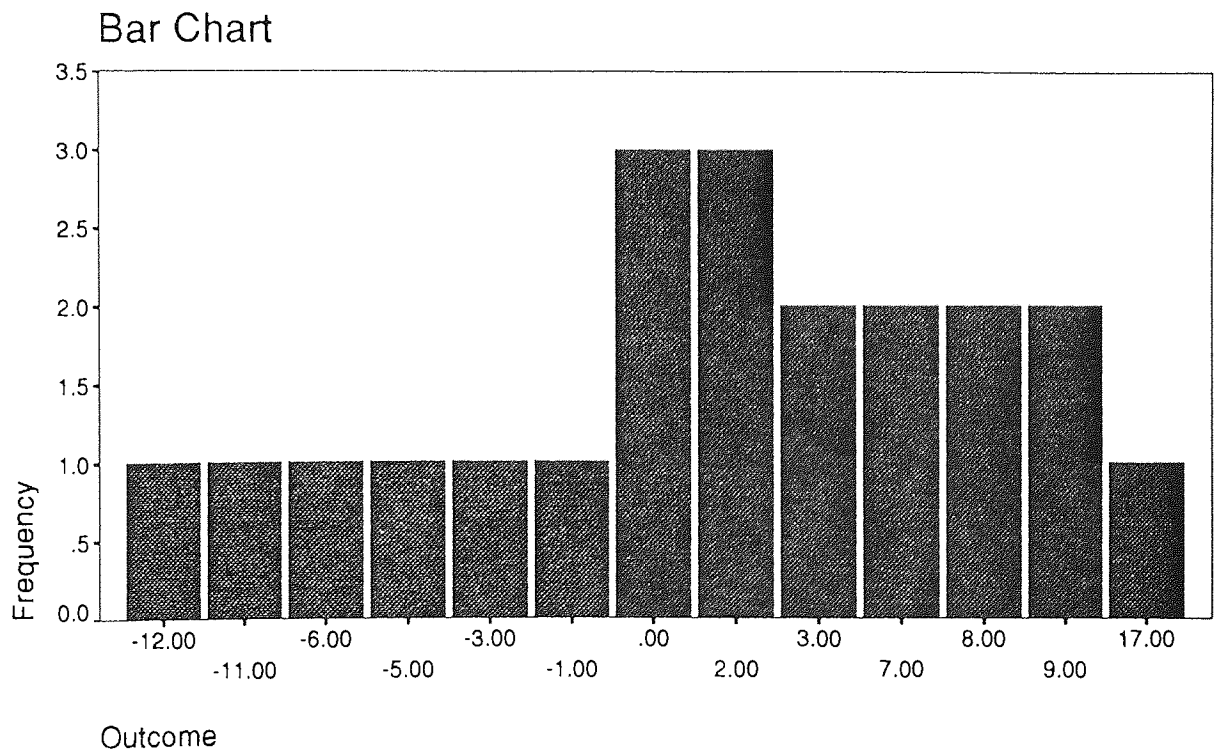
Figure A7.1.10 :   Frequency Bar Chart : Process

Bar Chart

Process
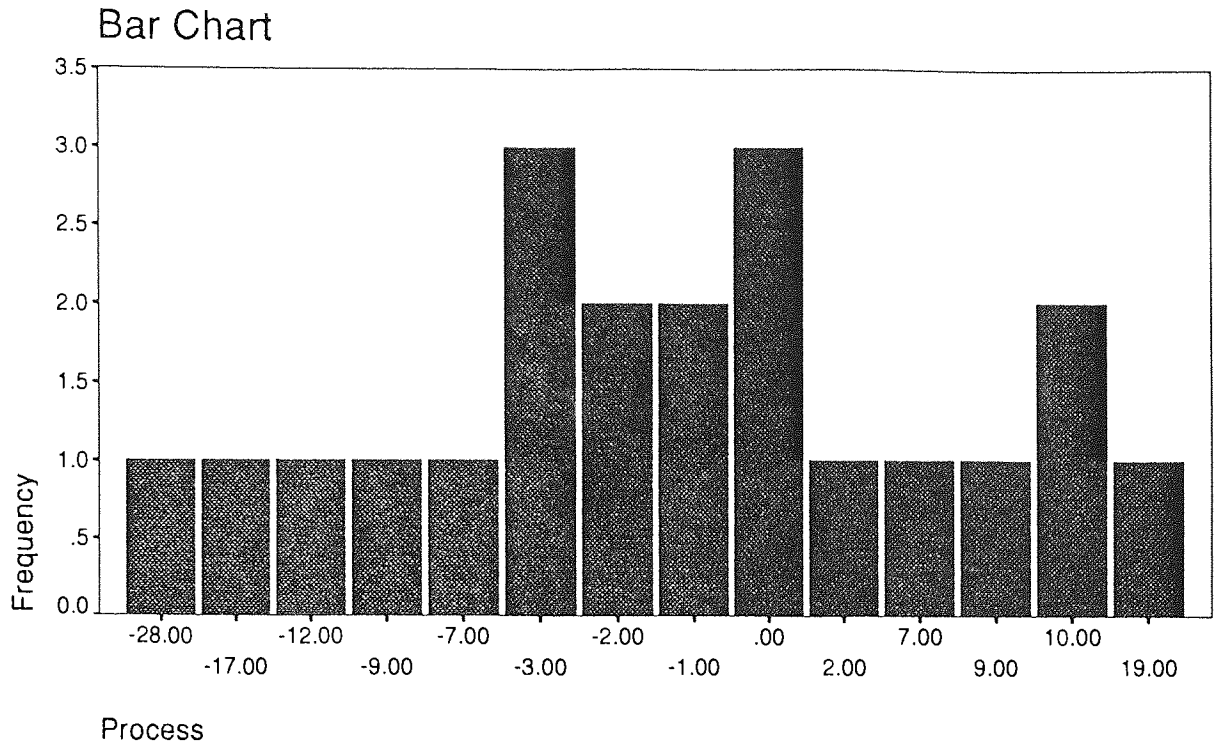
Figure A7.1.11 :   Frequency Bar Chart : Intangibles

Bar Chart

Intangibles
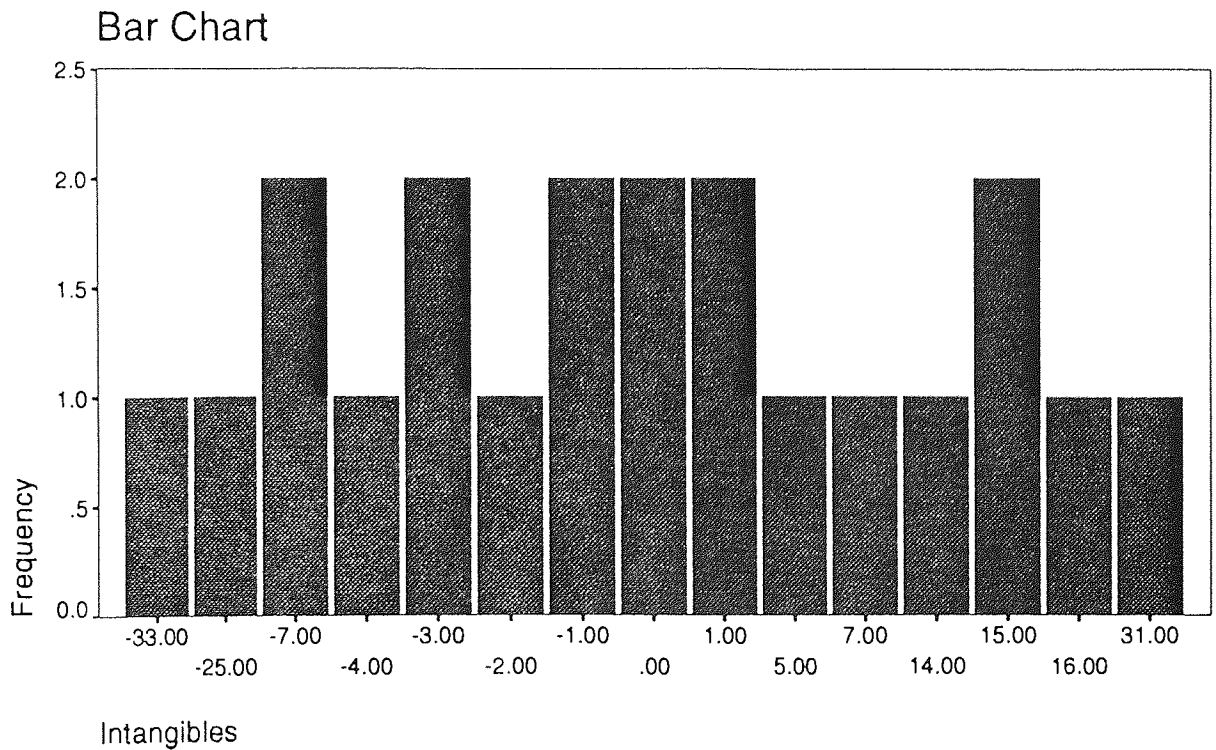
APPENDIX 7.2

The below Table and associated Figures provide the relevant statistics for the main study.

Table A7.2.1 : Descriptive Statistics

Dimensions	Mean	Min.	Max.	Variance	Number
Reliability	0.286	-4	8	8.514	21
Reputation	0.238	-5	8	10.090	21
Lecture Delivery	-0.810	-7	5	7.862	21
Personal Development	1.333	-4	8	9.033	21
Personalisation	0.571	-5	4	5.557	21
Security	-0.524	-7	4	5.962	21
Facilities	-0.524	-6	5	8.062	21
Responsiveness	-0.190	-3	3	2.662	21
Outcome	1.857	-12	17	48.529	21
Process	-1.476	-28	19	101.662	21
Intangibles	0.905	-33	31	188.690	21

Figure A7.2.1 : Frequency Bar Chart : Reliability

Bar Chart

342
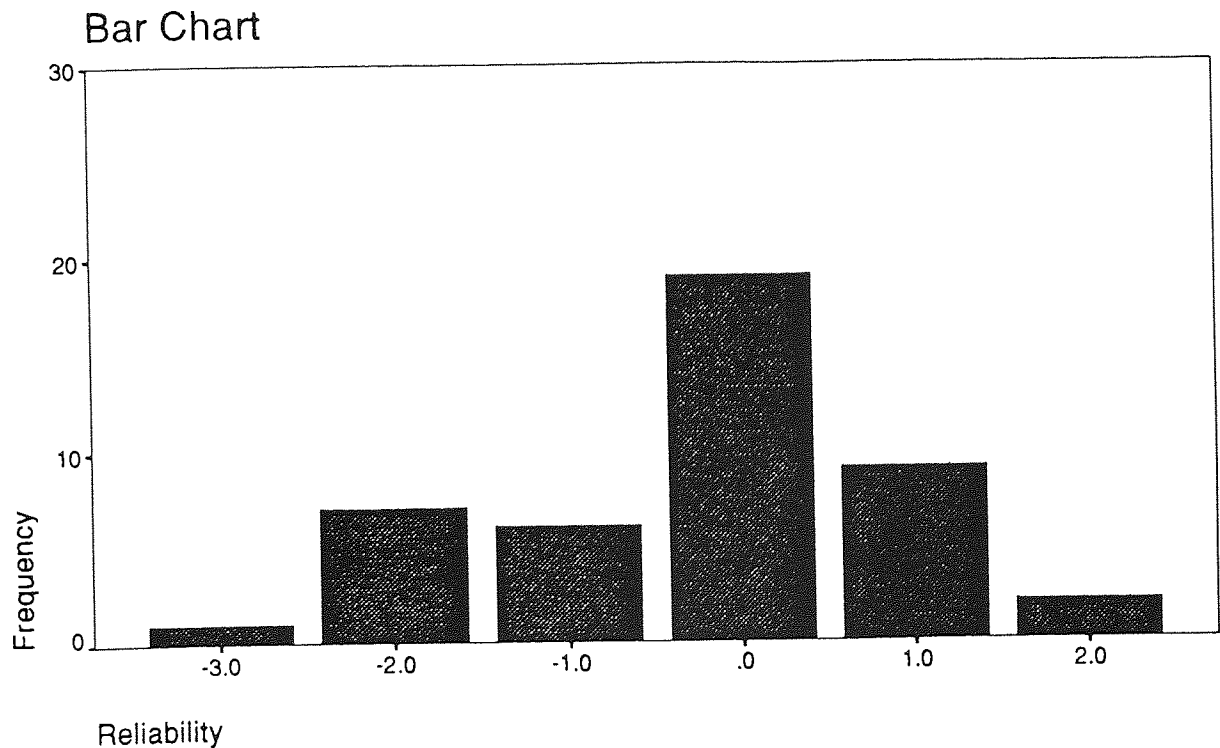
Figure A7.2.2 : Frequency Bar Chart : Reputation

Bar Chart

Reputation
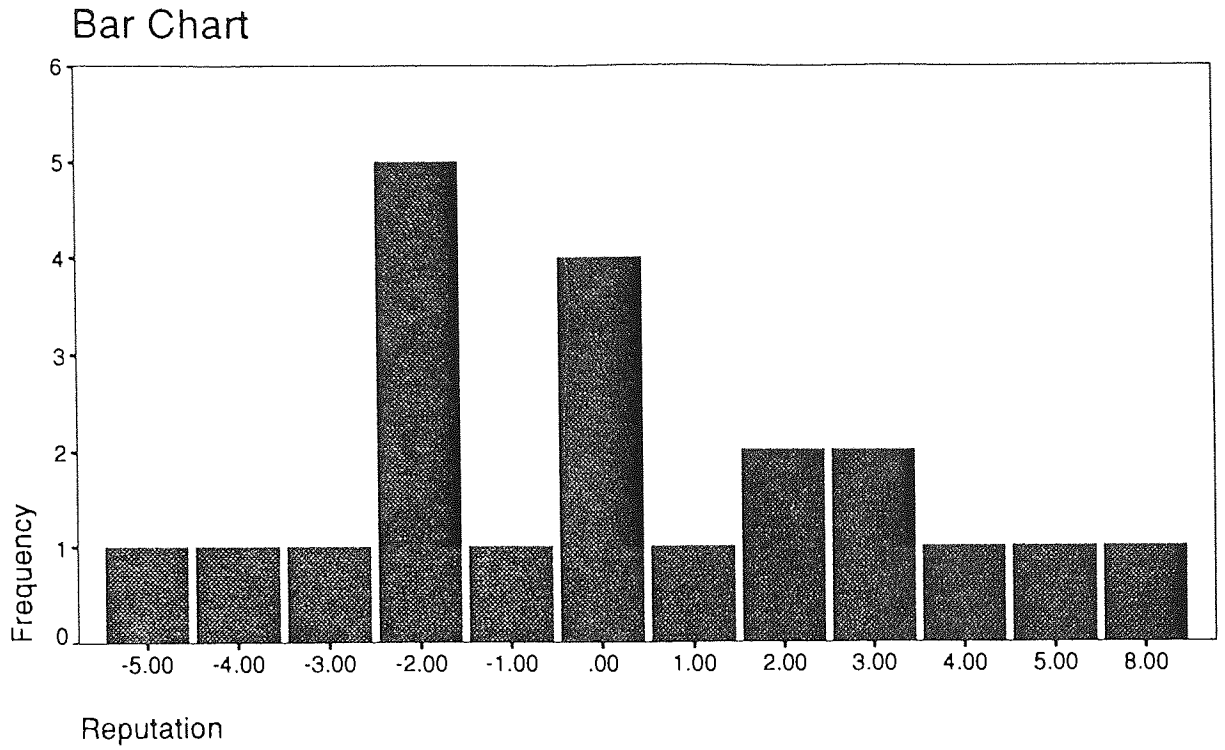
Figure A7.2.3 : Frequency Bar Chart : Lecture Delivery

Bar Chart

Lecture Delivery
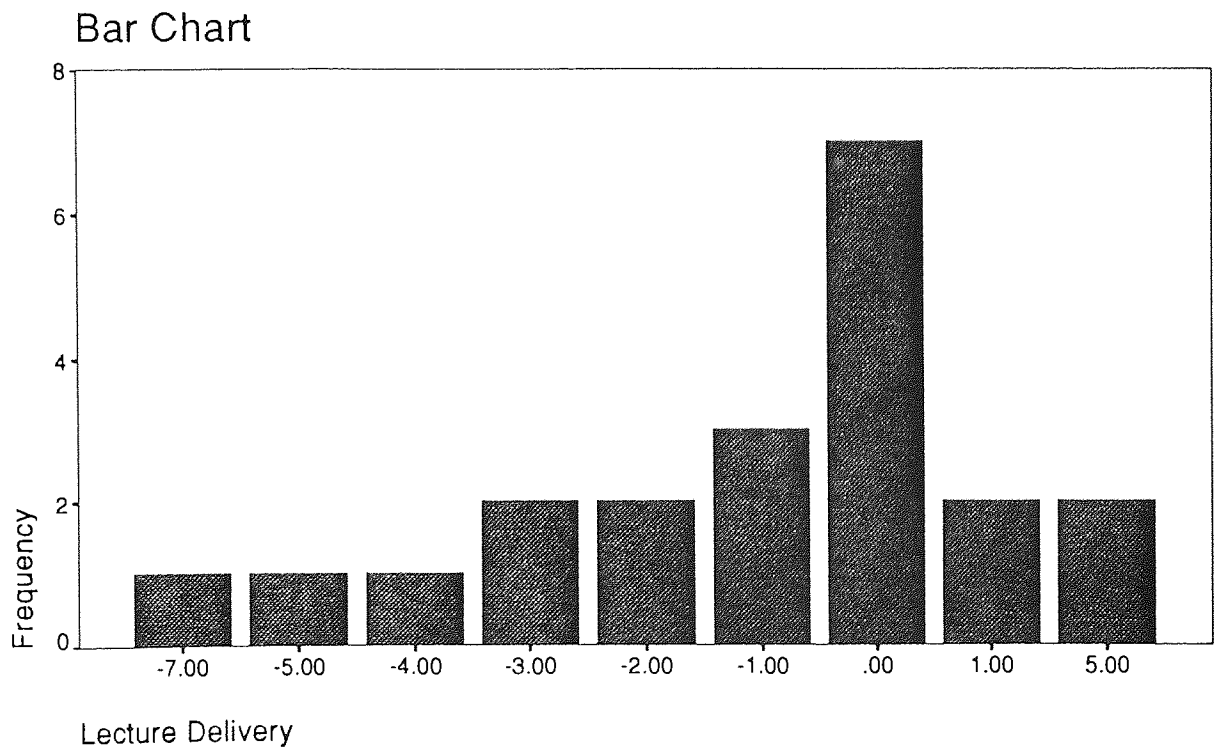
Figure A7.2.4 : Frequency Bar Chart : Personal Development

Bar Chart

Personal Development
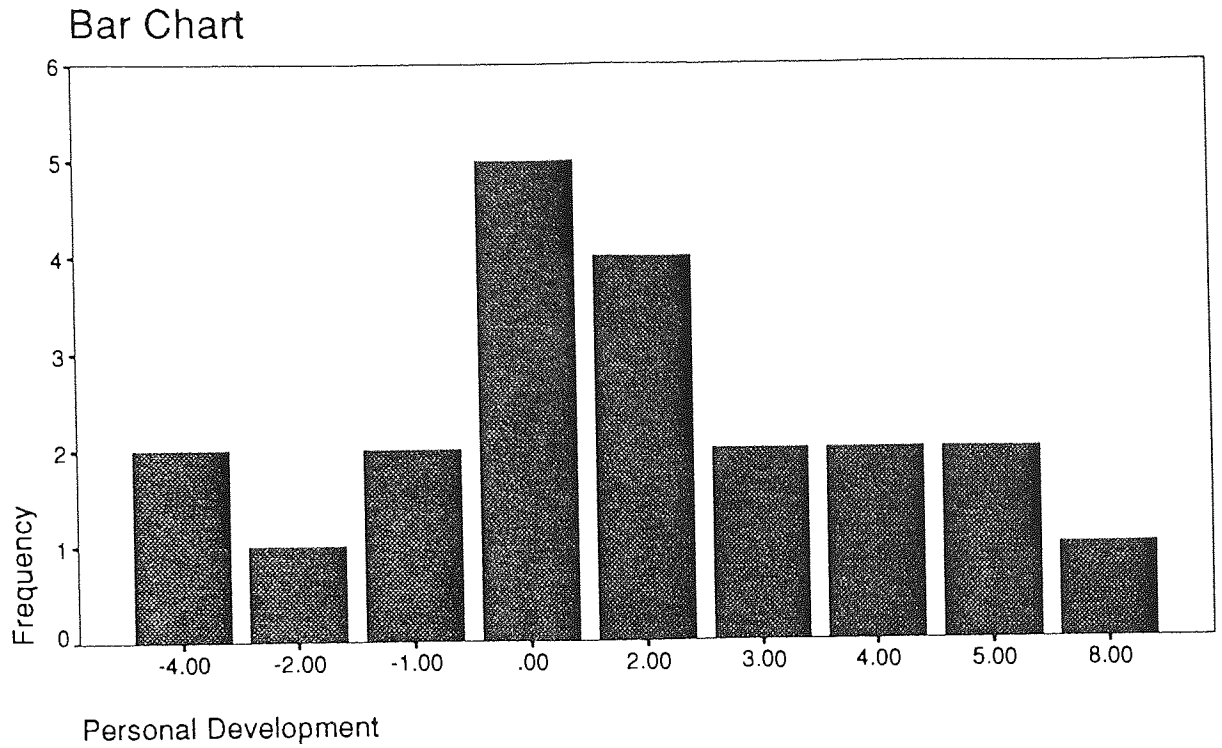
Figure A7.2.5 : Frequency Bar Chart : Personalisation

Bar Chart

Personalisation
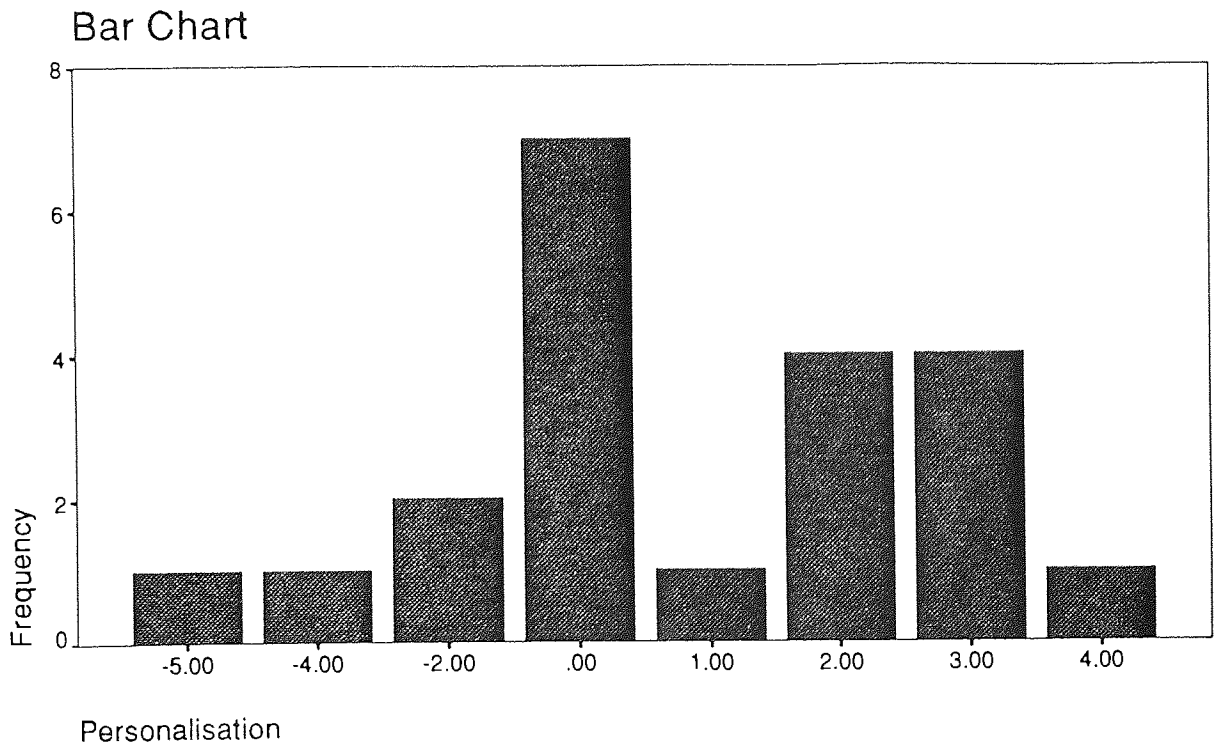
Figure A7.2.6　：　Frequency Bar Chart : Security

Bar Chart

Security
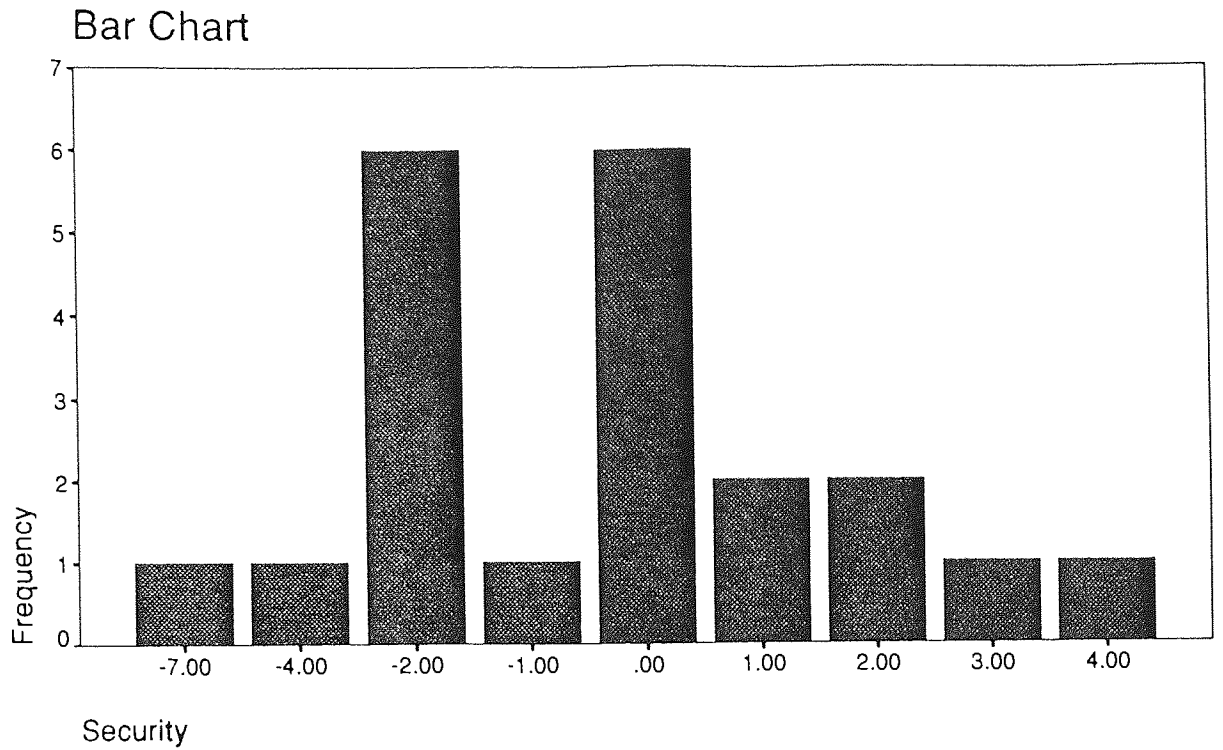
Figure A7.2.7　：　Frequency Bar Chart : Facilities

Bar Chart

Facilities
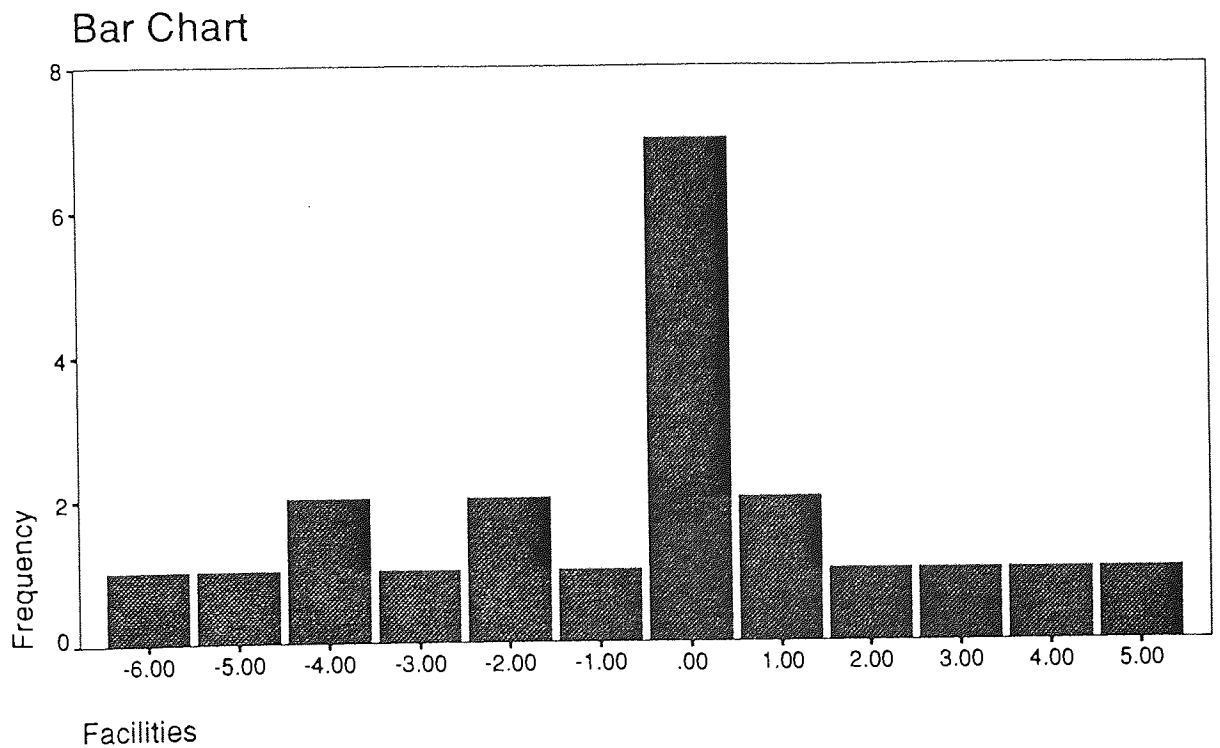
Figure A7.2.8 : Frequency Bar Chart : Responsiveness

Bar Chart

Responsiveness
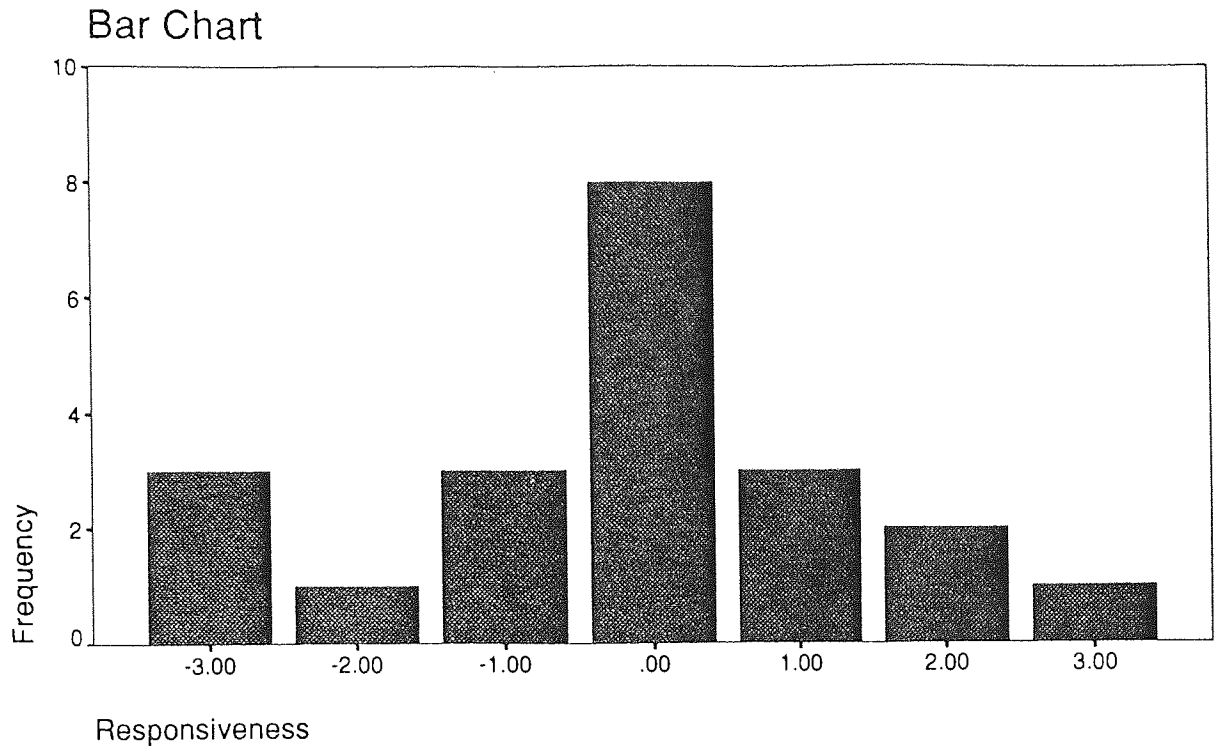
Figure A7.2.9   :   Frequency Bar Chart : Outcome

Bar Chart

Outcome
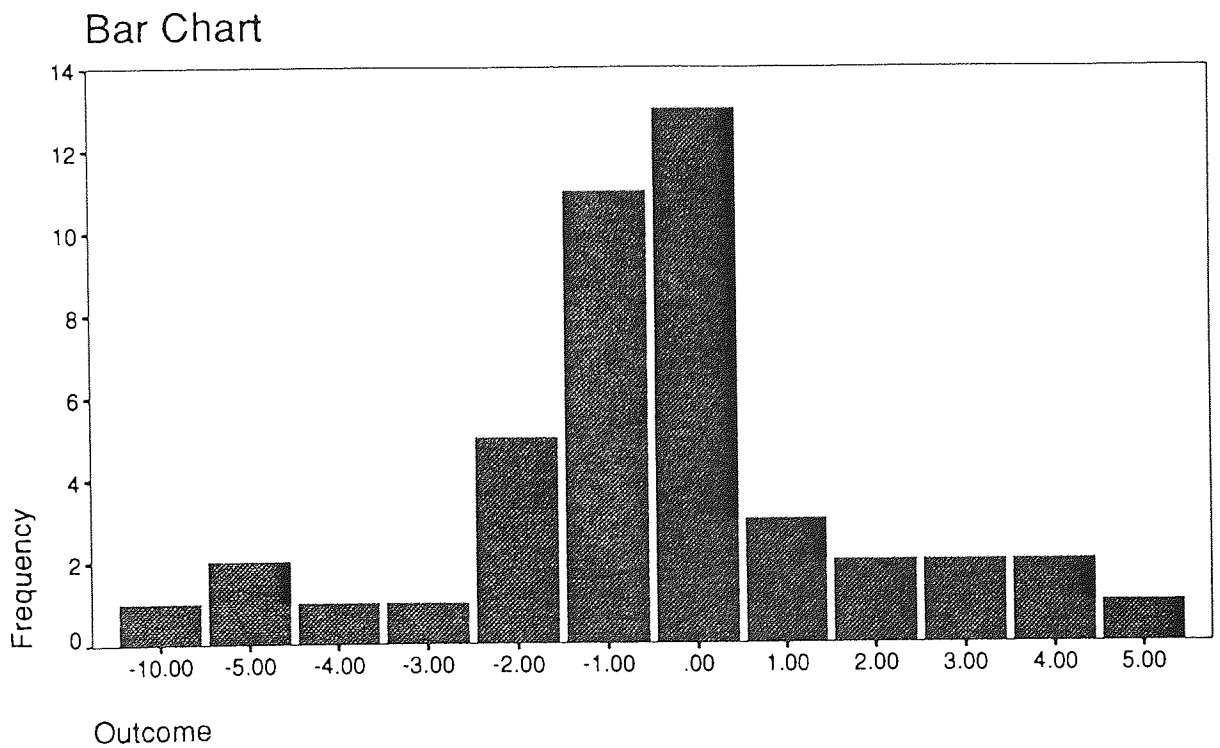
Figure A7.2.10 : Frequency Bar Chart : Process
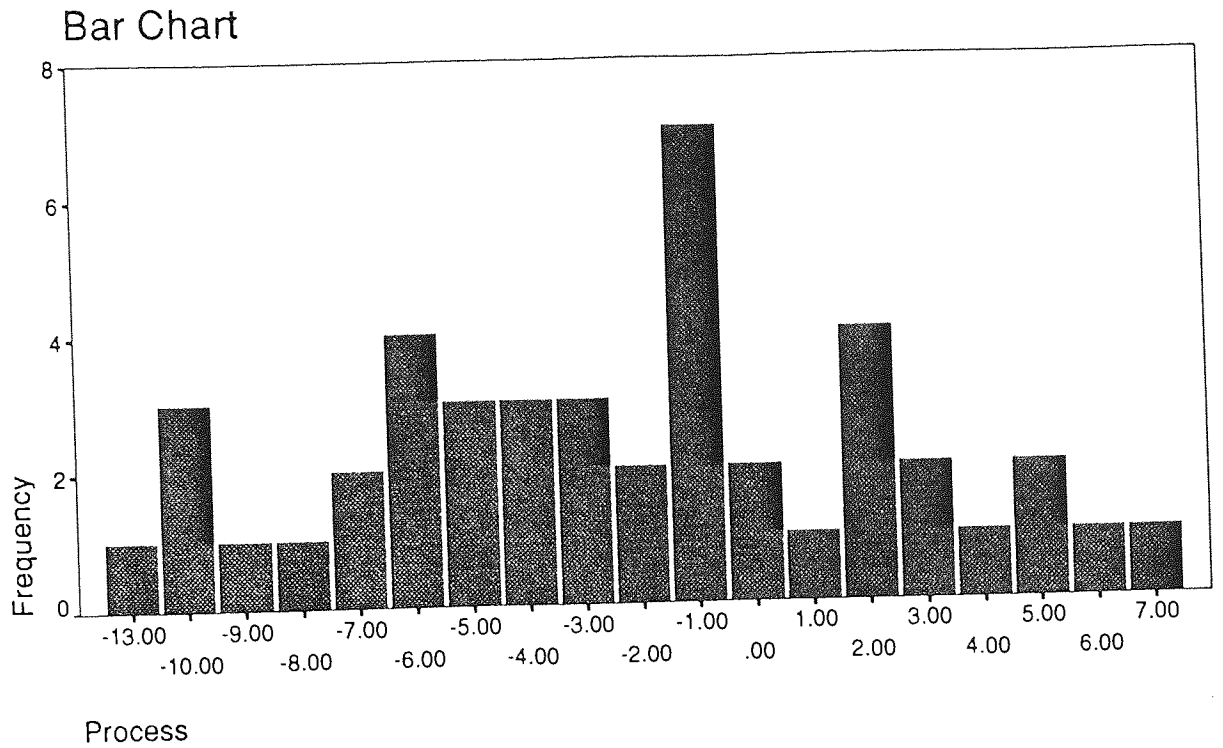
Bar Chart

Process

Figure A7.2.11 : Frequency Bar Chart : Intangibles
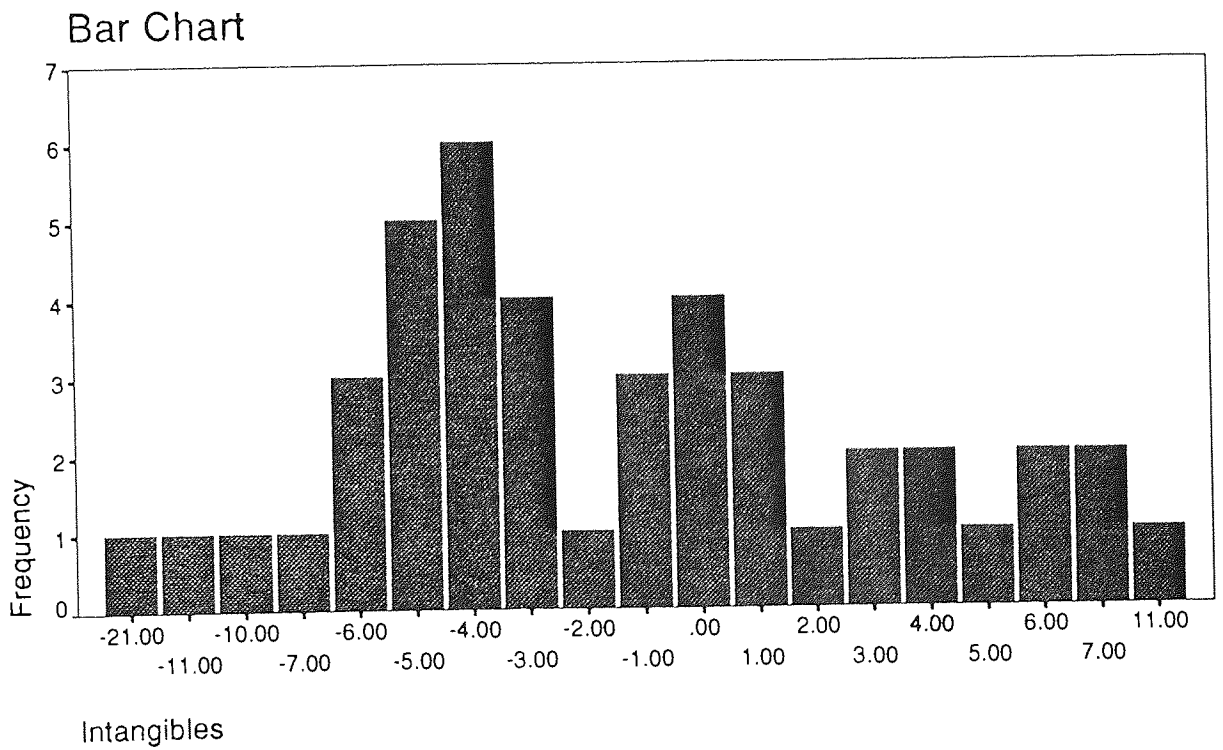
Bar Chart

Intangibles

Unless otherwise stated all of the below statistics are calculated at a 1% critical value. Note that unlike previous reported residual analyses the Shapiro-Wilks statistic was used to test for normality. This is consistent with suggested guidelines for samples under 30 (Hair, Anderson, Tatham, & Black, 1992 and Norusis, 1990).

Assumption 1 (Linearity)

Table 7.5 shows small probabilities associated with the F-statistic which leads to the rejection of the null hypothesis for the overall models at a 5% level. Linearity is further shown by the significant F-values and the adjusted R^2 being above the rule-of-thumb 20%. The partial regression plots shown in Figures A7.3.1 to A7.3.7 of individual independent variables for the models reveal that no other shaped curve would fit the data better than a linear model.

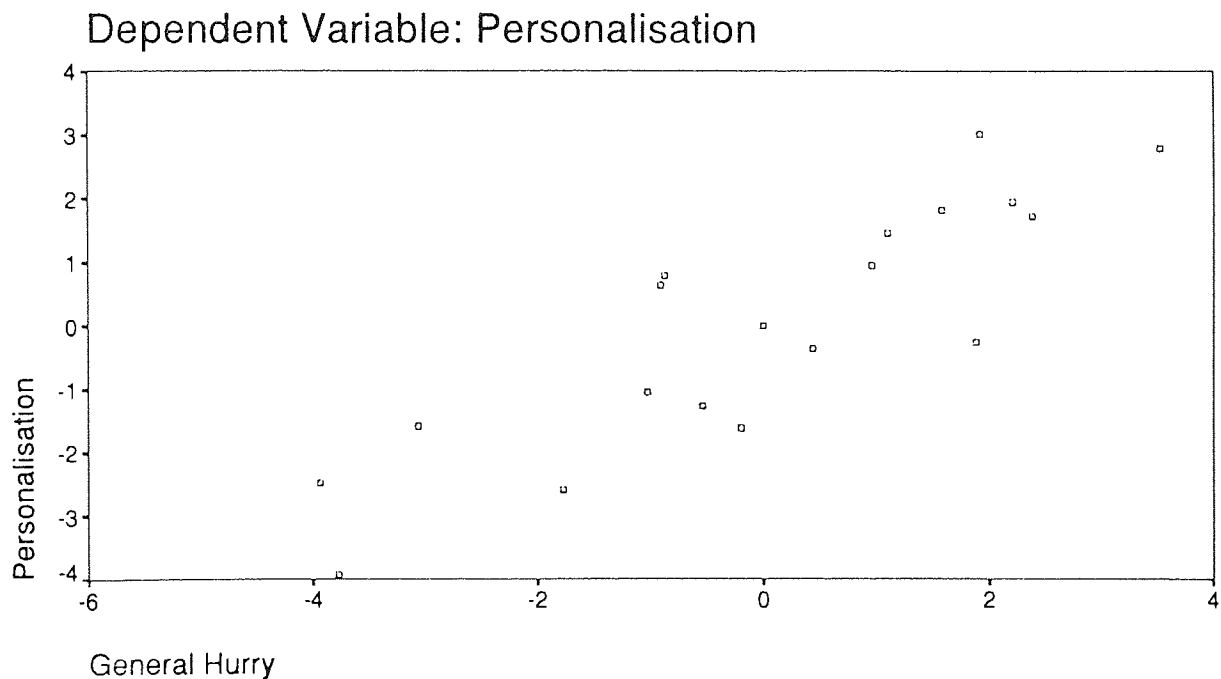**Figure A7.3.1 : Partial Regression Plot : General Hurry (Personalisation)**

Dependent Variable: Personalisation

Figure A7.3.2 : Partial Regression Plot : Income (Personalisation)

Dependent Variable: Personalisation

Income
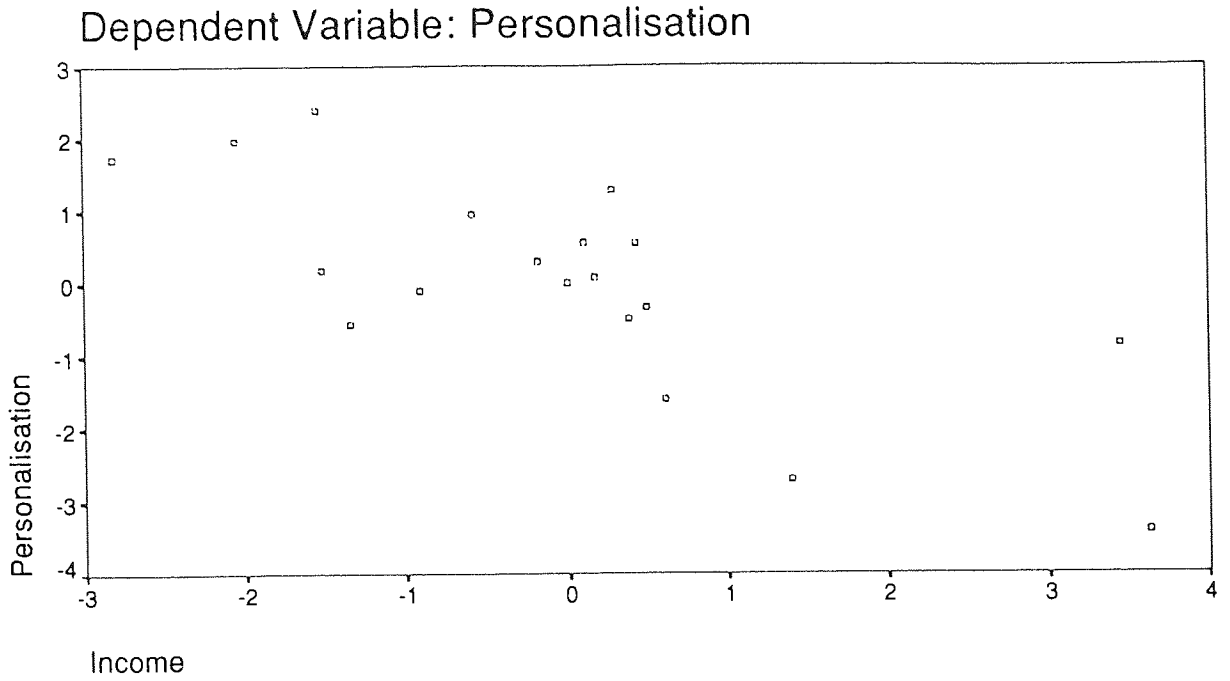
Figure A7.3.3 : Partial Regression Plot : General Service Sophistication
(Personalisation)

Dependent Variable: Personalisation

General Service Sophistication
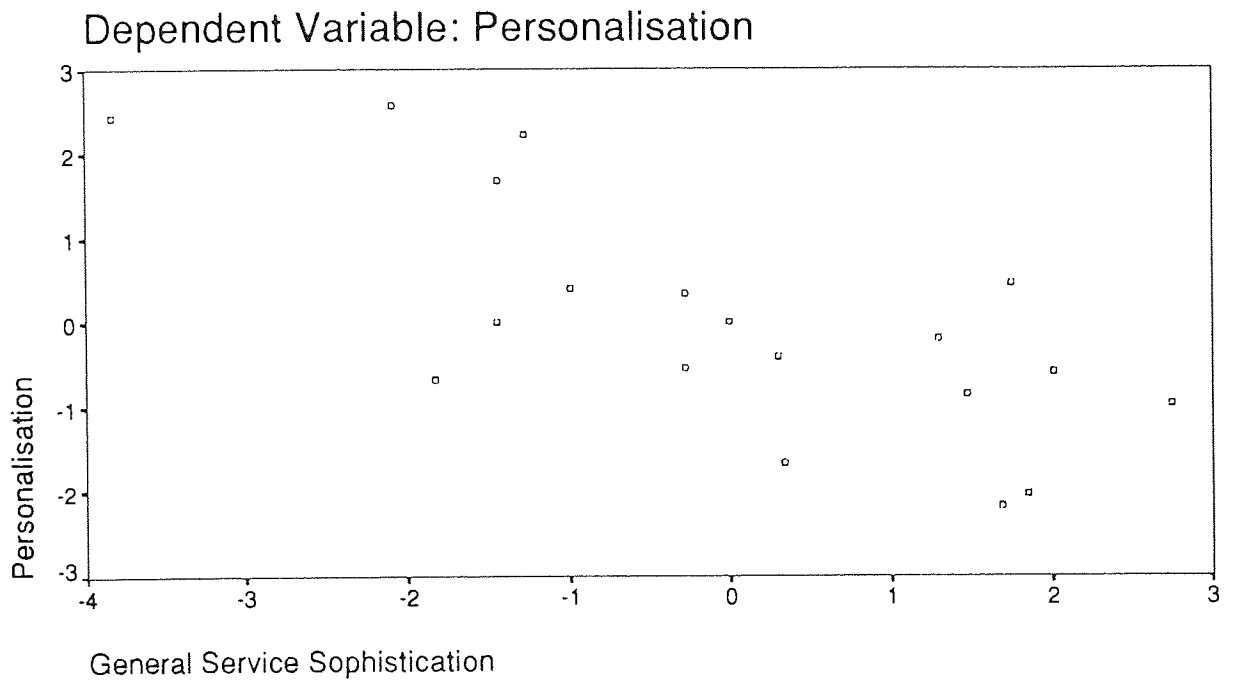
Figure A7.3.4 : Partial Regression Plot : Service-Specific Sophistication (Personalisation)

Dependent Variable: Personalisation
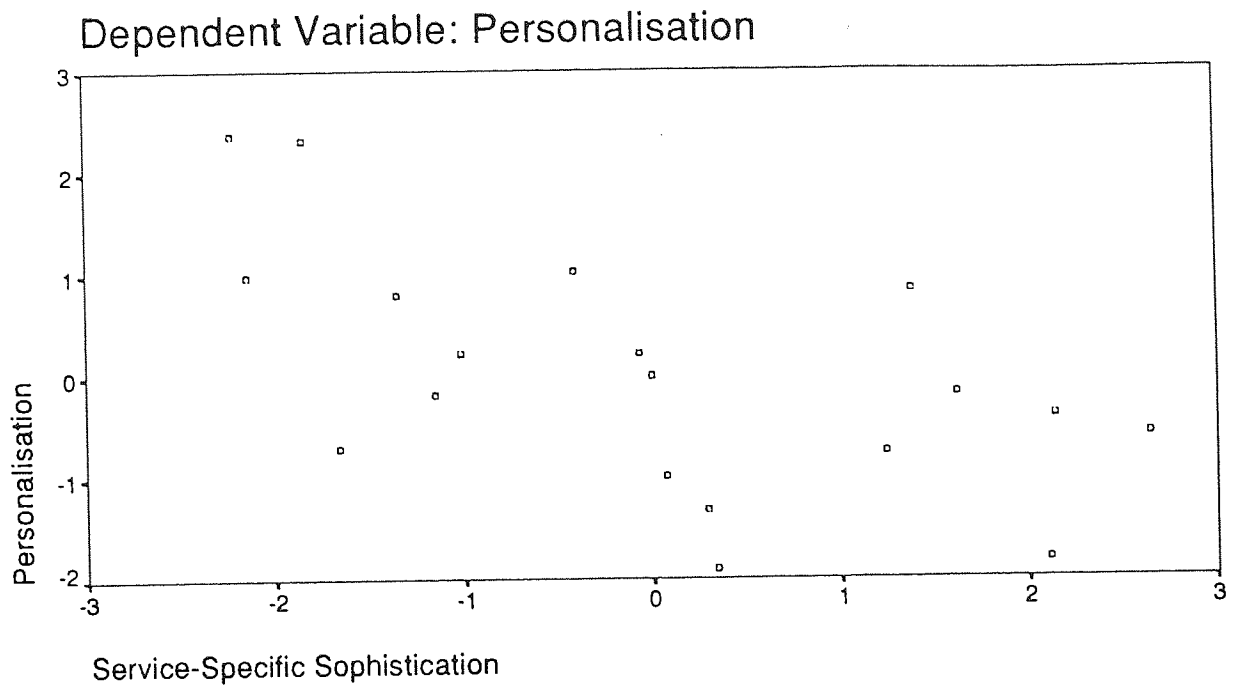
Assumption 2 (Behaviour of Residuals)

Table A7.3.1 summarises the relevant residual statistics.

Table A7.3.1 : Residual Statistics

Dependent Variable	Mean of 0	Linear	S-W Statistic	Levene's Test	Durbin Watson Statistic	Simple r
Lecture Delivery	Yes	Yes	0.896 p=0.043	0.096 p=0.760	2.710	None
Personalisation	Yes	Yes	0.964 p=0.625	2.166 p=0.157	2.196	None
Responsiveness	Yes	Yes	0.951 p=0.436	2.166 p=0.157	1.450	None
Security	Yes	Yes	0.951 p=0.440	0.213 p=0.650	2.160	None
Process	Yes	Yes	0.949 p=0.382	2.330 p=0.143	2.597	None
Intangibles	Yes	Yes	0.918 p=0.083	0.681 p=0.419	2.173	None

Using a two-tailed test each of the above Durbin-Watson statistics (d) is found to be unambiguously insignificant @1% with d being above the lower limit and 4-d the upper limit which retains the null hypothesis that no serial correlations exist. All other key residual assumptions are satisfied with the above tests. After plotting studentised residuals in the usual manner there were insufficient cases to allow for any meaningful contribution to the statistics already provided. For this reason they are omitted from this Appendix.

Assumption 3 (Multicollinearity)

No tolerance fell below 0.65 which suggests that multicollinearity was not a problem in the reported equations (Hair, Anderson, Tatham, & Black, 1992).

APPENDIX 7.4

Samples for Chapters 4 to 7 were drawn over two academic years (1991/2 and 1992/93) and included all full and part-time M.B.A. students. This meant that each year was re-sampled on several occasions for the various studies reported in this thesis. In order to clarify the position a list of the samples, and their uses, is provided below.

Academic Year	Group	Size	Chapter	Use
1991/92	Full & p/t	19	4	Investigation A
	Full & p/t	7	4	Investigation A
	Lecturers	10	4	Investigation A
	Full & p/t	254	5	Help test H1 - H7
			7	Post-expereince expectations: pilot study for H20, H21, H23
	Full & p/t	60	5	"Should" expectations to help test H1
	Full time	117	7	Benchmark expectations : pilot study for H20, H21, H23
1992/93	Full & p/t	24	4	Investigation B
	Full & p/t	226	5	Further test H5
			6	Test H8 - H18
			7	Post experience expectations and further help in testing H19 - H23 for main study
	Full & p/t	26	6	Pre-test intsrument
	Full	74	7	Benchmark expectations : main study for H19 - H23