

**MEASUREMENT OF SERVICE QUALITY OF SMALL
BUSINESS IN THE VAAL AREA**

By

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**Submitted to the Faculty of Management Sciences in
accordance with the requirements of the degree**

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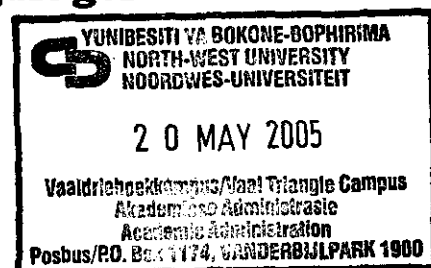
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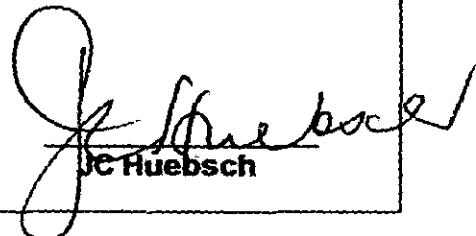
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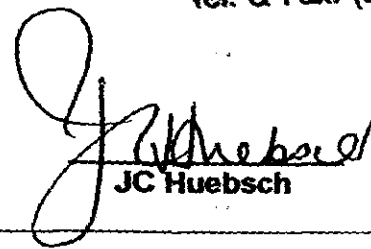
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DECLARATION

I declare that:

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is my own work, that all sources used or quoted have been indicated and acknowledged by means of complete references, and that this thesis was not previously submitted by me for a degree at another university.

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SUMMARY

The importance of small business in creating employment is widely acknowledged internationally. South Africa is experiencing an unprecedented increase in urbanization, subsequently creating the need for the increased provision of employment. It is acknowledged, that small businesses cannot compete with larger businesses in terms of the economies of scale and investment. For small businesses to be competitive in global context, it is important that business exploit their inherent strength, such as flexibility and speed of response to customer requirements.

The South African economy has witnessed an explosive increase in relation to service industries. Small businesses in the service industries need to improve their service quality in order for them to be competitive. Service quality is generally considered in literature in terms of its relevance in the sphere of large businesses. Most recent trends in service industries consider service quality as the critical factor in determining a competitive edge.

In view of the importance of service quality in small businesses, the study seeks to develop a measure of service quality in small business, especially for the Vaal Triangle region. Initially dimensions of service quality in the context of small business in the area, are defined and investigated.

The SERVQUAL instrument developed by Parasuraman et al., (1988) is used, and based on the empirical results, suggestions are made to adopt this and to take into account the nature of small businesses in the Vaal Triangle area.

The methodology used in this study, follows those as proposed by a number of authors to develop service quality instruments.

The first step is a qualitative effort to understand the concept/ construct service quality and its measurements. The dimensions of service quality pertaining to small business, are developed.

The second step was an examination of the SERVQUAL instrument by using data samples from small business services' clients.

A number of conclusions and recommendations in relation to the use of the developed instrument, are made. Proposals for further research, are also made available.

OPSOMMING

Die belangrikheid van kleinsake by die skepping van werkgeleenthede word internasionaal wyd aanvaar. Suid-Afrika ondervind tans 'n ongekende toename in verstedeliking, met die gevolglike skepping van 'n toename in indiensneming. Dit is bekend, dat kleinsake nie met die groot sakereuse kan meeding nie en wel in terme van ekonomiese omvang en investering nie. Dit is belangrik dat kleinsake hulle inherente kragte soos buigbaarheid en aanpasbaarheid, asook die fleksiteit van reaksie t.o.v. kliëntebehoefte, sal eksploiteer en ontwikkel om so mededingend in 'n globale konteks te bly.

Suid Afrika beleef tans 'n ontploffing t.o.v. die groei van industrieë. Kleinsake in die dienstesektor moet die gehalte van hulle dienste verbeter ten einde só mededingend te bly. Die literatuur bewys dat dienskwaliteit algemeen gesien word in die lig van die sfeer van groot sakebedrywe. Onlangse neigings in die dienste-industrieë is om diensgehalte te sien as die kritieke faktor by die bepaling van die mededingendheids of - vlak.

In die lig van die belangrikheid van diensgehalte in kleinsake poog die studie om die graad van diensgehalte te meet binne die kleinsakemilieu, veral in gebied van die Vaaldriehoek. Dimensies van die diensgehalte in die konteks van kleinsake in die gebied, word gedefinieer en ondersoek.

Die "SERVQUAL" instrument soos deur Parasuraman et al., (1988) ontwikkel, word gebruik en gebaseer op empiriese resultate, word voorstelle gemaak om dit te aanvaar en om die aard van kleinsake in die Vaaldriehoekse gebied in ag te neem.

Die metodologie wat hierdie studie gebruik, volg die van ander outeurs, ten einde diensgehalte-instrumente te ontwikkel.

Die eerste stap is 'n kwalitatiewe poging om die konsep of begrip van diensgehalte en tersaaklike meetinstrumente te verstaan. Die dimensies van gehaltdiens m.b.t. kleinsake, word ontwikkel.

Die tweede stap is 'n ondersoek na die "SERVQUAL" instrument deur gebruik te maak van datamonsters komende van kleinsake-dienste se kliënte.

'n Aantal konklusies en aanbevelings t.o.v die gebruik van die ontwikkelde instrument, word geformuleer. Voorstelle aangaande verdere navorsing word gemaak en ook beskikbaar gestel.

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CHAPTER ONE

INTRODUCTION AND SCOPE OF STUDY

1.1 Introduction

The world economy has over the past two decades undergone radical transformation. Cultural and geographical distances have shrunk significantly with the advent of new technology. These changes have brought about major challenges for businesses on how to build and maintain viable businesses in a rapidly changing market place and business environment (Kotler, 1997:65).

The South African economy has not been immune to changes taking place globally, in view of the fact that we are now fully part of the global village. The country is experiencing an unprecedented increase in urbanization and thus has created the need for the provision of employment, especially in densely populated areas (Dhlamini, 1994:1). The importance of small business in creating employment, is widely recognized internationally. According to Robertson (1996:22), ever since South Africa's acceptance into world markets, the need for business to become global competitors, is uppermost in the minds of leading executives. The South African economy is also marked by an explosive rise of service industries.

It is acknowledged, that small business cannot compete with larger organisations in terms of economies of scale, investment in research and development, or major promotional expenditure. Small businesses are, therefore, particularly vulnerable to larger competitors unless they are able to exploit their inherent strengths, such as flexibility and speed of response to customer requirements. Various authors, such as Kuhn (1982) and Sandberg (1986), have shown that differentiation strategies are keys to success for small businesses.

One way of achieving differentiation, which is also consistent with a small business's major strengths, is through quality service.

Service quality is generally considered in literature in terms of its relevance for larger organisations with more bureaucratic structures, the latter which often lead to poor customer-directed communication and lack of response to customer needs (Zeithaml, Berry and Parasuraman, 1988; Smith, 1990). Formal customer care policies are introduced in order to redress this imbalance and to ensure a quality of service, which will maintain good customer relationships. Small business, however, tends to be regarded as implicitly in close contact with its customers and therefore, issues surrounding customer care and service quality in context of the small business, are overlooked.

The study seeks to develop a model of service quality, which will guide the developing enterprise in achieving success in an increasingly competitive market place. Initially dimensions of service quality in the context of a small business's marketing practice, are defined and examined, together with the results of an empirical study, which investigated how small enterprise owners perceive, use, and apply service quality. Arising from these findings, a model of service quality is then proposed, which is believed to be more appropriately tailored to the needs of small business. The practical implications for managing service quality in the developing enterprise, will also be discussed.

1.2 Statement of the problem

In a global world economy, where industries are more competitive and consumers more demanding, it is increasingly difficult to protect inefficiency, while service firms are unable to provide for the needs and wants of customers and are losing them to the competition

(Boshoff and Terblanche, 1997:87). In order for business firms to compete in an increasingly hostile competitive environment, they are focusing on areas in their operations that give them an advantage over their competitors (Brown, Churchill and Pieter, 1993:127).

Lewis (1988:5) notes, that the most recent trend in service industries, is to consider quality service as the critical factor in determining a competitive edge. Service quality, according to Boshoff and Terblanche (1997:87), has been shown to be important determinant of customer satisfaction in recent years.

Since the 1980s service quality has been identified with increased profitability and it is seen as contributing an important competitive edge, by generating repeat sales and important positive word-of-mouth feedback, customer loyalty and competitive product differentiation (Zeithaml et al., 1988; Wong and Tjosvold, 1995). Service quality has been greatly emphasized for services companies, particularly in sectors such as financial services (Meister, 1990; Jones, 1991) and health (Mangold and Babakus, 1991), as ways of controlling performance and overcoming the intangible aspects of service.

Service quality is also of prime concern in the manufacturing sector (Keiser and Smith, 1994) and for companies to be successful, whether in service or manufacturing industries, they must keep in touch with their customers and provide a high-quality service or risk, losing them to the competition (Grönroos, 1990).

It is worth noting that, although after used synonymously with the term customer care, service quality is in fact a distinguishable aspect of this more encompassing term. Lewis (1993) emphasizes, that it is not only the focus on meeting customers' needs and requirements, but

also how well the service matches customers' expectations. Satisfaction results from comparisons by consumer's expectations of service with their perceptions of actual service performance (Zeithaml et al., 1988; Parasuraman, Zeithaml and Berry, 1985). Service quality is, therefore, an important focus for marketing strategy. It is determined by the interaction of all those factors that affect the process of making product and services available to the buyer. If there is a shortfall, then a service gap exists, which needs rectifying in order to ensure customer loyalty and to develop an enterprise successfully.

Much of the literature on service quality, is devoted to establishing ways to measure service quality and to identify any shortfalls. Zeithaml et al., (1988) developed SERVQUAL, a concise multiple item scale that can be used to better understand service expectations and consumer perceptions. This instrument is based on the following five principal dimensions that customers use to judge a company's service.

1. Tangibles
2. Reliability
3. Responsiveness
4. Assurance
5. Empathy

Although the SERVQUAL model has received criticism (Teas, 1994; Lewis and Mitchell, 1990; Lewis, 1993), it continues to be the most widely used measurement of service quality and is adopted by many different industrial sectors.

The main problem with the SERVQUAL model, as regards the small enterprise, is that it is invariably set in the context of large

organisations. Neither does the SERVQUAL instrument itself, with its implications in time and resources for its administration and analysis, and its emphasis on the streamlining of management systems, provide a realistic assessment of service quality for the small business owner.

1.3 Reasons for the study

The primary motivation main for this study, stems from the importance of small business in contributing to economic growth. According to Sunter (1993:82), 95% of the jobs being created worldwide, are in small businesses. Small business should be given all the help possible in order to enable it to survive and to continue to play an important role in the economy.

Story (1994) emphasizes that too often large-firm models; are taken as given and small businesses are assumed to be a “scaled-down” version of a large firm. According to Carson (1985), it is not appropriate to apply the marketing concepts and practices developed in large firm scenarios to the small firm situation. Carson (1985) also argues, that this difference arises, because of limited expertise among owner manager’s marketing techniques and methods and because of their inherent limitations in terms of resources.

A greater understanding is, therefore, required of how service can be integrated into the marketing, which is actually practiced by small firms, and in what ways they can utilise their strengths in this area, which have often been pinpointed as critical to growth and development (Watson, 1992; Teal, 1991; Carson, 1990; Jackson, 1985).

The other reason could be traced to the fact, that a review of current literature discovers only few articles, which deal directly with how

service quality relates to small business. Reeves and Hoy (1993), draws the attention to the fact that the importance from a marketing perspective, is to examine how a small business can gain quality advantage towards pursuing a policy of differentiation in the marketplace. This advantage can realistically be achieved only by maximizing existing strengths in relation to service quality.

1.4 Objectives of the study

1.4.1 Primary objectives

The primary objective of the study, is to develop a model to measure service quality in small business. The model will serve as a guide to small business towards achieving a competitive advantage through service quality management.

1.4.2 Secondary objectives

Supporting main objective of the study, the secondary objectives of the study constitute the following.

- To determine whether small businesses do measure service quality.
- To determine strategies used by small businesses, so as to effectively manage service quality or techniques employed in respect of the monitoring of service quality.
- To identify the relevant service quality dimensions used by small business to evaluate service quality.
- To examine the performance of the SERVQUAL instrument developed by Parasuraman et al., (1988) in order to formulate suggestions to adapt it to take into account the nature of small business in the Vaal Triangle Area.

1.5 Demarcation of the field of study

The study will concentrate on formal small service businesses in the Vaal area. A list of all businesses in the formal sector was readily available from the Vaal Metropolitan Councils.

1.6 Research methodology

For the purpose of the study, information was obtained through primary and secondary research.

1.6.1 Literature study

For the theoretical basis of the study an extensive number of literature references will be consulted in respect of explaining the nature of both service small businesses and service quality. The literature references will include research reports, themes, dissertations, textbooks, Internet and journals on the relevant topics.

Libraries and businesses were visited in order to obtain relevant literature. The researcher will utilise the procedure suggested by Guy, Edgley, Arafat and Allen (1987:41), to consider the following possible pitfalls when consulting relevant literature: in other words, it should be borne in mind that the literature could be:

- Out of date
- Too elementary
- Too advanced or technical, and
- Could be treating aspects of the topic not to be covered

The qualitative methodology involved testing the SERVQUAL in relation to four samples of 550 clients. The different samples were

drawn from hair salons, motor mechanics, medical practitioners and food outlets, as there are dominant small businesses in this region.

An exploratory factor was completed for five samples. The five-factor structure as proposed by Parasuraman et al., (1988) was considered for each sample. The items loaded as expected for all the item dimensions. The original four-factor structure could not be replicated in only one of sample (motor mechanics).

The appropriateness of the scale for these samples was determined by calculating the reliability and validity. The alpha coefficient (above 0.7) indicated that the SERVQUAL instrument performed well with regard to reliability.

The results also indicate support for content validity, which is that the scale items adequately cover the entire domain of service quality. The multiple regression used to convey convergent validity points out, that the SERVQUAL correlates well with the individual measures of service quality. Discriminant validity as indicated by the reference axis, correlates highly, hence discriminant validity is demonstrated.

Confirmatory factor analysis was used to assess the fit of the data to the SERVQUAL model. Indicators such as root mean square error appropriation (RMSEA), the Chi-Square test, the perfect fit and PDF, the normal fit index (NFI) and the Inoperative Fit Index (IFI) all pointed to data fit.

It can, therefore, be concluded that the SERVQUAL instrument can be used to evaluate service quality in the Vaal Triangle area.

Simple random sample procedures were applied to set sampling units. A computer programme was used to perform an explanatory factor

analysis. The results as indicated by tables 5.2 to 5.5 in section 5.3.3, revealed that the factors were similar to these in the original SERVQUAL instrument. The proposition of total variances (Eigen values) extracted by the factors, was about 85% indicating that the factor analysis has been effective. The original four factors could not be replicated in the case of motor mechanics; all the other samples were replicated.

The appropriateness of the scale in each of the samples was conducted by testing for reliability and assessment of content, convergent and discriminant validity.

1.6.2 Empirical research

Information was gathered from small businesses in the formal sector of the Vaal region. A six-step procedure suggested by Churchill (1992:457), was used to draw a sample from the population. Based on the studies undertaken by researchers in related fields, it was decided to select 20% of businesses from every strata of the population. 10 customers of the businesses selected were interviewed, making up a total of 550 customers. The research also examines the validity, reliability and predictive validity of the model and analyzes its applicability to the small businesses.

1.6.3 Pilot study of questionnaire

A mixed methodology for qualitative data collection was adopted. This consisted of one-on-one interviews and focus groups. The one-on-one interviews focused on each instrument's understanding of the service quality construct and its measurement. Discussion themes were prepared in advance.

In order to get a more complete picture of what service quality dimensions are important for small business, a series of focus group meetings were organized with small groups of individuals. The researcher led a facilitated discussion around a set question. The participants identify a first example of service quality from the content of small business. The focus group meetings were first conducted with the provider of the services. These meetings enabled the researcher to understand the service provided and it provided an opportunity for the providers to give their perception of the use of a service, although it was difficult to set up such focus groups. A number of volunteers were identified and their confidentiality was assured prior to the meetings.

Each focus group session lasted about one hour and extensive notes were taken for later analysis. The researcher identified a number of dimensions revised in the sessions. These dimensions were later found to correspond with those identified by Parasuraman et al., (1988). A discussion was held to reply to the original development process of the SERVQUAL by testing the instruments in four different groups of small business service firms.

1.7 Hypothesis

In order to achieve the objectives of the study, the following hypothesis are tested.

H₀: The SERVQUAL instrument developed by Parasuraman et al., (1988) can be used to evaluate services of small business in the Vaal Triangle area.

H₁: The SERVQUAL will maintain its reliability for service small businesses in the Vaal Triangle area.

H₂: The SERVQUAL will maintain content, convergent and discriminant validity for service small business in the Vaal Triangle area.

1.8 Reference techniques

The Harvard method of reference is used throughout this study to indicate the sources consulted. A detailed list of all sources used and consulted in this thesis is attached at the end of this study.

1.9 List of Acronyms

AGFI	: Adjusted Goodness-of-fit index
ANOVA	: Analysis of variance
CFA	: Confirmatory factor analysis
CFM	: Confirmatory factor model
COQ	: Cost of Quality
CSI	: Customer Satisfaction Index
CSS	: Central Statistical Services
DTR	: Debholtar, Thorpe and Rentz Scale
EFA	: Exploratory factor analysis
GDP	: Gross Domestic Product
GFI	: Goodness-of-fit index
HRM	: Human Resource Management
ILO	: International Labour Organisation
LISREL	: Linier Structural Relations
MAVOVA	: Multivariate analysis of variance
NFI	: Normal Fit Index
PERFROM	: Per ception of Service Performance
PDF	: Population Discrepancy Function
PGFI	: Parsimonious Goodness-of-fit index
QC	: Quality Control

- QM** : Quality Management
- R & D** : Research and development
- RD** : Reconstruction and Development Program
- RMSEA** : The Root Mean Square Error of Appropriateness
- SA** : South Africa
- SERVQUAL** : Service quality measurement instrument
- SMME** : Small, medium and macro enterprise
- SPC** : Statistical Process Control
- SPSS** : Statistical Package for Social Society
- SQC** : Service Quality Control
- SQG** : Service quality gap
- SRS** : Simple Random Sampling
- SYMRC** : Systematic Random Sampling
- TQM** : Total quality management
- TQS** : Total quality of service
- UK** : United Kingdom
- USA** : United States of America

1.10 Terminology

A service	Any activity or benefit that one party offers to another which is essentially intangibles and does not result in the ownership of anything.
Customer satisfaction	Is person's feeling of pleasure or disappointment resulting from comparing products or service's perceived performance/ or outcome in relation to their expectation.
Entrepreneur	A process by which individuals – either in creating their own business or their activities inside existing business, pursue opportunities without regard to resources they currently control.

Factor analysis	A data and variables reduction technique that partitions a given set of variables into groups of maximally correlated variables.
Formal sector	A sector comprising those economic activities which, are conducted within the mainstream of economy.
Informal sector	A sector comprising those economic activities which are conducted outside the mainstream of economy.
Quality	Is conformance to requirements. Quality depends on how it fits consumer patterns of preferences.
Reliability	Refers to extend at which a scale can reproduce the same measurement results in repeated trials.
Service quality	Is the customer's assessment of the overall excellence or superiority of the service.
Service value	Perceived value is the customer's overall assessment of utility of a product based on the perception of what is received and what is given.
SERVQUAL	An instrument developed by Parasuraman, Berry and Zeithaml in 1988 to measure service quality.
Small business	A business that is independently owned and operated and one that is not dominated in its field of operation.
Total quality management	It is both a philosophy and a set of guiding principles that represents the foundation of continually improving organization.
Validity	It addresses the question of whether a measure measures what it is suppose to measure.

CHAPTER TWO

THE SMALL BUSINESS SECTOR

2.1 Introduction

Before an attempt could be made to deal with the problem of service quality measurement as an evaluation within small businesses, it is necessary to define small businesses. The role of small businesses in the economy, the concept entrepreneurship factors affecting the failures of small businesses and the concept informal sector are discussed in this chapter. These will set the stage for the next chapter.

2.2 Description of a Small Business

To find an acceptable definition of a small business for the purpose of this study, a number of definitions of a small business are revived in the following sections. According to Marx, Van Rooyen, Bosch and Reynders (2001:727), an internationally acceptable definition of small business, which includes the size, has not yet been achieved. Furthermore, different definitions for the term "small business" are used in different countries.

2.2.1 Definition in the United States of America

The Small Business Act describes a small business as one that is independently owned and operated and one that is not dominated in its field of operation. The Small business Administration is authorized by the Act, to develop a more detailed definition according to sales volume and the number of employees (Hodgetts and Kuratko, 1998:5).

For a business to be classified as small, the following qualifying factors or features must be considered. A business must have at least two of the following (Megginson, Byrd and Megginson, 2003:10).

- Management is independent, since the manager owns the business.
- Capital is applied and ownership is held by an individual or a few individuals.
- The area of operations is primarily local, although the market is not necessary local.

The quantitative criteria are stated as follows:

Table 2.1: Quantitative criteria for Small Business

TYPE OF BUSINESS	NUMBER OF EMPLOYEES	TURNOVER
Manufacturing	250-1500	
Wholesale	-	\$9,5 - \$22m
Retailing	100	\$2m - \$7,5m
Service	-	\$1,5m - \$10m

Source: Hodgetts and Kuratko (1998:6)

For the purpose of loans, the small business administration uses different size criteria per industry as shown below.

Table 2.2: Different size criteria

Size	Number of employees
Very small	Under 20 employees
Small	20 – 99
Medium	100 – 499
Large	500 or more

Sources: Megginson, Byrd and Megginson (2003:10)

According to Hodgetts and Kuratko (1998:6) it is important to organizing that an important definition depends largely on the policy issue being analyzed.

Meggison, Byrd and Meggison (2003:10) distinguish between entrepreneurial ventures and small businesses. An entrepreneurial venture is one in which the principal objectives are growth and profitability, while innovative strategic practice and/or products characterize them.

2.2.2 Definition in the United Kingdom

In the Report of the Committee of inquiry on small business (Bolton Report, 1971), the following definition has been applied (Deakins and Freel, 2003:37)

- The employee definition: Small firms can be classified by maximum number of employees, depending on the nature of capital intensity that varies from one industry sector to another.
- The turnover definition. This definition has the advantages of being capable versus different sectors.
- The characteristic definition. That small firms are characterized by:
 - They have a small share of the market.
 - Small firms are managed by their owners or part-owners in a personalized manner.
 - They operate independently.

The different criteria of Bolton have been replaced by the European Union which state that small businesses are enterprises employing fewer than 250 employees. The European Union's definition use the criterion of number of employees (Deakins and Freel, 2003:38).

Table 2.3 The European Union definition

Number of employees	Size of enterprise
0 - 9	Micro
12 - 49	Small
50 - 249	Medium

Source: Deakins and Freel (2003:38)

Deakins and Freel (2003:38) further state, that the definitions of small firms are important because of the following factors.

- Policy measures may depend on the small business definition; that is, the government agencies the small business service works only with small business.
- Small firms qualify for additional funding and assistance, so it is important to define them.
- Some European Union structural funds apply only to the small or, medium enterprise sector.
- For research purposes, it is important to have constant and acceptable definitions.

2.2.3 Definitions in South Africa

The qualitative criteria refer to variables that cannot be easily measured. It is also and it's compulsory to use this in terms of the Small Business Act (Marx 2000:728); these criteria are as follows:

- Independent private ownership and management of business.
- Limited extent of activities.
- Local functioning.
- Simple organizational structure.

A more comprehensive definition of small and medium enterprises in South Africa is, that it is any business with one or more of the following characteristics (Cronje, Du Toit and Motlatla, 2001:495).

- Fewer than 200 employees.
- Annual turnover of less than R5 million.
- Capital assets of less than R2 million.
- The owners are directly involved in management.

The criteria used in South Africa which are not merely extensions, but represent a move in the right direction (Marx et al., 2001:729), are set out in the table below.

Table 2.4 Proposed criteria for Small Business in South Africa

Sector	Size	Annual Turnover	Total Fixed Assets	Total employees
Agriculture, Forestry	Small	Less than R15 million	Less than R3 million	51 – 100
Fisheries, Communicates	Small	R2.5 million	R0.5 million	5 – 50
Properties, business service	Micro	R0.5 million	R0.1 million	1 – 4
Mines, Manufacturing	Medium	Less than R25 million	Less than R5 million	51 – 100
Gas, Water, Construction	Small	R5 million	R1 million	1 – 4
Wholesaler, Retail, Housing	Micro	R1.25 million	R0.25 million	1 – 4

Source: Marx et al., (2001:729).

It is evident, that there is no universally applicable and viable definition of small business. For the purpose of this study, the above definitions will be considered.

2.3 Role of Small Business in the Economy

Authors such as Marx et al., (2001:720), Megginson et al., (2003:12), Hodgetts & Kuratko (1998:9) and Deakins and Freel (2003:42), state that the following are the most important contributors, roles or measures for the growth of small business.

- Encourage innovation and flexibility. Small businesses are often the sources of new ideas, materials, processes and services that big businesses are reluctant to provide. They have the ability to be more flexible and to respond to market opportunities. They present opportunities for innovation and are vital for growth in the economy.
- Maintain close relationship with consumers and community. They can do a more specialized individualized job than big businesses can, thereby attracting customers on the basis of specialty products, quality, and personal services, rather than solely on the basis price. They are also important suppliers of specialized intermediate goods.
- Keep larger firms competitive. With the introduction of new products and services, small business encourages competition. This is so, because of the ability to adapt rapidly to consumers' needs.
- Provide employees with comprehensive learning experience. Along with performing a great variety of functions, employees also have more freedom to make decisions, which can lend zest. People, who

operate small business, have the opportunity to gain experience, which could be later applied to big business.

- Develop risk-taking. Small business provides the opportunity for risk-taking. The risks attached to small business, develop the typical entrepreneurial characteristics of accepting their risk.
- Generate new employment. Small businesses are important sources of employment and their work-creation rate is higher than that of big businesses. The cost for creating one job opportunity is considerably lower than for big businesses.
- Small business purchases, often revitalizes used capital equipment. This reduces the risk and long-run costs of entry and expansion of the business.
- Many small businesses act as market “shock absorbers” by employing flexible production technologies (emphasizing labour and less-specialized capital goods). They have greater flexibility than have big businesses in the industry, with regard to their production levels.
- Their significant involvement in market entry and exit, helps ensure the mobility of capital resources. For the capital market to be efficient, capital must be free to flow from industries with low rates of return to those with high returns.
- Small business employs less-skilled workers, who have no prior experience and who might have difficult securing employment.
- Because of their size, small businesses are less likely to encounter problems that can arise from the management structure. Such a structure tends to increase the cost of transferring information

within business and hence results in a rigid decision-making processes.

- Small business typically has less-involved ownership structure, and the owner is more likely to be directly involved in management. Measured against the rate of return on an owner's interest, small business has shown that they do not have to stand back for the larger business. Larger business control of the decision-maker and employee has lead to losing their close contact.

Drawing upon the selected service of authoritative research, supported by statistical data, Botha (1996: 2) identified the following number of reasons for the relevance of the small business sector in South Africa:

Employment creation

The strongest rationale behind policies in support of SMME's, is to be found in their relatively superior employment creation capacity. The latter is the result of capital/labour ratios, which often constitute a small fraction of those found in the corporate sector of the economy. An indication of the important role played by SMME's in regard to keeping vast numbers of people economically occupied, may be found in a number of indicators. The White Paper on SMME development (RSA 1995:81) indicates that more than 7,2 million people are involved in the small business sector, which represented 138% of formal sector employment in 1994 (calculated on the basis of equating the small business sector with the informal sector). The Department of Trade and Industry has taken a broad view of what comprises the SMME sector; the October Household Survey has estimated the informal sector alone as comprising only 1,6 million people.

Provision of a minimum living level

The debate for stability is far from resolved in relation to the exact contribution that SMME's makes towards the aggregate economic activity; the fact remains, that it provides a livelihood, albeit often a meagre one. In terms of the strong emphasis that the Reconstruction and Development Program (RDP) places on meeting basic human needs, the existence of a vibrant and large SMME sector undoubtedly contributes to the attainment of minimum development goals. It has also been argued, that the formal sector has contributed to the surprisingly large degree of socio-political stability that has persisted since the 1994 elections. Despite the relatively slow rate of delivery on RDP projects, the government of national unity has not been threatened by meaningful protests from a disillusioned mass electorate. One of the reasons is simply, that the extent of poverty and unemployment (in the narrowest sense of word) seems to have been overestimated, due to the existence of a relatively strong small business sector in previously disadvantaged communities. To place the argument within a quantitative framework, an assumption is made, that the aggregate ratio of labour remuneration to GDP at factor cost holds for small business (a conservative proposition), the wages earned by the SMME sector in 1995 amounted to R70 billion. This equates to the 1995 annual minimum living level of 6,4 million Black households (utilizing the research by the University of South Africa's Bureau of Market Research). According to the Central Statistical Services (CSS), there are only 6 million Black households in South Africa (RSA 1995:96), a fact which clearly illustrates the importance of the SMME sector to South African society.

Affirmative Action

Researchers in the field of affirmative action in South Africa have pointed out, that the formal sector of the South African economy possesses a limited labor absorption capacity, which would restrict the effectiveness of affirmative action policies in the sphere of reorienting the racial profile of companies' workforces. It was concluded, that much emphasis would in future have to be placed on the issue of black business development, if government's objective of upliftment of previously disadvantaged communities were to produce meaningful results by the time of the next election. Excluding the racial issue, the formal economy of SA is in imbalance in terms of big vs. small business; when the government and parastatals are included, big business generates 60% of the economic activity in the formal sector of the economy, leaving small business with 40% (RSA 1995).

In the United States of America, it is reported that, the roles are reversed, where big business accounts for only 20% of economic activity.

In the Far East the disparity is even more pronounced: in Japan it is reported that 90% of the economic activity is generated by SMME's, and that one in six Japanese runs an own business. This difference in the structure of our economy, can be attributed directly to our history, where for ideological reasons, the state intervened to deny normal market access and economic development to 80% of the population.

South Africa today is facing the competitive disadvantage of this economic imbalance, as we compete on the world stage and face nations whose economies produce products both cheaper and better than ours. The terms "unbundling", "downsizing" and "out-contracting" have become the new jargon representing big business

response to the problem. In terms of South Africa's economy, big businesses, producers of basic commodities, know that to grow the local market for their products, this economic imbalance needs to be corrected.

Due to the vastly superior labour/capital ratios encountered in the small Black business sector, policy incentives aimed at inducing an increase in this sector's employment levels, possess the potential to produce rapid results. For recorded economic activity as a whole, an amount of R278 000 was required in the form of capital to sustain one formal job. Research at the NEI has shown, that labour/capital ratios amongst certain types of small business activities, are 100 times larger than the figure for the formal sector.

Entrenchment of free enterprise principles

An expansion of the SMME sector in South Africa, also holds the potential of influencing the view in relation to previously disenfranchised South Africans in regard to the type of institutionalized economic system that should underpin the newly established democracy in the country. Research done on identifying and accrediting new entrepreneurs, indicates a lack of new entrepreneurial endeavour, apart from survivalist activities. Other free market countries spend public monies on small business support agencies. For example, Denmark has a network of small business advice centers offering free counseling to aspirant entrepreneurs, all funded by government and local authorities. Australia has a similar network of local-authority funded "Local Economic Development Agencies".

Human creativity

According to renowned historians such as Landes (1991), philosophers such as Novak (1988) and economists such as

Schumacher (1974), the existence of a powerful source of economic growth and development is related to the role of human creativity. Although the human factor outside of the formally defined resources of labour remains a relatively subjective issue in economics, it has been confirmed that approximately half of the growth performance of advanced economies in the modern era is not explained by conventional factors of production. This so-called "residual" contribution to growth has been the subject of much research in recent years, and has been attributed, inter-alia, to higher education levels of the labour force, new machine technologies; increased standardization, deregulation; and improved beneficiation of raw materials. A sizeable portion of growth remains unaccounted for and the issue of the human factor has increasingly come to the fore.

In Schumacher's pioneering work, small is beautiful; he points out, that it is the human factor, and not nature, that constitutes the primary economic resources. The key factor in economic development, lies in human creativity and the initiative, invention and constructive activity that occur in free societies. Michael Novak's fundamental thesis is that the nation's leaders should consider poverty, the citizens at the bottom of society, and their resources, minds and spirits. The cause of the wealth of nations, lies in the empowerment of its people. A practical step, forming part of this hypothesis, is to foster the principles of individual economic freedom and private property rights in developing societies. Productivity as innovation is greatly enhanced in the absence of a bureaucratic centralization, both in the private and the public sectors. To the extent that the above principle holds, it follows that an enlargement of viable privately owned small businesses will exert a positive influence on economic growth through the "residual".

2.4 Entrepreneurship and Small Business

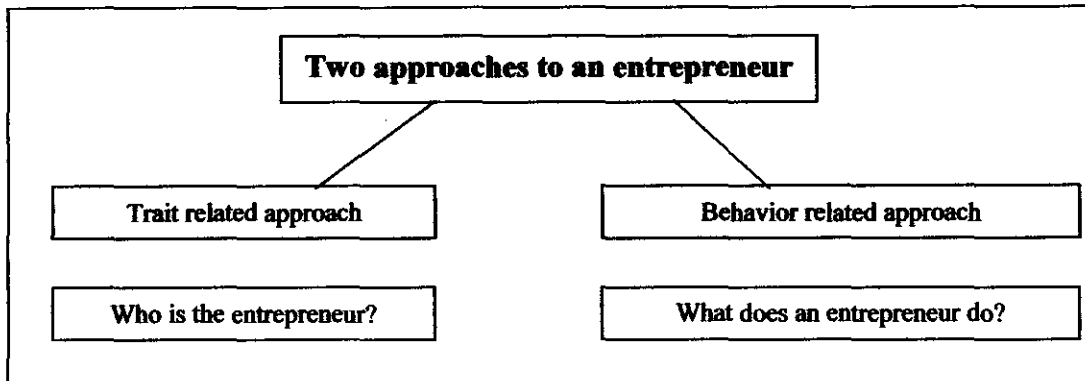
Because entrepreneurship is more readily identified and observed in small business, the terms “entrepreneur” and “small businessman” are used synonymously in contemporary literature (Cronje, Du Toit and Motlatla, 2001:495). Megginson, Byrd and Megginson (2003:11) also contend, that it is not easy to distinguish between a small business owner and an entrepreneur, for the distinction hinges on their intentions. The small business owner establishes a business for the sole purpose of furthering personal goals, whereas an entrepreneur, in addition to personal goals, is characterized by innovative behavior. Cronje, Du Toit and Motlatla (2001:495) further state, that it is extremely more important for small business not to be drawn by entrepreneurship, as the entrepreneurial spirit usually observed in small business, is the catalyst for economic development. The above stated factors, necessitate an in-depth discussion of the concept entrepreneurship.

2.4.1 The nature of entrepreneurship

Despite its apparent significance, there is no agreed definition of either what constitutes an entrepreneur or entrepreneurship. Kirby (2003:10), state that the problem of identification of an entrepreneur, has been confounded by the fact that there still is no standard, usually accepted definition of entrepreneurship.

In an effort to develop some common definition of entrepreneurship, researchers (see figure 2.1 below) have followed either a trait related or behavior-related approach (Le Roux et al.,1999:294).

Figure 2.1 Different approaches to entrepreneurship

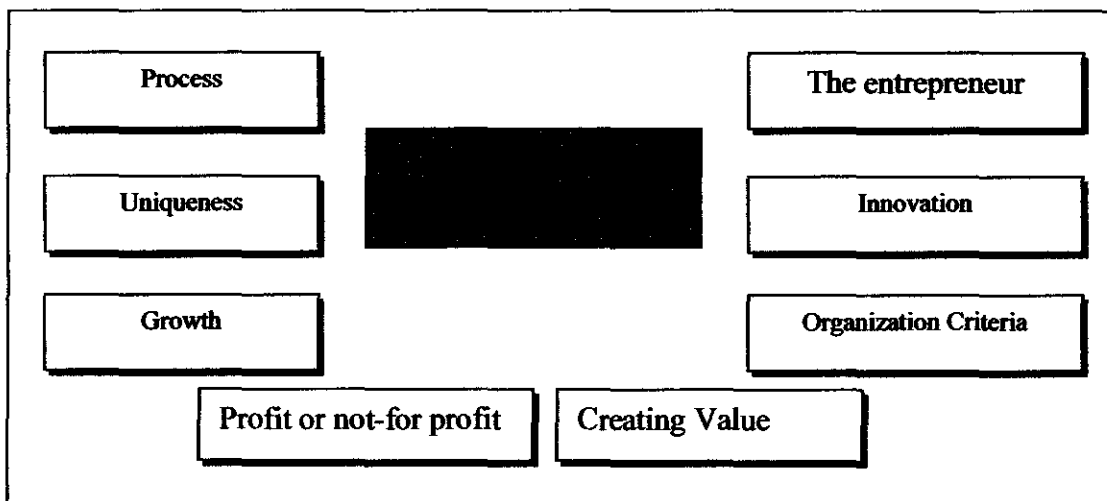


Source: Le Roux et al., (1999:294)

The traits approach attempts to answer the question: “who is the entrepreneur?” while the behavioral approach looks at the entrepreneurial process in terms of entrepreneur activities and asks the question, “what does the entrepreneur do, and why?”

A number of common themes in definitions of entrepreneurship, have been identified by Coulter (2003:4) and are indicated by figure 2.2 below.

Figure 2.2: Themes in the definition of entrepreneurship



Source: Coulter (2003:4)

- The first themes recognize the roles that the entrepreneur plays. Without the person who's willing to do what an entrepreneur does, there would be no entrepreneurship.
- The second theme is innovation. Entrepreneurship involves changing, revolutionizing, transforming and introducing new approaches.
- The third theme is organizational creation. In order to pursue the persistent opportunity for innovation and to create value, there must be organized efforts and actions.
- The fourth theme, is the process of creating value. Through entrepreneurship, new products, services, transactions, approaches, resources, technologies and markets are criteria that contribute some value to a community or market place. Value is a criterion, because the entrepreneur is fashioning something worthwhile and useful.
- The fifth theme is recognition that the entrepreneur can figure in both profit and not-for profit environments.
- The sixth theme stems from the emphasis of growth as constituting one major difference between an entrepreneur venture and other small businesses.
- The seventh theme, is that of unique entrepreneurship involved in new combinations and new approaches with which the entrepreneur is willing to experiment. Unique products and approaches are tried criteria.
- The eighth theme, is the recognition that the entrepreneurship is a process or set of ongoing decision and actions.

Coulter (2003:4) states that, although no single definition exists, entrepreneurship is “the process of creating something different with value by devoting the necessary time effort, assuming the accompanying financial, psychological and social risks, and revising the resulting rewards of monitoring and personal satisfaction.”

In conclusion, entrepreneurship is defined as a process by which individuals – either in creating their own business or in their activities inside existing business – pursue opportunities without regard to the resources they currently control.

As entrepreneurship is brought about by individuals (entrepreneurs), as shown by the definitions above, it is proper to look at who is the entrepreneur (trait approach).

2.4.2 Defining an entrepreneur

According to Zimmerer and Scarborough (2002:4), an entrepreneur is one who creates a new business in the face of risk and uncertainty, for the purpose of achieving profit and growth by identifying opportunity and assembling resources to capitalize on them. Further, studies have identified the following characteristics and profile of entrepreneurs.

- Desire for responsibility. An entrepreneur experiences a deep sense of personal responsibility for the outcome of ventures he/she starts. He/she prefer to be in control of his/her resources and uses those resources to achieve self-determination goals.
- Preference for moderate risk. Entrepreneurs are not wild risk – takers, but instead, calculated risk – takers. They usually spot opportunities in areas that reflect their knowledge, backgrounds, and experience, which again increases their probability of success.

- Confidence in the ability to succeed. They typically have an abundance of confidence in their ability to succeed.
- Desire for immediate feedback. They enjoy the challenge of running a business and they like feedback on their performance.
- High level of energy. They are more energetic than are average persons. This is a critical factor, given the efforts required to launch short - up firms.
- Future orientation. They have a well - defined sense of searching for opportunities.
- Skill at organizing. Building a firm from scratch, is like putting together a giant jigsaw puzzle. An entrepreneur knows how to put the right people together in order to accomplish a task.
- High degree of commitment. A successful business strategy requires total commitment from an entrepreneur.
- Tolerance for ambiguity. They tend to have a high tolerance for ambiguity, ever-changing situations, and the environment in which they often operate.
- Flexibility. This entrepreneur has the ability to adapt to the changing demands of their customers and their business.
- Tenacity. Obstacles, obstructions, and defects do not dissuade them from pursuing their visions.

Hisrich and Peters (2002:10) provide the following two different perspectives about an entrepreneur that reinforce the traits given above.

- To an economist, an entrepreneur is one who brings resources, labour, materials, and other their assets into combination, that make their value greater than before, and also is one who introduces changes, innovations, and new criteria.
- To a psychologist, such as a person is driven by certain forces in the hope to obtain or attain something, to experiment, to accomplish, or perhaps to escape the authority of others.

In South Africa only a limited number of people, especially in the so-called previously disadvantaged communities, practise entrepreneurship as successful new entrants into business. This could be attributed to the following (Dhlamini, 1994:17).

- Restrictive regulations, e.g. licensing, zoning, tax structures, and inappropriate health regulations, safety standards and labour regulation, hamper opportunities.
- A problem of access to loan funds. The business infrastructure and services are underdeveloped in certain areas.
- Lack of business knowledge and experience. The present system of education and training is unsuited to provide what is required in the market place.
- A shortage of support services, e.g. information services, practical training and marketing advice.
- The entrepreneur culture, which is built on a belief in individualism, innovation, self-confidence, risk-taking, is as yet poorly developed.
- Structural bottlenecks, complete to unsuitable tax policies, discourage voluntary savings and result in most savings being contractual and merely placed in the hands of institutional investors, which operate within the consideration and duties of the fluency frame-work.
- Lack of business confidence is a result of the sluggish economy and globalization.

2.5 The development of entrepreneurship

In spite of the interest shown in the concept of entrepreneurship, no universally acceptable definition exists. The development of the theory of entrepreneurship to a great extent runs parallel to the development of the term itself (Hisrich and Peters, 2002:7), and is shown in the table on the next page.

Table 2.5 The development of the term entrepreneur

Year	Contributor	Contribution
Middle ages	-	Actors and persons in charge of larger production projects
11 th century	-	Persons bearing risks of profit or loss in fixed-price contracts with government.
1725	Richard Cantillon	Person having risks, is different from one supplying capital.
1803	Jean Baptist Say	Separated profit of entrepreneur from one supplying capital.
1876	Francis Walker	Distinguished between those who supplied funds and revived interest and those who received profits from managerial capabilities.
1934	Joseph Schumpeter	The entrepreneur is an innovator and develop untried technology
1961	David McClelland	The entrepreneur is an energetic, moderate risk – taker
1964	Peter Drucker	The entrepreneur maximizes opportunities
1975	Albert Shapiro	The entrepreneur takes the initiative, organizes some social and economic mechanism, accepts risk of failure
1980	Karl Vesper	An entrepreneur is different from economists, psychologists, business persons and politicians.

Year	Contributor	Contribution
1983	Gifford Pinchot	An entrepreneur is an entrepreneur within an already established organization
1985	Robert Hisrich	Entrepreneurship is the process of creating something with value by devoting the necessary time and effort, assuming the accompanying financial, psychological, and social risks, and receiving the resulting rewards of persuade satisfaction and monetary

Sources: Hisrich and Peters (2002:7)

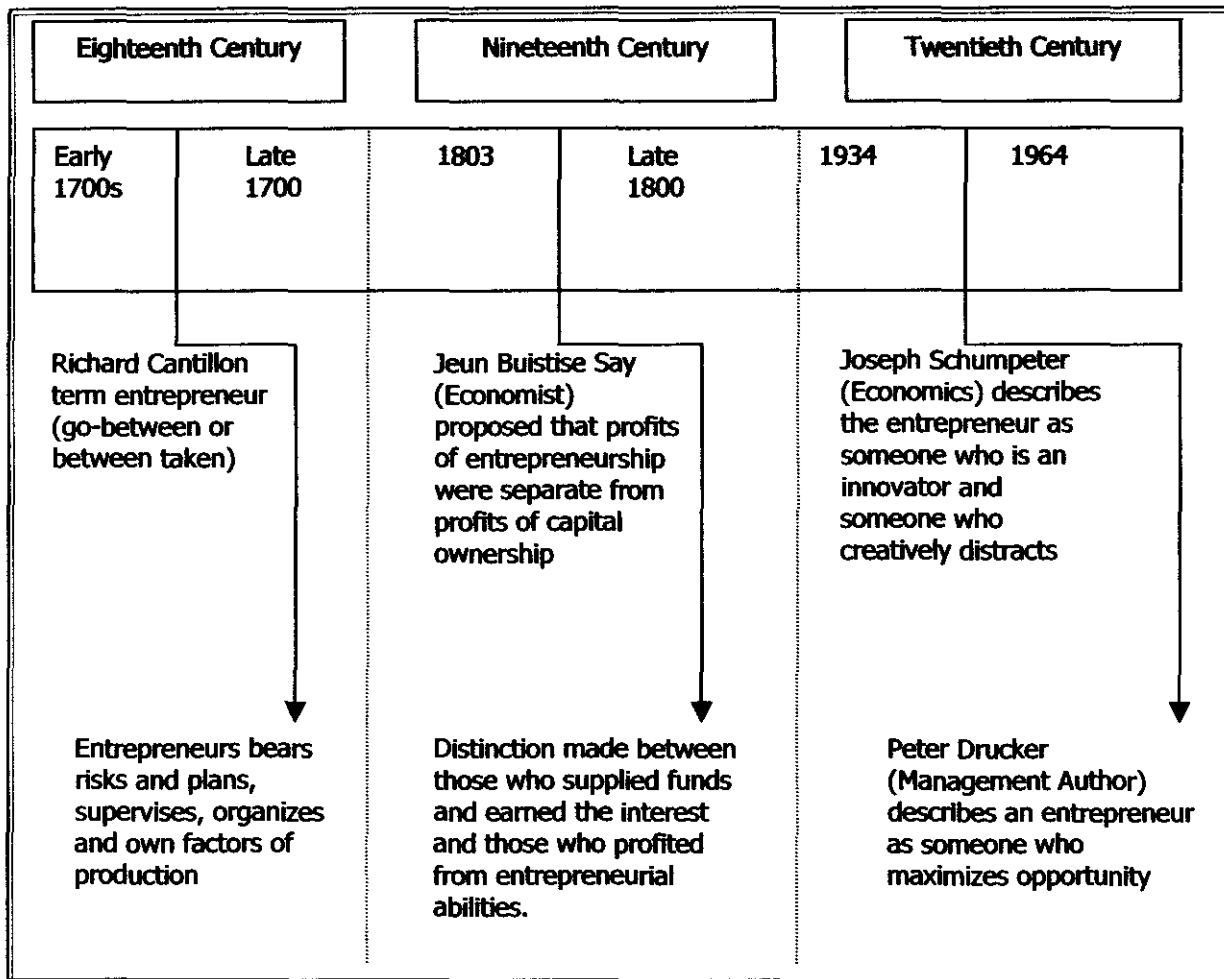
Coulter (2003:7) provides a somewhat different three – centuries time – lines of the development of the entrepreneur theory, starting from Richard Conation to Peter Drucker, as shown in the table on the next page.

Year	Contributor	Contribution
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Sources: Hisrich and Peters (2002:7)

Coulter (2003:7) provides a somewhat different three – centuries time – lines of the development of the entrepreneur theory, starting from Richard Conation to Peter Drucker, as shown in the table on the next page.

Table 2.6: Time-line of the Development of entrepreneurship Theory



Source: Coulter (2003)

2.6 Measuring the entrepreneur personality

Over the years several measures of entrepreneurship and personality have been developed. The most common of which are those based on responses to a series of statements about the attributes being measured. They have been developed to test for nAch Kirby (2003:114) and are briefly explained below.

- Rotter (1966) developed an instrument to test for a locus of control that was un-dimensional.

- Levenson (1973) developed a multidimensional scale to assess control over events by self, powerful others and chance.
- Paulhus (1983) developed measures that intended to examine control over others an groups and social and political events, but not entrepreneur activity.
- The Steers and Braunstein (1976) test focuses on work-related activities, while most of the instruments ask respondents questions about general tasks and conceive of nAch as a unitary concept; Tzener and Elizur (1985) conceive nAch as having six separate components.
- The General Enterprising Tendency (GET) test developed by staff at Durham University's business school, is the most useful, comprehensive, accessible, and easy to administrate and utilize. This is a S4-item questionnaire designed to assess five dimensions of personality: Need for achievement (12 items), autonomy (6 items) drive and determination (12 items) and risk-taking (12 items), and Creativity (6 items). Each item is a statement and participants are required to either agree or disagree with it. Each dimension receives a score of 0-12 (0-6 for the Autonomy dimension), with a composite score for the test of 0-54. The first takes about 10 minutes to complete.

Some of the instruments discussed above, are simple to complete, while some are complex and their reliability and validity questionable.

2.7 Small business failure

Business failure is defined by Hodgetts and Kuratko (1998:18) as a halt of operation by the business and a number of reasons have been advanced for such failure.

The following three groups of failure are identified by Marx et al., (2001:732).

- Economic factors which include moderate scales, profitability that is too low, and weak growth prospects.
- Financial factors, which include too high operating costs and insufficient capital.
- Lack of experience, especially in management.

Research by Dun and Bradstreets in the United States of America has shown the following percentage ratio of failure contributed by each factor (Marx et al., 2001:733).

Table 2.7 Reasons for the failure of business

Cause	Percentage of failure
Economic factors	45,0
Financial factors	37,2
Management experience	12,2
Lack of activity	3,1
Disasters	1,6
Fraud	1,4
Strategic factors	1,2
Total	100,0

Source: Marx et al (2001:733)

Hodgetts and Kuratko (1998:18) provide the following specific causes of small business failure that are based on a study of businesses that have failed.

- Incompetence, this relates to the owner not knowing how to run a business. This is due to lack of managerial experience.
- Neglect occurs whenever an owner does not pay sufficient attention to the businesses and appoints someone else to manage the business.

- Fraud involves international misrepresentation or deception.
- Disaster refers to unforeseen happenings or an “act of God”
- Failure to a diverse market: Firms lacked information about their customers and as a result, failed to diversify and wound up selling goods to a mere handful of customers.
- Lack of marketing research. Firms undertake major ventures without conducting any prior market research. Changes in market conditions left them in a very poor position.
- Lack of technical competencies

2.8 The informal small business sector

2.8.1 The concept “informal sector”

During the last decade concerns have been expressed in relation to the mounting employment problem in the developing informal sector. Considerable definitions and conceptual confusion have undermined the debate about the usefulness of this sector; the literature reveals, that the informal sector has been defined in different ways, leading to substantial confusion (De Beyer and Maasdorp, 1983).

The informal sector first appeared in the economic development theory in the work undertaken by the International Labour Organization (ILO), with the launch of the world Employment Program in the 1970's.

Keith Hart (1973), in his paper “Informal Income opportunities and the structure of urban Employment in Ghana” presented at the University of Sussex, Britain, in 1971, was the first to use the term, although it was the ILO report on Kenya ILO (1972), which launched and popularised the concept. The report highlighted the fact that depopulation and resultant urban growth did not increase unemployment but rather the development of small-scale enterprises.

Several types of definitions have been given to the concept, which may be linked to specific views or identifiable schools of thought (Charmes, 1990:13). Hart (1973:2) described this informal sector as an un-enumerated, unorganized sector characterized by self-employment. Swanepoel and van Zyl (2000:142) define the informal sector as comprising those economic activities which are conducted outside the mainstream of the economy of a region or of a city, by independent individuals or small family units, which are especially labour intensive, and of which the transactions are noted in official economic statistics.

The best known definition of the informal sector is that posed by the ILO report on Kenya, which includes seven criteria namely, -

- ease of entry,
- unregulated and competitive markets,
- reliance on indigenous resources,
- family ownership of the enterprise,
- small scale operations,
- labour intensive and adapted technology, and
- skills acquired outside the formal school system.

A definition parallel to that used by the ILO, is provided by Hirschowitz (1991:1) in the Human Science Research Council Study, which described the informal sector as being characterized by at least two of the following features.

- Smallness as measured by the number of employees;
- Absence of officially recognized business premises;
- Lack of official registration of business;
- Lack of official records of business;
- Lack of easy access to resources.

The multi-criteria definition are, according to Charmes (1990:13), generally inspired by the classical theory of competition (atomism, and fluidity of the product market and factors of production) and view the informal sector as an illustration of the market economy, but segmented, i.e. not linked to the formal markets. Further, that while all of these criteria come together to define a competitive market, some of them are relatively complex and cannot be reduced to simple observation.

For the purpose of the research, the ILO definition and that presented by Swanepoel and van Zyl (2000), will be adopted.

2.8.2 Types of informal sector business

According to Perbedy (2000:3), the informal sector in South Africa encompasses a wide variety of rendering, production, service and trade activities in rural areas, urban areas, the inner city, and peri-urban as well as the informal settlements.

Rogerson (2000:674) provides a useful conceptual distinction drawn between the following two categories of business.

- The first is the “survivalist informal business”, which comprises of activity undertaken by people unable to secure regular wage employment or access to the economic sector of their choice. The income generated from the businesses, the majority of which tend to be run by women, usually fall short of even minimum income standards. These businesses require little capital investment and virtually no skills training and offer little opportunity for expansion into viable business.
- The second is the “micro-enterprises” or growth enterprises. These enterprises are very small businesses, often involving only the owner, some family members and at most, one to four paid

employees. These unregistered businesses usually lack all the trappings of formality in terms of business licences, formal premises, operating permits and accounting procedures, many have a limited capital base and require only rudimentary business skills. Many micro-businesses have the potential to develop and flourish into larger formal small business enterprises.

Swanepoel and van Zyl (2000:142) divide the activities of the informal sector into the following four broad activities.

- Trading and hawking: Trading activities are supplemented by the activities of hawkers and street vendors selling fruit, flowers, handmade articles and food.
- Production and construction include the production of food and the making of furniture, clothes, shoes, baskets, window frames, as well the construction activities such as plumbing, painting and self-help housing.
- Services include a wide variety of activities such as panelbeating, hairdressing, photography, car washing, backyard mechanics and activities of sangomas and witchdoctors. Financial activities include stockvel schemes, funeral undertakings and loan services (micro-lenders).
- Illegal activities. Illegal, immoral even criminal activities are those which are regarded as socially unacceptable, but which nevertheless occur – such as prostitution, drug dealing, the granting of illegal loans, gambling and abortion.

2.8.3 The size of the informal sector

The estimates of the size of the informal sector, vary from study to study and from country to country, in part due to the use of different definitions and measures (Thornton, 2000:2). Further, it is impossible

to accurately estimate the extent of the activities of the informal sector accurately (Swanepoel and van Zyl 2000:142).

The number of people who participate in the South African informal sector, is unknown (Perbady 2000:3). In 1996 the South African Institution of Race Relations estimated, that 16% of the economically active population, was engaged in the informal sector (De Vletter 1996:6). Rogerson (2000:2) states, that in Gauteng, which is South Africa's most economically impartial region, that of the population of 7.5 million people in 1998, at least 1.2 million people were active in the informal sector.

The following broad estimates from research findings give some indication of the situation in the informal sector (Swanepoel and van Zyl, 2000:142).

- About 1.7 million people in S.A. are involved in the informal sector activities, of whom 55% are involved in trading and hawking 23% in production and construction, 16% in services and 6% in illegal activities.
- During 1989 the Central Statistical Services estimated the value of the activities of the informal sector at R16 000 million. This estimate is conservative, because it excludes former TBVC statistics, Black informal earning in White areas and the involvement of Whites in this sector.
- The activities of the informal sector occur throughout the country.

According to Kekana (1993) as quoted in Botha (1996:3), the influence of the informal sector as a generation of economic output, remains unresolved, and researchers are constantly attempting to gauge its size in terms of real output levels.

Furthermore, according to survey and research done by the Central Statistical Service and Brian Konter of the University of Cape Town,

Kekana (1993) estimates the size of the informal sector at between 8% and 40% of the country's Gross Domestic Product (GDP).

2.8.4 The importance of the informal sector

Swanepoel and Van Zyl (2000:143) discuss the role and importance of the informal sector in the South African economy under the following headings.

- **Creation of job opportunities (Job Creation)**

Although no exact figures on the number of persons active in the informal sector are available, various studies suggest, that it could be considerable. Between 20 percent and 70 percent of the total work force in third world countries are engaged in the activities of the informal sector, an average of about 50 percent. The informal sector is the only source of work and income for most of these people.

In South Africa it is estimated, that 4 million people were wholly or partially active in the unregistered sector of the economy. There were 1,84 million Blacks in the informal sector in 1985. This means, that 23 percent of the potentially economically active Black population were involved in the activities of the informal sector. Of these, 228 000 were resident in the metropolitan areas, 235 000 in squatter areas, 704 000 in urban areas and 678 000 in rural areas. The informal sector provides job opportunities for approximately one out of every four economically active Blacks. If it were not for the informal sector, the unemployment problem in South Africa would have been much worse.

- **Generation of income and combating poverty**

The informal sector plays an important role in combating poverty. It provides many people with some form of livelihood. Income in the informal sector is relatively low, because the work is marginal,

with a low, irregular income. It offers a livelihood to many that would otherwise have been unable to survive. The average monthly income in the informal sector for 1985, was estimated at R269 (with R40 per month as the lowest and R720 per month as the highest).

- **Contribution to the GDP**

Attempts have been made to determine the contribution of the informal sector to the national economy, for instance the contribution to the GDP. The findings show considerable differences, due to the nature of the matter. Prof. Brian Kantor estimates it at between 16 percent and 41 percent of the GNP. The Central Statistical Service estimates it at 8 percent and the Reserve Bank at 10 percent. A total of 45 integrated studies of the informal sector, arrived at the following estimates: the average monthly income of the informal sector in 1985 was R269. (In the metropolitan areas it was R233, in squatter areas R379, in urban areas R361 and in rural areas R153). On this basis it was estimated, that this is used as the average base figure for the 1,84 million persons in the informal sector; the estimated income of the informal sector in 1985 was R5, 9 thousand million. The officially registered personal income of Blacks in 1985 was R 2 057 thousand million. If the unregistered income of the informal sector is added to this, the figure of R2 645 thousand million is reached, which means that 22,3 percent of the total income of Blacks is unregistered. This amounts to 5,1 percent of the GDP of South Africa in 1985 and is comparable to the figure estimated for other countries.

If the informal income of other population groups is also taken into account, together with other unregistered activities such as the direct exchange of goods for goods and service, the contribution of the informal sector to the GDP in South Africa is significant.

- **Relationship of the informal sector to the formal sector**

There is both a direct and an indirect relationship between the formal and the informal sectors. The registered and unregistered sectors of the national economy are interdependent. The informal sector is linked to the agricultural sector, because it allows the surplus labour from the agricultural sector to move to the informal sector. It is also very closely linked to the formal sector of the city: the formal sector depends on the cheap inputs and products of the informal sector for its workers, and the informal sector in turn depends on the growth in the formal sector, in order for it to gain a share of its income and also customers.

A sound case can be made to prove that the informal sector subsidizes the formal sector by providing cheap raw materials and basic products for its workers at artificially low prices, simply because the formal sector enjoys economic power and, often, government sanctions. The informal sector provides opportunities of earning an income to the poor. However, the question remains: how far is the informal sector merely a temporary refuge for those waiting for an opportunity to enter the formal sector? Is the informal sector simply an intermediate phase, or does it exist in its own right on a permanent footing? As long as there is no other solution to the extensive unemployment in society, the informal sector must be accepted as a permanent feature, which serves as an essential complement to the formal sector. One activity in the informal sector, which has been established on a fairly permanent footing, is the minibus taxi industry. It is estimated, that annual purchases by taxi owners from the formal sector are as follows:

- a total of 800 million litres of petrol,
- a total of 3,5 million litres of engine oil, and

- on motor spares worth R800 million.

The link between the formal and informal sectors exists in both the production and distribution processes. This growth-related association also exists in other countries between large and small businesses, registered and unregistered transactions, and formal and informal economic contacts. In South Africa it will be expanded even further in the future, especially as large businesses in the formal sector make use of smaller informal businesses via subcontracting. In Ciskei and Bophuthatswana there are a number of flourishing (home) industries in which, in addition to handicrafts, items such as school uniforms are made for businesses in the formal sector.

- **Training opportunity for future entrepreneurs**

Although this is not always the primary purpose, the informal sector often provides a useful training opportunity for entrepreneurs. Forced by a lack of job opportunities, many people begin to do something about their situation on their own. They begin by experimenting on a small scale in the informal sector, with a variety of economic activities. Many achieve success and soon become full-fledged entrepreneurs in the formal sector.

2.9 Summary

The definition of the small businesses studied, describes a small business according to economic standards and statistical guidelines that differ from country to country. The definition of the small business adopted in the study, states that a small business should have one of the following characteristics; it should have fewer than 200 employees, its annual turnover should be less than R5 million, it should have a capital of less than R2 million, and the owner should be directly involved in the management.

The roles of the small businesses are, that they -

- encourage innovation and flexibility,
- maintain a close relationship with consumers and the community,
- keep larger firms competitive,
- provide employees with learning experiences,
- develop risk-taking, and
- helps the entrenchment of free enterprise principles.

In defining the concept “entrepreneurship”, researchers have followed either the traits-related or behavioral-related approach. A number of common themes have been identified in the definition of the concept, and these are: the role that entrepreneurs play, innovation, organizational creation, process of creating value, growth and the assumption of risk. A number of measures, which are based on the responses to a series of statements towards attributes being measured, have been developed to assess entrepreneurial personality.

Economic financial factors and the lack of managerial experience, have been identified as factors that contribute to businesses failure. Other factors are neglect, fraud, disaster, lack of marketing research and the lack of technical competencies.

The informal sector is described as an un-enumerated, unorganised sphere and consists of activities that are conducted outside of the mainstream of the economy. The best known definition of the informal sectors, is that posed by the International Labour Organisation (ILO), and it has the following criteria.

- Easy entry
- Unregulated and competitive markets
- Reliance on indigenous resources

- Family ownership
- Small scale operations
- Labour-intensive and adapted technology
- Skills acquired outside the formal school system.

The estimated size of the informal sector may vary from study to study and from country to country, partly due to the use of different definitions and measures.

In the next chapter, the concept service and service quality is discussed in detail.

CHAPTER THREE

SERVICE MARKETING AND SERVICE QUALITY

3.1 Introduction

It is the purpose of this study, to develop the instrument that can be used to measure service quality in small businesses. Chapter 2 discussed the definition of small businesses, the role of small businesses in the economy, the concept entrepreneurship and small business, and also the link between the formal and informal sectors.

In this chapter service marketing, which involves the characteristics of services, classification of services, and the marketing strategy of service firms, is discussed. The concepts quality, service quality and total quality management are also discussed.

3.2 Definition of service

According to Bateson and Hoffman (1999:9), it is extremely difficult to define a pure good or pure service. A pure good implies, that the customer obtains benefit from goods alone, without any added value from service. In reality, most services contain some good element. Kotler, Armstrong, Saunders & Wong (1996: 588) define a service as any activity or benefit that one party offers to another which is essentially intangible and does not result in the ownership of anything.

Bateson and Hoffman (1999:10) contend, that the goods or service dichotomy is changing the spectrum with firms moving their position within that spectrum. Further, that an exact definition of services is not really necessary to understand services and the marketing problems associated with them.

3.2.1 Characteristics of services

Services have a number of characteristics that make their marketing more difficult than is the case with manufactured goods (Kotler et al., 1996: 588; Haywood – Farmer, 1987: 20 and Grönroos, 1982: 30).

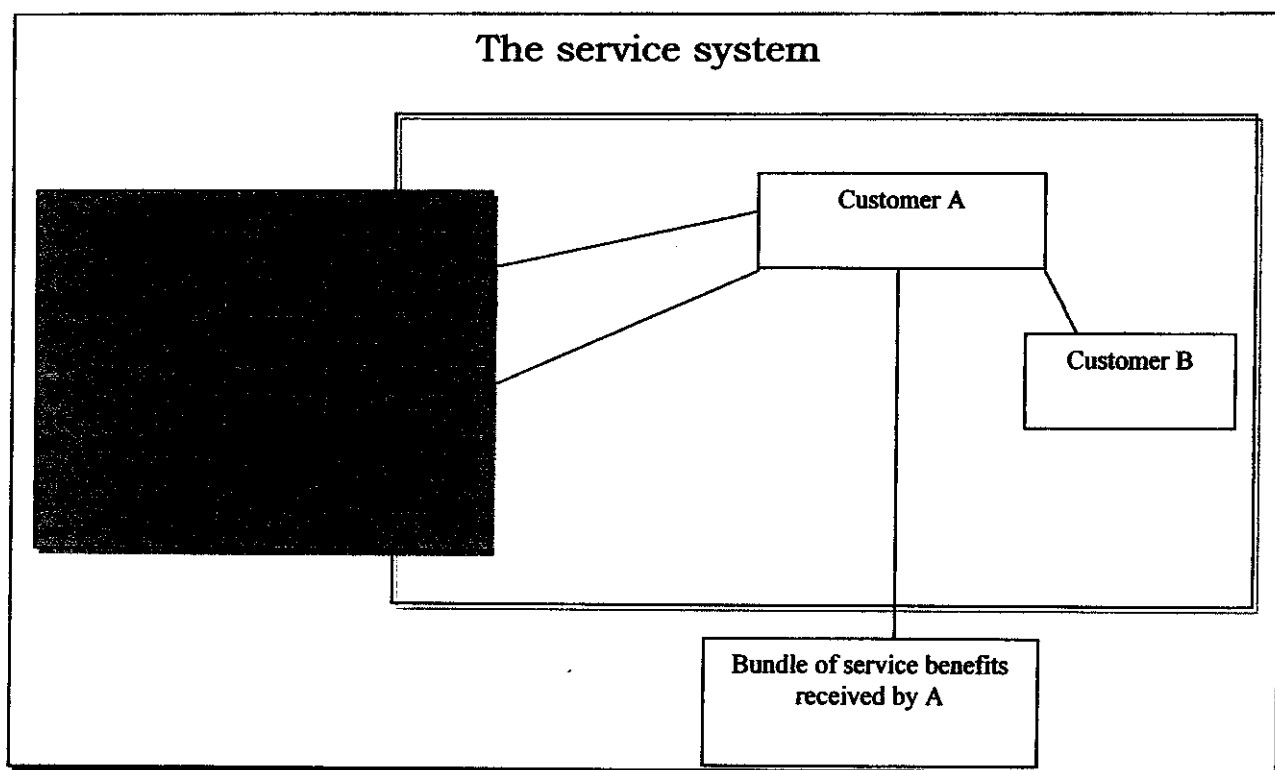
- Intangibility. This means, that services cannot be readily displayed, seen, tasted, felt, heard or smelled before they are bought. The service quality is difficult to explain to prospective customers. A final result of service intangibility, is that generally, one cannot store a service.
- Inseparability. It means, that resources cannot be separated from their providers. Services and the presence of consumers, as well as goods, appear simultaneously in time. The production staff interacts directly with customers.
- Heterogeneity. This means, that goods can often be described and evaluated by a few understood attributes that remain constant over time. Services often have many more important attributes, the related importance of which changes rapidly.
- Vulnerability. As services involve people in production and consumption, there is a high degree of variability. Variability means, that the quality of services depends on who provides them, as well as when, where, and how they are provided.
- Perishability. This means, that services cannot be stored for later use. The perishability of services is not a problem when demand is steady. Service firms can use several strategies or produce a better match between demand and supply.
- Lack of ownership. When customers buy physical goods, they have personal access to the product for an unlimited time. The service consumer often has access to the service for a limited time.

The servuction system model is used by Bateson and Hoffman (1999: 12) to explain the nature of service. All products deliver a bundle of

benefits to the consumer. The determination of what constitutes the bundle of benefits bought by the consumer, is at the heart of marketing, and it transcends any distinction between goods and services.

When a consumer buys services, he/she purchases an experience created by the delivery of that service with goods; the benefits packaging is intimately connected to the actual goods and it disappears over the good that has been consumed. With services, the difficult part of the bundle of benefits, can come from a variety of services at once. The model of the servuction system is explained in figure 3.1 below.

Figure 3.1 The servuction service model



Source: Bateson and Hoffman (1999:14)

Firstly, the service is broken into two parts, one visible and the other not. The invisible function of the firm offers the visible part of the

organization, which in turn, is broken into two parts: the inanimate physical environment in which the service encounter takes places and the contact person who actually provides the services.

The model suggests, that customer A, who is buying the service, also will be attracted by customer B, who is in control with the firm at the same time. The benefits package is derived from an instructive process or experience. The visible component of the firm is supported by the invisible components that provide the administration and maintenance of the physical facilities. The whole system creates the experience, which in turn creates the benefits to the consumer. The following number of conclusions are drawn from the model.

- Services cannot be inventoried
- Services are time-dependent
- Services are place dependent
- Consumers are always involved in factory
- Changes in factory mean change in consumers' behavior
- Changes in the benefits concept mean changing in factory
- Everyone and everything that comes into contact with the consumer, constitutes a delivery of service
- Contact persons are part of these experiences
- Services cannot be quality controlled at factory gate
- A different concept of marketing as an organizational function.

A revision of literature over the years, reveals the different characteristics used by authors to describe services. Table 3.1 below, shows the characteristics of services.

Table 3.1 Characteristics of services

Authors	Intangibility	Heterogeneity	Inseparability	Perishability	No ownership
Ahtola (1985)	X	X	X		
Beteman (1979)	X		X	X	
Bosson and Jackson (1975)	X		X	X	
Blois (1974)	X				
Booms and Bitnim (1981)	X	X	X	X	X
Cowell (1985)	X	X	X	X	X
Doris, Guitmon and Jon (1979)	X	X	X	X	X
Eiglier et al., (1977)	X		X		
George, Kelly and Marshall (1983)	X	X	X	X	
George (1977)	X		X		

Authors	Intangibility	Heterogeneity	Inseparability	Perishability	No ownership
Grönroos (1978)	X		X		X
Grönroos (1980,1984)	X		X	X	
Grow and Fick (1983)	X		X		
Rothmall (1966,1974)	X	X	X	X	
Regan (1963)	X	X	X	X	
Schaeider (1987)	X		X	X	
Shetty (1987)	X	X	X	X	
Shostack Shostack (1977)	X				X
Smith and Houston (1983)	X		X		
Thomas (1978)	X	X		X	
Zeithaml (1981)	X	X	X		

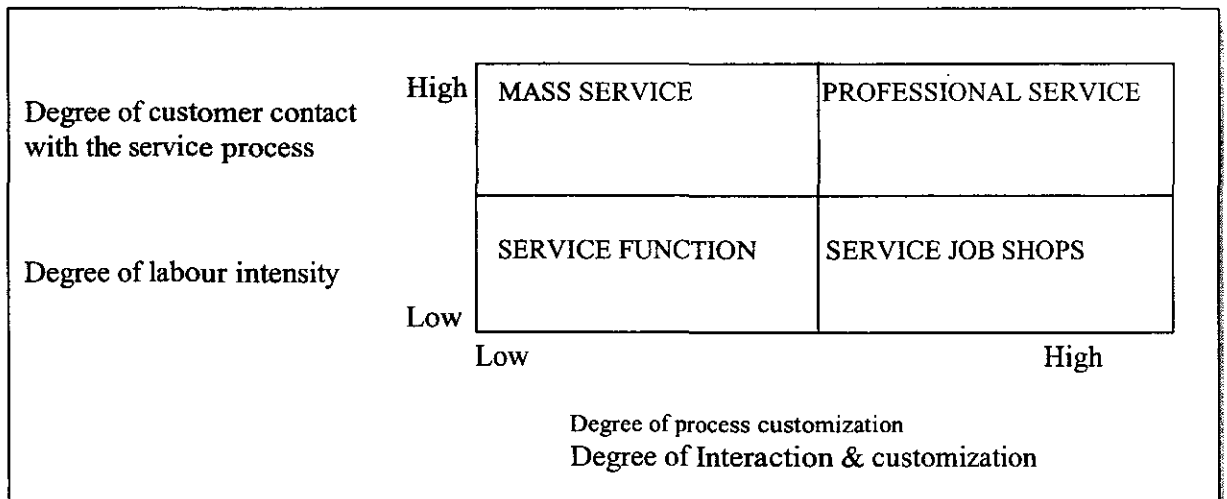
Source: Zeithaml et al., (1988:34)

3.2.2 Classification of services

Classification has long been a tradition of science, especially classification systems. Function systems constitute the most powerful periodic table of elements developed by Mendeleev to analyze elements in chemistry. The classification of services that have emerged so far, which compare poorly to such a benchmark. Most schemes combine organization with classification and they are not based on empirically testable properties of services. Bateson and Hoffman (1999:10) tend to focus on opposites and produce categories such as people-based versus equipment-based, high contact versus low contact, and individual versus collective. Bateson and Hoffman (1999:10) focus on the operational aspects of services and fail to take into account marketing problems.

According to Haywood-Farmer (1987:26), different types of service firms cover an extremely wide range of activities. The major weakness of service classification schemes, is their lack of attention as to how the service is produced. Earlier one-dimensional schemes have been combined to form two-dimensional schemes. Figure 3.2, below shows two of these schemes.

Figure 3.2 Two-dimensional classification

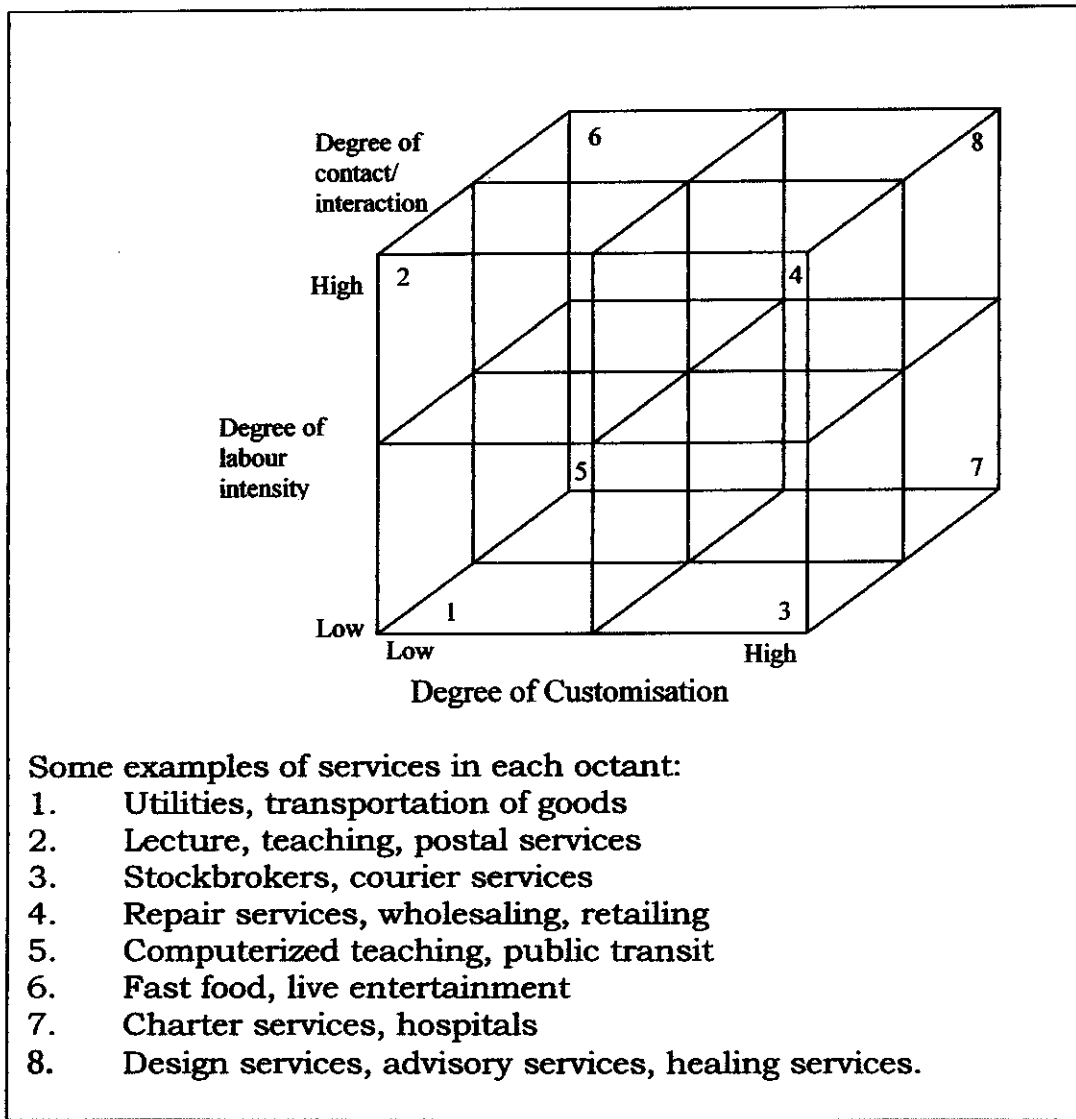


Source: Haywood – Farmer (1987:26)

Although they use similar concepts and technology, these schemes use different definitions of the axis labels; such practices are economical, but tend to confuse readers. These objectives could not be overcome by using a three-dimensional model such as the one shown in figure 3.3, which separates the concepts combined by the earlier authors and gives some examples.

Despite these differences and the current lack of adequate measurement scales for the concept, classification schemes such as those in figures 3.2 and 3.3, point out how the operations and marketing tasks of service differ significantly in some important dimensions. These dimensions represent significant classic productivity improvement strategies – reducing labour, standardizing tasks, and standardizing output. These concepts can be highly educational for service managers. Services that share operations and marketing characteristics, whether in the same industry or not, can often provide managers with more useful operations ideas than can other firms in the same business sector (as defined by economists) with quite different characteristics. For example, a travel agency specializing in business travel, might learn more from a fast food restaurant than it might from another travel agency specializing in specialized charter tours. Figure 3.3 follows on the next page.

Figure 3.3 Three dimension



Source: Haywood-Farmer (1987:29)

Davis (1999:23) notes, that a weakness of this classification is, that two of the types refer to general industry designation (most services are professional services) and two are non-descriptive of the type of work performed (factories and shops). Further, this distinction between routine and knowledge work, has been applied widely in firms and may be a better basis for classification. Another is the issue of integrated or decoupled tasks, which deal with the horizontal dimension of work processes or how service is delivered. When two

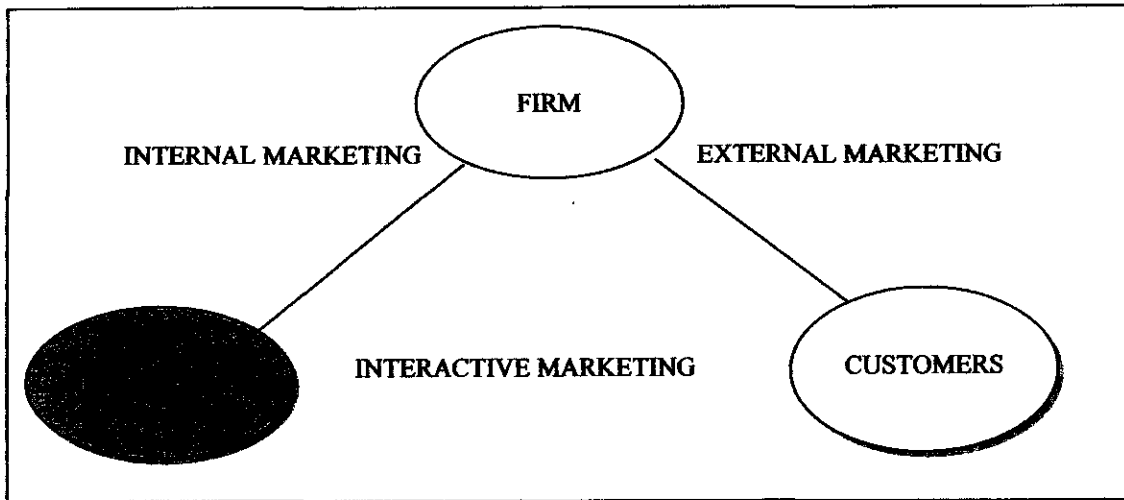
task-dimensions (routine/knowledge: work and interrogated/decoupled) are combined, the following four types of services emerge.

- Service factories have routine processes that are tightly integrated in delivery, such as restaurants.
- Service stores provide a variety of routine services that are decoupled or disintegrated in delivery, such as hotels, banks, and department stores.
- Service shops any non-routine knowledge or craftwork, closely integrated in delivery, such as auto repair shops, personal services.
- Service complexes engage in non-routine knowledge work that is decoupled in delivery, such as hospitals and large consulting firms.

3.2.3 Marketing strategy to service firms

Kotler et al., (1996:593) points out, that service marketing requires more than just traditional external marketing using the four P's, because service outcome is affected not only by the service provider, but also by the whole supporting production event. Service marketing requires both internal marketing and interactive marketing, as shown in the figure 3.4 on the next page.

Figure 3.4 Three types of marketing services



Source: Kotler et al., (1996:593)

- Internal marketing means that the service firm must invest heavily in employee quality and performance. The employees must be motivated and all the supporting service people must work as a team in order to provide customer satisfaction. Marketing must encourage everyone to protect marketing, while internal marketing must provide external marketing.
- Interaction marketing means that pure service quality depends heavily on the quality of buyer-seller interaction. The customer judges service quality not just on technical quality, but also on functional quality.

The following three major tasks are faced by service firms, as competition and costs increases (Kotler et al., 1996:596).

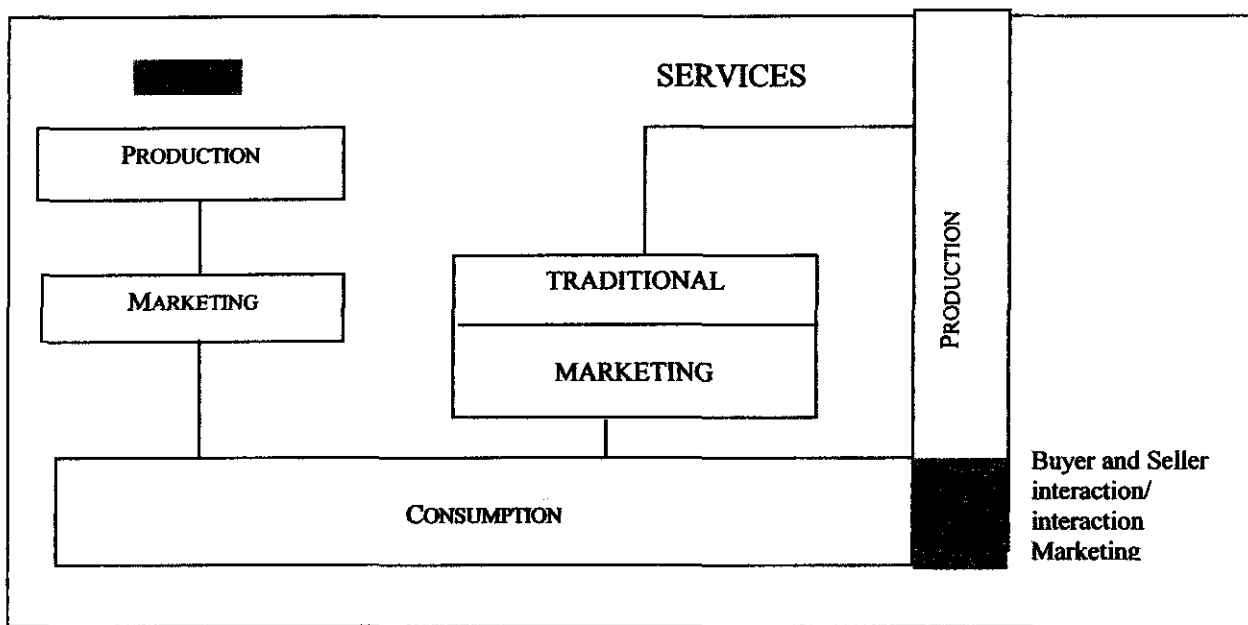
- Managing differentiation. Service differentiation is hampered by intangibility and inseparability of services. It makes it difficult for consumers to compare ultimate service offering in advance of purchases in the way that they do with products. The primary strategy used to differentiate, is easily emulated by competitors.

The solution to price competition, is to develop a differentiated offer delivery and image. They can also differentiate service delivery through peoples, physical environment and processes. These are referred to as the additional three P's in service marketing.

- Managing service quality. One principal way to differentiation, is by the delivery higher of service quality than do its competitors. Quality in service is harder to define, or to judge or quantify than is product quality. As it is illustrated in sections below, that because of intangibility, there are seldom-physical dimensions, which can be used as benchmarks and measured.
- Managing productivity. The increases in costs, especially in services that are labour intensive, put service firms under great pressure to increase productivity. Productivity can be improved in following ways.
 - Motivate and improve on the services of current employees, or appoint new ones who will work harder or more skillfully.
 - Industrialize the service by adding equipment and standardizing production.
 - Design more attractive services.
 - Give customers incentives to substitute firm's labour with their own labour in order to increase customer participation.
 - Deal with fluctuating demand so that the service provider can increase flexibility and reshape demand.

The following figure illustrates the fundamental differences between the nature of services marketing and consumer goods marketing.

Figure 3.5 Relationship between production, marketing and consumption



Source: Adopted from Grönroos (1982:32)

The objective of marketing, is to manage all resources that influence the preference towards products and services on the market. For service firms, these resources are more or less these managed by the components on the left. The components on the right show how the preference of a service consumer is influenced. The consumer opinion of the service firm and its service, and his/her future buying behavior, are determined by what happens in the buyer-seller interaction.

3.3 Quality

According to Kim, Shim and Kim (2001:644), quality is not a simple concept and is multidimensional. Besterfield (1999:5) note, that quality is often expressed in terms of an excellent product or service that fulfills or exceeds expectations. These expectations are based on the intended use. Besterfield (1999:5) quantified quality as follows:

$$Q = P/E$$

WHERE Q = Quality

P = Performance

E = Expectations

Chase and Aquilano (1998:644) suggest the following eight dimensions of quality for products and services.

- Performance. Primary product characteristics.
- Features. Secondary characteristics, such as added features.
- Conference. Meeting specifications or industry standards, workmanship.
- Reliability. Consistency of performances over time.
- Durability. Useful life; includes repair.
- Service. Resolution of problems and complaints.
- Response. Human-to-human interface.
- Aesthesia. Sensory characteristics.
- Reputation. Past performance and other intangibilities.

Garvin (1988:3) developed a more comprehensive definition for the multidimensional concept of quality, based on the work of a number of authors (definitions illustrated in Table 3.2 on the next page).

Table 3.2 Garvin's definition of quality

Dimension	Definition
Transisdent	Neither mind nor matter, but a third entity independent of the two. Quality to achieving or researching for the highest standard as against being satisfied with the sloppy or fraudulent.
Product-based	Differences in quality amount to differences in quality of some designed ingredients or attributes. Amounts of the attributes contained in each unit priced attribute.
User-based	The quality of a product depends on how well it fits consumer patterns of preferences. Quality consists of the capacity to satisfy units.
Manufacturing based	Quality means conformance to requirements. Quality is degreed to which specific product confirms design or specification.
Value-based	Quality in degree of excellence at an acceptable price and the control of variability at an acceptable price. Customer conditions, actual use and selling on quality.
Management-based	The quality of a product depends on how well it fits patterns of manager's preferences in terms of its strategic implies time. Quality is capability that efficiency/effectiveness of management processes. This dimension is internally oriented whereas others are extremely orientated.

Source: Kim et al., (2001:645)

Pycraff, Singh and Phihlela (1997:612) provide a clearer understanding of the five definitions provided by Garvin.

- The tracent approach view quality as being synonymous with immune excellence. Quality is defined as the absolutely best possible, in terms of the products or service specification.
- The product-based approach views quality as a precise and measurable set of characteristics that are required satisfying the customer.
- The user-based approach is about making sure that the product or service is fit for its use. It demonstrates a concern for differences to specifications and also the appropriateness of that specification for the customer.
- The manufacturing-based approach is concerned with making products or providing services that are free of errors and that confirm precisely to the design specification.
- The value-based approach takes the main featuring activities a stage further and distinct quality measured in terms of cost and price.

Garvin, Harvey and Green, cited by Dahlgard, Kristensen and Kanji (1998:14) suggest, for discrete and interrelated definitions of quality as follows:

- **Exceptional.** Three solutions are provided, i.e. traditional is expressed as the distinctiveness, something special or high class. It confirms status of the owner and users and implies exclusivity. Secondly, excellence relates to high standards and describes the zero defects. Thirdly, standards mean, that a quality idea in this case is one that has passed a set of quality checks; checks based on certain criteria in order to eliminate distinctive items.
- **Perfection or consistency.** Perfection concentrates in a process, and with the help of proper specification, it transforms the traditional idea of quality into something which can be achieved by everybody.

- **Fitness for purpose.** This focuses on the relationship between purpose of the products or services and its quality. It is a functional definition. Fitness for purpose is used in order to propagate and measure production.
- **Value for money.** This is described as the price you can afford to pay for your requirements at a reasonable cost, or that quality is compared to the level of specification, being directly related to cost.

3.4 Strengths and weaknesses of quality definitions

Reeves and Bednar (1994:419) point out, that a search for the definition of quality has yielded inconsistent results. Different definitions have been proposed at various times in response to the revolving and constantly changing demands of business. No one definition is best in every situation, because each has both strength and weaknesses in relation to criteria such as measurements and generalizability, managerial usefulness, and consumer reliance. Examining these strengths and weaknesses, the trade-off among them can be identified.

Table 3.3 on the next page summarizes the strengths and weaknesses of each definition.

Table 3.3 Strengths and weaknesses of quality definitions

Definition	Strengths	Weaknesses
Excellence	Strong marketing and human resources benefit. Universally recognizable-many uncompromising stops and high achievements.	Provide little practical guidance to practitioners. Measurements differentiate. Attributes excellence may change automatically and rapidly. Sufficient number of customers must be willing to pay for excellence.
Value	Concept of value in corporate multiple attributes. Focuses attention on firms' internal efficiency and external effectiveness. Allows for comparison across desperate objects and expenses.	Differently extracting individual components of value judgement. Questionable inclusiveness. Quality and value are different concepts.

Definition	Strengths	Weaknesses
Conformance to specification	Facilitates precise measurement. Leads to increased efficiency. Necessary for global strategy. Should force this desegregation of consumer needs. Most promising and appropriate definitions for some customers.	Consumers do not know about internal specifications. Inappropriateness of services. Potentially reduces organizational adaptability. Specification may quickly become absolute in rapidly changing markets. Internally focused.
Marketing and/or exceeding Marketing and/or exceeding expectations.	Evaluations from customers. Applicable across industries. Responsive to market changes. All-encompassing definition.	Most complex definition. Difficult to measure. Customers may not know expectations. Idiosyncratic directions. Pro-purchases attitudes after subsequent judgements. Short-term and long-term evaluations may differ. Confusion between customer services and customer satisfaction.

Source: Reeves and Bednar (1994:437)

3.5 Total Quality Management

Stemming from the description of quality, the concept of total quality management (TQM) has evolved as an enhancement to the traditional way of doing business. Besterfield (1999:1) define total quality management as being both a philosophy and a set of guiding principles that represent the foundation of continuously improving organizations. It is the application of quantitative methods and human resources to improve all the processes within an organization and succeeds customer needs now and in the future.

Definitions of the concept “quality”

The concept “quality” as used in TQM, is confusing, in the sense that its meaning changes as the perspective in which it is used, changes. For example, quality defined according to the consumer perspective, refers to the aspects of product or service that bring satisfaction to the consumer in terms of meeting performance expectation. Similarly, quality defined according to the producer or provider perspective, refers to the aspects of the product or the service that brings satisfaction to the producer or provider in terms of meeting specification requirements and cost reductions. All quality experts agree on the necessity of manufacturing or the provider, to reconcile the apparently conflicting perspective, thereby making quality improvements processes more manageable (Zabada et al., 1998:58).

Total quality management requires the following six basic principles (Besterfield, 1999:2):

- A committed and involved management to provide long-term top to bottom organizational support.
- An unwilling focus on the customer, both internally and externally.
- Effective involvement of the business and production process.
- Treating suppliers as partners.

- Establishing performance measure for the processes.

The purpose of TQM is to provide a quality product or service to customers, which will increase productivity and lower costs. Higher service quality will increase the business competitive position.

The contemporary quality management philosophy has been strongly influenced, primarily by the thoughts of such leading quality gurus as Shewhart, Deming, Juran, Crosby, Feigenbaum and Ishikawa. Shewhart emphasizes the need to understand the work process through the use of statistical tools. Deming recommends 14 points of managing quality in an organisation. Juran identifies three fundamental managerial processes. Crosby prescribes 14 steps to quality improvements, leading to zero defects. Feigenbaum develops the process, that the quality in manufacturing could not be achieved if the products were poorly designed, insufficiently distributed, incorrectly marketed, and improperly supported in the customer's view. The latter also developed a concept of cost of quality (COQ) in order to quantify the benefits of adopting a total quality management (TQM) approach. Ishikawa was the first person to use the phrase 'total quality control', implying the involvement of all parties concerned in the process of managing quality. He also demonstrates the use of "seven tools of quality control". These authors and others stress the importance of such critical factors as top management leadership, employee involvement and empowerment, employee training, supplier management and management of processes for producing quality goods and services (Quazi et al., 1998:35).

Deming developed an approach summarized in his 14-point programme (Deming, 1986:2).

Deming's fourteen point program.

Point 1 - Create constancy of purpose for improvement of products and services

The starting point for the realisation of such a programme, is Deming's consideration that the management of a business organisation has two sets of problems: problems of today and those of tomorrow. Problems of today encompass the immediate needs of the enterprise: the quality of the company's product put out today, sales, profits, public relations, etc. Many companies dwell on such problems, however, without sufficient attention to the future. Problems of the future concern constancy of purpose and dedication of quality improvement. Deming deplores phenomenon, that managers tend to live and work for the next quarterly dividend only, instead of concentrating of whether the company will still be in business five years from now.

Therefore, establishing constancy of purpose requires the company to be innovative and to allocate the necessary resources for long-term planning. What are the future products and materials that will be required by customers? What will future production method be? What are the skills required, and in what number? How do we have to organise training for the workers currently employed? What will be the costs of production? How will the product and service of our company be used by the customer?

Furthermore, constancy of purpose means putting resources into research and education. To be prepared for the future, the business organisation has to invest today in properly educated employees and research that will lead to product innovation. Resources are also needed for investment in maintenance of equipment, furniture, and fixtures. A business organisation cannot improve a product or work process when outdated machinery is used.

Point 2 - Adopt the new philosophy

Quality must become a new business philosophy for the company. Deming states, that the company can no longer live with commonly accepted levels of mistakes, defects, bad material, poor training, uniformed workers and inattentive service. Management has learnt to live in and accept a world of errors and defective output. These are “roadblocks” to better quality. Therefore, according to Deming, “...it is time to adopt a new religion”. A new approach to quality is required where mistakes and defects are considered to be unacceptable.

Point 3 - Cease dependence on mass inspection

Many companies inspect the product as it comes off the production line, and defective parts are either reworked or thrown out. This 100 percent inspection is too late, ineffective, and costly. Deming notes, that quality does not come from inspection, but from the improvement of company’s work process. The traditional way of post-production inspection, was to “inspect bad quality out”. Deming’s new demand is to “build good quality in”. The 100 percent post-production inspection syndrome should be eliminated and replaced by an improvement of work process of the enterprise.

Point 4 - End the practice of awarding business on price tag alone

Deming stresses the fact that the purchase price has no meaning without the measure of the quality of this item. Companies tend to award business to the lowest bidder only. A large proportion, of problems of poor quality, however, results from the poor quality of incoming materials. Instead, companies should look for the best quality. This quality level can be achieved by co-operating with a

single supplier in a long-term business relationship, where both partners have the chance to work very closely together.

Point 5 - Constantly and forever improve the system of production and service

Quality improvement is an ongoing, never-ending process, and not a one-off effort. Management must continually reduce waste and improve the quality of every activity in the company. This includes all functions such as procurement, engineering, transportation, sales methods of distribution, accounting, service to customers, etc.

Point 6 - Instant modern methods of training on the job

According to Deming, poor training of workers appears to be a way of life. A worker, however, had never been trained properly. Therefore, Deming demands that training must be completely reconstructed. Deming suggests, using his statistical control of charts, that when the output of the work process for which the worker is responsible, reaches a statistical stable state, additional training will not help the worker.

Point 7 - Institute modern methods of supervision

It is the responsibility of top management, Deming argues, to discover and remove possible problems that make it difficult for the worker to take pride in what he/ she does. These barriers could be, for instance, a deaf ear to the suggestions for improvements in the work process, machines which are not properly maintained, an emphasis on numbers and not on the quality of output, poor quality of incoming raw material, and too much time spent on reworking. Instead of imposing quotas on the worker, the supervisor should help, lead, and

coach the worker. The traditional approach of supervision working with elements such as pressure and distrust, is no longer required.

Point 8 - Drive out fear

Many workers are afraid of asking questions of their supervisors, even when they do not understand their task properly and do not know what is right or wrong. Deming argues, that economic loss from fear is appalling. The worker is concerned that his superior will feel threatened. It is the responsibility of management to generate a cultural atmosphere in the company, which ensures that workers are not afraid to express their ideas, not afraid to ask questions, not afraid to make suggestions for quality improvement, not afraid to request further instructions, not afraid to report raw material which is not usable because of poor quality. Only a positive quality culture where every employee feels free to contribute his/her ideas, will allow the company to achieve its quality objectives.

Point 9 - Break down barriers between staff areas

Often staff areas do not work closely together, but rather compete with one another. The flow of communication between different departments of the same company takes place, but is considered to be the sole "property" of one department. Each staff area is sub-optimising its own work only. Today's customer requirements and highly competitive international markets are very complex, and require using total expertise from all companies' different departments to solve a particular quality problem. Only the team approach will enable the company to satisfy the customer. Deming notes, that "...teams composed of people in design, engineering, production, and sales can accomplish important improvements in design of product, service, and quality, and reduction of costs".

Point 10 - Eliminate numerical goals for the workforce

Slogans, pictures, and posters for the workers which urging them to increase productivity, according to Deming, must be eliminated. Defining a goal without the necessary method for achieving is useless. Setting the numerical goal without the description of how to reach it, is common practice among managers. These slogans and goals never help the worker to perform well. They have a “lofty ring”, Deming states, and it is almost impossible for a worker to do a quality job when the incoming material is off-gauge, off standard, or otherwise defective. Management must, therefore, provide the means to the ends that it proclaims.

Point 11 - Eliminate work standards and numerical quotas

Quotas and other work standards impede quality probably more than any single working condition. The author emphasises, that the qualitative target is superior to a quantitative one and all the activities relevant to quality, should be orientated to the long-term and not the short-term. Once a worker has completed his/ her quota for the shift, he/ she quits working and lingers around till the end of his/ her shift. Moreover, the pressure to achieve certain quotas, will take account mainly of numbers, and not quality. Deming refers to the example of a steel company where the incentive pay was based on the total tonnage turned out, regardless of how much of the product was turned back into the furnace as unusable.

Point 12 - Remove barriers that hinder the hourly worker

Employees are basically eager to do an excellent quality job. Too often, however, wrong supervision, poor quality of raw materials, and faulty equipment hinder the workers and are barriers that must be removed by management. Workers are frustrated, because sometimes they are

unable to perform their jobs the way they would like. Supervisors, Deming argues, might only be interested in getting work out, not the quality of work. They put pressure on the worker and request him/her to meet his quotas, which then limits the right of this worker to be proud of his/ her work.

Deming avers, that the hourly worker is aware of the need for quality. To him, quality means his job. He also understands why productivity increases as quality goes up. He cannot understand why management talks about quality but does nothing about it – in fact, impedes it. The fact is, that management can have both quality and numbers, by providing road maps to quality and eliminating barriers that confront the hourly worker.

It is the responsibility of management to remove these barriers

Point 13 - Institute a vigorous program of education and training

All employees should be trained continually, as the needs of the customers are constantly changing over time. It is not enough to hire good people for business organisation. They constantly have to require new skills for new materials and new methods of production. Deming considers training to be a long-term investment in people for the future of the company. Continuous training helps employees to improve their quality performance and the quality work process they are responsible for. Deming particularly stresses the need for training in statistical techniques, such as the use of control charts. A company should be in the position to fall back upon trained personnel who are able to apply statistical techniques efficiently.

Point 14 - Create a structure in top management that will push everyday on the above thirteen points

The final aspects of Deming's program, is his consideration, that management of a business enterprise has to define an overall quality framework, which allows for the successful implementation of and compliance with his previous 13 points. Management is required to organise itself as a team to advance these 13 points. Deming suggests using an external statistical consultant for guidance.

However, the author does not consider certain aspects of today's TQM approach, such as the need to give more recognition to the requirement to positively motivate the individual employee to dedicate himself/herself to quality work. The role of the human resource issue and vital contribution that the individual can make to his work organisation, are not covered by Deming. He ignores the question of commitment and motivation of the individual employee. Despite the attempt to recognise a holistic quality management system in the work of Deming, it has to be pointed out that statistical methods remain the heart of his ideas.

3.5.1 The work of Juran

Along with Deming, Juran lectured in Japan in the 1950's. He was the first to broaden the understanding of quality control, emphasizing the importance of managerial aspects. His work is very detailed and comprehensive. It has to be pointed out, that Juran published the first edition of his quality control handbook as early as 1951, which highlights the importance.

Juran was assigned to investigate internal and external quality complaints. Various production departments were from time to time not able to perform their tasks properly, because of the poor quality of

components and their inability to assemble parts. It was Juran's job to find possible causes and to apply a remedy. Then, in 1926, the Western Electric Company used by Bell telephony laboratories to apply some statistical tools, including the newly invented Shewhart Control Chart. Subsequently, a new department was created – the so-called Inspection Statistical Department, and Juran became one of its team members. At the end of Second World War, Juran decided to embark on a new career of freelancing in the area of consulting and management. In 1951, he published his first edition of the Quality Control Handbook. As a direct result of the publication of this book, Juran received the original invitation to visit Japan from the Union of Japanese Scientists and Engineers.

Juran contacted a number of seminars for top and middle managers. His lecturing has a clear managerial flavour. His main contribution was that quality control must be conducted as an integral part of the management function. Juran deplored the fact, that with the industrial advance and the strong growth of business enterprises using mass production methods, large companies were more and more split into functional departments. Many industries adopted the principle of separating planning from execution. The planning of various functions in the company was delegated to a specially trained planning department, whilst the task of the actual execution of the plans was left to the company's supervisors and workforce. As business enterprises grew further in size, the volume of activity outgrew the capacity of the company's management. It thus became increasingly necessary for management to delegate. Juran argues, that once managing the quality issue was delegated to the subordinate hierarchy, it was no longer considered to be vital for the top management of the company to participate personally in managing quality. This progressive removal of the company's management from managing the quality issue, led to negative effects on quality. In the end, nobody in the company felt responsible for quality. Since the

worker, however, orientates himself towards the supervisor, the supervisor in turn to the department manager, and the department manager to the board of directors, the visible leadership and personal involvement of top management in inspiring quality, as Juran explains, is a very important signal for every employee in the business organisation.

Management involvement could become visible in various ways.

- It is the responsibility of management to establish a Quality Counsel. This Counsel plays a central role in coordinating the company's various activities regarding quality; for instance, Quality investment teams, TQM awareness activities and training programs.
- Moreover, management should establish a Quality Policy. The quality policy should guide managerial actions. The management of the company has to identify the need for quality policies, and must assign the responsibilities for preparing a draft, to review the draft, approve the final version and to implement the quality policy.
- Furthermore, management has to establish quality goals which should be expressed, by members and should include a time frame. An example could be, that within the next three years, the internal failure costs of the machine shop, which results from discrepancies detected prior to delivery to the external customer, shall be reduced by 40 %.
- Once a specific goal has been established by management, it is then the responsibility of management to provide the necessary recourses needed to achieve the quality goals. This could mean additional training for some employees, monetary funds to improve a certain situation and time to work within a quality improvement team.

From the above it is clear that Juran's approach mainly emphasized that quality control has to be conducted as an integral part of the management function, which then broadened the understanding of quality at that time.

3.5.2 The work of Feigenbaum

Feigenbaum can be designated as the originator of the concept of total quality control. Total Quality Control (1983) was originally published in 1951. Feigenbaum develops his approach to TQM, dealing with elements and management of quality, the system for total quality, management strategies and quality, engineering technology and quality, and statistical technology and the application of total quality in the enterprise. In the 1950's Feigenbaum worked as quality manager at the General Electric Company and was intensively connected with companies such as Toshiba and Hitachi. From 1958 to 1968 Feigenbaum became the world-wide Director of Manufacturing Operations at the General Electric Company.

Feigenbaum constructed the following two new aspects to the discussion of quality:

- Quality is the responsibility of everybody in the company ranging from top management to unskilled workers. TQM shall provide the fundamental basis of positive commitment to quality for the employees of the business organisation, from management to assembly workers. It involves everyone. It is a positive effect of TQM, that it should build up employee responsibility for product quality. Each individual employee should become interested in product quality. Quality is produced not only by the production department, but also by marketing, research and development, finance, purchasing and any other department. TQM, Feigenbaum argued, was to integrate the efforts of large numbers of machines

and technologies. It is the total participation of all employees to see to it that the integration of all the company's technical and human resources will lead to long-term business success.

- Feigenbaum first recognized, that costs of non-quality goods/ services have to be categorized when managed. Costs of control and costs of failure of control, have to be minimized by a quality improvement programme. The costs of control should be measured. Feigenbaum identifies the following principal areas: prevention costs (e.g. quality training of employees) should keep defective parts from occurring, and appraisals costs (e.g. quality audit costs) for maintaining the quality level of the company. The costs of failure of control are also measured in the two areas of internal failure costs (e.g. scrap) and external failure costs (e.g. customer complaints of work material). Feigenbaum states that, "...we have been spending our quality dollars the wrong way: a fortune down the drain because of product failures; another large sum support sport-the-bad-from-the-good appraisal screen to try to keep too many bad products going to the customer; comparatively, nothing for the true defect-prevention technology that can do something about reversing the vicious upward cycle of higher quality costs and less reliable product quality" (Feigenbaum, 1983). The more defective parts, Feigenbaum argued, the higher the failure costs. The traditional reaction to higher failure costs have been increased inspection. This traditional post-production syndrome tries only to separate good parts from defective ones, but does not make any allowance for the prevention of defective parts occurring during the production process itself. The inspection system only controls at a place where the production process that has possibly generated the defective parts, have already been completed. More inspection also means higher appraisal costs. The intensified inspection does not have any real effect on eliminating defects. Appraisal costs will thus remain at a higher level as long as failure costs remain high. Feigenbaum suggests, in order to both failure costs and appraisal

costs, increasing the expenditure for prevention. Prevention of defects will lead to a reduction of defective parts. Feigenbaum propounds that this will have, a substantial reduction in failure costs. Moreover, an increase in prevention costs, will result in fewer defective parts and, consequently, will lead to a reduced need for routine post-production inspection and extensive test activities. The final result is a clear reduction of the company's overall costs of non-quality and an improvement of its competitive situation.

Feigenbaum's (1983) intention is not so much to create managerial awareness of quality, as to assist a business enterprise to design its own quality system involving every employee. He offers a highly structured approach to total quality which, however, hardly covers the question of motivation and commitment of the individual employee to quality.

3.5.3 The work of Crosby

Philip Bayard Crosby (18 June 1926) has become known for his concept of "Zero defects" and "Do it right the first time", which he expects to be the only standard of performance. Any other acceptable quality levels (AQL) are not good enough.

The starting point of Crosby's concept, is his statement that quality "...is free. It's not a gift, but it is free. What costs money are unquality things – all the actions that involve not doing jobs right the first time" (Crosby, 1979). To be able to understand quality it is helpful to deal first with a number of erroneous assumptions held by many managers. The first erroneous assumption, according to Crosby, is that quality means luxury or goodness, signifying the relative worth of things. Crosby makes it clear, that quality has to be defined as "conformance to requirements". The customer must define these expectations in specific terms. Then exact measurement can be taken

continually in order to determine conformance of the product or service to those requirements. In case non-conformance is detected, this means absence of quality. A second erroneous assumption, Crosby says, is that quality is measurable. He points out, that it is possible to measure quality quantitatively, as the costs of non-conformance are identical to the costs of quality – doing things wrong. Another erroneous assumption is, that all quality problems originate with the workers of the company. Crosby does not, however, believe that the employees are the prime cause for poor quality. First, he argues, management has to lead by example and the employees follow their example. As Crosby notes, quality inspectors “...march blindly past the defects of accounting, engineering, computer programming, and marketing on their way to the manufacturing a ghetto to look for errors”. A fourth erroneous assumption, is that quality originates in the quality departments. He argues, that unfortunately many quality professionals feel that they are responsible for quality in their business organisation. These people must learn to call a problem by its real name, namely those who cause the problems, like marketing problems, accounting problems, manufacturing problems and design problems. Crosby points out, that quality is the responsibility of every employee in the company. It is not the quality department that is kept responsible for resolving problems over which this department has no control or immediate access to.

This leads to Crosby’s idea of the “Quality Vaccine” which can be used by business enterprises to prevent the problem of non-conformance. He argues, that a business organisation can be vaccinated against non-conformance to quality requirements. He recommends applying, the following four absolutes of quality management.

- **DIRFT: Do it right the first time**

Crosby argues, that the key to DIRFT, is to ensure that clear requirements have been defined and that they are understood by both customers and suppliers. Quality must be defined as “conformance to requirements” , and not as goodness. It is then the responsibility of management to establish the internal requirements that the workers are to meet. Furthermore, management has to supply the necessary means that the workers need to meet those requirements. Finally, management has to make an effort to encourage and support the workers to meet these requirements.

- **The system of quality is prevention**

Since post-production inspection is done by sorting the good parts from the bad, which results in high appraisal costs, the system of quality has to be prevention. Crosby argues, that “...appraisal is an expensive and unreliable way of getting quality. What has to happen is prevention of errors. The error that does not exist, cannot be missed” (Crosby, 1979). The system generating quality, according to Crosby, is not appraisal but prevention of errors.

- **The performance standard is “Zero Defect”**

A business organisation, as Crosby notes, is like an organism with thousands of small seemingly insignificant actions, which makes it all happen. Each of these actions should be performed as planned in order to make everything come out correctly. A performance standard established by management, is a device for making the company run by supporting the individual employees to recognise the importance of each of these thousands of actions. “Zero Defect” is a performance standard. Mistakes are a function of a failure of recognising the importance that an employee places on specific things. Employees are

more concerned about one act to another. Mistakes can be caused by two different types of factors: Lack of attention and lack of knowledge. Lack of knowledge can be compensated for by appropriate training and the correction of deficiencies. Lack of attention is to be corrected by the employee himself. This is, Crosby argues, an attitude problem. The employee who is prepared to commit himself/herself to monitor carefully each detail and to avoid errors, takes an important step towards setting a goal of zero defect in all things while at work. This is his standard of performance.

- **Management of quality is the price of non-conformance**

Crosby deplores the fact, that quality management is hardly taught in business schools. This subject is not considered to be a function of management, but rather to be a technical function only. Often quality is not looked at in financial terms. Crosby divides the costs of quality into two areas: the price of conformance and that of non-conformance. The price of conformance is understood to be the amount necessary to spend in order to make things come out correctly. This includes all prevention efforts and quality training. The price of non-conformance includes all prevention efforts and quality training. The price of non-conformance includes all expenses involved in doing things wrong. This refers to, for instance, payments for warranty, correction of work procedures, etc. Quality is measured as the price of non-conformance.

However, Crosby does not make any reference to the actual quality tools and techniques required to realising his concepts. He mentions only very briefly statistical methods: "...there is nothing wrong with QC and SQC; they are excellent tools in the battle for quality improvement", and Pareto analysis: "...corrective action is more successful when it operates on the well-known Pareto principle". Crosby's approach which offers more help to managers than to

engineers, leads to the criticism that he lacks substance. Certainly Crosby is acknowledged as a great orator, but beyond that, his concept has to be more motivational than practical.

3.5.4 The work of Ishikawa

Basing his ideas on the works of Juran and Deming, Ishikawa (1985) substantially influenced the Japanese understanding of quality. In 1939 he graduated from the engineering Department of Tokyo university. He obtained a professorship in 1960. He was awarded the grand prize from the American Society for Quality Control for his writings on quality management. Ishikawa died in April 1989.

Ishikawa has become known for his work on, in particular, the aspects of TQM, quality circles, the question of continuous training, the quality tool "Ishikawa diagram", and the quality chain. His approach to TQM comes very close to today's understanding of TQM. As Ishikawa:

Japanese quality control is a thought revolution in management. It is an approach representing a new way of thinking about management. To practise quality control is to develop, design, produce and service a quality product which is most economical, most useful, and always satisfactory to the consumer. To meet these goals, every one in the company must participate in and promote quality control, including top executives, all divisions within the company, and all employees (Ishikawa, 1985).

In this definition, Ishikawa (1985) covers a number of key elements of total quality.

TQM emphasis a clear customer orientation – internal and external. The needs of the customer have to be satisfied. TQM is not limited to

the quality department that involves all departments within the business organisation. Top management has to lead by example and to demonstrate actively that they are serious about quality. TQM involves everyone within the company; every employee should contribute his/ her ideas of how to improve the work processes.

Ishikawa considers the implementation of quality service as an effective way of getting the shopfloor involved in the quality issue. In the early 1950's, Ishikawa and the Union of Japanese scientists and Engineering, started to organise training programmes for shared floor supervisors. They were initially called Workshop QC study groups. In April 1962 these groups were known as QC Circle activities. Since that time, this concept has spread rapidly in Japanese Industry. It became one of the important reasons for Japan's business success and has been exported worldwide. A quality circle is a voluntary group of six to eight employees from the same department. They meet regularly in order to discuss aspects of the immediate job environment. It is the aim to improve the work processes these workers are responsible for. Thereby the full expertise, job knowledge and human capabilities of each employee can be fully utilised. Entire human resources are drawn out. This involvement increases and strengthens commitment of individual employees to the quality objectives of the company.

This involvement of all employees in the company's problem-solving process, requires the continuous education and training of everyone in the company. Ishikawa claims, that TQM "...begins with education and ends with education" (Ishikawa, 1985). Because the workforce of a business organisation is constantly changing, Ishikawa argued, and new employees are starting, education and training must be continued. But it is not only the work force which is changing. Also the need and expectation of the customer are moving targets and subject to constant change, and Ishikawa stresses the importance that "...QC training and education must also be carried out without

interruption, through good times and bad". The Japanese quality expert defines the aim for a training program the making of quality everybody's concern. Every employee should understand the new philosophy of quality. Moreover, everyone should grasp the tools and techniques of TQM.

This leads directly to one quality which was developed by Ishikawa: the "Fishbone" or "Ishikawa" diagram. It is a quality which helps to solve quality problems in a systematic manner. It indicates the relationship of the incident or work process being analysed and the various parameters which influence this process.

The widening of understanding which Ishikawa undertakes, is remarkable. He describes the importance not only of meeting the requirements of the external customer, but also of paying attention to "internal" customers and internal relationships. He develops a continuous line of internal supplier-customer relations and invented the adage that the "...process is your customer". Sectionalism must be broken down. Every employee should be able to talk to other department members freely and friendly. It is necessary to learn to think from the stand point of the other party. All the different departments within the company are leaving from the very same external customer. It must be the common goal of each department to fully satisfy this customer. Therefore a would be helpful if the next work process and the next work station which build on the added value and work of the previous work station, is considered as a customer. The next work process should be treated in the same as the external customer.

Ishikawa has contributed and found a number of important ideas to the contemporary standing of TQM.

Summing up the work of the five quality "gurus", we can see, that the main ideas, their work, were primarily oriented to secure the survival

of the company, by making full use of the company's technical resources. The quality derived understood that is in the increasingly competitive business world after 1945, where many firms were struggling to survive and companies could not afford to leave any technical resources of the enterprise lying idle. However, the role of the human resource issue and the vital contribution that the individual employees can make to the quality objectives of his/ her company, were hardly recognised by these classical quality gurus. Management needs to use of all resources, both technical and human. Without the total commitment of all employees, the work organisation will have great difficulties in surviving in today's business world. This important dimension of total quality was ignored by the above writers.

The TQM strategy for achieving its normative outcomes, is rooted in four-interlocked assumptions regarding quality, people, organizations, and the role of senior management.

Assumptions. The first assumption is about quality, which is assumed to be less costly to an organization than is poor workmanship. A fundamental premise of TQM is, that the costs of poor quality (such as inspection, rework, lost customers, and so on) are far greater than the cost of developing processes that produce high-quality products and services. Although the organizational purposes espoused by TQM authorities, do not explicitly address traditional economic and accounting criteria of organizational effectiveness, their view is that organizations that produce quality goods, will eventually do better even on traditional measures, such as profitability, than will organizations that attempt to keep costs low by compromising quality. The strong version of this assumption, implicit in Juran and Ishikawa, but explicit and prominent in Deming's writing, is that producing quality products and services is not merely less costly but is absolutely essential to long-term organizational survival.

The second assumption is about people. Employees naturally care about the quality of work they do and will take initiatives to improve it – so long as they are provided with the tools and training needed for quality improvement, and management pays attention to their ideas. The human being exhibits an instinctive drive for precision, beauty and perfection. When unrestrained by economics, this drive has created the art treasures of the ages. Deming and Ishikawa add, that an organization must remove all organizational systems that create fear – such as punishment for poor performance, appraisal systems that involve the comparative evaluation of employees, and merit pay.

The third assumption is, that organizations are systems of high interdependent parts, and the central problems they face, invariably cross-traditional functional lines. To produce high-quality products efficiently, for example, product designers must address manufacturing challenges and trade-offs as part of the design process. Deming and Juran are insistent, that representatives of all relevant functions must address cross-functional problems collectively. By contrast, is much less system-oriented: he states, that cross-functional teams should not set overall directions; rather, each line division should set its own goals by using local objective-setting procedures.

The final assumption concerns senior management. Quality is viewed as ultimately and inescapably the responsibility of top management. Because senior managers create the organizational systems that determine how products and services are designed and produced, the quality-improvement process must begin with management's own commitment to total quality. Employees' work effectiveness is viewed as a direct function of the quality of the systems that managers create.

The following principles regarding change must be noted:

TQM authorities specify four principles that should guide any organizational interventions intended to improve quality. The first is to focus on work processes. The quality of products and services depends most of all on the processes by which they are designed and produced. It is not sufficient to provide clear directions about hoped-for outcomes; in addition, management must train and coach employees to assess, analyse, and improve work processes.

The second principle is that of analysis variability. Uncontrolled variance in processes or outcomes is the primary cause of quality problems and must be analysed and controlled by those who perform an organization's front-line work. Only when the root causes of variability have been identified, are employees in a position to take appropriate steps to improve work processes.

The third principle, is management by fact. TQM calls for the use of systemically collected data at every point in a problem-solving cycle: from determining high-priority problems, through analysing their causes, to selecting and testing solutions. Although Deming, Ishikawa, and Juran differ in their preferred analytical tools, each bases his quality-improvement program on collecting data, using statistics, and testing solutions by experiment

The fourth principle is learning and continuous improvement. The long-term health of an enterprise depends on treating quality improvement as a never-ending quest. Opportunities to develop better methods for carrying out work, always exist, and a commitment to continuous improvement ensures that people will never stop learning the work they do.

Definition of the concept of TQM

Ho and Cicmil (1995) report a few definitions from existing TQM literature.

- TQM is a totally integrated effort to gain a competitive advantage by continuous improvement of every facet of organisational culture (Ho and Cicmil, 1995).
- TQM is total (every person in the firm is involved, and where possible, its customers and suppliers); quality-customer requirements are met exactly and management-senior executives are fully committed (Ho and Cicmil, 1995).
- TQM is total quality control's organisation-wide impact (Ho and Cicmil, 1995).
- For the US Department of Defence, TQM is both a philosophy and a set of guiding principles, forming the foundation of a continuously improving organisation. TQM is the application of quantitative methods and human resources in order to improve the material services supplied to an organisation, all the process within the organisation and the degree to which the needs of customers are met, now and in the future.
- TQM integrates fundamental management techniques, existing improvement efforts and technical tools in a disciplined approach focused on continuous improvement (Ho and Cicmil, 1995).

To understand the role of the quality improvement process, the philosophy and principles of total quality management (TQM) as suggested by Kanji and Asher (1995) and the modified TQM model of Kanji and Asher (1996), are discussed below (Kanji, 1998:67).

Kanji and Asher believe, that TQM encompasses a set of four principles and eight core concepts. Each of the four principles can be used to drive the improvement process. However, to achieve this, each principle is expressed with the help of two core concepts in order to make it workable. Kanji (1998) has also shown a link between statistical concepts and quality principles for understanding of TQM.

TQM is about the continuous performance improvement of individuals, groups and organisations. What differentiates TQM from other management processes, is the emphasis on continuous improvement. Total quality is not a quick fix, but is about changing the way things are done – forever.

Seen in this way, TQM is about continuous performance improvement. To improve performance, people need to know what to do and how to do it, have the right tools to do it, be able to measure performance and to receive feedback on current levels of achievement. TQM provides this by adhering to the following set of general governing principles.

- Delight the customer
- People-based management
- Continuous improvement
- Management-by-fact.

Each of these principles can be used to drive the improvement process. To achieve this, each principle is translated into practice by using two core concepts – the concepts show how to make the principle happen.

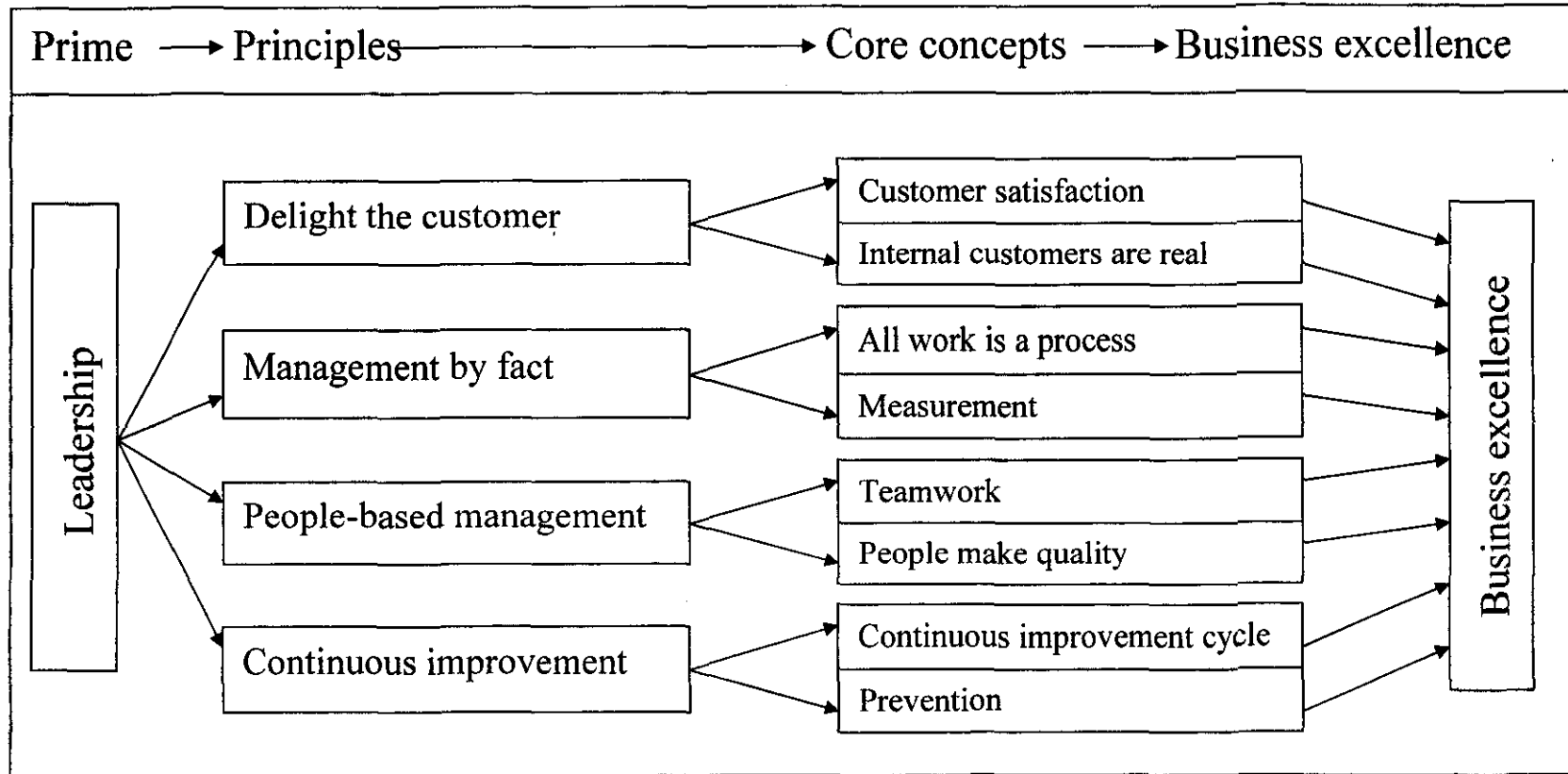
These concepts are-

- customer satisfaction;
- internal customers are real;

- all work is a process;
- measurement;
- teamwork;
- people make quality;
- a continuous improvement cycle; and
- prevention.

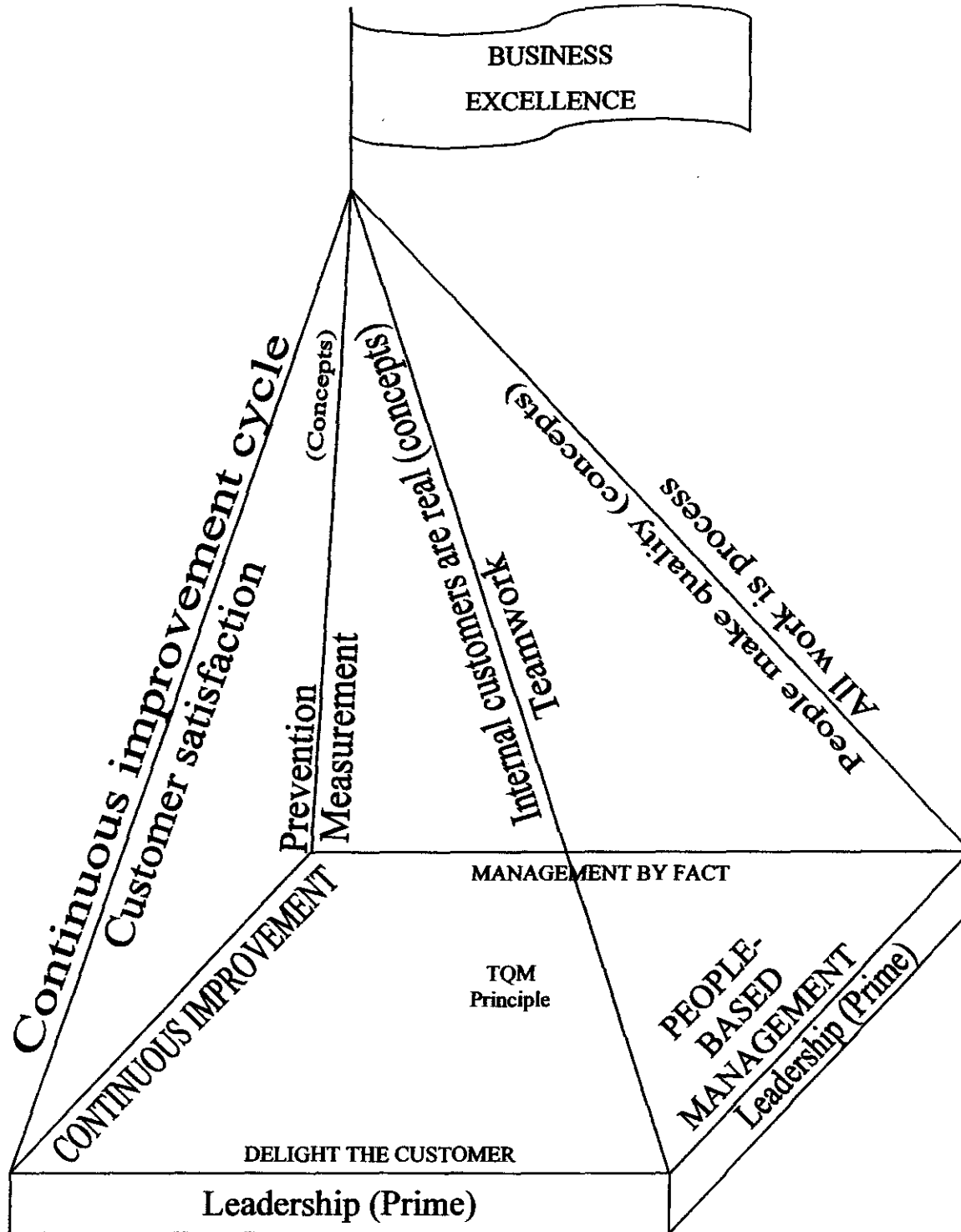
A brief description of the four principles and core concepts is given in the following section (Figure 3.6). A pyramid of TQM incorporating all principles and core concepts is given in Figure 3.7. Here the organisation has to be guided through the TQM principles and core concepts by top management leadership, in order to achieve business excellence. Here, leadership is the base of the TQM principles and core concepts while prime indicates the first in order of rank and importance of the model, followed by principles and core concepts as follows: prime – principles – core concepts – business excellence (see Figure 3.6 on the next page).

Figure 3.6 Prime, principles and core concepts of TQM



Source: Kanji, (1998:69)

Figure 3.7 Kanji's modified pyramid model



Source: Kanji, (1998:70)

Principles of TQM

- **Delight the customer**
The first principle focuses on the external customer and asks 'what would delight them?' Delight means being best at what matters most to customers, and this changes over time. Being in touch with these changes and delighting the customer now and in the future, are integral part of TQM.

- **People - based management**
Knowing what to do, how to do it and getting feedback on performance, constitutes way of encouraging people to take responsibility for the quality of their own work. Involvement and commitment to customer satisfaction are ways to generate this. The second principle of TQM recognises that systems, standards and technology themselves will not of necessary mean quality. Therefore, the role of people is vital.

- **Continuous improvement**
Total quality cannot be a quick-fix or short-term goal that will finish when a target has been met. Total quality is not a programme or a project. It is a management process that recognises that, however much we may improve, our competitors will continue to improve and our customers will expect more from us. Here, continuous improvement or incremental change, and not major breakthroughs, is the third principle, which is the aim of all who wish to move towards total quality.

- **Management by fact**
Knowing the current performance levels of the products or services in the customers' hands and of all employees, is the first stage of being able to improve. If we know where we are starting from, we can measure our improvement. Having the

necessary fact to manage the business at all levels, is the fourth principle of total quality. Giving that information to people so that decisions are based upon fact rather than a 'gut feeling', is essential for continuous improvement.

Following the discussion of each principle, the concept of TQM is now briefly examined.

- Customer satisfaction

Many companies, when they initiate the quality improvement process, become very introspective and concentrate on their own internal problems, almost at the expense of their external customers' way. Other companies, particularly in the service sector, have gone out of their customers to survey what is important to them, and then to measure their own performance against customer targets. The idea of asking one's customers to set customer satisfaction goals, is a clear sign of an outward-looking company. One example is Federal Express, which surveyed its customer base to identify the top ten causes of aggravation. This allows the company to keep a weekly monitor of customer satisfaction, as measured by the customer. An understanding of survey and statistical methods is, therefore, needed for the measurement of customer satisfaction.

- Internal customers are real

The definition of quality (i.e. 'satisfying agreed customer requirements') relates to both internal and external customers. Many writers refer to the customer/supplier chain and the need to get the internal relationships working in order to satisfy the external customer. Whether you are supplying information, products or a services, the people supply internally, depends, on their internal suppliers for quality work. Their requirements are as real as those external customers – these may be speed, accuracy or measurement.

The concept of 'internal customers' is one of the 'big ideas' of TQM. Making the most of it, may be very time-consuming and many of the structured approaches take a long time and can be complicated. However successful the approach is to take the 'cost of quality' and to extend it, i.e. to obtain information about the organisation's performance and to analyse it. Dahlgaard et al., (1993) used statistical methods to discuss the relationship between total quality cost and the number of employees in an organisation.

- All work is a process

We have looked at 'internal customers' and how to use the idea as a focus for improvement. Another possible focus is on business processes. By processes, we mean any relationship, such as billing customers or issuing credit notes, that has an input, steps to follow and an output. A process is a combination of methods, materials, manpower, machinery, etc. which taken together, produces a product or service. All processes contain inherent variability and one approach to quality improvement, is to progressively reduce variation: first, by removing variation due to special causes; second, by driving down common cause variation, thus bringing the process under control and then improving its capability. Various statistical methods are widely used (e.g. histogram, Pareto analysis, control charts, scatter diagrams) by quality managers and other for process improvement purposes.

- Measurement

The fourth core concept of TQM, is measurement. Having a measure of how we are doing, is the first stage of being able to improve. Measures can focus internally, i.e. on internal customer satisfaction, or externally, i.e. on meeting external

customer requirements. When discussing a measurement of customer satisfaction, used the usual guidelines for questionnaire design and survey and statistical analysis to obtain a customer satisfaction index.

- Teamwork

Teamwork can provide an opportunity for people to work together in the pursuit of total quality in ways in which they have worked together before. People who work on their own or in small, discrete, work groups, often have a picture of their organisation and work that it does, that is highly compartmentalized. They are often unaware of the work done even by people who work very close to them. Under these circumstances, they are usually unaware of the consequences of poor quality in the work they themselves do. If people are brought together in terms of a common goal, quality improvement becomes easier to communicate over departmental or functional walls. In this way, they slow down the breaking down of barriers that act as a platform for change. Teamwork can be improved by benchmarking a method which is similar to the statistical understanding of outliers.

- People make quality

Deming states, that the majority of quality-related problems within an organisation are not within the control of an individual employee. As many as 80% of these problems are caused by the way the company is organised and managed. Examples of where the system gets in the way of people trying to do a good job, are easy to find, and in all cases simply telling employees to do better, will not solve the problem. Exhorting employees to a higher level of performance (for example, by poster campaigns) can have a counter-productive effect when people see that management fails to tackle the real problem. In

these circumstances motivation alone cannot work. People can become committed to quality only through the practical efforts of managers to remove the barriers to quality improvement.

The role of managers within an organisation, is to ensure that everything necessary is in place to motivate people to make quality. This in turn begins to create the environment where people are willing to take the responsibility for the quality of their own work. Acting in his way to release the talents of everyone within the organisation, can create an unstoppable force of quality improvement.

It is important that the organisation develops its quality management system and customises the system to suit its own requirements. Each factor will probably involve several programmes, and this is where the role of statistics is most evident.

- The continuous improvement cycle

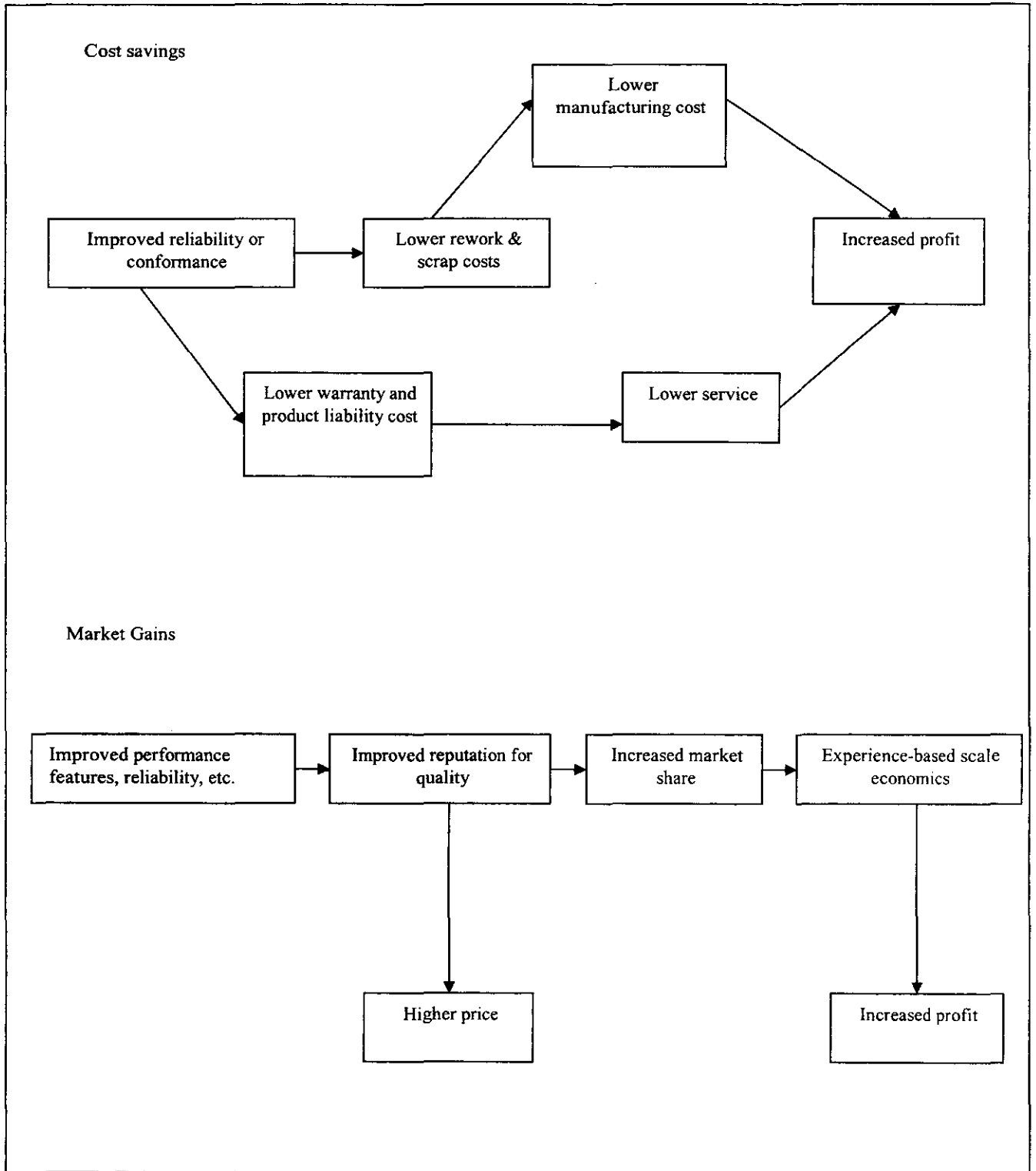
The continuous cycle of establishing customer requirements, meeting those requirements, measuring success and keeping on improving, can also be used internally to fuel the engine of external and continuous improvement. By continually checking customers' requirements, a company can find areas in which improvements can be made. This continual supply of opportunity can be used to keep quality improvement plants up to date and to reinforce the idea, that the total quality journey is never-ending. In order to practise the continuous improvement cycle, it is necessary to continuously obtain information about customers' requirements by market research. However, market research requires deeper statistical understanding for the proper analysis of the market situation.

Prevention

The core concept of prevention, is central to TQM and constitutes one way to move towards continuous improvement. Prevention means keeping problems from occurring. The continual process of driving possible failure out of the system, can breed a culture of continuous improvement over time. There are two distinct ways to approach this. The first is to concentrate on the design of the product itself; the second to work on the production process. However, the most important aspect in prevention, is quality by using design using statistical reasoning. There are several frequently used tools that help to focus thoughts here.

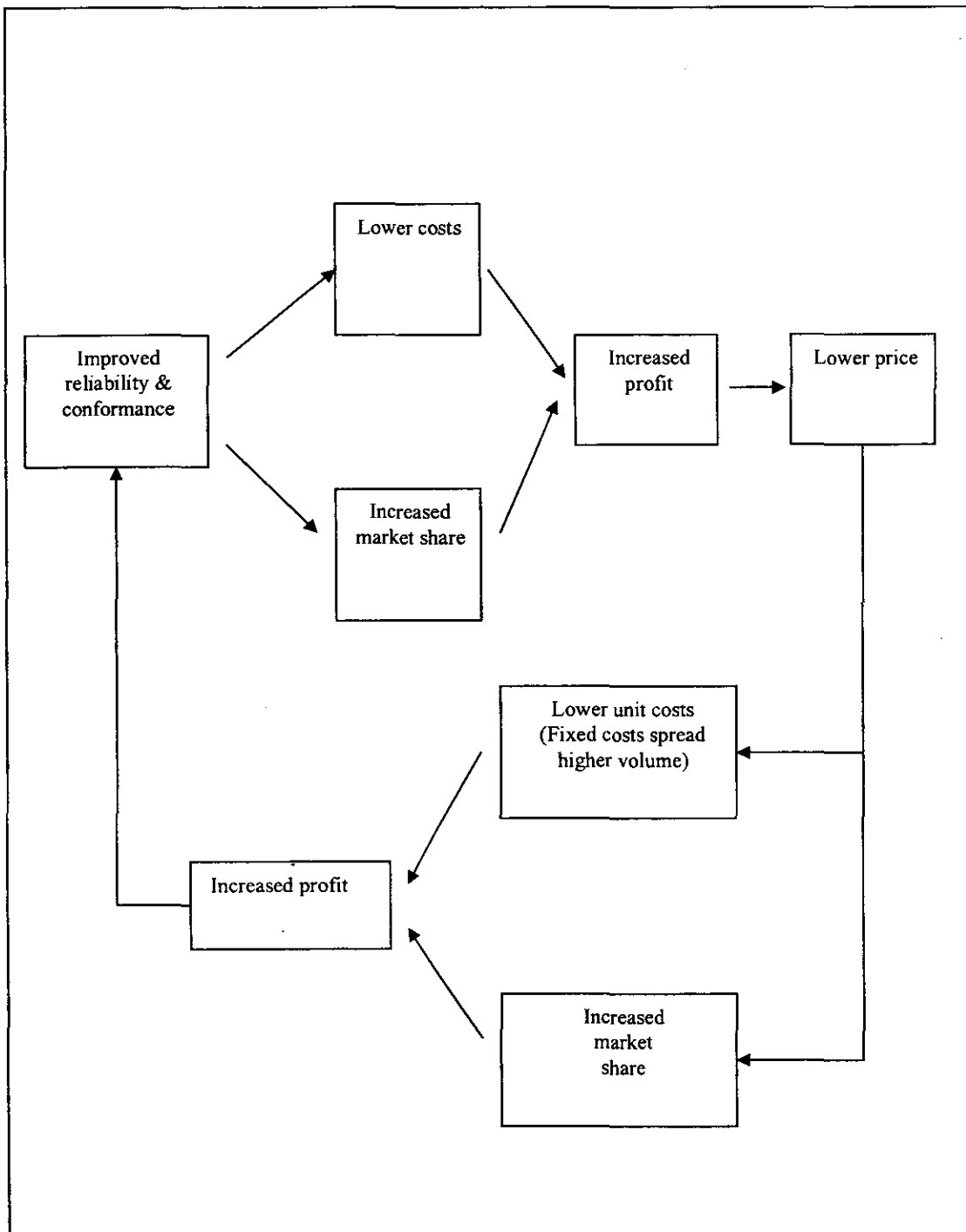
The relationship between quality improvement and profitability has been explained clearly by Garvin (1988). Garvin (1988) suggests, that quality might lead to higher profitability in two different ways that are consistent with the production and marketing viewpoints of quality. Figure 3.8 on the next page indicate the view of Yusof and Aspinwall (1999:89).

Figure 3.8 The relationship between quality and profitability.



Source: Yusof and Aspinwall (1999:89)

Figure 3.9 Cost saving and marketing gain (Deming chain)



Source: Yusof and Aspinwall (1999:75)

From a production viewpoint, conformance to specification results in fewer production costs due to a reduction in non-conforming items. In the marketing viewpoint, empowerment in quality dimensions such as performance, features and durability enhance customer satisfaction, resulting in an increased market share. Both the reduction in production cost and an increase in market share contribute to higher profitability. Garvin's model provides much of the theoretical basis for setting the hypothesis that quality practice improves firm quality, operating and financial performance.

Deming (1986) has a similar view, that focuses on improved reliability and conformance, as shown in Figure 3.9 This reduces cost and increases the market share. Continuous quality improvement leads to even greater reliability, cost reduction, an increased market share and increased profit. World-class manufacturers and service providers have found that lowering price (rather than increasing price) can magnify gains. What happens is that higher quality, a lower cost structure and a lower price all create tremendous barriers for competitor firms. Entry into this market is restricted and the firm can dominate the market share and grow: all contribute to financial success.

Regardless of the viewpoint of quality (Figure 3.8 or Figure 3.9), the key presumption is, that improved reliability and performance can be obtained and once obtained, it leads to improved performance, lower costs, an increased market share and/ or increased profits. We shall address which quality improvement practices best lead to improved reliability and performance (improved quality). Further, we shall investigate whether quality improvement practices lead to broader increases in operating and financial performances.

3.6 The critical dimensions of TQS

Based on the foregoing thorough review of the prescriptive, conceptual, practical and empirical literature on TQM and TQS spanning more than a hundred articles, the information gleaned 12 dimensions of quality management as being critical for the institution of a TQM environment in service organisations. The dimensions that have been identified, are the following: (Schnieder 1999:351).

- Top management commitment and visionary leadership.
- Human resource management.
- Technical system.
- Information and analysis system.
- Benchmarking.
- Continuous improvement.
- Customer focus.
- Employee satisfaction.
- Union intervention.
- Social responsibility.
- Service-scapes.
- Service culture.

These dimensions can be broadly grouped in the following three categories.

- Those dimensions of quality management that are generic to both manufacturing and service organizations, but which were initially practised in the manufacturing set-up and later transferred to the service milieu (these include dimensions such as top management commitment and visionary leadership, human resource management, design and management of processes, information and analysis, benchmarking, continuous

improvement, employee satisfaction and customer focus and satisfaction).

- Those dimensions that are seldom addressed in literature, but which are, nevertheless, key elements of TQM in both manufacturing and service organisations, e.g. union intervention and social responsibility.
- Finally, those factors that are unique to service organisations, namely, Service-scapes, the man-made physical environment, and Service culture.

Table 3.4 briefly explains the 12 critical factors of TQS. Several works have underlined the importance of these dimensions. Table 3.5 summarizes the literature evidence on the criticality of these dimensions of quality management in manufacturing and service organizations. Given the fact that services have certain unique characteristics, the different roles that each of these dimensions play and the various aspects that they bring into the picture (skills, values, tools, techniques and other requirements), vary from manufacturing to service organisations.

A conceptual model for Total Quality of Service

From the above discussions, it is clear that the proposed 12 factors are critical for the establishment of a TQM ambience in service organisations. These dimensions have different functions to perform in a TQS movement, as based on literature evidence and logical reasoning.

Table 3.4 12 Critical factors of TQS

S1.	
No. Critical dimension	Explanation of the dimension
1. Top management commitment and visionary leadership	Top management commitment is a prerequisite for effective and successful TQS implementation. Although different researchers proclaim various theories on the organisational requirements for effective implementation of TQS, all would agree that the impetus for any quality improvement effort should come from the top. Visionary leadership is the art of leading and espousing a mental, strategic and spiritual change in the organisation by the formulation of a long-range vision for the development of the organisation, propagating the vision throughout the organisation, devising and developing a plan of action and finally stimulating the entire organisation towards the accomplishment of the vision.
2. Human resource management	This refers to the number of organisational behaviour issues (ranging from selection and recruitment, training and education, employee empowerment to employee involvement) that form the cornerstones upon which the corporate strategy is built. The moot point, here is that only if the employers treat their employees as precious resources, would the employees, in turn, treat their customers as valuable. Therefore, it is

	<p>indispensable for service organisations to look upon HRM as a source of competitive advantage.</p>
<p>3. Technical system</p>	<p>The technical system includes design quality management and process management.</p> <p>Sound and reliable service design echoes an organization's strategic quality planning abilities and enables the organisation to surmount customers' needs, expectations and desires, consequently resulting in improved business performance</p> <p>Service process management essentially involves the procedures, systems and technology that are required to streamline the service delivery, so that customers can receive the service without any hassle, i.e. it delineates the non-human element of service delivery, as opposed to the human element, which is captured in the dimension 'service culture'</p>
<p>4. Information and analysis system</p>	<p>Services, unlike manufactured goods, cannot be inventoried and used in times of emergency or demand. Therefore, during rush or peak periods, unless organization keep themselves prepared for any such eventualities, they may not be able to provide quality service to customers. This can be achieved only by equipping the employees with information</p>

	<p>regarding the process and the customers. Prompt, sufficient and pertinent data that are critical to the implementation and practice of TQM, constitute information and analysis. In a TQS ambience, people need to communicate across organizational levels, functions and locations to work out current problems, eschew new ones and implement change. Measures for proactive prevention rather than reactive correction, are employed to monitor quality in order to sustain a true customer focus.</p>
<p>5. Benchmarking</p>	<p>Benchmarking is actually a comparison standard that consists of analysing the best products/ services and processes of the best organisations in the world and then analysing and using that information to improve one's own products or service and processes. While in manufacturing, standards such as product characteristics, process, cost, strategy, etc., used as benchmarks, it is all the more difficult to benchmark services. Because of the very puzzling nature of services and the consequent organizational contingencies that it warrants for its design, production, delivery and consumption, organizations need to focus on benchmarking not only hard data, but also certain behavioural</p>

	<p>features such as customer satisfaction and employee satisfaction, apart from comparing the services and processes through which they are delivered. An organization can achieve a world-class tag, if benchmarking is targeted at the key or critical business processes.</p>
6. Continuous improvement	<p>The quest for quality improvement is not a specific destination, but a continuous journey that throws up more and more opportunities for improvement. Improvement should be viewed as an ongoing process in the sense that once targets are met, new ones must be set, aiming for even higher levels of service efficiency. It is a race which has no finish line, but has the sole objective of striving for continuous improvement, and looking for breakthroughs with revolutionary order of magnitude changes, that will result in the transmogrification of the organization into a world-class one.</p>
7. Customer focus	<p>Customer focus is the ultimate goal of any TQS programme, because organizations can outscore their competitors by effectively addressing customers' needs and demands and wants. Focusing on customer needs and wants, enables organizations to have a better market orientation than ever before by providing a</p>

	<p>competitive edge over their rivals, thereby resulting in enhanced business performance. In service organizations, as custom expectations are highly dynamic and complex in nature, focusing only on costumer-defined areas (specific customer needs) so as to satisfy the customers, will not yield fruit. In today's world of intense competition, satisfying customers may not be enough. The competitive advantage in a quality revolution comes only from customer delight. Customer satisfaction is a short-term concept which may or may not lead to commitment. The management's responsibility is, to ensure that satisfaction manifests itself as commitment in the long run.</p>
<p>8. Employee satisfaction</p>	<p>Employee satisfaction is a multi-dimensional concept, which is defined as the degree to which employees of an organization believe that their needs and wants are continuously satisfied by the organization. An organization must not only have a focus on service quality/customers, but also concentrate on employee satisfaction, as research has shown much evidence of strong relationships between employee perceptions of employee well-being and customer perceptions of service quality and satisfaction.</p>

<p>9. Union intervention</p>	<p>With a major chunk of the workforce in both developed and developing nations working in service organizations, industrial relations issues are as crucial (if not more) as they are in manufacturing industries. As TQM is an organization-wide approach, its success is greatly influenced by its employee union. These employee relations issues affect the organizational system and consequently determine the nature and extent of TQM implementation. And, with the technological growth (in terms of computerization and networking.) gripping the service sector, and the known aversions and apprehensions of the unions towards such advancement, it could be concluded, that union attitudes play a critical role in any quality improvement effort.</p>
<p>10. Social responsibility</p>	<p>The concept of corporate citizenship should come to the fore if an organization has to be successful and progresses towards achieving business excellence. No doubt, a business or industrial enterprise exists to make profits. This can be achieved by fulfilling its mission. At the same time, an organization must also grow and have a good image, i.e. it should meet its social and community obligations. At the end of the day, it is not</p>

	<p>just the profit or revenue that counts for an organization, but an indomitable belief in corporate responsibility to its society becomes indispensable. With the entire world undergoing an upheaval - a quality revolution- it is this attitude that will certainly give an organization a competitive edge in the long run over many others who vie for greater honours in term of profits, return on investments (ROI), market share, etc., completely ignoring the fact that they are accountable to the society in which they thrive. This subtle, but nonetheless powerful dimension, sends strong signals towards improving the organization's image and goodwill, and consequently effecting the customers' overall satisfaction with the services and their loyalty to the organization.</p>
<p>11. Service-scapes</p>	<p>The tangible facet of the service facility, i.e. the man-made physical environment (such as equipment, machinery, signage and employee appearance: the 'service-scapes'), strongly influence both employee and customers in physiological, psychological, emotional, sociological and cognitive ways, particularly as the core service becomes more intangible.</p>
<p>12. Service culture</p>	<p>In service organizations, the boundary separating the customers and employees</p>

is very frail and pervious, with the result that the physical and psychological propinquity between them is so intense, that only a firm's culture that stresses services quality throughout the organization, could establish the seamlessness in the service delivery. Service culture is actually the extent to which the employees at all levels realize that the real purpose of their existence is 'service to customers'. While customer focus is seen as a goal of the TQS movement, service culture is an organizational strategy that motivates the employees to have a service orientation in whatever they do. An organization characterized by such a service orientation, is more likely to offer a reliable, responsive, empathetic service to customers and provide them with assurance in conveying trust and confidence that will result in improved quality in service delivery, which, in turn, will lead to higher perceived service quality from the customer's point of view. A strong internal culture helps an organization to effect and sustain an organizational change that will make the TQS approach more effective.

Source: Schneider (1999:356)

Table 3.5 12 critical factors of TQS literature evidence

S1		
No. Critical dimensions	Manufacturing	Services
1. Top management commitment and visionary leadership	Dale and Duncalf (1984); Garvin (1986); Deming (1986); Saraph et al. (1989); Kanji and Asher (1993, 1999); Anderson et al. (1994); Smith (1995); Ahire et al. (1996); Flynn et al. (1994, 1995); Samson and Terziovski (1999); Joseph et al. (1999)	Zeithaml et al. (1990); Norman (1991); Rust and Oliver (1994); Edvardsson et al. (1994); Milakovich (1995); Schneider and Bowen (1995)
2. Human resource management	Weiss (1984); Pfau (1989); Everett and Sohal (1991); Chevalier (1991); Sewell and Wilkinson (1992); Kanji and Asher (1993, 1999); Flynn et al. (1994); Ahire et al. (1996a, b); Joseph et al. (1999); Samson and Terziovski (1999)	Sasser 1976; Lovelock (1981); Bowen (1986); Bowen and Schneider (1988); Zemke and Schaaf (1989); Norman (1991); Schneider and Bowen (1992, 1993, 1995); Schneider et al. (1994)
3. Technical system	Mizumu (1988); Taguchi (1979); Juran (1981a, b); Ishikawa (1985); Hauser and Clausing (1988); Saraph et al. (1989); Akao (1990); Ziemke and Spann (1991); Feigenbaum (1993); Flynn et al. (1994); Smith (1995); Ahire et al. (1996); Joseph et al. (1999); Samson and Terziovski (1999)	Neslin (1983); Gummertsson (1987); Chapman and Jackson (1987); Hauser and Clausing (1988); Zeithaml et al. (1990); Sassar and Fulmer (1990); Zenke and Schaaf (1990); Edvardsson et al. (1994); Schneider and Bowen (1995); Milakovich (1995)
4. Information and analysis system	Pfau (1989); Shepetuk (1991); Flynn et al. (1996); Black and Porter (1996); Ahire et al. (1996); Malcolm Baldrige National Quality Award Guidelines (1998); Joseph et al. (1999); Samson and Terziovski (1999)	Spenny (1994); Berkley and Gupta (1994, 1995); Schneider and Bowen (1995); Flynn et al. (1995); Malcolm Baldrige National Quality Award Guidelines (1998)
5. Benchmarking	Zairi and Leonard (1994); Hutton and Zairi (1995); Smith (1995); Ahire et al. (1996a)	Edvardsson et al. (1994); Smith (1995); Milakovich (1995)
6. Continuous focus	Crosby (1979); Deming (1986); Kanji and Asher (1993, 1999); Spenny (1994); Smith (1995)	Deming (1996); Jeanes (1990); Zemke and Schaaf (1990); Milakovich (1995); Schneider et al. (1996b)
7. Customer focus	Takeuchi and Quelch (1983); Deming (1986); Stalk et al. (1992); Kanji and Asher (1993, 1999); Anderson et al. (1994); Flynn et al. (1994); Smith (1995); Black and Porter (1996); Ahire et al. (1996a); Samson and Terziovski (1999)	Deming (1996); Zemke and Schaaf (1990); Norman (1991); Zeithaml et al. (1990); Stebbing (1993); Milakovich (1995); Schneider and Bowen (1995); Shemwell et al. (1998)
8. Employee satisfaction	McGregor (1960); Crosby (1979); Deming (1986); Cranny et al. (1992); Smith (1995); Rao et al. (1996)	Folger and Greenberg (1985); Deming (1996); Schneider and Bowen (1992, 1995); Schneider et al (1994)

S1		
No. Critical dimensions	Manufacturing	Services
9. Union Intervention	Wilkinson et al. (1991, 1992); Geary (1993); Wilkinson (1994); Rao et al. (1996); Godfrey et al. (1997)	
10. Social Responsibility	Malcolm Baldrige National Quality Award Guidelines (1998)	Zemke and Schaaf (1990); Baldrige National Quality Award Guidelines (1998)
11. Servicescapes		Shostack (1977); Rapoport (1982); Darley and Gilbert (1995); Bitner (1986, 1992); Berry and Clark (1986); Russell and Snodgrass (1987); Baker (1987); Baker et al. (1988); Schneider and Bowen (1995)
12. Culture	Wheelwright (1981); Saraph et al. (1989); Harber et al. (1993a, b); Spently (1994); Flynn et al. (1995); Blach and Porter (1996)	Schneider and Bowen (1985, 1995); Parasuraman et al. (1988); Zenke and Schaaf (1990); Bitner et al. (1990); Schneider et al. (1994, 1996b)

Source: Schneider (1999:352)

3.7 Integrated quality management

In summary, integrated quality management can be viewed as a composite of the following 12 constructs: (1) top management commitment, (2) customer focus, (3) supplier quality management, (4) design quality management, (5) benchmarking, (6) statistical process control (SPC) usage, (7) internal quality information usage, (8) employee empowerment, (9) employee involvement, (10) employee training, (11) product quality, and (12) supplier performance. These constructions span the entire range of activities deemed critical by the Malcolm Baldrige Award.

Flynn et al., (1994:339) proposed the following with regards to total quality management.

3.7.1 Top management support

A predominant theme in quality management literature, is that strong commitment from top management is vital. Goal congruence is encouraged by developing a clear strategy identifying the nature and direction of the organization. Employees' behaviour change as they perceive they are shifted from a single department to another.

3.7.2 Process management

Process management focuses on managing the manufacturing process so that it operates as expected, without breakdowns, missing materials, fixtures, tools, etc., and despite workforce variability. One aspect of process management is equipment maintenance, which ensures, that variation is kept within acceptable bounds, keeping the manufacturing process running smoothly. For example, Garvin (1988)

found, that plants with higher quality levels routinely operated less than three full shifts per day, with the remaining time allocated to preventive maintenance. Although there is an apparent loss of profit from running machines slowly and allocating part of the workday to preventive maintenance, the net benefit accrues from ensuring that there is virtually no machine down-time, due to failures or maintenance during productive hours. In a related finding, the international running of equipment at less than design capacity, reducing breakdowns and wear on machine parts and dies.

Plants which emphasize good process management, are more likely to develop their own proprietary manufacturing equipment, in order for them to be highly knowledgeable about the production process. Although they may continue to buy some equipment, enough is produced or modified internally so that equipment technology is customized to their unique needs and state-of-the-art. Good process management also involves precisely defining and documenting process management procedures, with instructions for machine operation and set-ups posted at each work station, in order to minimise the likelihood of operator error. Documentation increases the flexibility of workers to perform a variety of operations, keeping the manufacturing process running smoothly, despite absenteeism and turnover. Processes management also includes procedures for cleanliness and organisation of the work place, by designating allocation for every tool and part, the process is less likely to be disrupted by the necessity of searching for missing items.

3.7.3 Product design

Product design is an important dimension of quality management. The greatest source of product failure often lies in design weaknesses, with failure cost multiplying when discovered in the field. Sound product design meets or exceeds the needs and desires of customers better

than do competitors, leading to increased market shares. In fact, product design may be related to all of Garvin's (1988) critical dimensions of quality performance: performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality.

There are several important components of product design for quality. Concurrent engineering emphasises the establishment of cooperative relationship throughout the product design process. Representatives from manufacturing, marketing, purchasing, sales and quality assurance, as well as external parts suppliers, meet with the design staff to articulate the details of product design. This aids development of designs which meet customer needs, with implications for performance, features, aesthetic and perceived quality.

A second aspect of product design for quality, is reliability engineering, which helps to achieve lower failure rates, even with relatively broad product lines and rapidly changing designs (Garvin, 1988). It is related to performance dimensions of conformance, reliability and durability. Reliability engineering involves building designs from their basic component, then determining the failure probability of each individual system and subsystem. A basic principle is that, all else being equal, the fewer parts in a product, the lower its failure rates. Garvin's (1988) study found, that only one of the sample plants with the highest failure rates, practised reliability engineering, while all of the plants with the lowest failure rates (highest quality), used this approach.

A third important quality management product design practice, is designing from manufacturability, which focuses on the development of part designs, based on the expectations of high levels of management.

This has been well-supported empirically. Garvin (1988) reports, that higher levels of quality performance were always accompanied by an organisational commitment to that goal; high product quality did not exist with strong top management commitment. Other empirical studies have also found, that top management support for quality was a key factor in quality improvement. In addition to having an impact on quality performance, top management attitudes and behaviours have also been found to be related to quality management practices in an organisation. For example, surveys of companies with a higher quality performance, found that 89% had presidents who regularly attended company-wide quality events, such as quality cycle contents, visited the factory floor and participated in training programmes.

Another important responsibility of top management, is the establishment of an environment in which quality performance is rewarded. The way in which performance was measured and rewarded, was key to the higher quality levels achieved by Japanese plants. Garvin (1988) found, that companies with the worst quality, compensated workers on the basis of total output, rather than total defect-free output, in contrast, plants which focused on quality management, were more likely to use approaches to compensation and promotion which rewarded team work, worker flexibility and quality output. Group compensation plants have been found to lead to improved performance, compared with rewards on individual performance by encouraging workers to solve problems cooperatively, rather than to compete for individual productivity incentives. Another promising approach is skill-based pay, which compensates employees for the number of tasks which they are qualified to perform. Promotions are based on knowledge of how the overall processes operate, rather than on expertise in isolated jobs. This increases employee flexibility, helping to keep manufacturing processes in control.

3.7.4 Quality information

Feedback to employees about quality performance, provides a means of learning and maintaining quality-oriented behaviour. It was found, that quality feedback was positively related to the level of quality goals which were set. As more feedback about product quality was provided, employees aspired to higher goals. In particular, the use of statistical process control by employees, to document and improve their own performance, is consistent with previous research, which has shown that self-provided information is positively related to performance. In addition, it has been reported that external evaluation, such as that from supervisors, also improves performance. Providing a constant flow of quality information from a variety of sources, leads to improved performance.

A second important component of quality information, is the provision of timely and accurate information about the operation of the manufacturing process. Examples include automatic or manual process flow checks, which provide an early marching jam warning system, recording usage rate of tools and dies and timely reports of process information. Such information helps to keep the process in control, avoiding the production of defectives.

Both quality performance and process information should be collected at the source, where immediate problem-solving action can be taken. As information collection is decentralized, the function of the quality department changes from policing to co-ordinating, consulting and serving as an information clearing house. Garvin (1988) verified this empirically, noting that the size of a quality department was reduced as, the responsibility for quality.

Which are simple to manufacture and assemble. Key practices include the use of modular designs, avoidance of separate fasteners and

flexible materials, design for ease of assembly, elimination of adjustments, assembly by stacking with guides and multiple trial production runs. The goal is to “get the bugs out” of a new product before production, rather than rushing to the market with a questionable product. It has implications for the performance dimensions of serviceability, performance, reliability and conformance.

3.7.5 Work force management

Effective work force management begins with careful recruitment and selection of shop floor workers, in order to develop a reliable and committed work force loyal to the organization’s goals, including quality performance. Potential employees should be screened for their task-oriented skills, their potential for working with a team, their dedication to quality values and their motivation and willingness to make improvements.

Teamwork and group problem-solving are important parts of quality management, permitting decision-making to be decentralized. The use of decentralized decision-making to handle uncertainty and to improve the efficiency of the decision-making process, is well-documented. The impact of participatory decision-making on product quality has been documented empirically as well.

Egalitarian approaches, such as the use of a single cafeteria for all employees, uniforms for all employees in the plant and the use of the same parking lot for all employees, as well as the use of certain compensation approaches, such as fewer steps in wage and salary scales, minimize the distance between various levels in the organizational hierarchy. This provides workers with the confidence to attack a problem, rather than deferring to a supervisor. These approaches are based on the notion that employees will feel less alienated if there are fewer perceived barriers (status differentials)

between them and the upper levels of management. As employees feel less alienated and more a part of the organization, they are more inclined to embrace the organization's quality goals.

Another important area of work force management, is training. Quality-oriented training includes training in small group problem-solving, communication, statistical process control and other relevant areas, in addition to classroom and on-the-job training related to specific tasks, with the goal of developing workers who are flexible problem solvers. The impact of training on quality performance, has been documented empirically. A positive relationship between total hours of training and the extent to which quality strategies were implemented by employees.

3.7.6 Supplier involvement

The supply function is an important dimension of quality management, because materials and purchased parts are often major sources of quality problems, beginning with supplier selection criteria. Although the traditional approach is to select the lowest bidder, suppliers selected are based on the lowest bid, have no motive to quality, once a contract has been awarded. Garvin (1988), found that plants, producing the highest quality products, had purchasing departments, which ranked quality, rather than cost minimization, as their primary objective. Conversely, in plants with the lowest quality performance, the primary objective of the purchasing department was to obtain the lowest price of technically acceptable components.

The buyer-supplier relationship in a firm is oriented towards quality management, tends to be very close, as based on long-term common interests. Frequent meeting between buyers and suppliers allows the systematic exchange of technical, economic and managerial information and service, as well as assistance in meeting certification

requirements. This is facilitated by the use of a small number of suppliers and the development of a relationship of interdependence and cooperation, rather than of conflict.

Plants which emphasize quality management, are more likely to use a process of supplier certification or qualification. Plants committed to using only suppliers which have been previously certified, based on quantifying process capabilities in advance, willingness to operate in an atmosphere of teamwork, statistical process control training, the quality of prior deliveries for similar products and other important criteria. It was found that supplier certification programs were widespread in the U.S.; most were still in their infancy, using substantially fewer than 100% certified suppliers, indicating that there is a need for further development of supplier certification programs.

3.7.7 Customer involvement

From the perspective of the customer, the plant is the supplier. Thus, many of the generalizations about supplier involvement apply, in reverse, to customer involvement. Key to quality management, is maintaining a close relationship with the customer, in order to fully determine the customer's needs, as well as to receive feedback on the extent to which those needs are being met. The customer should be closely involved in the product design and development process, with input at every stage of the process, so that there is less likelihood of quality problems once full production begins. Garvin (1988) found, that plants with the highest quality, had permanent customer review boards which tested and evaluated products from customers' perspective. Customer feedback also permits adjustments to the process to be made immediately, rather than continuing production of unacceptable products. An atmosphere of mutual trust and support between the plant and its customers, facilitates this interaction.

Ahire, Golhar and Walter (1996) proposed the following with regards to total quality management.

- **Top Management Commitment**

Top management commitment has been identified as one of the major determinants of successful QM implementation. The critical role of top management in providing leadership, has been illustrated in the literature, for several diverse organizations. Top management acts as a driver of QM implementation, creating values, goals, and systems to satisfy customer expectations and to improve an organization's performance. The clarity of quality goals for an organization, determines the effectiveness of the quality efforts. Top management commitment to quality, must convey the philosophy that quality will receive a higher priority over cost or schedule, and that in the long-run, superior and consistent quality will lead to improvements in cost and delivery performance. Top management should not only give high priority to quality, but should also demonstrate quality commitment by providing adequate resources for the implementation of QM efforts particularly, and considerable investment in human and financial resources. Performance assessment for plant managers and corporate top executives should, also include a critical component: their performance on quality dimension. Accordingly, the following six-item scale was developed to represent top management commitment to quality.

- Clarity of quality for the organization.
- Relative importance given by top management to quality as a strategic issue.
- Relative importance given by top management to quality versus cost.

- Relative importance given by top management to quality versus production schedule.
- Allocation of adequate resources to quality improvement efforts.
- Performance evaluation of managing based on quality.

- **Customer focus**

All activities of an organization must be planned and executed in order to improve processes that lead to manufacturing quality products. However, quality must be incorporated into these activities with a clear customer focus. Despite the use of the latest process improvement techniques and capable management, a firm's neglect of its customers may lead to a disaster. In fact, the pressure to revitalise manufacturing over the last decade, has been rooted in customers' demand for a greater variety of reliable products with short lead-times. The importance of customer focus is also evident from the fact that it is assigned the highest weight in respect of the Malcolm Baldrige Award criteria.

Customer expectations are dynamic in nature. Hence, an organization needs to assess them regularly and adjust operations accordingly. An organization's long-term success is tied to customer retention effort. Organizations may outperform their competition by being able to (1) respond quickly to customs' demands with new ideas and technologies, (2) produce products that satisfy or exceed customers' expectations, and (3) anticipate and respond to customers' evolving needs and wants. Therefore, customer focus must be reflected in the overall planning and execution of quality efforts.

Customer focus of an organization, is usually assessed by the frequency and rigor of custom satisfaction surveys. However, mere execution of such surveys is not useful, unless the results are made available to functional areas such as manufacturing, design and

planning. Furthermore, these results should be used in improving the product's quality. Hence, the customers focus of the organization's quality management has been measured against with the following four-item scale.

- Extent of customer satisfaction survey feedback given to managers.
- Availability of customer complaint information to managers.
- Extent of the use of customer feedback to improve product quality.
- Overall customer focus on quality management.

- **Supplier quality management**

An organization must ensure quality at all stages of manufacturing. As such, an effective supplier quality management approach should form the basis for procuring quality parts. The supplies' role is critical in many ways. Firstly, the quality of incoming parts from suppliers, determines the level of inspection efforts of a buyer organization. Secondly, the quality of the supplied material, to an extent, determines the final product's quality. Third, supplier's capability to react to a buyer firms' needs, in turn, can determine the buyer flexibility in responding to customers' needs. Purchasing literature is replete with the role of suppliers in quality management initiatives. For example, Newman provides guidelines to ensure suppliers' quality and develops a framework for single-source qualification. Giunipero and Brewer present a performance-based supplier evaluation procedure. Juran recommends an extensive, long-term partnership with suppliers. With the objectives of minimizing incoming material inspection and receiving reliable, frequent deliveries through long-term relationships, quality-oriented firms have developed extensive supplier evaluation systems. Often, such organizations offer technical assistance to suppliers in order to ensure consistent superior quality of an effective supplier quality management strategy. The following are of paramount importance in this respect.

- Relative importance placed by the organization on quality of purchased parts versus price.
- Consideration of supplier's technical capability.
- Consideration of supplier's financial capability.
- Consideration of supplier delivery performance.
- Extent of technical assistance to suppliers.
- Emphasis on long-term supplier relationship.

- **Design quality management**

A comprehensive approach to designing quality into products, reflects an organization's strategic quality planning capabilities. Juran strongly recommends investment of time and resources in designing quality into products. Approaches such as quality function deployment (QFD), help an organization translate customer needs into actions by various functions. Taguchi's design of experiments and Shingo's error-proofing techniques, are very useful quality design tools. Today's complex products cannot be designed by design engineers alone. An interdisciplinary approach to designs (wherein other functions such as production, materials planning and engineering get involved in the early stages of product design) is essential. Such a team approach results in a faster response to customer needs and superior product quality. Also, manufacturing and marketing experiences of the design team members, enhance their ability to design quality products. These considerations led us to the following six-item scale designed to evaluate an organization's design quality management.

- Emphasis on shop floor experience for the design team.
- Emphasis on the marketing experience for the design team.
- Use of Taguchi's design techniques.
- Use of Shingo's error-proofing techniques.

- Interdisciplinary approach to product design.

- **Benchmarking**

Effective management of the quality of products and internal processes without losing perspective of the external factors, such as competition, requires judicious use of benchmarking. Benchmarking consists of analyzing the best products and processes of leading competition in the same industry, or leading organizations in other industries using similar processes. An organization should, then, use this knowledge to improve its own products and processes. The importance of adequate, accurate and timely information on best practices of various processes is acknowledged by leading organizations. Even with the best operating and communication devices, two airplanes can and have crashed into each other in broad daylight. In order to avoid a similar disaster, organizations implementing QM strategies, also should look out of the window frequently.

The purpose and guidelines for effective benchmarking have been extensively discussed in the QM literature. Benchmarking entails the product as well as the process of benchmarking. Benchmarking must be done with a clear focus on the goal of improving product quality and reducing cost. Appropriate planning and execution of benchmarking go a long way in improving processes. To take advantage of the benchmarking technique, an organization should benchmark its product, as well as processes. Accordingly, the following five-item scale was developed to measure the extent of use of benchmarking by organizations.

- Emphasis on benchmarking competitors' products and processes.
- Emphasis on benchmarking noncompetitors' products and processes.

- Effectiveness of benchmarking in product quality improvement.
 - Effectiveness of benchmarking in product cost reduction.
 - Willingness of the organization to benchmark in the future.
- **Statistical Process Control usage**

To minimize in-production quality problems, sound design quality planning is needed. However, when products are being produced on the shop floor, variations in the manufacturing process variables (such as raw materials, quality machine conditions and worker skills.) contribute to a variation in product, hence, the role of quality control in manufacturing is as critical as the design quality of products and processes. Statistical process control (SPC) techniques are often used to detect assignable causes contributing to the variation in manufacturing quality, to provide useful information for product design, and to determine process capability. Although some limitations of SPC in quality improvement have been recognized, it helps quality-oriented firms, beginners in particular, to monitor quality variations and to investigate critical areas where improvements are needed. A wide range of SPC tools such as scatter diagrams, Pareto charts, cause-effect diagrams, and control charts are used to monitor quality. To use SPC tools effectively, production workers should have an adequate knowledge regarding their usage. Hence, the following four-item scale was developed to assess the extent of SPC usage in organizations.

- Extent of the use of SPC in manufacturing.
- Knowledge of production employees in SPC tools.
- Effectiveness of SPC in improving product quality.
- Willingness of the organization to use SPC in the future.

- **Internal quality information usage**

While benchmarking allows an organization to look out of the window, SPC tools allow it to monitor the quality of internal processes. However, both strategies will be rendered ineffective should there be an inferior dissemination of the generated information. To maintain a true customer focus, an organization must ensure prompt feedback of customer survey results to appropriate functional areas for effective actions. One of the indicators of the extent to which quality information is shared, is the frequency of quality performance data relayed back to the concerned work stations, cells, and departments. Juran advocates the determination of cost of quality for all process components and wide dissemination of this information within the organization. The Baldrige Award recognizes the importance of making timely, adequate, and relevant quality data available to concerned departments and employees. These observations led to the following six-item scale for evaluating the effectiveness of internal quality information usage.

- Availability of the cost of quality data to managers.
- Visual display of quality information at work stations.
- Visual display of quality performance versus goals.
- Transmittal of defects information to specific work stations.
- Availability of scrap data.
- Availability of rework data.

- **Employee empowerment**

Companies use employee empowerment as an effective strategy. The focus on quality at source, requires empowering production workers to inspect their own work and to stop production if the process is out of control. Employee empowerment is essential to improve in-process quality control. Due to increased awareness of responsibility and

equity among subordinates, empowerment also leads to increased employee participation. Empowerment does not mean only shifting the responsibility for quality decisions to workers; it also entails providing supporting framework, such as the necessary resources and technical support, to assist them in such decision-making. These essential aspects of employee empowerment were captured in the following five-item scale:

- Workers authorized to inspect their own work.
- Workers encouraged to find and fix problems.
- Workers given resources to fix problems.
- Technical assistance given to workers for solving problems.
- Supporting infrastructure for problem-solving.

- **Employee involvement**

Employee empowerment alone is not adequate to ensure employees' full participation. It has been found, that four contextual factors affect employee commitment to participation: explicitness of performance targets, revocability of one's actions, consequent publicity and volition (ownership) of actions. Employee involvement groups have been found to positively impact employee commitment to quality. However, organizations must develop formal systems to encourage, track, and reward employee involvement. Otherwise, the extent and quality of participation declines, leading to a dissatisfied work force. The use of the cross-functional quality improvement team and quality circles, along with a framework of appropriate evaluation and reward systems for quality improvement projects, have been shown to improve quality significantly. Recently, it has been noted, that the level of employee participation depends on individual or group reward. Many QM firms implement such reward systems and also offer profit minus sharing

program, to enhance the employees' ownership in their jobs and quality improvement activities. This led to the following eight-item scale for the employee involvement strategy.

- Extent of quality circles' usage.
- Extent of cross-functional team usage.
- Framework for evaluation quality participation.
- Extent of employee suggestion implementation.
- Encouragement for employees to give suggestions.
- Providing individual financial incentives.
- Providing group financial incentives.
- Availability of profit-sharing program.

- **Employee training**

Employee empowerment and involvement framework is not effective unless employees have received formal, systematical training in quality management. In fact, Japan's phenomenal productivity success, is attributed to the national campaign of training every employee in basic concepts of quality improvement. The Baldrige award also assesses applicants' efforts in providing quality training to its work force. Only when employees are trained in the quality concepts and tools, can they understand quality-related issues. First and foremost, companies need to view training cost as investments instead of costs. Adequate resources are prerequisites for an organization-wide training. Participation by various levels of employees and managers in training sessions, not only enhances the quality of the immediate session, but as a result of a breakdown of barriers between ranks, it helps subsequent employee participation. Refresher courses in quality concept rejuvenate employee participation by reinforcing quality knowledge in the light of actual practice. These salient dimensions of employee and managerial training led to the following five-item scale for assessing an organization's employee training strategy.

- Availability of resources for training.
- Frequency of training and retraining an employee.
- Number of employee levels participating in the same training session.
- Number of employees trained in basis quality concepts.
- Satisfaction of employees with overall training.

- **Product quality**

The fore-going discussion deals with identifying various scales for quality improvement strategies. These components of QM are relevant to the goal of improving product quality. But how do we measure product quality? The most comprehensive definition of quality has the following attributes. 1 Performance: a product's primary operating characteristics; 2 features: the "bells and whistles" of the product; 3 conformance: the degree to which a product's design and operating characteristics meet established standards; 4 reliability: the probability that a product will operate properly over a specific period of time under stated conditions of use; 5 durability: the amount of use the customer gets from products before it physically deteriorate until replacement is preferable; 6 serviceability: the speed, courtesy, and competence of repair; 7 aesthetics: how a product looks, feel, sound, or smells, and 8 perceived quality: the customer's perception of a product's quality based on reputation of the company. However, when one measures quality of product industries, some of these dimensions may be either too difficult to measure or not equally relevant. Four relevant dimensions of product quality follow.

- Relative performance of the product in comparison to other products in the industry.
- Relative reliability of the product in comparison to other products in the industry.

- Relative conformance of the product to specification in comparison to other products in the industry.
- Relative durability of the product in comparison to other products in the industry.

In addition, two other measures of manufacturing process quality, were used.

- Percent scrap generated.
- Percent rework.

Percent scrap is defined as the wasteful material generated for each good unit produced. Scrap includes defective, unusable units and material remaining after the processing of raw material, which may result from poor process, poor maintenance, uneven loading of equipment, etc. it increases the cost per unit of good product, and has been considered a critical component of the cost of quality. Percent rework indicates the fraction of total production that must be reprocessed, due to non-conformance to specifications. Due to repeated efforts on the same units to attain an acceptable quality level, rework also leads to escalation in cost. Both scrap and rework have been extensively used in quality literature to measure process quality.

- **Supplier performance**

Suppliers play a more direct role in an organization's quality performance than is often recognized. While it is possible to produce a low quality product using excellent raw materials, it is impossible to produce a high quality product from low quality raw materials. Thus, the quality of supplied parts defines the upper limit for the finished product quality. Poor quality of incoming parts adds significantly to buyers' costs in terms of inspection, rework and returns, purchasing, and overproduction. Therefore, quality-oriented organizations have a few reliable, competent, and cooperative suppliers on a long-term

basis. The supplier quality management strategies (discuss under the Supplier Quality Management scale), however, must result in good supplier performance, and in turn, affect the final product quality. Thus, supplier quality performance is an intermediate outcome of the implementation of quality strategies. Again, product quality dimensions can be used to describe the quality of products delivered by the supplier. Hence, the following items to measure supplier performance, were used.

- Performance of supplied parts.
- Conformance of supplied parts to specifications.
- Reliability of supplied parts.
- Durability of the supplied parts.

These items reflect the product quality performance of the parts supplied parts. In addition, through a comprehensive vendor evaluation, quality-oriented firms identify suppliers who are willing to establish long-term partnerships by investigating in technology and quality improvement efforts, and cooperating with the buyer firms to resolve any specific quality problems. The following should be noted.

- Cooperation of supplies to resolve quality problems.
- Suppliers' willingness to improve quality.

The various functions executed by these dimensions, are portrayed by means of a descriptive model. A discussion on the proposed model is presented below. Top management commitment acts as a driver for the TQS movement. This commitment, coupled with visionary leadership, drives the organizational system consisting of such subsystems as the HRM, customer focus, technical systems, information and communication systems, tangibles and corporate responsibility. The industrial relations issues are represented by union intervention and the standard of comparison by benchmarking. The advent of technology in serving customers, is quite intense and is on the rise. But, in general, most service organizations serve

customers mostly through their employees, who form the interface between customers and service organizations. Therefore, customers focus and employee satisfaction are treated as the two goals of the TQS approach.

The dimensions that have been discussed, are all vital components for quality improvement, but when used in isolation or on ad hoc basis, do not constitute TQS. TQS will be fruitful only to the extent to which the various dimensions synergically operate in an environment of continuous improvement. Akin to continuous improvement, is the fact that TQM should be viewed from a long-range perspective, i.e. it requires a clear understanding that the process will claim money and determination before its benefit becomes clear. To encapsulate, TQS is not an outcome of one or two management approaches only (e.g. personnel/ HRM, organizational behaviour, psychology, operations management, marketing, economics, systems thinking, etc.). The arrows in the model are all double-headed to imply that TQS is an approach that should be adopted as a whole rather than piecemeal. Moreover, in service organizations, the subtle, implicit and behavioural aspects such as service culture, HRM and other 'soft issues' play a dominant role, unlike in manufacturing, where the emphasis is on hard issues like superiority in product, process, technology, etc. and, therefore, firms trying to imitate successful organizations by adopting cosmetics transformations without grasping the cultural underpinnings of TQS, will face disastrous effects.

3.8 Service quality

Service quality is a much more obstruct and elusive construct, because of the features unique to services namely intangibility, heterogeneity and the inseparability of production and consumption (Nel, Pitt and Berthon, 1997:14). The conceptualization of service quality has been an illusive concept, primarily because the problem

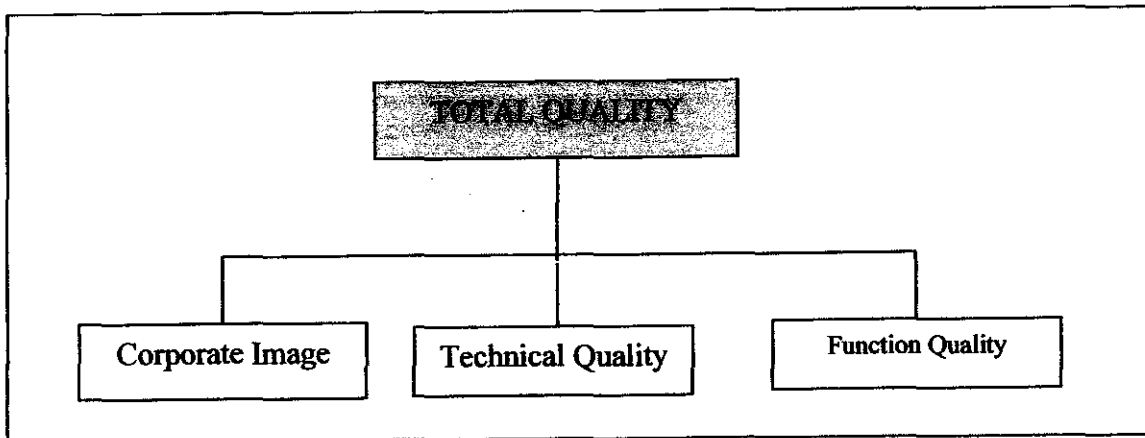
associated with simultaneous receipt and production of services and the differences between mechanistic and humanistic quality (Carman, 1990:33). According to Parasuraman et al., (1988:14), the conceptual meaning between humanistic and mechanistic quality, stems from the fact that consumers do not use the term "quality" in the same way as researchers and marketers. Mechanistic quality involves the objective aspect or features of a thing or event humanistic quality involving the subjective response of people to object and are, therefore, highly realistic phenomena.

The interest in and scholarship about service quality, have led to the development of a number of service quality models. These models relate to the following two distinct streams (Brogowitz, Delens and Lyth, 1990:27).

- The Nordic School. Christian Grönroos has been a prolific contributor. Service marketing is as articulate as interactive in nature, with the focus on buyer-to-seller interaction. Grönroos delineated the technical quality and fictional quality dimensions of service marketing. Technical quality is defined as what the service, while the two are related functionally. Quality is more important in relation of service quality by consumers than are other variables.
- North American School. Service marketing differs fundamentally from goods marketing in terms of intangibility, heterogeneity, perishability and inseparability of production and consumption. In Parasuraman, Zeithaml and Berry's models of services, quality features prominently in their schools of thought.

Grönroos (1982:33) proposes a model of service quality that is a function of three components, as shown in the diagram on the next page.

Figure 3.10 A model of service and quality



Source: Grönroos (1982:33)

Bolton and Drew (1991:375) propose a multi-stage model of customers' assessment of service quality and value. The concepts of satisfaction, service quality and service value, form the basis of this model.

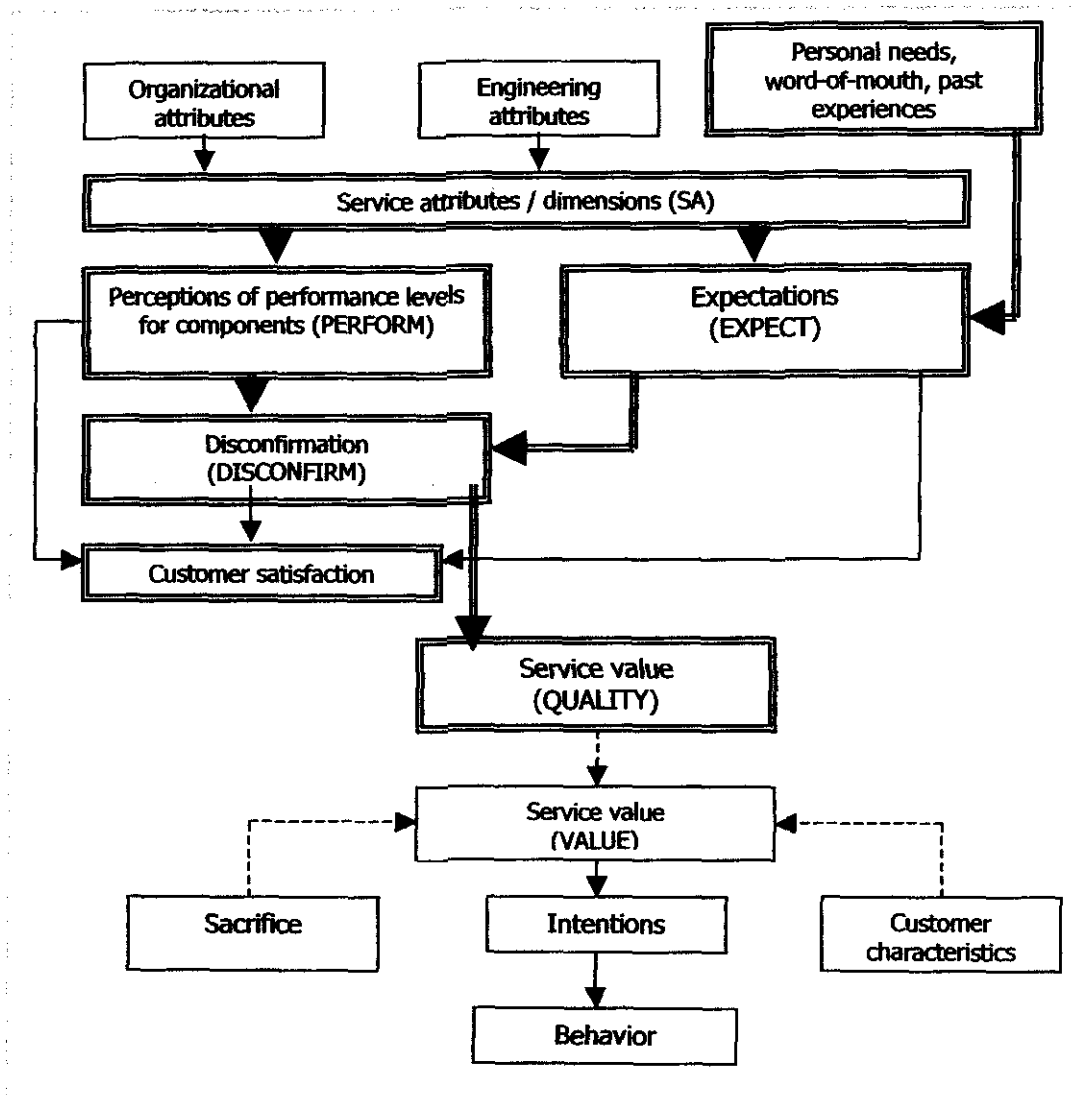
- Customer satisfaction

Market researchers distinguish customer satisfaction with respect to a specific transaction and their global evaluation of a service. Satisfaction is characterized by the surprise a customer experiences after the purchase (i.e. a service encounter), and this surprise eventually becomes an input to a less dynamic attitude. Consequently, satisfaction can be considered to influence the customer's behavior.

Customer satisfaction or dissatisfaction (CS/D) is a function of a disconfirmation arising from discrepancies between prior expectations and actual performance. CS/D literature demonstrates, that the expectations and perceptions of performance levels affect customer satisfaction directly, as well as indirectly, via disconfirmation. The theoretical linkages identified in CS/D literature, are illustrated by the thin solid lines in Figure 3.11.

Expectations, performance evaluations and disconfirmation do not necessarily have independent, additive effects for every product or service. It was found that the CS/D with a non-durable good, is a function of all three constructs, whereas CS/D with a durable good is solely a function of performance evaluation. Consequently, expectations, performance evaluation, and disconfirmation are potential antecedents of CS/D with a service. Oliver (1989) customer responses concerning continuously provided services or long – lasting durables, are characterized by passive expectations and, therefore, that disconfirmation will not operate, unless performance is outside the range of experience-based norms. Hence, customers' assessments of continuously provide services, such as public utilities or cable television, may depend on performance evaluation only. See figure 3.11 on the next page.

Figure 3.11 A multistage model of customers' assessments of service quality and value



Source: Parasuraman et al., (1985)

3.8.1 Service quality assessment

Recent market research regarding customers' attitudes towards services, has focused on perceived service quality. Perceived service quality is defined as the customer's assessment of the overall excellence or superiority of the service. Parasuraman et al., (1985 - 1988) consider that a customer's assessment of overall service quality depends on the gap between expectations and perceptions of actual performance levels. They propose that overall service quality is

evaluated in five underlying dimensions: tangibles, reliability, responsiveness, assurance, and empathy. They propose, that each quality dimension can be quantified by obtaining measures of expectations and perceptions of performance levels for service attributes relevant to each dimension, calculating the difference between expectations and perceptions of actual performance on these attributes, and then averaging across attributes. They also suggest, that expectations should be influenced by personal needs, word-of-mouth communication, and past experiences. The determinants of perceptions are not discussed in their model, but, presumably, they are influenced by attributes of the service delivery-process. The theoretical linkages proposed by Parasuraman et al., (1985), are illustrated by double lines in Figure 3.11.

Both CS/D and perceived service quality are postulated to be influenced by the gap between expectations and perceptions of performance. (i.e. disconfirmation). However, CS/D literature suggests a more elaborate model in which disconfirmation, expectations, and actual performance levels affect customer satisfaction, which, in turn, becomes an input to customers' perceptions of service quality. As Figure 3.11 illustrates, this conceptualization implies, that customers' perceptions of service quality are directly affected by disconfirmation and indirectly by disconfirmation, expectations, and actual performance levels (CS/D).

3.8.2 Service Value

On the basis of a review of previous research and an exploratory study, Zeithaml (1988:14) suggests, that "...perceived value is the customer's overall assessment of utility of a product based on perceptions of what is received and what is given." If perceived service value is analogous to the concepts of perceived product value, then Zeithaml's work suggests, that service value can be considered to

involve a trade-off between a customer's evaluation of the benefits of using a service and its cost. Customers' assessment of service value, is hypothesized to influence purchase intentions and behavior. A customer's assessment of value, depends on sacrifice (i.e., the monetary and non-monetary costs associated with utilizing the service) and the customer's frame of reference (Zeithaml 1988). Thus, there should be differences in customers' assessment of service value, due to differences in monetary costs, non-monetary costs, customer tastes, and customer characteristics. The theoretical linkages among sacrifice and customer characteristics, service value, intentions, and behaviour, are illustrated by broken lines in Figure 3.11.

3.8.3 Multistage model of service quality and value

The preceding paragraphs provide a conceptual framework for a model of customers' assessment of service quality and value. It is based on a customers' global assessment of performance, service, quality, and value. These three stages are specified algebraically as a multistage model in the tradition of the perception-reference-choice model information integration model.

Most services are multidimensional bundles of core, facilitation, and supporting services. The model developed here considers, a customer's perception of service performance ($PERFORM_k$) to be an assessment of performance on particular service attributes and dimensions (e.g. reliability). That is,

$$PERFORM_k = p_k(\mathbf{SA}_k), \quad (1)$$

Where \mathbf{SA}_k is a vector of perceptual ratings of attributes/ dimensions that describe service k , while p_k is a function with parameters that depend on the nature of service k .

As discussed earlier, a customer's disconfirmation experiences, expectation, and perceived performance levels, affect CS/D with a

specific service transaction. In turn, CS/D influences the customer's global evaluation of service quality. Thus, a reduced-form model describing customers' assessment quality (QUALITY), is the following.

$$\text{QUALITY} = q(\text{PERFORM}, \text{EXPECT}, \text{DISCONFIRM}), \quad (2)$$

Where EXPECT is a vector describing prior expectations about the performance of the component services ($k = 1, \dots, K$), DISCONFIRM is a vector describing perceptions of the discrepancy between performance and expectations concerning the component services ($k = 1, \dots, K$).

After evaluating service quality, the customer service assessment value (VALUE) by trading-off the quality of the service versus its costs in a given situation, will be -

$$\text{VALUE} = v_0(\text{QUALITY}, \text{SACRIFICE}, \text{CHAR}) \quad (3a)$$

Where **SACRIFICE** is a vector of variables describing the monetary and non-monetary costs associated with customers' utilization of service, **CHAR** is a vector of customer characteristics.

As illustrated in Figure 3.11, prior research has implicitly assumed that customers' assessment of service value depends directly on their assessment of service quality. In contrast, we hypothesize that customers may weight the underlying components of service quality (**PERFORM**, **EXPECT**, and **DISCONFIRM**) differently when assessing service value. This notion can be reflected in the service-value equation in the following way.

$$\text{VALUE} = v_1(\text{QUALITY}, \text{SACRIFICE}, \text{CHAR}, \text{PERFORM}, \text{EXPECT}, \text{DISCONFIRM}) \quad (3b)$$

The hypothesis that customers weight service-quality components differently when assessing service quality versus value, is testable by constraining Equation 3b to equal Equation 3a.

Steward, Hope and Muhlemann (1998:29) state, that a consumer evaluation of service might be split into two. What is delivered, which is reevaluated other service delivery, and how the service is delivered evaluated during delivery. These two aspects are referred to as physical and interactive quality, “technical and fictional quality”, and process and outcome quality respectively. Further, quality may be more influenced by fictional rather than technical dimensions. Outcomes and achievement of some end by the customer and processed an interaction.

According to Vandamme and Leunis (1992:32), quality is assumed to result from a comparison of expectation with perceived service performance. This user-based approach implies, that customers have some expectations with respect to service performance which will be compared with their perception of the actual service delivered.

Despite extensive discussion, a widely accepted understanding of the concept “service quality” has not emerged (Hedvol and Paltchik, 1991:38). Parasuraman et al., (1988:1) investigated service quality and conceptualized it in the following determinants.

- Tangibles. Physical facilities, equipment, and approaches of personnel.
- Reliable. Ability to perform the promised service dependently and accurately.
- Responsibility. Willingness to help customers and provide prompt service.
- Assurance. Knowledge and country of employees and their ability to inspire trust and confidence, while include the following:

- Competence means possession of the required skills and knowledge to perform the service. It involves knowledge and skills of operational support personnel, research capability of the firm.
 - Courtesy involves politeness, respect, consideration, and friendliness of contact personnel. It includes consideration for the consumer property, as well as clean and neat appearance of public contact personnel.
 - Communication means keeping customers informed in language they can understand and listening to them. This involves explaining the service, the cost, and the trade-off between cost and service, assuring the consumers that a problem will be handled.
 - Credibility involves trustworthiness, believability, and honesty. Contributing to it is the firm's name, reputation, and personal characteristics of the personnel.
 - Security is freedom from danger, Next or doubt. It involves physical safety, financial security and confidentiality.
- Empathy. Caring, individualized attention the firm provides its customers. This includes the following
- Access involves approachability and ease of contact. It includes wasting time to revive services that are not expensive, convenience hours of operation, convinced location of facilities.
 - Understanding/knowing customer involvement, making the effort to understand the customer needs. It also involves learning about the customers' specific requirements, providing individualized attention, and recognizing the regulate customer.

Service marketing researchers have instead of using quality concept from manufacturing, based their work on developing a service quality concept from consumer behavior. Following on their extensive

research on service quality models, it has been recognized, that customers evaluate service quality by comparing the service providers, actual performances perception with what they believe service performance would be “expectation “in their service experience (Kandampully, 1998:433).

According to Lewis (1993:4), it is essential to understand the concept of service encounter in order to define and measure service quality. A service encounter is any direct interaction between the service provider and customers. Further, definitions of service quality focus on meeting customers’ needs and requirements and how the services derived will match customers’ expectations. In service quality literature, expectations are viewed as design/wants; that is, what one feels that a service provider should offer, rather than would offer, and are formed on the basis of previous experience.

Some of the most influential models in service management literature (Grönroos, 1990; Parasuraman et al., 1985) focus on the concept of the service quality gap (SQG). Parasuraman et al., (1985) define a pioneering model with five SQG’s, the concepts of which are amplified in the model of Brogowitz et al., (1990). The latter has five types of encompassing gaps: information and feedback-related gaps; design-related gaps; implementation relation-related gaps; communication-related gaps; and customers’ perceptions and expectations-related gaps.

Additionally to this model amplification, other authors have pointed to relevant SQG’s that have not previously been considered.

An enlarged set of service quality gap.

Several references to possible service quality inconsistencies, some of which are explicitly formalized as SQG’s, were collected from literature and are listed in the column of table 3.6. The sources from which they

are listed in the column headings, are indicated by a “●” in the body of the table.

Table 3.6 follows on the next page.

Table 3.6 Quality inconsistencies/ gaps drawn from the literature

Gap Number	Inconsistency/ Gap	Parasuraman et al., 1985	Grönroos 1990	Gummesson & Grönroos 1987	Lovelock, 1992	Garvin, 1987	Brogowicz et al., 1990	Zemke & Schaaf, 1989	Brown & Swartz 1989	Normann & Ramirez, 1993
1	Management Perceptions	●	●		● ^a	●	●	●		
2	Service quality strategy		●			●		●		
3	Service design and service quality specifications in terms of customers expectations	●	●	●	● ^a	●	●	●		
4	Quality supportive financial function				●					
5	Internal communications		●	●				●		
6	Integration/ coordination	●	●	●	●			●		
7	Coordination of other people and/ or organisations in the value system									●
8	Selection, training, and adequate levels of autonomy, power and rewards personnel		●		●			●		

Table 3.6 Continues

Gap Number	Inconsistency/ Gap	Parasuraman et al., 1985	Grönroos 1990	Gummesson & Grönroos 1987	Lovelock, 1992	Garvin, 1987	Brogowicz et al., 1990	Zemke & Schaaf, 1989	Brown & Swartz 1989	Normann & Ramirez, 1993
9	Service delivery	●	●	●	● ^a	●	●	●		
10	External communications	●	●		●		●			
11	Contact personnel's perceptions of customers' expectations	□	□	□	□	□	□	□	●	
12	Contact personnel's perceptions of customers' experience	□	□	□	□	□	□	□	●	
13	Consumer perceptions	●	●	●			●		●	
14	Service quality evaluation		●		●	●		●		

Note: ^a Although Lovelock (1992) does not specifically identify each of these gaps, he refers to a possible inconsistency between the consumers' preferences and the nature of the delivery system.

Source: Candido and Morris (2000:464)

The inconsistencies are considered relevant SQG's on their own and the resulting group of 14 SQG's is re-ordered and re-numbered in a logical sequence. These SQG's are defined and coherently integrated below as part of a new model.

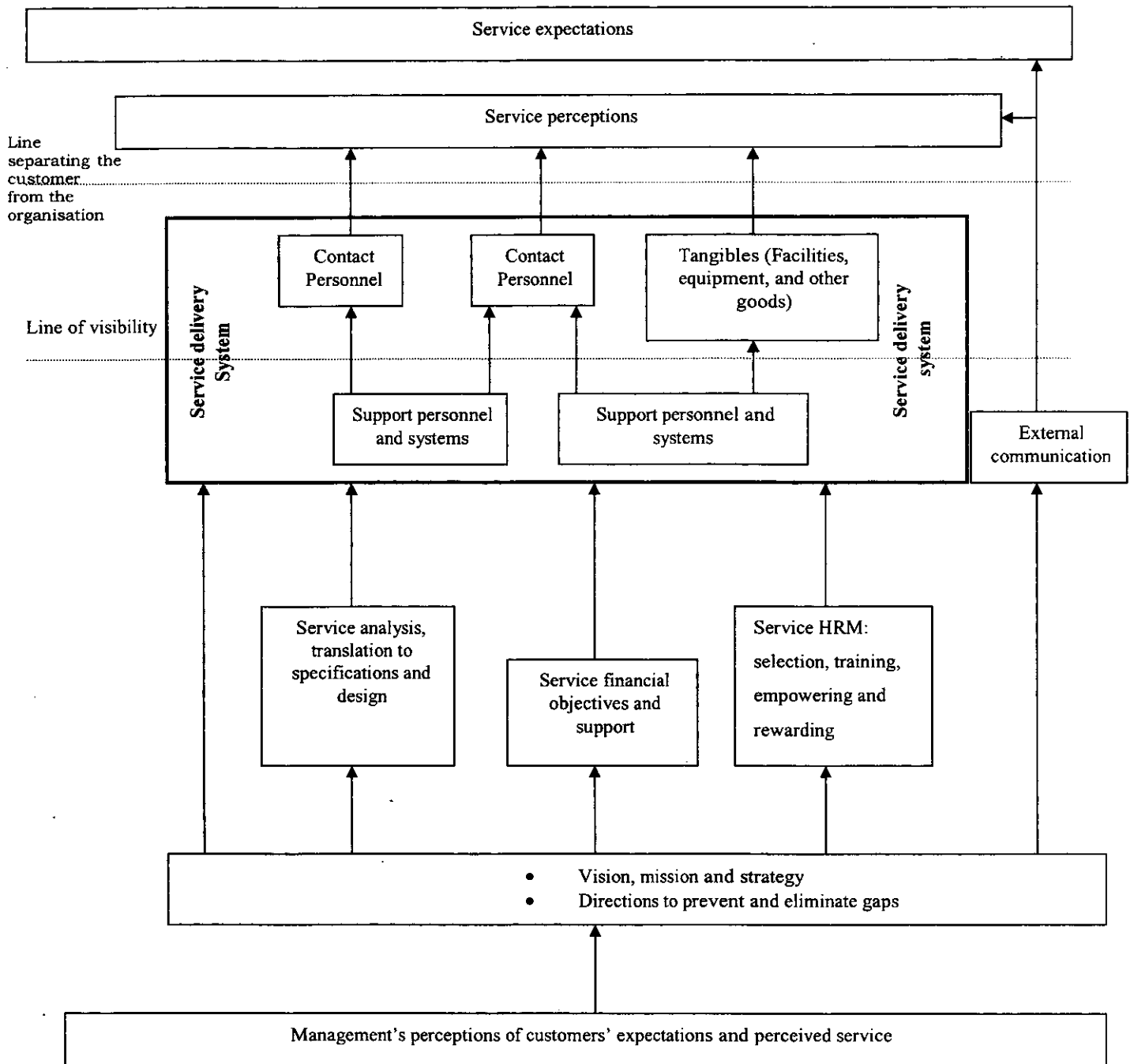
Elements of the model

A management model should identify and key elements and give these systematic management attention. The elements proposed to fit in the model, are as follows.

- Management's perceptions of customer expectations and perceptions about the service.
- Vision, mission, service strategy and directions to eliminate the gaps.
- Service analysis, translation of perceptions into service quality specifications and service design.

Information is contained in the following figure.

Figure 3.12 Service quality gap model: basic elements and some fundamental relationships.



Source: Candido and Morris (2000:465)

Basic elements and relationships are the following.

- Financial and human resources (HR) management.
- External communication.
- Service delivery system (production, delivery and 'part-time' marketing).

Figure 3.12 shows that the elements have various fundamental relationships between them.

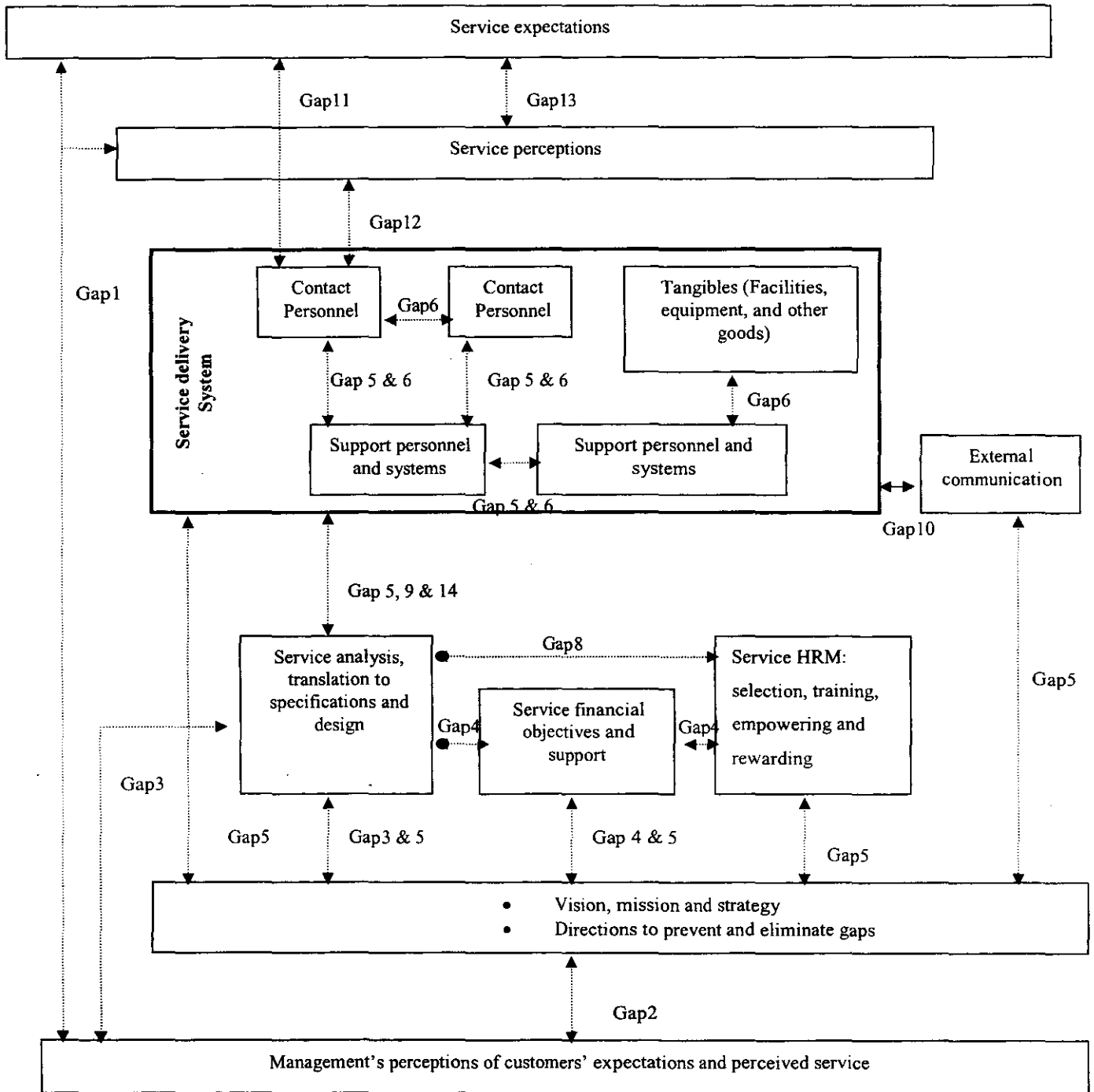
- Management perceptions' influence on mission, strategy and directions to eliminate gaps.
- Mission and strategy's influence on HR management, financial management, service specifications and design, external communications and delivery system.
- External communications influence consumer expectations and perceptions.
- Relationships between specifications, finance, HR management and the service delivery system.

Figure 3.12 also shows the basic elements of a service system and tangibles, support systems, support personnel and contact personnel. The elements of the model and the relationships established, are drawn or synthesizes from Shostack (1984), Parasuraman et al.,(1991), Brogowitz et al., (1990), Gummesson (1990), Irons, (1994), Bateson and Hoffman (1999) and Normann (1995).

The synthesized SQG model proposed here, integrates the contribution from the above and other studies.

Figure 3.13 shows the model incorporating the elements already mentioned, and the 14 SQG's identified. Definitions for the SQG's are outlined in this section.

Figure 3.13 Service quality gap model



Source: Candido and Morris (2000:466)

Gap 1 Management perception

Managers and personnel, when left to [their] own devices, [managers and personnel] pay more and more attention to things of less importance than to the customers. In consequence, they remain blind to what customers' actual value is. Some of the 'devices' and 'causes' of this blindness, are managers and personnel's education, habits developed over time and company policies and procedures, especially relating to marketing research and communication.

Gap 1 is defined here as a management lack of understanding of customers' expectations and perceptions of the service, motivated by both lack of initiatives to listen to customers and by a lack of correct understanding when these initiatives are taken. The gap can be further enlarged so as to include a lack of understanding of other external information.

Gap 2 Service quality strategy

Strategy relates the service organization to its environment and defines the way it wants to compete. Service quality strategy supposes the organization's competitive scope and its concept of quality through a selection of, and positioning on, the fundamental quality dimensions it wants to compete with (e.g. tangibles and empathy).

Quality dimensions are correlated to and, sometimes, an improvement on what one may be achieved only at the expense of another. The challenge is to choose a balanced combination and positioning. Concentrating specifically on some dimensions, may also constitute an appropriate strategy, but may lead to disaster.

Finally, the service quality strategy consists of a set of guidelines that provides orientation for everyone in the organization. It should be thoroughly communicated, should be meaningful for personnel and should distinguish the specific organization from others. Failure to

forge and communicate a coherent service quality strategy, is a serious SQG.

Gap 3 Service design and service quality specification in terms of customers' expectations.

Alongside the strategic quality dimensions, it would be useful to define what quality is. Frequently, organizations do not possess any kind of formal specifications, which results in increased service variability and lower quality. Specifications are required to guide personnel in their activities. Specifications are also required as means of comparison for effective quality evaluation. Setting adequate specifications, does not mean total standardization, but requires an analysis of the total service, i.e. of every moment of truth. From these ideas, gap 3 is defined as follows.

- A lack of analysis, design and definition of service quality specifications, or when specifications exist.
- An inconsistency between those specifications and strategy content or perceptions.
- Management's help in relation of customers' expectations.

Several factors can originate this gap, for instance a lack of management commitment to service quality and short-term profit orientation

Gap 4 Quality supportive financial function

Although a vital function to the service organization, finance involves little customer contact, except for billing, payment and neglect in service literature. Financial management in service organizations, has also been seen mainly as a constraint and an obstacle to other functions.

An 'enlightened' approach to finance in service organizations consists of a more participative and positive approach; far from being an obstacle, it contribute to strategy planning, costing systems, personnel motivation, quality control, continued solvency, and keeping outsider confidence in management.

In particular, there is need to distinguish 'good costs' that improve organizational capabilities from 'best costs' that increase bureaucracy. Doing this, will probably require substantial effort, understanding, cooperation and goodwill from financial managers and personnel in order to avoid the dominance of traditional methods and arguments.

Gap 5 Internal communications

Service strategy has to be communicated repeatedly to everyone in the organization; the "...employees at all levels must be aligned with a single vision of what an organization is trying to accomplish". Effective internal communications is the requisite for integration and harmony in the service organization's activities and quality. Internal communication is not just about strategy, it has to do with managers listening to employees, receiving feedback about the employees' perceptions of the organization's performance on its fundamental quality dimension. It also involves managers working with and listening to other managers, thus sharing problems and solutions; managers giving information to employees, about their individual performances, thus contributing to individual improvement; and prompt horizontal and vertical communication, thus flattening and inverting the hierarchical pyramid.

Gap 6 Integration/ co-ordinations

Integration between every employee, every activity, every department and every function is fundamental for service quality strategy's success. The needs for integration efforts arise from the differentiations of jobs and functions in the organisation. This differentiation implies differences in cost/ revenue orientations, policies and in specific external environments, which can easily lead to misunderstanding, lack of co-ordination and even conflict. Integration can be achieved through several distinct devices, for instance, promoting employees' mobility inside the organization, cross-training, task forces, team projects, supervision and, basically, good internal communications. There are two sides to integration. One is that every job, activity, department and function should be compatible and mutually reinforcing, the other is, that customers must never feel ignored, unimportant or abandoned, for example, repeatedly sent from one department to another.

Gap 7 Co-operation of other people and / or organizations in the value system

External co-ordination is also fundamental. If the external organizations in the value system are not organized to provide service quality to the final consumer, this lack of understanding and co-ordination can result in poorer consumer perceptions. Several organizations have achieved a total reconfiguration of the value constellation to which they belong, with benefits to every member of the network and consumers. Service firms "...have to extend their organising capability well outside their own company", they have to 'organize' their client; and they can benefit from the same, even with "...groups or sectors normally regarded as separate".

Gap 8 Selection, training, and adequate levels of autonomy, power and rewards to personnel

The importance of functional quality in service industries makes HR management highly important. HR management involves selection, training, giving adequate levels of autonomy, setting standards / objectives assessing individual performance, helping people where help is needed and, finally, rewarding them for their achievements. The right people should be selected and the tendency to recruit quickly, accepting candidates with inadequate attitudes, values and skills, should be avoided. Selected people are trained to enhance skills. Improve attitudes towards customers and learn about the services offered. These people can be slowly vested with substantial responsibility, enabling them to solve customers' problems in a more autonomous and satisfactory way to both parties. Contact personnel are encouraged to feed back information about customers' expectations and perceptions. Finally, personnel are rewarded for excellent service quality and their achievement is made public. Inability or unwillingness to coherently manage personnel, constitutes a significant SQG.

Gap 9 Service delivery

Service delivery is an inconsistency between service design/ service quality specifications and the service quality actually delivered by the service delivery system. The inconsistency may be of a technical quality and / or a quality-related process. It can be analysed more precisely by using the strategic quality dimensions selected. This means, that on each of these dimensions an SQG can be found. Thus, gaps 9.1 to 9.N can now be defined, N being the number of strategic quality dimensions. Gap 9.1, for example, might be a difference between the designed level of reliability and the level of reliability actually delivered by the system disaggregation (gap 5), of

Parasuraman et al., (1985). Gap 9 can, consequently, be defined as a function of gaps 9.1 to 9. N. Such gaps result from employees' inability or unwillingness to perform.

Gap 10 External communications

External communications is an inconsistency between what is externally communicated (promised) and what the service delivery system is actually able to provide the customers with. Several factors may contribute to the origin of a gap: a lack of communication between the marketing department's members and the operations Department's members, a propensity to over-promised, or an inability to communicate clearly and accurately the benefits of the service offered to the customers.

In order to use adequately and to appreciate fully the choices that the organization offers, the customer has to be in possession of accurate and comprehensive information. It may be necessary to use more than one communication means to inform, persuade and educate the customer. Designing service to be user-friendly, will simultaneously facilitate consumer use and external communication.

Gap 11 Contact personnel's perceptions of customers' expectations

This gap consists of a discrepancy between the contact personnel's perceptions of customers' expectations and the customers' real expectations.

Gap 12 Contact personnel's perceptions of customers' experiences

Similar to the previous gap, gap 12 consists of a discrepancy between the contact personnel's perceptions of customers' experiences and the

customers' real experiences. These gaps can have the most meaningful impact on professional services, where professionals' perceptions most directly affect the design and delivery of the services offered. But, even in other services, these gaps can have a significant impact, because they address the need of contact employees to understand a customer's expectations and experiences. Specifically, when gap 11 is nil, the employee will have evaluated correctly the customer's expectations, and when gap 12 is nil, his/her perceptions. In conjunction, these two gaps will affect the contact employee's perceptions of his interlocutor's assessment of the quality he/she is being provided with and the employee's subsequent behaviour.

Gap 13 Consumer perceptions

Consumer perceptions constitute the difference between what consumers get from the service and what they actually perceive of it. The need for managers to access customers' expectations and their perceptions of the quality provided, should be emphasized here. Such an assessment should be constant or, at least, periodic. It should encompass the totality of the service offering, i.e. including every moment of truth, and it should be done for each of the strategic quality dimensions. Gap 13 thus can be disaggregated into gaps 13.1 to 13.N, according to the N strategic quality dimensions, just as suggested for gap 9.

Gap 14 Service quality evaluation

Setting standards is not sufficient to ensure that a quality service is being offered. Accurate measures are essential for monitoring and for effective quality management. Measuring is an objective way to monitor service quality, but personal observations are also important. This should not be confounded with 'police action'. Several methods can be used to measure quality; however, the best measurements that

can be devised, mirror and validate the details of [the organisation's] service strategy. Standards are set according to essential strategy elements and measurement must focus on the same fundamental variables.

3.9 Dimensions of service quality between developed and developing countries

Malhotra, Ulgado, Argarwal and Baalbaki (1994:4) use the ten dimensions of Parasuraman et al., (1985) as a basis for a comparison evaluation of the determinants of service quality between developed and developing countries. Environmental factors were assigned to each of the ten service quality dimensions. The environmental considerations can account for contrast between developed and developing countries. These factors are divided into economic factors and socio-cultural factors. Furthermore, Malhotra et al., (1994:5) indicate the following.

- The service quality dimensions of reliability, access and understanding of customers are linked to conventional economic development aspects such as the levels of affluence, technology, competition, and communications infrastructure.
- The responsiveness dimension is attributed to socio-cultural influences concerning the value of time.
- The rest of the service dimensions are associated with socio-cultural factors as discussed by Geert Hofstede (1980) and Abraham Maslow.
- The Hofstede (1980) study discovered four criteria along which national cultures differ. The service quality dimension of competence, courtesy, communication and cordiality correlate significantly with both the following cultural dimensions:
 - Power distance. The extent to which a society honours the unequal distribution of power in institutions and organizations.

- Individualism/ collectivism. The extent to which a society has a loosely knit/tightly knit social framework.

Small power distance and individualism were found to go together with greater national wealth, whereas high power distance and collectivism were found also to be associated with national wealth.

- The service quality dimensions of security and tangibility are linked with Maslow's (1970) hierarchy, in which individual needs are arranged from lower level needs which dominate higher level needs, directing behavior until the lower ones they are first satisfied. While individuals in developing countries have yet to master and fully satisfy the lower level needs, individuals in developed countries have come a long way in fully meeting these needs, and are preoccupied with addressing higher order needs.
- The difference between developed and developing countries in terms of service quality dimensions and related environmental factors is further discussed (Malhotra et al., 1994: 7). This is set out as follows.

- **Reliability**

Service reliability means consistently rendering services dependably and accurately. Portraying the reliability and consistency with which the service is delivered, can follow two routes. The first involves emphasizing the technological superiority and dependability of the process by which the service is produced: a high-tech approach. The second concerns the consistent and dependable performance of the service personnel: a high-touch approach. Although these alternatives are by no means mutually exclusive, nevertheless the relative importance of each route differs according to the level of the development of the market. Developed economies have taken long strides in terms of developing breakthrough technological innovations and in terms of manipulating those scientific innovations in a multitude of ways,

so as to be used in facilitating everyday operations. Service firms utilizing such state-of-the-art technology, should take advantage of the generally high level of education and affluence of their customer base, which can comprehend the benefits of such technologies and can afford the costly technology in exchange for higher performance, quality and dependability.

Compared with developed countries, developing countries are generally of lower financial and technological affluence. These factors might inhibit the adoption of higher technology in order to meet the needs of the customer better. Even if the service technology is available and is adopted, the importance consumers in developing countries place on the high-tech component, may remain second to the importance placed on the high-touch or human component of the service. Customers in developing markets are generally of a lower educational level and might resist patronizing something they do not understand. Continuous improvement is the key to providing a reliable service. Firms in developed countries are constantly faced with intense competition and customers with higher expectations and lower tolerance; therefore there is a relentless progression of continuous improvement in service quality. Customers in developing countries have lower quality expectations and, therefore, a wider zone of tolerance for ineffective services as compared with that of customers in developed countries. Consequently, the pressure from customers and the competition, are often minimal in developing countries intermittent improvements of service quality results.

Access

Since production and consumption of the service are inseparable, a customer's ease of contact with and timely access to the service supplier is crucial. The highly advanced and reliable communication infrastructure in developed countries, presents various alternatives through which the customer/supplier

connection is possible. Among these possible alternatives, non-personal contact modes, such as telephone, facsimile, electronic mail, and telex, rank highest in terms of both ease of contact and timely access. Unfortunately, the majority of developing countries are still plagued by limited or unreliable communication networks, thus boosting the relative importance of direct personal contact between the customer and the service supplier.

- **Understanding/ knowing the customer**

The premises of “knowing the customer” serve as the underlying basis behind a consistently growing area of interest in marketing - relationship marketing. In relationship marketing all conceivably viable ideas are implemented to make “the customer the king”. There are essentially three levels of relationship marketing the first level is based on financial incentives, such as price discounts given to the customers so as to retain the markets. The second level is where firms combine financial and social benefits, emphasizing staying in touch with clients, learning about their wants and needs, customizing the relationship marketing, etc. The last level solidifies this relationship with structural bonds, in addition to social and financial bonds. While the concept of relationship marketing is rapidly progressing in developed countries, the concept is still to take root (or at most at its first level) in developing countries. Many customers in developing countries still have to be informed and briefed about the functional aspect and benefits of the service, and may be persuaded to patronize the service.

- **Responsiveness**

One of the determinants of service quality, is timely and adequate response. Employees should be willing and able to deliver timely and substantive response to enquiry’s and complaints of

customers. The relative importance of timely versus substantive response differs between developed and developing markets. Such differences arise as a result of the relative value with which time is regarded in each of these markets. Customers of developed countries place a higher value on time as compared with those of developing countries. Thus merely responding to a customer's enquiry or satisfactorily resolving a customer's complaint – a goal that is generally regarded as sufficient in its own end in developing countries – tends to fall short of meeting a customer's expectations of quality of service in a developed country. In a developed economy, these tasks should be addressed and resolved swiftly. This leads to the following hypothesis.

- **Competence**

Possession of the required knowledge and skills to provide the service is critical to the success of any service supplier. Reflecting competence of the service firm, could be centralized on the organization as a whole or on the contact personnel. In developed markets, competence of individual employees is of relatively higher importance. Such markets place a high regard on individual initiative and achievement and are better targeted by emphasizing the unmatched skills of the service personnel. On the other hand, communicating the quality of the service with customers in developing countries, is better achieved by focusing on the competence of the organization providing the service. According to Hofstede, in such collectivist societies the individual identity and skills of the service employee are overshadowed by those of the service organization as a whole. Expertise and skills are to be reflected in the organization. Another cultural factor that supports such strategies, is power distance. Developed economies are characterized by a small power distance, whereby both superiors and subordinates of an organization regard one another as "people like me". Hierarchy in organizations reflects nothing more than

inequality of roles established for convenience. Thus employees are generally regarded as competent in their own role or domain. However, a large power distance characterizes developing economies. Employees at different levels of the organization are regarded as unequal in roles, power and skills. Superiors are highly regarded people. Unfortunately, employees at such high management levels, are rarely accessible to the ordinary customer. Consequently, customers seek to correlate the competence of the ordinary contact employee with that of the organization as a whole.

- **Courtesy**

Since customer satisfaction with the service is largely dependent on his/her interaction with the service provider, the number, appearance, and behavior of employees in the service environment can induce either approach or avoidance behavior. Customers typically do not distinguish between the service and the service provider. Thus service personnel should respect and reflect the customers' cherished values and norms. The difference between marketing service in developed versus developing economies lies in the manifestation of such courtesy. In the collectivist societies of developing countries, service personnel should not only abide by the widely accepted social norms of the community, but also mirror their respect and commitment towards these norms. By way of contrast, in the individualistic societies of developed economies emphasis of service personnel is placed on reflecting a deep respect and dedication to individual rights, beliefs and privacy.

- **Communication**

Service companies encourage favourable word-of-mouth communication. In many situations customers seek the opinions of others before selecting a medical doctor, attorney or a mechanic. However, more detailed and complex information needs to be provided about the benefits of service to customers in developed

countries, since their level of education and their cognitive structure are well suited for such elaboration. In short, they have the ability to give more deliberate thought to purchase choices. It would be correct to say, that customers in developed countries are more likely to utilize the central processing of information, given that other factors are constant. They have a relatively high level of education that permits them to seek and understand information regarding not only the ultimate outcomes of the service, but also the technicalities, details and consequences of the process of service delivery. On the contrary, customers in the developing countries, despite their developed intelligence, are prone to peripheral processing in general, because poor information flow restricts their ability to use central processing. These consumers collect their evidence more from endorsements of satisfied customers, brand and manufacturer's image, and also through interpersonal factors like family, social group and social class.

Credibility

Given the intangible nature of service and the inseparability of production and consumption of the bulk of service, it is difficult for customers to perform a prior evaluation of a firm's service. Thus the trustworthiness, believability and credibility of the service supplier are crucial determinants of patronage. However, addressing the credibility issue, would differ according to a country's level of economic development. Developing countries could be safely characterized as collectivist societies, where the emphasis is placed on belonging to organization, that is generally regarded as the source of expertise, order, duty and security in the society. Thus the service supplier operates in a society as a means of highlighting the credibility and trustworthiness of the firm. On the other hand, developed societies score high on the individualism dimension, and tend to emphasize individual initiative and achievement, autonomy and leadership. Consequently, the

credibility issue in those countries is better addressed through conveying to the potential customers a glimpse of the firm's outstanding performance through the years, supported by statistical data.

- **Security**

Owing to the low reliability of service firms in developing countries, there is a high concern and need for, first, physical security and, second, financial security. In some service categories the physical risk may be higher than the financial risk. Along with the physical risk are the financial, as well as the emotional risks. However, in developed countries, the stakes are probably at the emotional level, since there is a very low chance that the above physical mishandling would occur. Even if they do occur, the compensation is adequate and forthright. This reasoning is in line with Maslow's hierarchy of needs.

- **Tangibility**

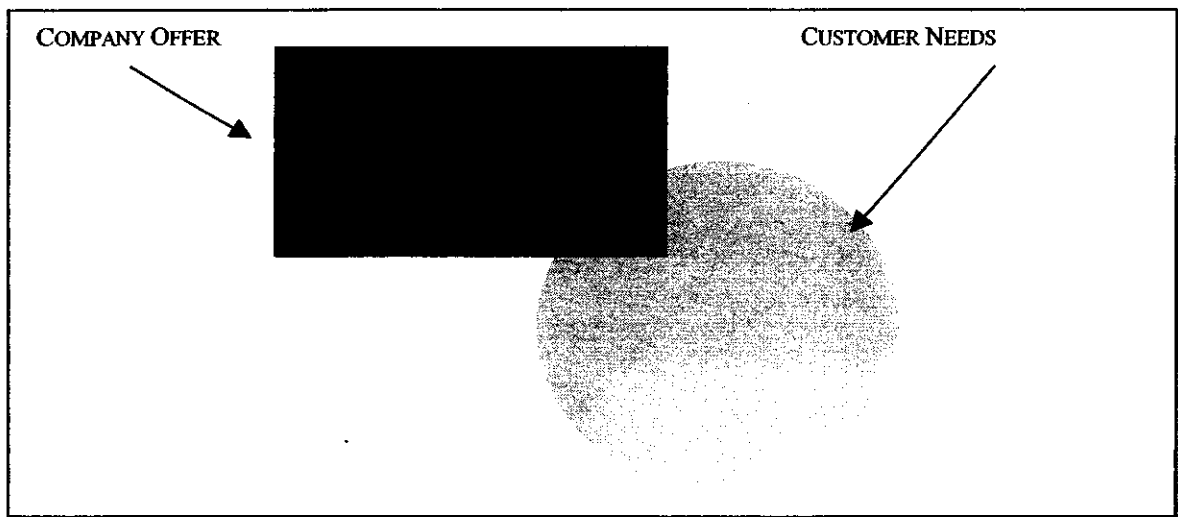
Customers in developing countries are generally satisfied with the acceptable performance of the service in terms of the core benefits it promises to offer. In general, these customers are highly factional in their choice criteria, partly owing to personality factors, which are in turn shaped by higher level influences such as values, meanings, culture and philosophy of life. On the other hand, customers in developed countries are generally satisfied only when the service offers extended benefits beyond the function. These extended benefits tend to be more intangible than the core service. Maslow's needs hierarchy can explain this. Developing countries' product needs are of a lower order as compared with those of developed countries, which are of a higher order. Thus, while a service supplier in a developing country is preoccupied with communicating the quality and value of the service per se, a

supplier in a developed country takes the extra effort to present added benefits such as lifestyles and sensory experiences.

3.10 Customer satisfaction

According to Besterfield (1999:47) an increasing number of manufacturing and service firms are using customer satisfaction as a measure of quality. Further, a definition of customer satisfaction is illustrated by using the model shown below:

Figure 3.14 Customer satisfaction model



Source: Adopted from Besterfield (1999:48)

The circle represents customer needs, while the square depicts products or services offered by the firm. Total satisfaction is achieved when the offer matches the need, or the circle superimposes the square. The part of the occurring within the circle, is revival by the customer, as satisfying and the outside part, as unnecessary.

Besterfield (1999:49) differentiate between the following two distinct types of customers.

- External customers that exist outside of the firm and who purchase the firm's product or service.
- Internal customers who function in the firm as an internal customer. Each receives a product or service and in exchange, provides a product or service.

Kotler (1997:45) defines satisfaction as a person's feeling of pleasure or disappointment resulting from comparing products or services perceived performance (or outcome) in relation to expectations. Satisfaction is inherent function perceived performance and expectations.

Researchers and scholars argue as to whether customer satisfaction leads to service quality, whereas others believe, that revired quality leads to customer satisfaction (Hoffman and Bateson, 2002:324).

This distinction is important to managers and researchers alike, because service users need to know their objectives, should consumers be satisfied with their performance, or to deliver the maximum level of perceived service quality (Cronin and Taylor, 1992:56).

Farrel (2001:588) reviewed studies that demonstrate that there are considerable degrees of argument and debate as to the order on which satisfaction and service quality imports upon customers' behavioral intention. These arguments are summarized in the table on the next page.

Table 3.7 Customer's behavioral intention, satisfaction and service quality

Authors	Date	Relationship Proposal
Parasuraman, Zeithaml and Berry	1985	Sat - SQ
Athunussopoulus	2000	Sat - SQ - BI
Bitner	1990	Sat - SQ - BI
Bolton and Drew	1991	Sat - SQ - BI
Parasuraman, Zeithaml and Berry	1988	Sat - SQ - BI
Andersen and Lindsay	1998	Sat - SQ - BI
Chost, Tynan and Money	1999	SQ - SAT - BI
Dubholkor, Shepard and Thorpe	2000	SQ - SAT - BI
De Ruyter, Bloemer and Peters	1997	SQ - SAT - BI
De Ruyter, Wetzols, Lemmnx	1997	SQ - SAT - BI
Ennow and Binks	1999	SQ - SAT - BI
Fornell, Johnson, Anderson, Cha and Bryont	1996	SQ - SAT - BI
Cronin and Taylor	1992	SQ - SAT - BI
Gotlieb, Grswol and Brown	1994	SQ - SAT - BI
Cronin, Brady and Hult	2000	SAT - BI - SQ - BI
Parasuraman, Zeithaml and Berry	1994	SAT - BI - SQ - BI

SAT=Satisfaction, SQ=Service quality, BI=Behavior intentions.

Source: Farrel (2001:588)

Dahlgaard, Kristensen and Kanji (1998:158) developed a theoretical framework for the measurement of customers' satisfaction, and is discussed below.

- **The assumptions**

The assumptions now are, that the -

- firm has a very simple delivery system in which the good, and services are delivered directly to the end-user and by which the firm can obtain customer satisfaction information directly from the end-user.
- customer on “n” definition parameters, concerning the importance of and satisfaction with each parameter evaluating the goods and services.

- **The framework**

- Let the rate of importance (weight) of the parameter be w_i and c_i be the individual satisfaction evaluations on an appropriate scale. Then define the customer satisfaction index (CSI) as follows.

$$CSI = \sum_{I=1}^n W_i C_i$$

Now assume that the revenue from customer satisfaction can be described as some function of the CSI, & (CSI). This function is of course assumed to be an increasing function of CSI: the larger the CSI, the larger the revenue.

Furthermore, we assume that the cost of obtaining customer satisfaction is quadratic with k as a cost parameter. This is a standard assumption within economic theory and furthermore, it is in accordance with e.g. the philosophy of Taguchi. What the assumption means, is that it becomes more and more expensive to increase customer satisfaction when customer satisfaction is already at a high level. To put it in another way, the marginal cost is not constant but instead, is an increasing function of customer satisfaction.

From this it follows, that the expected profit is given by -

$$\Pi = \Phi\left(\sum_{i=1}^N \omega_i c_i\right) - \sum_{i=1}^N k_i c_i^2$$

In order to balance the quality effort in the company, the management problem is to maximize profit with respect to the mean value of the individual quality parameters. The first-order conditions of this maximization are equal to -

$$\frac{\delta \Pi}{\delta c_i} = \Phi'(CSI)\omega_i - 2k_i c_i = 0 \quad i = 1, \dots, N$$

These conditions may be rewritten in several ways, such as -

$$\frac{c_i}{\omega_i} = \frac{\Phi'(CSI)}{2k_i} \quad i = 1, \dots, N$$

The left-hand side of this equation may be interpreted as an index explaining how well the company fulfils the expectations of the customer. The right-hand side balances revenue and costs and tells us that the required degree of fulfillment will depend upon how much you get from customer satisfaction, as measured in relation to the costs. Practical application of the result will depend upon the available information in the company. Weight and satisfaction can be estimated by sampling the market, while it will usually be more difficult to get information about individual cost factors. Sometimes a rough estimate of cost ratios will exist, but in many cases it will be necessary to assume identical costs. These reflections lead to the suggestions, that the company should balance its quality effort according to the following equation.

$$\frac{c_i}{\omega_i} = \frac{c_j}{\omega_j} \quad i, j$$

According to this simple rule which easily can be implemented in practice, the degree of fulfillment should be equal for all quality parameters in the company. An even simpler presentation of the result, can be made if we assume that the right-hand side of equation (5) is equal to a constant. This will be the case, e.g. if k is equal to 0,5 and the derivative of the revenue function with respect to CSI is equal to 1. In this case the following very simple rule will result.

This type of result will make it very easy to report the outcome of the customer satisfaction study in a graphical way, as we shall later see. All results have been obtained under the assumption, that financial restrictions do not carry weight in the results, while it will not lead to dramatic changes.

3.11 Summary

It was pointed out that it is extremely difficult to define a pure service. A service is defined as an activity that one party offers to another, which is essential intangible and does not result in the ownership of anything. A service is characterized by intangibility, inseparability, heterogeneity, perishability and lack of ownership.

The servuction system model as explained by Bateson and Hoffman (1999), is used to explain the nature of services. According to this model, all products deliver a bundle of benefits to the consumer and this lies at the heart of marketing, transcending any distinction between goods and services.

Quality is a complex and multidimensional concept. Eight dimensions of quality for products and services are suggested: performance, conformance, reliability, durability, service, response, aesthetics and reputation.

Stemming from the description of quality, the concept of total quality management (TQM) has evolved as an enhancement to the traditional ways of doing business. Total quality management requires six basic principles, committed and involved management of the business and production processes, treating suppliers as partners, and the establishment of performance measure.

Service quality is an elusive construct, because of the features unique to services that are intangibility, heterogeneity and inseparability of production and consumption.

Despite extensive discussion, a widely accepted understanding of the concept "service quality" has not emerged. The following ten dimensions of service quality have been conceptualised by Parasuraman et al., (1985:1): tangibles, reliability, responsiveness, assurance, competence, communication, credibility, security and empathy. Malhotra, Ulgado, Argawal and Baalbaki (1994:5) used these ten dimensions to form a basis for a comprehensive evaluation of determinants of service quality between developed and developing countries.

In the next chapter, the measurement of service quality is discussed in detail.

CHAPTER FOUR

SERVICE QUALITY MEASUREMENT

4.1 Introduction

In the previous chapter the concept of service quality was discussed and the dimensions of service quality identified. In this chapter the discussion is extended by incorporating an in-depth discussion of measurement of service quality. The widely used SERVQUAL instrument to measure service quality as developed by Parasuraman, Zeithaml and Berry in 1988, is discussed. The refinement of the SERVQUAL is also explained. The framework for developing measures of the service quality construct are detailed.

4.2 The measurement of service quality

The impetus to measure and evaluate service quality arose from and marketing, discipline in the early 1980's. Based on the centrality of customers' perception of service quality, academics devised an instrument to empirically assess customers' views of quality of service. They were led in this endeavor by Parasuraman, Zeithaml and Berry, Cook and Thomson. Building on the work of the Nordic school of service management, particularly that of Christian Grönroos, Parasuraman, Zeithaml and Berry, it was established that service quality can be seen as the core of service marketing (Mels, Boshoff and Nel, 1997:173). They conceptualized service quality as a gap between consumers' expectations and perceptions. Asubonteng, McCleary and Swan (1996:65) state, that Parasuraman et al., concluded in their 1985 study, that consumers evaluate service quality by comparing expectation to performance on ten basic dimensions. Those dimensions are tangibles, reliability, responsiveness, communication, credibility, securing, courtesy, uncertainty, and knowing the customer and access (Parasuraman et al., 1988:17).

4.2.1 The SERVQUAL instrument

Parasuraman, Zeithaml and Berry (1988:17) viewed quality as a gap existing between perceived and expected service. Their instrument was based on the gaps model of service quality. The model summarizes a set of the gaps, showing the discrepancy between them (Nitecki and Hernon, 2000:260).

- Customer expectations and management perceptions of these expectations (Gap 1).
- Management's perception of customers' expectations and service quality specifications (Gap 2).
- Service quality specifications and actual service delivery (Gap 3).
- Actual service delivery and what is communicated to customers about it (Gap 4).
- Customers expected services and perceived service delivery (Gap 5).

The first four constitute the major contribution to the service quality gap that consumers may perceive. The fifth gap is the basis of a customer-oriented definition of actual service delivered.

Service quality is measured by the difference in service (the gap service) between the perceived level and the expected level of service provided. Parasuraman et al., (1988:17) contend, that these four dimensions of service quality that are applicable to organizations in general. These four are the following.

- Tangibles. Physical facilities, equipment and appearances of personnel.
- Reliability. Ability to perform the promised service reliability accurately.
- Responsiveness. Willingness to help customers and to provide prompt service.

- Assurance. Knowledge and courtesy of employees and their to inspire trust and confidence.

As theorized, the SERVQUAL protocol evaluates service quality as a higher-order abstraction by way of 22 questions, (refer to table 4.1) reflecting the five primary outer dimensions above (Cook and Thompson, 2000:249).

Items representing various facts of the ten service quality dimensions, were generated to form the initial item pool for the instrument. The process shows 97 items (approximately ten terms per dimension). Each item was recast into two statements – one to measure expectations about firms in general within the service category being investigated and the other to measure perceptions about the particular firm whose service quality was being assessed. About half of the statements were evaluated positively and the rest were evaluated negatively, in accordance with recommendations by Churchill (1979). A sign-point scale ranging from “strongly agreeing” (7) to “strongly disagreeing”, with no verbal labels for scale points through 6, accompanied each statement (scale value were reversed for negatively awarded statements prior to duty analysis). The expected statements were grouped together and formed the first hold of the instrument. The correspondence perception statements formed the second half. As abbreviated verses of the instrument, containing a set of expectation statements (labelled as E’s) and a corresponding set of perception statements (labelled as P’s) along with directions for identified by a minus sign, within parenthesis (Parasuraman et al.,1988:17).

Table 4.1 The SERVQUAL instrument

THE SERVQUAL INSTRUMENT	
<p>Directions. This survey deals with your opinions of ----service. Please show the extent to which you think a firm offering----service should 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 these firms should possess a feature, circle the number 7. If you strongly disagree that these firms should possess a feature, circle 1. If your feeling is 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 firms offering service.</p>	
E1.	They should have up-to-date equipment.
E2.	Their physical facilities should be visually appealing.
E3.	Their employees should be well-dressed and appear neat.
E4.	The appearance of the physical facilities of these firms should be in keeping with the type of service provided.
E5.	When these promise to do something by a certain time, they should do so.
E6.	When customers have problems, these firms should be sympathetic and reassuring.
E7.	These firms should be dependable.
E8.	They should provide their service at the time they promise to do so.
E9.	They should keep their records accurately.
E10.	They shouldn't be expected to tell customers exactly when services would be performed.
E11.	It is not realistic for customers to expect prompt service from employees of these firms.
E12.	Their employees don't always have to be willing to help customers.
E13.	It is okay if they are too busy to respond to customers' request promptly.
E14.	Customers should be able to trust employees of these firms.
E15.	Customers should be able to feel safe in their transaction with these firms. employees.

E16.	Their employees should be polite.
E17.	Their employees should get adequate support from these firms to do their jobs well.
E18.	These firms should not be expected to give customers individual attention.
E19.	Employees of these firms cannot be expected to give customers personal attention.
E20.	It is unrealistic to expect employees to know what the needs of their customers are.
E21.	It is unrealistic to expect this firm to have their customers' best interests at heart.
E22.	They shouldn't be expected to have operating hours convenient to all their customers.

DIRECTIONS: The following set of statements relates to your feelings about XYZ. For each statement, please show the extent to which you believe XYZ has the feature described by the statement. Once again, circling a 7 means that you strongly agree that XYZ has that feature, and circling a 1, means that you strongly disagree. You may circle any of the numbers in the middle that shows how strong your feeling is. There is no right or wrong answer – all we are interested in that is a number that best shown your perceptions about XYZ.

P1.	XYZ has up-to-date equipment.
P2.	Axis's physical facilities are visually appealing.
P3.	XYZ's employees are well-dressed and appear neat.
P4.	The appearance of the physical facilities of XYZ is in keeping with the type of service provided.
P5.	When XYZ promises to do something by a certain time, it does so.
P6.	When you have problems, XYZ is sympathetic and reassuring.
P7.	XYZ is dependable.
P8.	XYZ provides its service at the time it promises to do so.
P9.	XYZ keep its records accurately.
P10.	XYZ does not tell customers exactly when service will be performed.

P11.	You do not receive prompt service from Axis's employees.
P12.	Employees of XYZ are not always willing to help customers.
P13.	Employees of XYZ are too busy to respond to customer's requests promptly.
P14.	You can trust employees of XYZ.
P15.	You feel in your transactions with XYZ 's employees.
P16.	Employees of XYZ are polite.
P17.	Employees get adequate support from XYZ to do their jobs well.
P18.	XYZ does not give you individual attention.
P19.	Employees of XYZ do not give you personal attention.
P20.	Employees of XYZ do not know what your needs are.
P21.	XYZ does not have your best interests at heart.
P22.	XYZ does not have operating hours convenient to all their customers.

Source: Parasuraman et al., (1988:18)

Parasuraman et al., (1988:18) subjected the 17-item instrument to the following two stages of data collection and refinement:

- The first stage focused on the following.
 - Condensing the instrument by retaining only those items capable of discriminating well across respondents, housing different quality perceptions about firms in several categories.
 - Examining the dimensionality of the scale and establishing the reliabilities of its components.

- The second stage was primarily confirmative in nature and involved re-evaluating the condensed scale of dimensionality and reliability by analyzing fresh data from four independent samples. Some further refinements to the scale occurred in the stage.

Factors analysis was used to determine which question was measuring dimension number one, number two and so on, as well as when quality did not distinguish between dimensions and the number of dimensions in the data. Those not clearly related to a dimension, were discussed. A revised scale was administered to a second sample, questions were retested and the result was a 22 question (item) scale, measuring four basic dimensions of reliability, repossession, empathy, assurance and tangibles, both on expectations and performance. Since both expectations are measured using 22 questions, and its performance rated using 22 parallel questions, 44 questions in total were used. (Asubonteng, McCleary and Swan, 1996:65).

To test for reliability, Parasuraman et al., (1988:22) used coefficient alpha, a measure of the extent of internal consistence between, or revelation among, the set of questions making up each of the five dimensions, such as the four reliability questions. According to Asubonteng et al., (1996:65), it is often specified that, the minimum reliability that is acceptable. Further, if reliability is low i.e. below 0,60, one is faced with the choice of investing time and money in additional research in an attempt to develop a revised measure having greater reliability. High reliabilities, such as 0,90 or above, are desirable.

The validity of a measure of service quality, is difficult to test, as a proven criterion is not available. Parasuraman et al., (1988) provided evidence of convergent validity as they measured agreement between SERVQUAL service and responses a question that asked customers to rate the overall quality of the firm being judged and also concurrent validity, in relation to whether respondent would recommend the firm to a friend (Asubonteng et al., 1996:65).

4.3 Criticism, problems of SERVQUAL

SERVQUAL has been adopted to measure service quality in a variety of settings (Asubonteng et al., 1996:66). These include the following:

- Health care applications are numerous (Babakus and Mangold, 1992, Bebeko and Garg, 1995, Lytle and Mokwa, 1992, O'Connor et al., 1994, Reidenbach and Sandifer-Smallhood, 1990).
- Other settings include a business school placement centre (Carman, 1990).
- Independent dental office (McAlexander et al., 1994).
- Aids service agencies (Fusilier and Simpson, 1995).
- With physicians (Brown and Swartz, 1989).
- A large retail chain (Cronin and Taylor, 1992).

After the SERVQUAL has been proposed in 1988, several criticisms were leveled against it (Lee, Lee and Yoo, 2000). Different transactional, empirical and operational criticisms are detailed below.

- **Paradigmatic objectives.**

The SERVQUAL is based on the disconfirmation paradigm, rather than on an attitudinal paradigm. It fails to draw an established economic, statistical and psychological theory (Buttle, 1996:9).

- **Gaps model**

There is little evidence that customers assess quality in terms of the P.E. Gaps (Buttle, 1996:9). Parasuraman et al., (1988) operationalized service quality as the difference between performance perception and expected level of service. Although this approach is, according to Babakus and Boller (1992:255), intuitively appealing, it is important to recognize, that when people are asked to indicate a "dreamed level" and "existing level" on a

particular attribute, a number of psychological constraints are activated to make the resulting deficiency score problems. For example, when people concurrently respond to "what is desirable" and "how much is there now" they seldom rate the former lower than the latter. Hence, the "desire level" scores may exceed the "existing level" scores consistently, for no other reason than this type of response tendency. As a consequence of this psychological constraint, the resulting "deficiency" scores may be administered primarily by the "existing level", scores. Further, empirical evidence suggests, that differences scores such as these, typically have unstable factor structures from one application to another. The second component of SERVQUAL (11, expectation and persecution) is designed to measure consumers' "desired level" of service from a service sector and the "existing level" of service from a particular provider. Therefore, potential problems involving the use of different services to operationally construct a pattern in relation to SERVQUAL could arise.

Pitt and Watson (1997, 210) reintegrate the concerns of ministry researchers such as Cronin and Taylor (1992), who conceptualize services quality as the gap between customer perception and expectations as problematic over simplistic and lacking in theoretical or empirical evidence. This negates the view of Parasuraman et al., (1988) in that the gap formulation was derived from extensive focus group research.

- **Dimensionality**

The use of the dimensionality of service quality concern a number of basic dimensions that comprise service quality. Parasuraman et al., (1988) found, that there are four dimensions. There seems to be general agreement that service quality is a second order construct; that is, it is factually complex, being composed of several firsts under variables (Buttle, 1996:14). Their other rates

conceptualize with regard to the number of first-order dimensions (Babakus and Boller, 1992:255). Lehtinen and Lehtinen (1982) defines service quality as a 3-dimensional construct existing if interactive, physical and ceptical quality dimensions. Most recent evidence indicates the possibility of 5 to 9 in relation to distinct dimensions of service quality, depending on the type of service sector under, investigation on the number of dimensions, as well as the fact that there may be no important test of the notion, that service quality is a second-order construct.

- **Convergent and discriminant validity**

The other issue concerns the empirical results reported by Parasuraman et al., (1988). The individual item of reliability and the conveyances and discriminant validity of the measure, are questionable. Factors including estimates provided, indicate that it is in the majority of cases, less than 50% of item variances which are accounted for by this underlying factor. Such a result is less than desirable for either basic or applied research. Furthermore, the evidence provided for convergent and discriminate validity, needs to be strengthened by additional, more stringent criteria (Babakus and Boller, 1992:256).

Three psychometric problems associated with the use of difference scores to measure service quality, are explained by Brown, Churchill and Peter (1993:130).

- **Reliability**

Difference scores measured, often demonstrate poor reliability, primarily, because any positive connection between the component scores, focuses attention on the reliability of the resulting differences scores. When two responses are taken from the same respondent, then subtracted, to form a measure of a third construct (as with SERVQUAL), only rarely will the difference score components be positively connected. In situations where the

reliabilities of the component variables are very high, attenuation may be relatively modest, even with a large correlation between components; however, there will be attenuation.

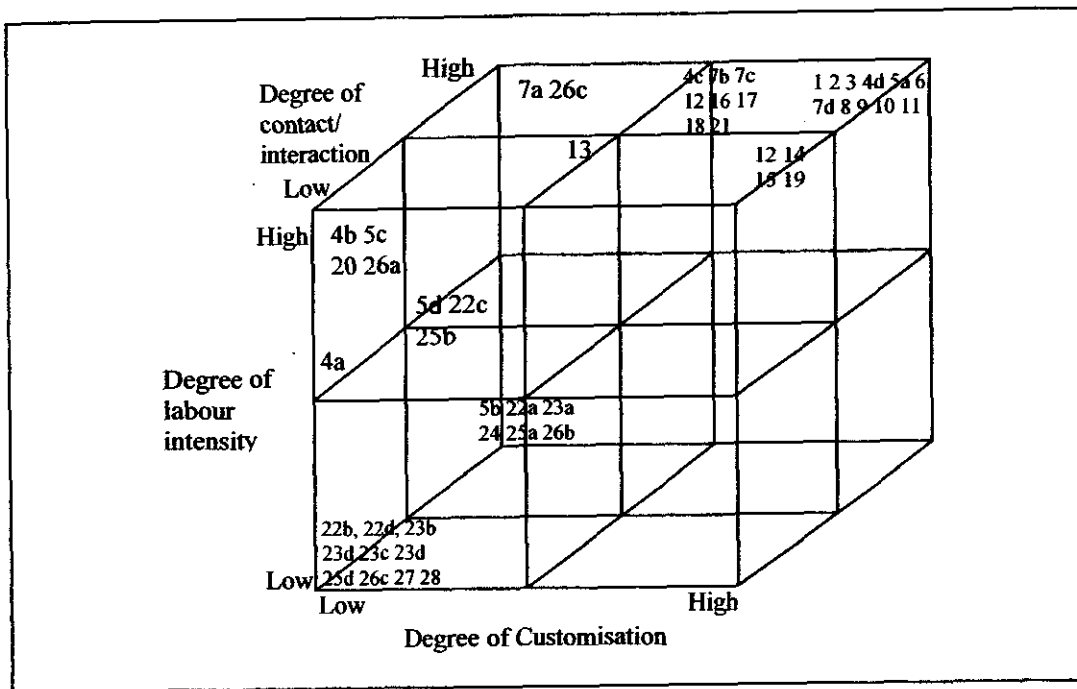
- **Discriminant validity**

There are two potential problems with discriminate validity. Discriminant validity refers to the degree to which measures of theoretically unrelated constructs do not correlate too highly with one another. One problem is common on all measures, while the other is unique to measure a linear combination of measures of other constructs.

The common problem is related to how reliability of measures affects discriminant validity. Low measure reliability attenuated correlations between constructs. Thus, a measure with low reliability, may appear to possess discriminate validity, simply because it is unreliable. Since difference score measures are usually less reliable than non-difference's score measures, they can be particularly subjected to this phenomenon.

Haywood-Farmer (1987) provide a useful framework/ methodology to assess the empirical findings of various studies which have used the SERVQUAL scale. These studies provide answers as to why there has been a great divergence of findings. Stewart, Hope and Muhlemann (1998:213) propose a graphical classification model based on the 28 studies, in which SERVQUAL had been used, according to the relative degree of customization, contact/ interaction and labour intensity of service. The figure 4.1 below illustrates such a classification.

Figure 4.1 A preliminary conceptual framework



Source: Stewart et al., (1998:213)

All the studies which have been plotted, according to the Haywood-Farmer (1987), are listed in Table 4.2 on the next page.

Table 4.2 Classifications plotted according to Haywood-Farmer

Researchers	Field of research	Where plotted
Walbridge and Delene	Physicians perceptions of health care	High labor intensity High customization High contact/interaction
Brown and Swart (1989)	Medical Service Physician/Patient	High labor intensity High customization High contact/interaction
Haywood-Farmer (1987)	Medical Service	High labor intensity High customization High contact/interaction
Carman (1990)	(a) Tyre Store (b) Placement Center (c) Dental Clinic (d) Acute hospital care	(a) Medium labor intensity Low customization Low contact/interaction (b) High labor intensity Low customization Low contact/interaction (c) High labor intensity Medium customization High contact/interaction (d) High labor intensity High customization High contact/interaction

Researchers	Field of research	Where plotted
Mersha and Adlakha (1992)	(a) Physician services (b) Retail banking (c) Auto maintenance (d) College/Universities	(a) High labor intensity High customization High contact/interaction (b) Low labor intensity Low customization Medium contact/interaction (c) High labor intensity Low customization Low contact/interaction (d) Medium labor intensity Low customization Medium contact/interaction
Bowers et al.(1994)	Health Care Patients	High labor intensity High customization High contact/interaction
Rosen and Karwan (1994)	(a) University Lecturing (b) Specialty Retail Bookstore (c) Medium price Restaurant (d) Urgent Health Care	(a) High labor intensity Low customization High contact/interaction (b) High labor intensity Medium customization High contact/interaction (c) High labor intensity Medium customization High contact/interaction (d) High labor intensity High customization High contact/interaction

Researchers	Field of research	Where plotted
Reidenbach and Sandifer-Smallwood	Hospitals-Patient Care	High labor intensity High customization High contact/interaction
Shewchuk et al. (1991)	Hospitals	High labor intensity High customization High contact/interaction
Headley and Miller (1993)	Medical Care-Multi specialty Clinic	High labor intensity High customization High contact/interaction
Vandamme and Leunis (1992)	Hospital Health Care	High labor intensity High customization High contact/interaction
Bojanie (1991)	Small Professional Films	High labor intensity High customization High contact/interaction
Freeman and Dart (1993)	Accountants-Business Clients	High labor intensity Medium customization Medium contact/interaction
Dart (1995)	Accountants and Lawyers	High labor intensity High customization Medium contact/interaction
Witt and Stewart (1996)	Solicitors	High labor intensity High customization Medium contact/interaction
Hedvol and Paltchik (1991)	Pharmacies	High labor intensity Medium customization High contact/interaction

Researchers	Field of research	Where plotted
LeBlanc (1992)	Travel Specialty Stores	High labor intensity Medium customization High contact/interaction
Gagliano and Hathcote (1994)	Apparel Specialty Stores	High labor intensity Medium customization High contact/interaction
Kettinger and Lee (1994)	Management information Systems	High labor intensity High customization Medium contact/interaction
Bouman and van Weile (1992)	Car Service Industry	High labor intensity Low customization Low contact/interaction
Saleh and Ryan (1991)	Hotels	High labor intensity Medium customization High contact/interaction
Parasuraman et al. (1985)	(a) Retail Bank (b) Credit Card Company (c) Securities Brokerage (d) Product repair and maintenance	(a) Low labor intensity Low customization Medium contact/interaction (b) Low labor intensity Low customization Low contact/interaction (c) Medium labor intensity Low customization Medium contact/interaction (d) Low labor intensity Low customization Low contact/interaction

Researchers	Field of research	Where plotted
Parasuraman et al. (1988)	(a) Retail Bank (b) Credit Card Company (c) Product Repair and Maintenance (d) Long distance phone Co.	(a) Low labor intensity Low customization Medium contact/interaction (b) Low labor intensity Low customization Low contact/interaction (c) Low labor intensity Low customization Low contact/interaction
Taylor et al. (1993)	Recreational Settings	Low labor intensity Low customization Medium contact/interaction
Cropton and Mackay (1989)	Recreational Programs (a) Physical Fitness (b) Painting (c) Men's ICs Hockey (d) Senior Trips	(a) Low labor intensity Low customization Medium contact/interaction (b) Medium labor intensity Low customization Medium contact/interaction (c) Low labor intensity Low customization Low contact/interaction

Researchers	Field of research	Where plotted
Chen et al. (1994)	(a) Fast Food (b) AIRLINES (c) Long Distance Phone Co.	(a) High labor intensity Low customization Medium contact/interaction (b) Low labor intensity Low customization High contact/interaction (c) Low labor intensity Low customization Low contact/interaction
Bressinger and Lambett (1990)	Business to Business Less than Truckload Carrier	Low labor intensity Low customization Low contact/interaction
Babakus and Boller (1992)	Electric and Gas Utility	Low labor intensity Low customization Low contact/interaction

Source: Adapted from Stewart et al., (1998:214)

4.4 Refinements of SERVQUAL

According to Parasuraman et al., (1988:30), the SERVQUAL instrument has been designed to be applicable across a broad spectrum of service. Further, the instrument provides a basic skeleton, through its expectations/perceptions formed encompassing statements for each of their two dimensions.

Although some negative reaction has been levelled against the SERVQUAL instrument, as reported above, the substantial amount of published articles indicating its successful utilization, overshadow the negative reaction.

In 1991 Parasuraman et al., published an article on the their refinement of the instrument. In the original pretest questionnaire of the 22 items included, sixteen were worded positively, and six worded negatively. Parasuraman et al., (1991:422) stated, that the pretest result indicated, that the negatively worded items might be problematic, for the following reasons.

- Firstly, the standard deviation for the negatively worded expectations items were constantly higher (mean standard deviation of 2,07) than for the positively worded expectations items. The wider variation for the negatively worded, implies that respondents may have been confused by those items.
- Secondly, managers in the five companies who reviewed the preliminary questionnaire, felt that negatively worded were not as meaningful as the positively worded items.
- Thirdly, the reliability coefficients (Cronbach Alpha) reports were constantly lower than in the original SERVQUAL study, for responsiveness and empathy (the two dimensions that included all the negatively worded items).

Based on the above stated reasons, negatively worded items were all changed to positive format in the final questionnaire. Two new items (one each under “tangibles” and “assurance”) were substituted for two original items to more fully capture the dimensions and to incorporate suggestions from managers who reviewed the questionnaire.

For the reassessment of SERVQUAL'S psychometric properties, Parasuraman et al., (1991:424) evaluated the reliability, factor structure, and validity of the refined SERVQUAL scale on the same criteria as their original study and through certain additional analyses. Studies that have formally examined the scale's psychometric properties, are those of Babakus and Boller (1991),

Carman (1990) and Finn and Lamb, (1991). These studies revalued areas of consensus, as well as unresolved issues.

The comparisons of the studies are shown in the table 4.3 on the next page.

Table 4.3: The comparisons of the studies

Comparison of current study with other SERVQUAL – Replication

STUDY	CURRENT STUDY	BABAKUS AND BOLLER (1991)	BRENSINGER AND LAMBERT (1990)	CARMAN (1990)	FINN AND LAMB (1991)
Data Collection study sample(s)	Customers of a telephone co., two insurance cos., and two banks	Customers of an electric and gas utility co.	Purchasers of motor carrier service in business-to-business markets	Customers of a dental school patient clinic business school placement center, a tire store and a hospital	Customers of four retail store types: stores like K-mart, Wal-Mart, etc., JC Penney, Sears, etc, Dillard's, Foley's etc., and Asks, Neiman-Marcus, etc. Ranged from 58 to 69 across settings Similar to PZB (1988)
Sample size	Ranged from 290 to 487 across companies	689	170	Ranged from 74 to 600 + across settings	Ranged from 58 to 69 across settings

STUDY	CURRENT STUDY	BABAKUS AND BOLLER (1991)	BRENSINGER AND LAMBERT (1990)	CARMAN (1990)	FINN AND LAMB (1991)
Questionnaire format	Similar to PZB (1988) format with separate expectations and perceptions sections	Similar to PZB (1988)	Similar to PZB(1988)	Similar to PZB (1988) in the placement-center setting, only perceptions	Similar to PZB (1988)
Major wording changes	Negatively worded questions changed to positive from "companies should" terminology in expectations section replaced with excellent companies will terminology	No major changes	No major changes	No major changes in the SERVQUAL items retained however, several of the new items added were transaction-specific (rather than general attitude statements as in the original SERVQUAL)	No major changes

STUDY	CURRENT STUDY	BABAKUS AND BOLLER (1991)	BRENSING ER AND LAMBERT (1990)	CARMAN (1990)	FINN AND LAMB (1991)
Original SERVQUAL items retained	Twenty items (two remaining original items were replaced by new items)	All 22 items	All 22 items	Ranged from 10 to 17 across settings	All 22 items
Response scale Questionnaire administration	7-point scale Mail survey	7-point scale Mail survey	7-point scale Mail survey	7-point scale Self- administered by respondents on-site	5-points scale Telephone survey

STUDY	CURRENT STUDY	BABAKUS AND BOLLER (1991)	BRENSINGER AND LAMBERT (1990)	CARMAN (1990)	FINN AND LAMB (1991)
Data Analysis Procedure for assessing factor structure	Principal-axis factor analysis followed by oblique rotation:	Principal-axis factor analysis followed by oblique rotation: LISREL confirmation factor analysis of 5-dimension measurement model	Principal-axis factor analysis followed by oblique rotation	Principal-axis factor analysis followed by oblique rotation	LISREL confirmatory factors analysis of 5-dimensional measurement model
Basis for initial number of factors extracted	PZB's (1988) 5-diminsional structure	PZB 's (1988) 5-dimensional structure	PZB 's (1988) 5-dimensional structure	Factors with eigenvaluea greater than one	PZB 's (1988) 5-dimensions structure

STUDY	CURRENT STUDY	BABAKUS AND BOLLER (1991)	BRENSINGER AND LAMBERT (1990)	CARMAN (1990)	FINN AND LAMB (1991)
Findings Reliability coefficients (Cronbach's alphas) Final number of dimensions	.80 to .93 Five (six if tangibles is split into two dimensions)	.67 to .83 No clear 5-dimensional factor structure: LISREL model fit poor, 2-dimensional structure (with one representing negative items and the other positive items) most viable solution	.64 to .88 Five dimensions as in PZB (1988) however only four factors retained based on eigenvalues/greater-than-one criterion	Mean of .75 (across 35 scales derived through factor analysis) Between six and eight dimensions depending on setting	59 to .83 LISREL model fit for 5-dimensional structure poor (no alternative factor structure examined)

STUDY	CURRENT STUDY	BABAKUS AND BOLLER (1991)	BRENSINGER AND LAMBERT (1990)	CARMAN (1990)	FINN AND LAMB (1991)
Predictive/c oncurrent validity	Q (i.e.-E) scores on the five dimensions explain .57 to .71 of variance in overall quality scores measured on a 10-pt scale, scores also related as hypothesized to presence of service problems, satisfaction problems resolution and willingness to recommend	Total Q scores (across all 22 items) correlate .59 with overall quality scores measured on a 4- pt scale (however, total P scores correlate .66 with the same measure) correlation of Q and P scores with satisfactory resolution are .58 respectively	Q scores on the five dimensions explain .39 of variance in 4-pt. Overall quality scale 43 of variance in 100-pt. overall performance scale, .08 of variance in customer share of business received by motor carriers	Not examined	Not examined

Source: Parasuraman et al., (1991:435)

Parasuraman et al., (1991:445) formulated the following conclusions about their instrument:

- The refined SERVQUAL scale can be used to assess service quality, provided potential users are cognizant of the nature, scope and limitations of the instrument.
- The purpose of SERVQUAL is to serve as a diagnostic methodology for uncovering broad areas of a company's service quality shortfalls and strengths.
- SERVQUAL'S dimensions and items represent co-evaluation criteria that transcend specific firms and industries, as implied by the systematic, multistage, and interactive process that produces the instrument.

Further Parasuraman et al., (1991:445) provide the following guideline in addition to the original guideline (1988), that should be helpful in ensuring the most appropriate use of the instrument.

- Firstly, since SERVQUAL is the basic "skeleton" underlying service quality, it should be used in its entirety as much as possible. While minor modifications in the wording of items to adopt them to specific settings are appropriate, deleting items could affect the integrity of the scale and cast doubt on whether the reduced scale fully captures service quality.
- Secondly, context-specific items can be used to supplement SERVQUAL. However, the new items should be similar in form to existing SERVQUAL items, i.e. they should be general, rather than transaction-specific. Each new item, based on its context, should be classified under the most appropriate SERVQUAL dimension in order to facilitate computation of the average gap score for each dimension. Although items that do not fit under any of the four dimensions (items about customer's perceptions of a services cost) may be useful to include, but such items should be treated

separately in analyzing the survey data conceptual domain of service quality.

- Thirdly, the use of the instrument can fruitfully be supplemented with additional qualitative as qualitative research in order to uncover the causes underlying key problem areas or gaps identified by a SERVQUAL study.

4.5 Framework for developing measures of the service quality construct

Parasuraman et al., (1988) operationalize their conceptual model of service quality by following the framework developed by Churchill in 1979. Hair, Bush and Ortnau., (2000:375) defines operationalization as appraises wherein the researcher explains the constructs meaning in measurement firms by specifying the activities or operation necessary to measure. The process focuses on the design and use of questions and scale measurements to gather the needed data structures. Further, since many constructs such as service quality cannot be directly observed or measured, the researcher attempts to indirectly measure them through the operation section, the focus will be on the nature of measurement and the requirements it should meet.

4.5.1 The nature of scale measurement

Measurement involves the assignment of numbers into fixed rules to individuals or objects to reflect differences between them in some or other characteristic or attribute Cooper and Schindler (2001:203) also defines measurement as consisting of assigning numbers to empirical events in compliance with a set of rules.

According to Hair et al., (2000:378) scale measurement is the process of assigning a set of descriptors to represent the range of possible

responses to a question about a particular object or construct. Furthermore, there are four scaling proportions that a researcher can use in developing scales. They are the following:

- The assignment property (also referred to as description or category property) is the employment of unique descriptors to identify each object within a set. This allows a researcher to take the responses and categorize them into mutually exclusive groups, each with its own identities.
- The order property refers to the relation magnitude between the descriptors used as scale points (or new responses). In any situation where multiple descriptors are used to identify the possible new responses to stated order questions, (also known as rank) is established when the researcher or respondent knows the relative magnitude of the descriptors.
- The distance property is the measurement scheme that expresses the exact (or absolute) difference between each of the descriptors, or new responses. The distance property establishes the fact, that the researcher knows the absolute (or precise) magnitude that exists between each new response to a stated question or directive.
- Origin property refers to the use of a unique starting (or beginning point in a set of scale point designated as having “true zero” or “true state of nothing”. It refers to a numbering system where zero is the displayed or referenced starting point in the set of possible new responses.

Scale measurements can be classified as one of few responses (Cooper and Schindler, 2001:204, Hair et al., 2000:380 and Parasuraman, 1991:408).

- A nominal scale is the most basic scale design and the nominal data are more widely collected than any others. In this scale the questions require, from respondents to have to provide only some

type of descriptors as raw responses. They are no more than labels to identify different categories of responses which do not contain any level of intensity.

- The ordinal scale structure activates both the assignment and order scaling properties. They are more powerful than nominal scaling, in that the numbers possess the properties of rank order. The use of an ordinal scale implies statements of “greater than” or “less than” without stating how much greater or how much less.
- Interval scales activate not only the assign and orders scaling properties but also the distance property. The difference between scale values can be meaningfully interpreted. They use the property of equal differences between consecutively higher numbers. The researcher and respondent alike, can identify and understand exact differences occur amongst the possible new responses.
- The ratio scale simultaneously activates all four scaling properties. Only in ratio measurement there is fixed and absolute zero point. Quantified responses forming a ratio scale, are analytically the most versatile and have meaningful interpretations. They allow a “zero” or “true state of nothing” response to be a valid in relation with a new response to the question.

The following are three major criteria for evaluating measurement tools (Cooper and Schindler, 2000:210, and Zikmund, 2000:279).

- **Reliability**

Reliability is the degree to which measures are free from error and, therefore, yield construct results or it applies to a measure when similar results are obtained over time and across situations. According to Hair et al., (2000:370) scale reliability refers to the extent to which a scale can reproduce the same measurement results in repeated trials. DeVellis (1991:234) points out, that scale of reliability is the proportion of variance attributable to the true

score of a latent variable. The distinction of time and condition is the basis for frequently used precepts on reliability.

- **Stability.** A measure possesses stability if the researcher can secure constant results with reported measurements of the same respondent with the same instrument.
- **Equivalence.** A second perspective on reliability, considers how much error may be introduced by different investigators (in observations) or different samples of items being studied (in questions or scale). It is concerned with variations at one point in time among observers and samples of items.
- **Internal consistency.** A third approach to reliability uses only one administration of an instrument or test and assesses the internal consistency or homogeneity among the items.

The test-retest method, which involves administering the same scale or measure to the same respondent at two separate times, tests for stability. In the equivalent form method, two alternative instruments are designed to be as equivalent as possible. The technique of splitting halves is the most basic method for checking internal consistency when a measure contains a large number of items. The results obtained from one-half of the scale items, are checked against the results from the other half of the items. To measure internal consistency of a multiple item measure, the scores on subsets are correlated.

Internal consistency refers to the degree to which the various dimensions of a multidimensional construct correlate with the scale (Hair et al., 2000:390). Other than the split-half method, the coefficient alpha (Cronbach's alpha) is used to measure internal consistency. The high correlations between the halves indicate good (or acceptable) internal consistency and the value can range from 0 to 1.

- **Validity**

According to Zikmund (2000:281) validity addresses the problem of whether a measure measures what it is supposed to measure. Cooper and Schindler (2001:211) points out, that there are many forms of validity mentioned in the research literature. These are the following.

- Content validity is the extent to which the measuring instrument provides an adequate category of the investigative questions guiding the study. If it contains a representative sample of the universe, content validity is good. Content validity is judgmental and refers to the subjective agreement among professionals that a scale logically appears to reflect accurately what it purposes to measure.
- Criterion validity is the ability of same measure to correlate with other measures of the same construct. It reflects the success of measures used for prediction or estimation. It may be classified as either concurrent validity, where new measure is taken at the same time as the criterion measure, and predictive validity, which is established when attitude measures predict a future event.
- Construct validity is established by the degree to which the measure confirms a network of related hypotheses generated from the theory based on the concept. Establishing it, occurs during the statistical analysis of the data. Here, the empirical evidence is consistent with the theory in relation to sectional logic about the concepts. Convergent validity (which is synonymous with criterion validity) and discriminant validity (which is established when a measure has a low correlation with measures of dissimilar concepts) must be determined in order to achieve construct validity. It is concerned with the theoretical relationship of a variable to other variables. It is the extent to which a measure behaves the way that the construct it

purposes to measure, should behave with regards to established measures of other constructs.

- **Factor analysis**

Factor analysis is a procedure that groups items/variables on the basis of correlation (Sudman and Blair, 1998:547). Factor analysis is, according to Parasuraman (1991:757), a data and variables reduction technique that partitions a given set of variables into groups of maximally correlated variables.

The goal of extraction is to construct a set of new variables (factor) based on the interrelationship between the starting set of variables. Factor extraction can be cohesive through principal component analysis by performing a regression analysis on the data in order to identify the best combination of variables that would account for all the variables.

Sudman and Blair (1998:547) state, that factor analysis specifically calculates a service of factors, each of which is a weighted combination of the variables being analyzed.

Compare the following equations.

$$F = w_1 x_1 + w_2 x_2 + \dots + W_k X_k$$

Where: F = factor

X_1 through X_k = variables being analysed

W_1 through W_k = weight applied to the variables

The following three key results are obtained from a factor analysis (Sudman and Blair, 1998:548).

- Factor loading. This is the correlation between factors and the individual variables being analyzed. Parasuraman (1991:759) defines factor loading as the Pearson correlation coefficient between an original variable and a factor.
- Eigen value. This value equals the sum of the squared loading for all variables on a factor. The first factor is chosen so as to maximize the sum of the squared correlation without any constraints; the first factor has the largest Eigen value. The second factor has the second largest Eigen value and so on. According to Parasuraman (1991:762), the Eigen value of any factor is the total standardized (standard deviation equals zero and mean equals zero) variance accounted for by the factor.
- Factor scores. When a factor analysis is used to group variables, the resulting factors can be treated as new variables that represent the combination of the original variables. Values for each obstruction on these new variables (factors), are calculated and are called factor scores.

Sudman and Blair (1998:548) identify the following three types of inferential analysis conducted in factor analysis.

- Testing whether the overall analysis is significant, in that it has achieved its grouping objectives. This is achieved using “rules of thumb” rather than formal statistical tests. The overall analysis can be considered effective by the retained factors exceed to present.
- Testing whether a particular factor makes a significant contribution to the overall analysis. This should be retained for purposes of interpretation and/or further analysis. It could be achieved by determining the number of significant factors by retaining all factors with an Eigen value of 1.0. The second

approach is the use of a scree test that uses decreases in Eigen values in order to determine the factors to be retained, and this can be done either rather graphically or numerically. The Eigen values are arranged in discernible order and a dramatic drop between two Eigen values projected.

- Testing whether a particular variable is significantly associated with a particular factor and consequently, whether it should be considered part of the group of variables defined by the factor.

Further, factor rotation is used to improve the interpretability of factors. Two types of rotation are identified as orthogonal and oblique.

The following four types of factor analysis are described.

- A principal factor analysis that explains a lower percentage of the available variances, because it has been asked to explain unique, as well as common variances.
- A common factor analysis in which the goal is to explain the maximum amount out of the variance showed in common by variables in the analysis.
- Explanatory factor analysis in which the researcher makes no prior specification of groups and the computer packages form the groups according to purely mathematical criteria.
- Confirmatory factor analysis in which the researcher specifies variable groupings and tests whether these groupings schemes seem to provide adequately. It can be done as a subset of structural equations modelling. It is more appropriate when the purpose of the analysis is to test a theory of multivariate relationships.

By way of evaluation, the following issues could arise when carrying out a factor analysis (Sudman and Blair, 1998:587).

- All variables in a factor analysis should be quantitative (i.e. they should have interval or ratio scaling) so that correlations are

meaningful. Original variables (dummy 0-1) also produce satisfactory results.

- Factor analysis varies on linear relationships among variables. Where some variable is expected to have non-linear relationship data, transformation may be appropriate.
- Since there are no formal significance tests that indicate whether the overall results of a factor analysis are meaningful, rules of thumb are employed to make a judgement in this regard.
- Rules of thumb normally used are the following.
 - For overall results, the factor analysis should account for at least 70% of the total variance in participating variables.
 - To determine the number of factors that should be retained, only those with a sign value larger than 1.00, are retained.
 - For the label or interpret factor, ignore variables with loadings less than 0,50 (in absolute term) and name the factors based on the variables with a high loading.

4.5.2 Scale development

Hair et al., (2000:386) provide the following most important keys to consider in designing solid, high-quality scale measurements.

- Understanding the defined information problem.
- Establishing detailed data requirements.
- Identifying and developing the critical constructs.
- Understanding that a complete measurement scale consists of three critical components (the question, the dimensions and attributes and scale point descriptors).

Furthermore, that after the information problem and data requirements have been understood, the researcher must develop constructs, in order for him/her to know what types of data to collect.

Then, select the appropriate type of scale format (i.e. nominal, ordinal, interval or ratio) to use in the collection of new data.

DeVellis (1991:51) provides a set of specific guidelines that researchers can use in the development of measurement scales.

- Step 1. Determine clearly what it is you want to measure.

Although many technical aspects are involved in developing and validating a scale, the importance of being well-grounded in the substantive theories related to the phenomena, should not be overlooked. The theory is an aid to clarity and the level of specific or generality at which a construct is measured, is also important.

- Step 2. Generate an item pool.

Once the purpose of the scale has been clearly explained, the next step is to generate a large pool of items that are candidates for eventual inclusion in the scale. (Loose terms that reflect the scale purpose; these items should be selected or created with the specific types of measurement in mind. Each item should be thought of as a test in its own right on the strength of the latest variables. Multiple items will constitute a more reliable test than will individual items. The following factors should be considered in the generation of items.

- Redundancy. At this stage, it is better to be over-inclusive. Redundancy is not a bad theme when developing a scale. The theoretical models that guide our scale development, are based on redundancy.
- Number of items. It is different to specify the number of items. The internal consistency reliability is a function of how strongly

the item correlation is with another and how many items you have in the scale.

- Lengthy items. These should be avoided, as the length usually increases the complexity and diminishes clarity.
- Double ambiguous items. These should be avoided. These are items that convey two or more ideas, so that the endorsement of the item might refer to either or both items.
- Positively and negatively worded items. Negatively worded items represent low-level responses or even the absence of the construct of interest. The goal is to arrive at a set of items, some of which indicate a high-level of the latent variable, which endorses, while others indicate a high-level, when not endorsed.

- Step 3. Determine the format for measurement

Among others, numerous formats for questioning exist and the researcher should consider early on what the format will be.

- Thurston's scaling. The multiple items scale is one that contains a number of statements relating to the attitude object, each with a rating scale attached to it; these were first developed by L.L. Thurston (Parasuraman, 1991:433). The scale developer attempts to generate specific levels of the attribute in question.
- Guttman scaling. It is a series of items tapping progressively higher levels of the attribute. A respondent endorses a block of adjacent items until a critical point, the amount of the attribute that the items tap, exceeds that proposed by the subject. These scales are suitable for objective information or in situations where it is a logical necessity that respond positively to one level of a hierarchy and implies satisfying the criteria of all levels of that hierarchy.
- Likert scale. This scale implies specific types of response format and those most commonly used. The item is presented as declaration sentences, followed by response options that

indicate varying degrees of agreement with or endorsement of the statement. The response options are worded in such a way that is roughly equal intervals with respect to agreements. These scales consist in essence of a series of evaluation statements (or items) concerning an attribute object (Parasuraman, 1991:433). Each statement has a four-point agree-disagree-scale.

- Semantic differential. This scaling method is used with references to one or more stimuli.
- Binary options. A common response format that gives the subject a choice between binary options for such items (“agree” and “disagree”).

- Step 4. Have initial item pool measured by experts.

This process involves having a group of people who are knowledgeable in the contact area. This review serves purposes related to maximizing content validity. Experts first review each item pool to confirm or invalidate the definitions of the phenomenon. They then note how relevant they think reach is to what it intends to measure. This is especially if one is developing a measure that will consist of separate scales in order to measure multiple constructs. Reviewers are employed to evaluate the item clarity and conciseness. The content of the item may be relevant to the contract, but its wording may be problematic. Expert reviewers can also provide a way of tapping the phenomenon that the developer has failed to include.

- Step 5. Consider inclusion of validation items.

It is possible to include additional items in the same questionnaire that will help in determining the validity of the final scale. The following two types of items are to be considered.

- The first type of item scale to choose to include in a questionnaire, serves to detect flaws or problems. Respondents might not be answering the items of primary interest for the reasons assumed. There may be motivations influencing their responses. Learning this early, is advantageous. One type of motivation that can be assessed fairly easily, is social desirability. If an individual is strongly motivated to present herself or himself in a way that society regards as positive, item responses may be distorted. Including a social desirability scale, allows the investigator to assess how strongly individual items are influenced by social desirability. Items that correlate substantially with the social desirability score obtained should be considered as candidates for exclusion, unless there is a sound theoretical reason that indicates otherwise.

- The other class of items to consider including at this stage, pertains to the construct validity of the scale. If theory asserts that the phenomenon you are setting out to measure, relates to other constructs, then the performance of the scale vis - à - vis measures of those other constructs, can serve as evidence of its validity. Rather than mounting a separate validation effort after constituting the final scale, it may be possible to include measures of relevant construct at this stage. The resultant pattern of relationships can provide support for claims of validity or, alternatively, provide clues if the set of items does not perform as anticipated.

After deciding which construct-related and validity items to include in your questionnaire, you must administer them, along with the pool of new items, to some subjects. The sample of subjects should be large. How large is "large"? It is difficult to find a consensus on this issue. Let us examine the rationale for a large sample. The primary sampling issue in scale development, involves the sampling of items from a hypothetical inverse. In order to concentrate on the adequacy of the

items, the sample should be sufficiently large so as to eliminate subject variance as a significant concern. He suggests, that 300 people would be an adequate number. However, practical experience suggests, that scales have been successfully developed with smaller samples. The number of items and the number of scales to be extracted, also have a bearing on the sample-size issue. If only a single scale is to be extracted from a pool of about 20 items, fewer than 300 subjects might suffice.

There are several risks in using too few subjects. First, the patterns of co-variation among the items may not be stable. An item that appears to increase internal consistency, may turn out to be a "dud" when it is used on a separate sample. If items are selected for inclusion (as they very well may be) on the basis of their contribution to alpha, having a small developmental sample can paint an inaccurately rosy picture of internal consistency. When the ratio of subjects to items is relatively low and the sample size is not large, the correlations among items can be influenced by chance to a fairly substantial degree. When a scale whose items have been selected under these conditions, is readministered, the chance factors that made certain items look good initially, are no longer operative. Consequently, the alpha obtained on occasions other than the initial development stage, may be lower than expected. Similarly, a potentially good item may be excluded, because its correlation with other items had been attenuated purely by chance.

After an initial pool of items has been developed, scrutinised, and administered to an appropriately large and representative sample, it is time to evaluate the performance of the individual items, so that appropriate ones can be identified to constitute the scale. This is, in many ways, the heart of the scale development process. Item evaluation is second perhaps only to item development in its importance.

Initial examination of items' performance. When discussing item development, we refer to some of the qualities desirable in a scale item. Let us reconsider this issue. The ultimate quality we seek in an item, is a high correlation with the true score of the latent variable. One way to determine how inter-correlated the items are, is to inspect the correlation matrix.

Reverse scoring. If there are items whose correlations with other items are negative, then the appropriateness of *reverse scoring* those items should be considered. Sometimes, when generating items, we think of statements that relate equally to the construct, but some may be positive and others negative. "I am happy" and "I am sad" both pertain to affect. However, they are opposites. If we wanted high scores on our scale to measure happiness, then we would have to ascribe a high value to endorsing the "happy" item, but a low value to endorsing the "sad" item.

Item-scale correlations. If one wishes to arrive at a set of highly inter-correlated items, then each individual item should correlate substantially with the collection of remaining items. We can examine this property for each item by computing its item-scale correlation. There are two types of item-scale correlation. The corrected item-scale correlation correlates the item being evaluated with all the scale items, excluding itself; while the uncorrected item-scale correlation correlates the item in question with the entire set of a candidate item, including itself. If there were 10 items being considered for a scale, the corrected item-scale correlation for any one of the 10 items will consist of its correlation with the other nine. The uncorrected correlation would consist of its correlation with all ten. In theory, the uncorrected value tells us how representative the item is of the whole scale. This is analogous, for example, to correlating one subset of an IQ test with the entire test so as to determine if the subscale is a suitable proxy. However, although an uncorrected item-total correlation makes good

conceptual sense, the reality is, that the item's inclusion in the "scale" can inflate the correlation coefficient. The fewer the number of items in the set, the bigger the difference that inclusion or exclusion of the item under scrutiny will make. In general, it is probably advisable to examine the corrected item-total correlation. An item with a high value for this correlation, is more desirable than an item with a low value.

Item variances. Another valuable attribute for a scale item, is creatively high variance. To take an extreme case: if all individuals answer a given item identically, it will not discriminate at all among individuals with different levels of the construct being measured, and its variance would be 0. In contrast, if the development sample is diverse, then the range of scores obtained for an item, should be diverse as well. This implies a fairly high variance.

Item means. A mean close to the centre of the range of possible scores, is also desirable. If, for example, the response option for each item ranged from 1, corresponding to "strongly disagree," to 7, for "strongly agree," an item mean near 4 would be ideal. If a mean were near one of the extremes of the range, then the item might fail to detect certain values of the construct. A piling up of scores of the value 7, for example, would suggest, that the item was not worded strongly enough (i.e., that it was rare to find anyone who would disagree with it).

Coefficient alpha. One of the most important indicators of a scale's quality, is the reliability coefficient, alpha. Virtually all the item problems discussed thus far – a non-central mean, poor variability, negative correlations among items, low items-scale correlations, and weak inter-item correlations – will tend to reduce alpha. Therefore, after we have selected our items, weeding out the poor ones and retaining the good ones, alpha is one way of evaluating how successful

we have been. Alpha is an indication of the proportion of variance in the scale scores attributable to the true score.

Effect of scale length on reliability. At this stage of the scale development process, the investigator has a pool of items that demonstrates acceptable reliability. A scale's alpha is influenced by two characteristics: the extent of covariation among the items and the number of items in the scale. For items that have item-scale correlations about equal to the *average* inter-item correlation (i.e., items that fairly are typical) adding more, will increase alpha, while removing more will lower it. Generally shorter scales are good, because they place less of a burden on respondents. Longer scales, on the other hand, are good, because they tend to be more reliable. Obviously, maximising one of these asserts, reduces the other. Therefore, the scale developer should give some thought to the optimal trade-off between brevity and reliability.

If a scale's reliability is too low, then brevity is virtue. Respondents may, indeed, be more willing to answer a 3-item than a 10-item scale. However, if the researcher cannot assign any meaning to the scores obtained from the shorter version, then nothing has been gained. Thus the issue of trading off reliability for brevity, should be confined to situations when the researcher has "reliability to spare." When this is, in fact, the case, it may be appropriate to buy a shorter scale at the price of a bit less reliability.

Effects of dropping "bad" items: Whether dropping "bad" items actually increases or slightly lowers alpha, depends on just how poor the items are that will be dropped, and on the number of items in the scale. Consider the effect of more of fewer items that are equally "good" items - i.e., that have comparable correlations with their counterparts: with fewer items, a greater chance in alpha results from the addition or subtraction of each item. If the average inter-item

correlation among four items is, 50, the alpha will equal 80. If there are only three items with an average inter-item correlation of 50, alpha drops to 75. Five items with the same average correlation, would have an alpha of 83. For 9-, 10-, and 11- item scales with average inter-item correlations of 50, alphas would be 90, 91, and 92, respectively. In the latter instances, the alphas not only are higher, but they are much closer in value to one another.

Tinkering with scale length. How does one go about “tinkering” with scale length in practice? Obviously, items that contribute least to the overall internal constancy, should be the first to be considered for exclusion. This can be identified in a number of ways. The SPSS-X RELIABILITY procedure and the ALPHA option of PROC CORR in SAS-PC, show what the effect of omitting each item will be on the overall alpha. The items whose omission has the least negative or most positive effect on alpha, are usually the ones to be dropped first. The item-scale correlations can also be used as barometers of which items are expendable. Those with the lowest item-scale correlations, should be eliminated first. SPSS-X also provides a squared multiple correlation for each item, obtained by regressing the item on all of the remaining items. This is an estimate of the item’s *communality*, the extent to which the item shares variance with the other items. As with item-scale correlations, items with the lowest squared multiple correlation should be prime candidates for exclusion. Generally, these variances indicate item quality coverage.

Split samples. If the development sample is sufficiently large, it may be possible to split it into two sub-samples. One can serve as the primary development sample, while the other could be used to cross-validate the findings. So, for example, data from the first sub-sample can be used to compute alphas, evaluate items, tinker with scale length, and arrive at a final version of the scale that seems optimal. The second sub-sample can then be used to replicate these findings.

The choice of items to retain, will not have been based at all on the second sub-sample. Thus alphas and other statistics computed for this group, would not manifest the chance effects, such as alpha inflation, that was discussed earlier. If the alphas remain fairly constant across the two sub-samples, you can be comfortable, assuming that these values are not distorted by chance. Of course, the sub-samples are likely to be much more similar than two totally different samples. The sub-samples, divided randomly from the entire development sample, are likely to represent the same population; in contrast, an entirely new sample might represent a slightly different population.

4.6 Summary

The idea of measuring service quality arose in 1980 from the discipline of marketing. It was led by a troika of researchers, Parasuraman, Berry and Zeithaml. They conceptualised service quality as a gap between the consumers' expectations and perceptions.

The SERVQUAL instrument of Parasuraman, Berry and Zeithaml is based on the gaps model of service quality and uses ten dimensions. The original 97-item instrument was subjected to two stages of data collection and refinement. Firstly, by condensing the instrument by retaining those items capable of discriminating across respondents having different quality perceptions, and examining the dimensionality of the scale. Secondly, further refinement of the scale was conducted.

Severe criticism has been levelled against the SERVQUAL instrument. This relates to its dimensionality, reliability and validity across different industries. Haywood-Farmer (1987) provided a useful methodology to assess the empirical findings of various studies which have used the SERVQUAL instrument. Steward, Hope and

Muhlemann (1998) proposed a graphical classification based on 28 studies, in which the scale has been used according to the relative degree of customisation, contact, interaction and labour intensity of services.

Parasuraman et al., (1991) reassessed the SERVQUAL instrument by evaluating the reliability, factor structure and validity of the refined instrument. The following conclusions were reached: that the refined scale can be used to assess service quality, provided potential users are cognizant of the nature, scope and limitations of the instrument.

Parasuraman et al., (1991) provided guidelines, in addition to the original guidelines (Parasuraman et al., 1988), that should be helpful in ensuring the most appropriate use of the SERVQUAL instrument.

The framework for developing the measures of the service quality construct involved; constitutes the nature of scale measurement, the criteria for evaluating measurement tools (that is reliability, validity), the use of factor analysis, which is arranging data and variables into groups of maximally correlated variables, and scale development.

In the next chapter, the methodology used for the empirical research and the results of the empirical research are discussed in detail.

CHAPTER FIVE

EMPIRICAL RESULTS

5.1 Introduction

The theory of service management, quality, service quality and service quality measurement, which form the basis of this study, was discussed in the previous chapters. The theory provides a framework for the analysis of data in this chapter. Kerlinger (1986:23) states, that without theory, it is impossible to make meaningful sense of empirically generated data.

In this study the results of the empirical research are analyzed. According to Struwig (1992:153), research is valid if it measures what it sets out to measure and that a properly planned research should ensure that the purpose and objectives of the study are achieved. The objectives of this study as set out in chapter one, are as follows.

- Determine whether small businesses do measure service quality.
- Determine strategies used by small businesses, so as to effectively manage service quality or techniques employed in respect of the monitoring of service quality.
- Identify the relevant service quality dimensions used by small business to evaluate service quality.
- Examine the performance of the SERVQUAL instrument developed by Parasuraman et al., (1988), in order to formulate suggestions to adapt it to take into account the nature of small business in the Vaal Triangle Area.

It was indicated in the previous chapters, that although the SERVQUAL model has received criticism, it continues to be the most widely used instrument to measure service quality. The instrument has been adopted for use in many different industry sectors. The

main problem, is that it is invariably set in the context of large business.

This chapter also discusses the sample design i.r.o specific populations, the sample frame, the sample size and sampling providers. The empirical research design is also outlined.

5.2 Sample design

Churchill (1992:90) avers, that, since sample design is an integral part of the total research design, great care should be taken at every stage in the development of suitable samples. The stages outlined by Churchill (1992:456), will be followed in this study.

5.2.1 The definition of the population or universum

The final step in the sampling process, is to define the population. Hair et al., (2000:328) define a population as an identifiable total group or aggregation of elements (e.g. people, products, organizations physical entities) that are of interest to the researcher and potential to the specific instrument problem.

Two steps are involved in defining a population for sampling purposes (Sudman and Blair, 1998:334):

- The first step is defining the population units. The population could be made up of individuals, households, companies, factors, transactions, etc. The units for any given research project, depend on the product or service being studied, the market segment of interest and what phenomena are of interest.
- The second step is setting the boundaries of the population. Boundaries are the conditions that separate those who are of

interest to a research project from those who are not. Four broad criteria are used in setting population boundaries.

- It should clearly separate subjects who are of interest from those who are not. This often requires making difficult judgments.
- Boundaries must be stated in operational forms so that data collectors can tell who should be measured and who should not.
- In addition to being operational, boundaries should be easy to implement.
- Boundaries must be set with an eye towards cost-effectiveness.

For the purpose of discussion and practicality of understanding, the important sampling issues in research, Hair et al., (2000:328) used a modified version of population, i.e. a distinct target population. A distinct target population consists of the complete group of elements (people or objects) that are specifically identified for investigation according to the objectives of the study. It is defined in terms of elements, sampling units, and time frames.

- An element is a person or object from which data and information are sought and this could be the product or a group of individuals. They be must unique, countable and when added together, comprise the whole of the target population.
- Sampling units are the target population elements available for selection during the sampling process. In a simple, single-stage sample, the sample units and population units may be the same.
- Target population elements might also be identified by using specified time frame.

5.2.2 The sampling frame

After defining the population, the researcher must assemble a list of all eligible sampling units (Hair et al., 2000:330). Cooper and

Schindler (2001:204) define a sample frame as the listing of elements or units from which the actual sample will be drawn. According to Martin, Loubser and van Wyk (1999:252), a reliable sample frame must meet the following requirements.

- It must represent all the elements.
- There is no duplication of elements.
- It is free from foreign elements.
- It is accessible and the information is arranged in such a member, that a sample can be drawn from it for the purpose of this study.

5.2.3 Size of sample

Determining the sample size, is generally quite difficult (Dillon, Madden and Firtle, 1990:317). McDaniel and Gates (1999:437) state, that large samples are generally more acceptable than are small samples, but associated are with higher costs. A sample size refers to the number (n) of items to be selected from the population to make up a specific sample. The following guidelines, as proposed by Cooper and Schindler (2001:25), should be considered when determining a sample size.

- Firstly, the size of the sample should be representative of population (n)
- Secondly, the designed sample size also depends on the variances; as a general rule, the larger the variations of the variable, the larger the sample required.
- Thirdly, if each stratum of a highly heterogeneous population is relatively homogenous, a relatively smaller structured sample than that required for a random sample, may be sufficient. If the states differ in size and heterogeneity, the next step will be to adjust the size if the respective samples are taken from them accordingly.

- Fourthly, the number of units of analysis from which usable data might be obtained must be smaller than the number originally drawn. It is advisable to discuss a large sample.

Based studies undertaken by market researchers in related fields, used a representative sample of 550 clients from 55 businesses was sample drawn. A table constructed by Zikmund (2000:518) was used to validate the sample size.

It was decided that the researcher would select a random sample from the population to be reached, with the objective of getting a representative sample where every business would be reached. It was decided to select 20% of the respondent business from every structure of the sample. A total of ten clients was interviewed for every business. Table 5.1 below given is a list of businesses selected.

Table 5.1 Population and sample selected

Type of business	Population	Sample	%
1. Hair salons	61	12	20%
2. Motor mechanics	53	11	20%
3. Medical practices	80	16	20%
4. Food outlets	82	16	20%
Total	276	55	
Total number of clients = 55 x 10 = 550			

Source: Own research

5.2.4. Sampling procedure

A sampling strategy (how to obtain a sample) is a very important issue when designing a study that uses interviewing or surveyor raw data

collection. Further, there are two basic sampling designs (Hair et al., 2000:344).

- Probability sampling in which each sampling unit in the defined target population has a known, non-zero probability of being selected for the sample.
- The actual probability of selection for each sampling unit, may or may not be equal, depending on the type of probability sampling design used. There are four types of probability sampling designs.
 - Simple random sampling (SRS) is a procedure that ensures that every sampling unit making the defined target population, has a known, equal, non-zero chance of being selected.
 - Systematic random sampling (SYMRS) is similar to simple random sampling, but requires that the distinct target population is awarded in some way.
 - Stratified random sampling requires the separation of the distinct target population into different groups, called “strata”, and the selected of sample from each stratum.
 - Cluster sampling is similar to stratified random sampling, but is different in that the sampling units are divided into mutually exclusive and collectively exhaustive subpopulations, called clusters, rather than individually.
- Non-probability sampling in which the probability of selected of each sampling unit is not known. Four types are known.
 - Convenience sampling (or accidental sampling), which is a method in which samples are drawn at the convenience of the researcher or interviewer, often as the study is being conducted.
 - Judgment sampling (purposive sampling) in which participants are selected according to an experienced

individual belief that they will meet the requirements of the study.

- Quota sampling involves the selection of prospective participants according to pre-specified quotes regarding either demographic characteristic, specific attitudes (e.g. satisfied/ dissatisfied) or specific behavior (e.g. regular/ occasional).
- Snowball sampling involves the practice of identifying and qualifying a set of prospective respondents who can in turn help the researcher identify additional people to include in the study.

5.3 The empirical study

5.3.1 Introduction

The methodology used in this study, follows that used by a number of authors to develop service quality measurement instruments. The following two steps will be employed.

- The first step is a qualitative effort to understand the concept/construct “service quality” and its measurement. The dimensions of service quality pertaining to small businesses, are developed.
- The second step is an examination of the performance of the SERVQUAL instrument developed by Parasuraman et al., (1988). The following procedure is used.
 1. Investigate the empirical factor structure if SERVQUAL using data sample of clients who evaluate services of hair salons, motor mechanics, medical practitioners (professional service), food outlets, and pharmacies.
 2. The appropriateness of the instrument is assessed by using two standard measurement criteria i.e. validity and reliability.

5.3.2 Qualitative methodology

A mixed methodology for qualitative data collection was adopted. This consisted of one-on-one interviews and focus groups. The one-on-one interviews focused on each instrument's understanding of the service quality construct and its measurement. Discussion themes were prepared in advance.

In order to get a more complete picture of what service quality dimensions are important for small business, a series of focus group meetings were organized with small groups of individuals. The researcher led a facilitated discussion around a set question. The participants identify a first example of service quality from the content of small business. The focus group meetings were first conducted with the provider of the services. These meetings enabled the researcher to understand the service provided and it provided an opportunity for the providers to give their perception of the use of a service, although it was difficult to set up such focus groups. A number of volunteers were identified and their confidentiality was assured prior to the meetings.

Each focus group session lasted about one hour and extensive notes were taken for later analysis. The researcher identified a number of dimensions revised in the sessions. These dimensions were later found to correspond with those identified by Parasuraman et al., (1988). A discussion was held to reply to the original development process of the SERVQUAL by testing the instruments in four different groups of small business service firms.

5.3.3 The quantitative methodology

The SERVQUAL instrument was administered to four samples of clients. The different samples were to evaluate the service of hair salons, motor mechanics, medical practitioners (professional service)

and food outlets, as these are dominantly small business services across different areas in the Vaal Triangle area.

5.3.3.1 Step one. Statistical analysis

The STATISTICA software computer program was used to perform an exploratory maximum likelihood factor analysis on the data obtained from the five samples. In each grouping of the sample data, an oblique rotation of the original factor matrix was specified. The five-factor structure as proposed by Parasuraman et al., (1988) was considered for each sample by the specific extraction of five factors. A computer program allows factor analysis users to specify the number of factors to be extracted. An important feature crucial in interpreting its results, is that the factors themselves are independent. The correlation between any pair of extracted factors, is zero (Parasuraman, 1991:761).

The result of the procedure for the first sample of hair salons, is shown in table 5.2 on the next page.

Table 5.2 Results of the factor analysis: hair salons

ITEM	ITEM	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
Tangibles	1	0,80	0.09	0.12	0.24	0.19
	2	0,77	0.18	0.33	0.29	0.29
	3	0,65	0.04	0.22	0.18	0.18
	4	0,40	0.23	0.19	0.34	0.09
Reliability	5	0.09	0,63	0.29	0.27	0.18
	6	0.18	0,62	0.19	0.18	0.04
	7	0.04	0,73	0.44	0.29	0.23
	8	0.23	0,78	0.27	0.25	0.19
	9	0.29	0,69	0.28	0.36	0.29
Responsiveness	10	0.34	0.18	0,66	0.09	0.19
	11	0.35	0.09	0,87	0.06	0.44
	12	0.29	0.18	0,67	0.31	0.29
	13	0.18	0.04	0,88	0.22	0.18
Assurances	14	0.34	0.29	0.35	0,91	0.34
	15	0.27	0.19	0.09	0,82	0.27
	16	0.36	0.22	0.18	0,56	0.33
	17	0.09	0.18	0.04	0,77	0.44
Empathy	18	0.06	0.29	0.23	0.34	0,56
	19	0.07	0.18	0.22	0.35	0,49
	20	0.35	0.34	0.19	0.29	0,57
	21	0.29	0.27	0.29	0.18	0,62
	22	0.07	0.33	0.19	0.33	0,71

Source: Own research

It will be noted from the above, that the factor analysis resulted in the factor solution. The information factors loading is the same as in the

original SERVQUAL questionnaire development, as comparison studies could be obtained to compare the result indicated about.

Results of analysis on medical practitioners are shown in table 5.3 on the next page.

**Table 5.3: Results of factor analysis of medical practitioners
(professional services)**

ITEM	ITEM	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
Tangibles	1	0,77	0.22	0.34	0.18	0.22
	2	0,87	0.23	0.23	0.09	0.33
	3	0,89	0.32	0.33	0.18	0.23
	4	0,66	0.06	0.18	0.04	0.24
Reliability	5	0.19	0,67	0.16	0.29	0.22
	6	0.29	0,82	0.32	0.19	0.22
	7	0.18	0,07	0.13	0.22	0.36
	8	0.09	0,56	0.22	0.18	0.29
	9	0.18	0,88	0.33	0.29	0.54
Responsiveness	10	0.04	0.26	0,76	0.18	0.22
	11	0.23	0.29	0,52	0.34	0.27
	12	0.19	0.18	0,59	0.27	0.36
	13	0.29	0.38	0,66	0.33	0.23
Assurances	14	0.19	0.27	0.45	0,52	0.06
	15	0.44	0.18	0.37	0,49	0.07
	16	0.29	0.33	0.40	0,53	0.35
	17	0.18	0.25	0.22	0,55	0.29
Empathy	18	0.34	0.36	0.44	0.34	0.07
	19	0.27	0.09	0.23	0.22	0,48
	20	0.33	0.28	0.04	0.12	0,52
	21	0.34	0.31	0.23	0.22	0,57
	22	0.23	0.22	0.18	0.23	0,66

Source: Own research

Table 5.3 shows, that the items loaded as expected for all item dimensions. The four factors above account for 78% of the variances in each of the 22 items, suggesting that the factor analysis has been

quite effective. The proportion of the total variances (Eigen values) extracted by the factors together, is 0,851(85.1%) and this is another indications that the factor analysis has been effective. The results of the procedure for the third samples of motor mechanics are presented in table 5.4 on the next page.

Table 5.4 Results of factor analysis of motor mechanics.

ITEM	ITEM	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
Tangibles	1	0,87	0.22	0.21	0.22	0.22
	2	0,91	0.34	0.18	0.09	0.29
	3	0,82	0.22	0.33	0.18	0.18
	4	0,68	0.07	0.32	0.22	0.09
Reliability	5	0.24	0,77	0.34	0.29	0.33
	6	0.33	0,81	0.27	0.19	0.04
	7	0.25	0,88	0.33	0.33	0.23
	8	0.26	0,87	0.23	0.18	0.19
	9	0.23	0,89	0.32	0.34	0.22
Responsiveness	10	0.24	0.22	0,57	0.18	0.19
	11	0.34	0.09	0,66	0.32	0.44
	12	0.29	0.22	0,71	0.26	0.29
	13	0.33	0.32	0,68	0.23	0.32
Assurances	14	0.22	0.29	0.33	0,51	0.34
	15	0.23	0.22	0.34	0,66	0.27
	16	0.32	0.24	0.21	0,72	0.33
	17	0.23	0.32	0.12	0,56	0.23
Empathy	18	0.06	0.29	0.08	0.33	0,42
	19	0.02	0.18	0.34	0.32	0,51
	20	0.35	0.28	0.08	0.34	0,46
	21	0.22	0.27	0.34	0.07	0,32
	22	0.23	0.33	0.23	0.33	0,66

Source: Own research

The results above indicate the item loads perfectly for only four of the dimensions. In the case of empathy, only on item loaded as expected. As the original four-factor structure of Parasuraman et al., (1988) could not be replicated by this sample, no alternative solution was

considered. It can be concluded, that a four-factor solution is the most interpretable structure for this samples. Reasons for the lack of empathy on the part of motor mechanics, could be suggested for further studies.

The results of the procedure for food outlets are presented in table 5.5 on the next page.

Table 5.5 Results of factor analysis: food outlets

ITEM	ITEM	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
Tangibles	1	0,81	0.23	0.36	0.23	0.26
	2	0,77	0.17	0.29	0.33	0.23
	3	0,76	0.08	0.54	0.32	0.24
	4	0,66	0.11	0.22	0.29	0.34
Reliability	5	0.29	0,71	0.27	0.22	0.29
	6	0.19	0,68	0.36	0.24	0.33
	7	0.22	0,52	0.23	0.32	0.22
	8	0.18	0,55	0.06	0.29	0.23
	9	0.29	0,89	0.32	0.18	0.32
Responsiveness	10	0.18	0.04	0,63	0.28	0.23
	11	0.34	0.29	0,67	0.27	0.06
	12	0.29	0.19	0,52	0.33	0.02
	13	0.18	0.22	0,68	0.39	0.35
Assurances	14	0.38	0.18	0.29	0,81	0.22
	15	0.27	0.29	0.18	0,52	0.34
	16	0.18	0.18	0.09	0,51	0.12
	17	0.33	0.34	0.18	0,57	0.17
Empathy	18	0.25	0.27	0.04	0.23	0,48
	19	0.36	0.33	0.23	0.34	0,55
	20	0.09	0.33	0.19	0.36	0,46
	21	0.28	0.21	0.29	0.34	0,59
	22	0.31	0.18	0.19	0.33	0,77

Source: Own research

The results above indicate, that the items load perfectly in all five dimensions, although there is a weak loading on item of the assurance

dimensions. Overall it could be concluded, that the four-factor scale of Parasuraman et al., (1988) has been replicated by this sample.

A number of conclusions could be drawn from the four-factor analysis conducted above.

- First, those items that have a loading with absolute values larger than 0,5, have been identified as those that load highly on the factor, and are considered to be members of a group of items identified by the factor.
- Secondly, the overall factor analysis can be considered activated since the total variance explained by the factors, exceeds the 70 percent.
- Thirdly, the number of meaningful factors have been determined by considering factors with an Eigen value larger than 1.0. A scale test, which is a procedure that uses analysis in Eigen value to determine the significance of a factor, has not been. By arranging the Eigen values in descending order, no dramatic drop between two Eigen values could be observed.

5.3.3.2 Step two. The appropriateness of the scale

In this system, the results of the reliability testing of SERVQUAL in each of the samples are presented, together with the assessment of content, convergent and discriminate validity.

Reliability

The alpha coefficient by dimension and for the overall SERVQUAL scale, is reported in table 5.6. The following hypothesis is postulated.

H₁: SERVQUAL will maintain its reliability for service of small business in the Vaal Triangle area with alphas on dimensions and for scale exceeding 0.7.

Table 5.6 Reliability coefficient for dimensions and overall scale of service quality.

Dimension	Hair Salons	Medical Practitioners	Mechanics	Fast outlets
Tangibles	0,71	0,70	0,75	0,69
Reliability	0,82	0,74	0,80	0,70
Responsiveness	0,78	0,68	0,71	0,82
Assurance	0,83	0,71	0,69	0,62
Empathy	0,69	0,81	0,82	0,70
Overall				

Source: Own research

It can be observed from the table 5.6, that the alpha for the instrument as a whole has achieved the commonly acceptable point of 0,7 as suggested by Carman (1990). In general, the SERVQUAL instrument has performed well in this study with regard to reliability, and therefore, the hypothesis as stated above, can be accepted.

Content validity

To assess content validity, respondents in all the samples were asked to give their overall impression of the service quality of the firms concerned. The following hypothesis is postulated.

H₂: SERVQUAL will maintain content validity for service of small businesses in the Vaal Triangle Area.

Table 5.7 shows the scores for respondents for each sample, grouped by their overall impression.

Table 5.7 Content validity of SERVQUAL scale

Overall evaluation	Hair Salons	Medical Practitioners	Motor mechanics	Food-outlets
Poor	-0,34	-0,51	-3,12	-1,45
Fair	-0,75	-1,63	-2,62	-0,62
Good	-1,62	-3,27	-1,60	-0,34
Excellent	-2,83	-4,68	-0,91	-0,25

Source: Own research

The results become more positive as overall service impressions change from “poor” to “excellent”. This indicates support for content validity, that is, the scale items adequately cover the entire domain of service quality.

Convergent validity

Hair et al., (2000:373) notes, that convergent validity focuses on how well the construction measurement positively correlates with different measurements of the same construct. In investigating, convergent validity, the overall service quality evaluation was used as the dependent variables and the indices on the four dimensions as independent variables (predictor variables) when the multiple regression analysis was undertaken.

The results appear in table 5.8 on the next page, refer on the results obtained.

Table 5.8 Consignment validity of the SERVQUAL scales multiple regression of dimensions on overall evaluation.

Measured	Hair Salon	Medical practitioner	Motor mechanics	Food-outlets
R	0,52	0,51	0,63	0,58
Tangibles	Y	Y	Y	Y
Reliability	Y	Y	X	Y
Responses	Y	Y	Y	Y
Assurances	Y	Y	Y	Y
Empathy	Y	Y	X	Y

Significance levels X= $p > 0,05$; Y= $p < 0,05$

Source: Own research

In the table above the overall regression is reported and is significant for all the samples, and the dimensions are significant, except for reliability and empathy in the motor mechanics sample. In general, it could be said, that the SERVQUAL correlates well with the individual measures of services quality.

Discriminant validity

For discriminant validity to exist, it must be established, that the construct being investigated, does not significantly correlate with other constructs that are operationalized as being different (Hair et al., 2001:373). Further, Nel et al., (1997; 118) noted, that discriminant validity is an indication of the extent to which the measurement scale is novel and not simply a reflection of other variables.

The SPSS factor analysis produces reference axis correlations that are used to evaluate discriminant validity. The following tables for each of the samples are given below.

Table 5.9 References axis: hair salons

	Factor 1	Factor2	Factor 3	Factor 4	Factor5
Factor 1	1,000	-0,131	-0,124	-0,067	-0,210
Factor 2	-0,131	1,000	-0,131	0,100	0,237
Factor 3	-0,124	-0,131	1,000	-0,257	-0,301
Factor 4	-0,067	-0,100	-0,257	1,000	0,217
Factor 5	-0,210	-0,231	-0,301	-0,217	1,000

Source: Own research

As indicated in the above table, the factors do not correlate highly which one other; discriminant validity is demonstrated by this sample.

Table 5.10 Reference axis: medical practitioners

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	1.000	-0,108	-0,217	-0,200	-0,254
Factor 2	-0,108	1.000	-0,263	-0,297	-0,331
Factor 3	-0,217	-0,263	1,000	-0,194	-0,215
Factor 4	-0,200	-0,297	-0,194	1.000	-0,277
Factor 5	-0,254	-0,331	-0,215	-0,277	1,000

Source: Own research

No high correlation could be found in samples indicating the presence of discriminant validity.

Table 5.11 Reference: motor mechanics

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	1,000	-0,245	-0,107	-0,402	-0,200
Factor 2	-0,245	1,000	-0,207	-0,251	-0,300
Factor 3	-0,107	-0,207	1,000	-0,310	-0,396
Factor 4	-0,402	-0,251	-0,310	1,000	0,475
Factor 5	-0,200	-0,300	-0,396	-0,475	1,000

Source: Own research

All the factors, except factors on 2 and 4, do not correlate highly in the table above. Generally discriminant validity can be confirmed.

Table 5.12 References: food outlets

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	1,00	-0,162	-0,201	-0,092	-0,145
Factor 2	-0,162	1,000	-0,177	-0,189	-0,206
Factor 3	-0,201	-0,177	1,000	-0,196	-0,236
Factor 4	-0,092	-0,189	-0,196	1,000	-0,245
Factor 5	-0,145	-0,206	-0,236	-0,245	1,000

Source: Own research

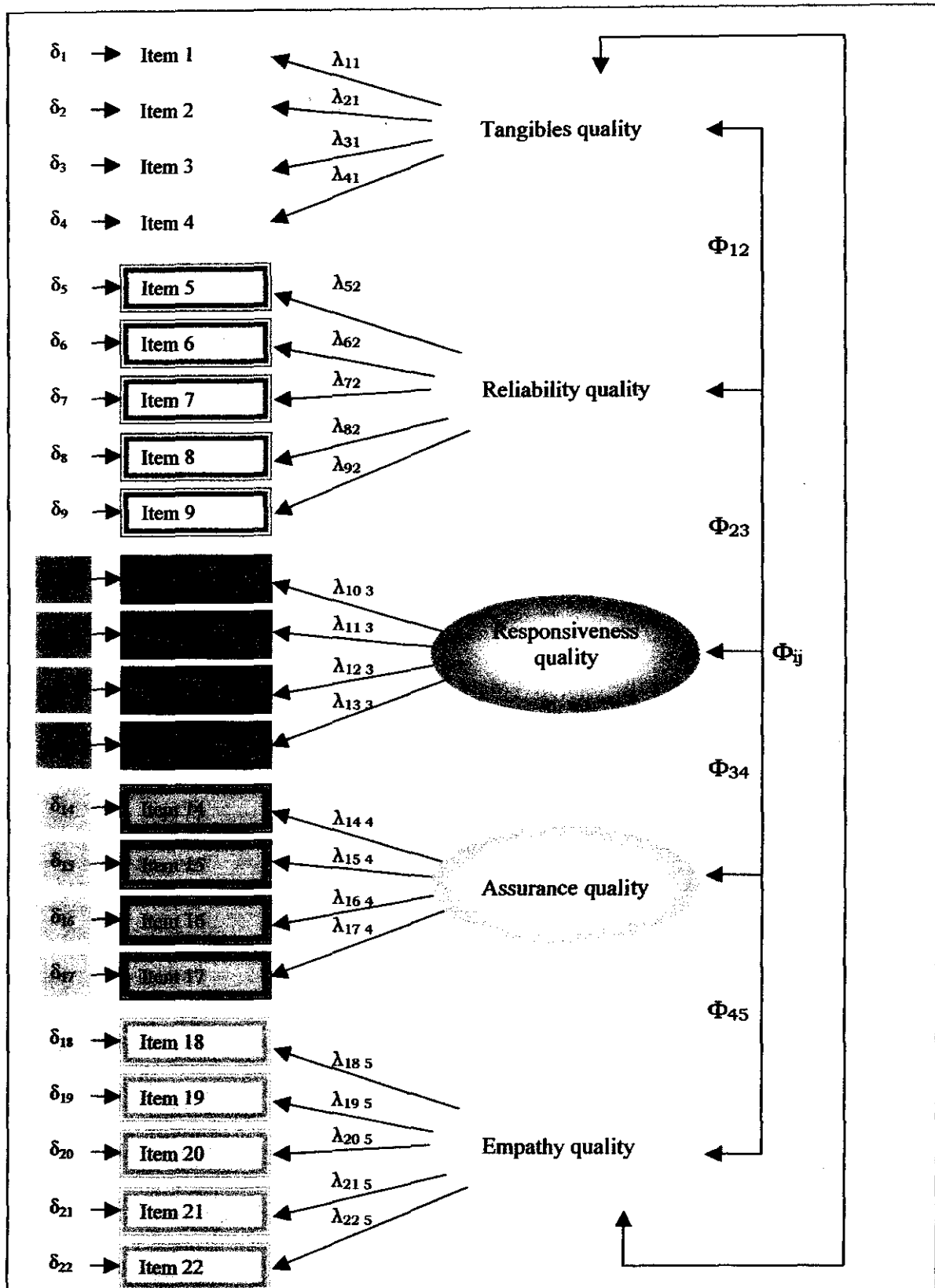
The correlation above is not high and it can, therefore, be concluded, that discriminant validity is confirmed.

The results above contrast sharply with those reported by Nel et al., (1997), wherein the SERVQUAL was found wanting in discriminant validity when used in South African conditions.

As the purpose of the study is test whether the SERVQUAL can be used by service small business in the Vaal Triangle Area, the five-

dimensional model of Parasuraman et al., (1998) will form the basis of the analysis in this section. Figure 5.1 on the next page illustrates the model.

Figure 5.1 The SERVQUAL measurement model



Source: Parasuraman et al., (1998)

The five dimensions identified in figure 5.1 above, are not directly observable; they are theoretical constructs. Items 1 through 4, form a measure of the construct defined “tangible”.

Figure 5.1 above can be seen as a representation of a factor analysis model in which the following are evident.

- λ_{ij} is the factor-loading linking the theoretical factors to the measures that symbolizes the presence of measurement error.

The curved lines linking the factors, represent possible correlations among factors, and the magnitudes of the correlations represented by Φ_{ij} 's.

- Each measure item is linked to only one theoretical dimension. This indicates, that each measure is a manifestation of only one construct.
- In keeping with the conventions of structural equation analyses, the latest variables are correlated and measures (or operationalizations) of these latest variables are within rectangles.

5.3.3.3 Step 3. Confirmatory factor analysis

Confirmatory factor analysis using LISREL 7,2 (Joreskog and Sorbom, 1986) was used to assess the fit of the data to the model. Confirmatory factor analysis allowed the researcher to dictate constructs consistent with theoretically based factor structures, and tests, statistically how well the covariance among the observed variables is explained, given these constraints. Confirmatory factor analysis is based on the matrix of variables and covariance of the observed variable (i.e. the 2.2 items of the SERVQUAL scale). Given the strong existing theoretical base for service quality, the researcher believed, that this method of analysis is appropriate for examining the underlying structure of this construct.

The multi-group option to determine the extent to which the factor structure was constituent, versus all four samples, was used. The

hypothesis regarding the in-variance of factor structure, in-variance of factor-loading, and the in-variance of factor variance and in-variance's was examined.

Is the data fit the model, confirmatory factor analysis supplied, estimates of the x_j 's the correlation's among factors, and the variances of the. In addition to examining the magnifies and statistical significance of parameters estimates (i.e. factor-loading and factor variances and in-variances), the LISREL program supplied various indicators of how well the data fit the hypothesized model.

Table 5.13 shows the evaluation of the fit of the service small business data to the SERVQUAL measurement model.

Table 5.13 Measures of fit of the SERVQUAL model for the four samples.

Business	RMS EA	X Test statistics	Perfect fit probability	Close fit probability	PDF value	GFT
1. H Salon	0,03 7	27,4	0,678	0,610	0,031	0,819
2 Medical practitioner	0,22	31,2	0,542	0,481	0,071	0,798
3.Motor mechanic	0,02 1	20,5	0,499	0,512	0,022	0,678
4. Food- outlets	0,03 2	117,4	0,511	0,607	0,110	0,780

Source: Own Research

The Root Mean Square Error of Approximation (RMSEA) values in the table above, indicate a close fit ($RMSEA < 0,06$) for the model in the case of all four samples.

One measure of fit is, the Chi-Square goodness of fit statistics (X-Test statistics) this statistic is computerized under the null hypothesis, that the observed covariances among the answer come from a population that fits the model. A statically significant value in the goodness of fit test would suggest that the data do not fit the proposed model, i.e. that the observed covariance's matrix is statistically, then the hypothesis at matrix. Joreskog and Sorbom (1986:38) indicate, that instead of regarding X as a test statistic, one should regard it as a goodness (u-boldness) of fit measure in the sense, that large X-values correspond to bad fit and small X-values correspond to good fit. The values of Chi- Square statistics above, imply that the hypothesis of a perfect and close fit in relation to the data, or supported by the SERVQUAL data sets for hair saloons (27,8) medical practitioners (31,2) and motor mechanics (20,5), as they all have small X-values in the case of food outlets (117,4). A very large X-value is observed, suggesting a bad fit for these samples. Satorra and Saris (1985:22) point out, that the X-statistics are very sensitive to minor specification errors when the sample size is large, and as a result, other measures of model fit should be considered.

The perfect fit and the close fit probability for all the samples have been found to be larger than 0,5, indicating that there is a high probability that the model data for samples represents an O fit: no comparable studies could be found to strengthen the case for a perfect fit.

The population discrepancy function is a measure of the discrepancy between the sample correlation matrix and the fitted correlation matrix. A perfect fit is obtained if and only if this value is equal to zero, implying that it provides a measure of the fit of the model to the data. The values of the table above for PDF are not far from zero, indicating that the data are not very far from a perfect fit.

The corrected version of the normal fit index (NFI) was also used to measure data fit. The corrected NFI is often a better indicator of fit than the popular Tucker and Lewis (1973) numerical index, because it has smaller sampling variability and does not arrest mates fit in small samples. Both the NFI and the inoperative fit index CFI, have values above 0,5, indicating a perfect fit for all the samples data sets.

In conclusion, it can be stated, that a number of goodness-of-measures have been employed, in addition to the Chi-Square test. The Chi-Square allows for the test of a null hypothesis H_0 , that a given model provides an acceptable fit of the observed data. Joreskog and Sorbom (1986:38) stated, that the application of Chi-Square is justified, if the observed variables are normally distributed. The analysis is based on a simple co-variance matrix, rather than on a sample correlation matrix, and the sample size is large enough to justify the a-symptotic properties of the Chi-Square test. The sample sizes in the study were not large enough and hence other goodness-of-fit measures were used. A zero Chi-Square corresponds to a perfect fit, and even if all the assumptions of Chi-Square hold, it may not be realistic to assume that the model holds exactly in the entire population.

The goodness of fit measures GFI and AGFI of Joreskog and Sorbom (1986) do not depend on sample size and measure how much better the model fits as compared with other models.

In this study both the measures indicated a moderate fit. The Root Mean Square error of approximation (RMSEA) of Steiger (1990) as a measure of a discrepancy per degree of freedom, is also used. Browne and Cudeck (1989) suggest, that a value of 0.05 of RMSEA indicates a close fit and that values up to 0.08 represent reasonable errors of approximation in the population. In this study the value of RMSEA is

close to 0.05 or slightly below 0.05, indicating a close fit for all four samples.

The PDF (population discrepancy function), and the NIF (normal fit index) have also indicated a close fit.

5.4 Summary

In this chapter the sample design which specifies the population, the sample frame, the sample size and sampling procedure was discussed.

The empirical design involved qualitative efforts to understand the concept service quality and its dimensions. A mixed methodology for qualitative data collection was adopted. The dimensions were found to correspond with those identified by Parasuraman et al., (1985,1988). A decision was taken to replicate the original development process of the SERVQUAL.

The qualitative methodology involved testing the SERVQUAL in relation to four samples of 550 clients. The different samples were drawn from hair salons, motor mechanics, medical practitioners and food outlets, as there are dominant small businesses in this region.

An exploratory factor was completed for five samples. The five-factor structure as proposed by Parasuraman et al., (1988) was considered for each sample. The items loaded as expected for all the item dimensions. The original four-factor structure could not be replicated in only one of sample (motor mechanics).

The appropriateness of the scale for these samples was determined by calculating the reliability and validity. The alpha coefficient (above 0.7) indicated that the SERVQUAL instrument performed well with regard to reliability.

The results also indicate support for content validity, which is that the scale items adequately cover the entire domain of service quality. The multiple regression used to convey convergent validity points out, that the SERVQUAL correlates well with the individual measures of service quality. Discriminant validity as indicated by the reference axis, correlates highly, hence discriminant validity is demonstrated.

Confirmatory factor analysis was used to assess the fit of the data to the SERVQUAL model. Indicators such as root mean square error appropriation (RMSEA), the Chi-Square test, the perfect fit and PDF, the normal fit index (NFI) and the Inoperative Fit Index (IFI) all pointed to data fit.

It can, therefore, be concluded that the SERVQUAL instrument can be used to evaluate service quality in the Vaal Triangle area.

In the next chapter a summary of the study is provided. The objectives of the study are evaluated so as to determine whether they have been achieved. Major conclusions and recommendations are stated.

CHAPTER SIX

SUMMARY, FINAL REMARKS AND RECOMMENDATIONS

6.1 SUMMARY

The primary objectives of this study as set out in chapter one, are to identify the relevant service quality dimensions used by small business to evaluate service quality, and to examine the performance of the SERVQUAL instrument developed by Parasuraman et al., (1988), in order to take into account the nature of small businesses in the Vaal Triangle area. It was also pointed out that the SERVQUAL has received much criticism; however, it continues to be used and has been adapted for different industrial requirements.

In order to achieve the objectives of this study as set out above, the study was conducted in the following two parts.

- In the first part, relevant literature on small businesses, service marketing, service quality and scale development are reviewed.
- In the second part, dimensions of service quality for small businesses are determined and the SERVQUAL scale is empirically tested.

This chapter seeks to summarize the most salient points discussed in earlier chapters, certain conclusions are highlighted and recommendations are made. The process of summarizing will inevitably entail some repetition, but is nevertheless necessary so as to serve as an introduction and overview to readers before reading the complete text.

6.1.1 Literature review

The review of literature was conducted by means of secondary research in order to highlight important aspects of the study and hence to shape the research on which the empirical investigation is based. In chapter one the following aspects of the study are addressed: the problem statement, the objectives of the study, scope of the study, research methodology and outline of the study.

Chapter two, presents definitions of small business from different countries such as the United States of America, Great Britain and South Africa. It was pointed out, that no universally accepted definition is found. The qualitative criteria which, in summary states, that the small business must be independently and privately owned, that it is the limited extent of activities, that it has a local function and a single organisational structure, were adopted in this study. The quantitative criteria used for small businesses, as applicable in this study, are indicated in section 5.3.3.

The role of small businesses has been stated as follows: that they encourage innovation and flexibility, they maintain a closer relationship with consumers and the community, create employment, provide opportunity for learning and risk-taking, help in the mobilization of capital resources, and help to entrench the free enterprise principles.

Because entrepreneurship is more readily identified and observed in small businesses, the nature of entrepreneurship is discussed. The characteristics and obligations of an entrepreneur are to define responsibility, preferences for moderate risk, ability to succeed, immediate feedback, high energy levels, future-orientated, tenacity and flexibility.

In view of the fact that small businesses are found in both the formal and informal sectors of the economy, the informal sector is described as, eminent, unorganised sector whose activities are unregistered or unlicensed. The informal businesses include, amongst others, hawkers, home businesses, backyard manufacturers and mechanics and taxi owners.

Business failure is caused by a number of factors, such which includes profitability and growth prospects, financial factors and lack of experience in managing a business.

Chapter three it was states, that it is difficult to define a pure service. A service has the following characteristics; intangibility, inseparability, heterogeneity, vulnerability, perishability and lack of ownership. The servuction system model developed by Langwerd and Figlir is used to explain the nature of services. It states, that all products deliver a bundle of benefits to the consumer and that which constitutes the bundles of benefits bought by the consumer, is at the heart of marketing, and it transcends any distinction between goods and services.

Total quality management is defined as both a philosophy and a set of guiding principles that represents the foundation of continuously improving organisations. Six basic principles are required; a committed and involved management, an unwavering focus on customers, effective involvement of business, treating suppliers as partners, and the establishment of measures for the processes.

Service quality is an elusive construct, because of intangibility, heterogeneity, and inseparability of production and consumption. Parasuraman, Berry and Zeithaml pioneered the measurement of services quality in the 1980's. Parasuraman et al., (1988) viewed

quality as a gap between perceived and expected services. They developed an instrument called SERVQUAL to measure service quality. The instrument is based on their gaps model of service quality. The model summarized a set of gaps, showing the discrepancy between the gaps. The instrument is based on the ten dimensions of service quality and consists of 22 statements.

The SERVQUAL has been adapted to measure service quality in a variety of settings. Severe criticism has been levelled against the instrument, especially with regards to its dimensionality, validity, and reliability. A framework/ methodology has been developed by Haywood-Farmer (1987) to assess the empirical findings of various studies which have used the SERVQUAL scale. Steward, Hope and Muhlemann (1998) proposed a graphical classification model based on 2B studies, in which SERVQUAL has been used to the relative degree of customisation, contact/ interaction and labour intensity of services.

Parasuraman et al., (1991) made the following conclusions about refining their model; that the instrument can be used to assess service quality provided; potential users are cognisant with the nature, scope and limitations of thereof; the instrument is to serve as a diagnostic and methodology for uncovering a firm's quality shortfalls and strengths, and that the dimensions and items represent core evaluation criteria that transcends firms and industries.

6.1.2 Empirical research

In order to achieve the objectives of this study, a two-step procedure was used to collect data.

- The first step is a qualitative process towards understanding the concept "service quality" and its dimensions as these pertain to small businesses. A series of focus group meetings were

arranged which lasted for at least one hour, to explore the concept "service quality". The dimensions identified, were discovered to correspond with these identified by Parasuraman et al., (1988). A decision was taken to replica to the development process of the SERVQUAL instrument to measure service quality.

- The second step involved is the administering the sequel to four different samples in order to evaluate services of hair salons, motor mechanics, medical practitioners and food service outlets. The sample sizes were based on similar studies and on the table constructed by Zikmund (2000:58). Simple random sample procedures were applied to set sampling units. A computer programme was used to perform an explanatory factor analysis. The results as indicated by tables 5.2 to 5.4 in section 5.3.3, revealed that the factors were similar to these in the original SERVQUAL instrument. The proposition of total variances (Eigen values) extracted by the factors, was about 85% indicating that the factor analysis has been effective. The original four factors could not be replicated in the case of motor mechanics; all the other samples were replicated.
- The appropriateness of the scale in each of the samples was conducted by testing for reliability and assessment of content, convergent and discriminant validity.

The alpha coefficient of the dimensions and for the overall SERVQUAL scale, achieved a commonly acceptable point 0.7. The instrument performed well in this study with regard to reliability.

The results in table 5.6 indicated support for content validity; a multiple regression analysis was undertaken to test for

convergent validity, and the results in table 5.7 indicated, that this SERVQUAL scale correlates well with the individual measures.

The reference axis correlation reflected in tables 5.8 to 5.11, indicates a very low correlation of factors with each other in all the samples, and hence discriminant validity could be confirmed.

In conducting a confirmatory factor analysis, the five-dimensional model of Parasuraman et al., (1998) formed the basis for the analysis. A confirmatory factors analysis was conducted in order to assess the fit of the data to the model. The hypothesis regarding the invariance of factor structures, invariance of factor-loading, and the invariance of factors, was examined. Measures of fit such as, root mean square error of approximation (RMSEA), the Chi-Square test, perfect fit probability, close fit probability, population discrepancy function (PDF), the normal fit index (NFI) and the Inoperative Fit Index (IFI) shown in table 5.12, revealed a close fit of the samples data to the model.

6.2 Final remarks

The objective of this section, is to list the most important remarks arrived at in each of the various chapters.

Chapter 1

In chapter one the objectives of this study were stated. The aim of this section is to evaluate whether those objectives have been achieved, and major conclusions reached.

- No measures were finalized used or strategically developed by small businesses in order to measure service quality.

- The relevant service quality dimensions used by small businesses to evaluate service quality, corresponds to those identified by Parasuraman et al., (1985, 1988).
- The SERVQUAL instrument developed by Parasuraman et al., (1988), with minor adjustments, performed very well when assessed in terms of reliability and validity. The instrument can, therefore, be used by small businesses in the Vaal Triangle area to measure service quality.

In view of the above, it can be concluded that the objectives of this study have been successfully achieved.

Chapter 2

- The contents of chapter 2 reveals that there is no universally acceptable definition of small businesses;
- there are a number of contributions or roles of small businesses in the economy (Section 2.3);
- entrepreneurship is more readily identified and observed in small businesses;
- there is no agreement as to what constitutes the entrepreneur or entrepreneurship;
- there is no acceptable universal definition of the concept “entrepreneurship”, despite the interest shown in it, and that the concept has developed over the years (Section 2.5);
- the measures of entrepreneur personality have been developed;
- a number of economic and financial factors contribute to the failure of small businesses; and
- the estimates of the size of the informal sector vary from study to study and from country to country.

Chapter 3

Remarks on chapter 3 provides that following information.

- It is extremely difficult to define a service because of intangibility, inseparability, variability, perishability, and lack of ownership of a service.
- Quality is not a simple concept and is multidimensional.
- The purpose of Total Quality Management (TQM) is to provide a quality product or service that will increase productivity.
- Service quality is a much more abstract and elusive construct because of the features unique to service.
- Extensive research from different researchers recognizes, that customers evaluate service quality by comparing what they believe service performance to be (expectations).
- An increasing number of manufacturing and service firms are using customer satisfaction as the measure of quality.
- A theoretical framework has been developed to measure customer satisfaction.

Chapter 4

Chapter 4 succinctly conveys that vast array of information as follows.

- The measurement of service quality was led by Parasuraman, Berry and Zeithaml in the 1980's.
- Parasuraman et al., (1988) developed a service quality measurement instrument (SERVQUAL) which viewed quality as being a gap between perceived and expected services.
- The SERVQUAL instrument is related to five dimensions as identified by Parasuraman et al., (1985,1988)
- The instrument was subjected to reliability and validity tests.
- Parasuraman et al., (1991) refined the SERVQUAL instrument based on the criticism levelled against it.

- A framework for developing measures of the service quality construct, has been developed.

Chapter 5

Chapter 5 can be evaluate as follows.

- The population of this study consists of small service businesses in the Vaal Triangle area.
- Based on studies undertaken by researchers in related fields, and the use of a table constructed by Zikmund (2000:518), the sample size was determined.
- Simple random sampling was used to select simplicity units for the study.
- Through qualitative research, the research identified a number of dimensions that were later found to correspond with those of Parasuraman et al., (1985, 1988).
- Through the use of factor analysis, items that have a loading with absolute values larger than 0.5, were identified as those that load highly on the factor.
- The overall factor analysis can be considered effective, since the total variance explained by factors exceed to prevent.
- The number of meaningful factors are those with an Eigen value than 1.0.
- The hypothesis (H_1), that the SERVQUAL will maintain its reliability for small service businesses in the Vaal Triangle, with alphas on dimensions and for scales exceeding 0.7 was expected, indicating that the instrument performed well in the study with regards to reliability.
- The results indicated support content validity; that is, the scale items adequately cover the entire domain of service quality.
- The overall regression analysis to determine convergent validity, indicates that the SERVQUAL correlates well with the individual measures of service quality.

- The reference axis correlations used to assess discriminant validity, have been demonstrated by all the samples.
- The confirmation factor analysis measures of data fit (such as the Root Mean Square Error of Approximation (RMSEA), the Chi-Square test, the perfect fit probability, the close fit probability, the population discrepancy function (PDF), the Normal fit index, (NFI) all proved that the data for all samples fit the SERVQUAL model.

6.3 Recommendations

In the view of the findings in this study, the following recommendations are made.

- The owners of small businesses in the Vaal Triangle area, should use data obtained through the application of the SERVQUAL, to motivate staff in their efforts to improve the rendering of services.
- The measurements of service quality should be used as a means/ tool to maintain good customer relations. This endeavour will help to reduce customer complaints and also help identify areas that can be improved in the offering of a service.
- A link should be established between data collected from the application of SERVQUAL, planning and decision-making.
- By knowing which dimensions of service quality are important in a specific service industry in the eyes of the customers, the service provider should utilize or apply these, as they provide guidelines to enhance the notion of which specific aspects of the encounters with customers are considered to be important.

6.4 Suggestions for further research

In view of the findings in this study, the following suggestions for further research are put forward.

- As South Africa has a number of different cultural groups, a cross-cultural comparison of service quality, expectations and perceptions should be undertaken.
- The proliferation of retail outlets in South Africa, necessitates a need to develop a scale that will measure service quality. The uniqueness of the services offered by a retailer, makes the use of scales developed for other services categories questionable, and therefore, a need to look at quality from the perspective of services, as well as of goods is important, as well as to derive set of items that accurately measures these constraints. The effectiveness of DTR the Scale developed by Dabholkar, Thorpe and Rentz (1996) to measure specifically service quality of retailers, could be investigated.
- A study be ought to undertaken to test the number of generic service quality dimensions in the Vaal Triangle area, by employing a scaling procedure that is different from the commonly used alternatives. The procedures are of the Q-sort and the Guntlmon Scaling, which both are confirmatory studies in which the methodology endeavours to validate the evaluative dimensions in a particular service context.
- The relationship between service quality and price, costs, market share and organization performance should, be undertaken in this region.

- The impact of the built environment (i.e. the man-made, physical surroundings) or what is referred to as “servicescope” both customers and employees in service businesses, should be investigated.

- The development of the conceptual model of Total Quality Management (Total Quality Management with respect to services) that will include all relevant the critical dimensions should be nurtured.

- The development of procedures that will help managers of small businesses to implement a quality improvement strategy (QIS). QIS measures customer satisfaction with the business firms’ services and perceived differences between its services and its competitors’ offerings (competitiveness). The interaction of degree of satisfaction and competitiveness identifies the service that requires change.

BIBLIOGRAPHY

SOURCES CONSULTED AND REFERRED TO

Ahire, L.S, Golhar, D.Y & Walter, M.G. 1996. Development and validation of TQM implementation construct. *Decision sciences*. Vol. 27 p 23 – 56.

Aldaigen, A.H. & Buttle, F.A. 2002. Systra-SQ: A measure of bank service quality. *International journal of service industry journal*. Vol. 13 No4 p 362 –381.

Andaleeb, S.S. & Basu, A.K. 1988. Do warranties influence perception of service quality?: A study of automobile repair and service industry. *Warranties and Service Quality*. p 87 – 92.

Asubonteng, P., McCleary, K.J. & Swan, J.E. 1996. SERVQUAL revisited: A critical review of service quality. *Journal of service marketing*. Vol. 10 No 6. p 62 – 81.

Aukiru, N.K. 1994. Developing an instrument to measure customer service quality in branch banking. *International journal of bank marketing*. Vol. 12 No 6 p 12 –18.

Babakus, E. & Mangold, G.W. 1992. Adapting the SERVQUAL scale to hospital services: an empirical investigation. *Health services research*. Vol. 26 Issue No. 26 p 767 – 786.

Babakus, E. & Boller, G.W., 1992. An empirical assessment of the SERVQUAL scale. *Journal of business research*. Vol. 24 p 253 – 268.

Bateson, J.E. & Hoffman, K.D. 1999. *Managing services marketing*. Fortworth. Dryden Press.

Bateson, J.E.G. 1993. *Managing service marketing – Text and Reading*. Orlando. Dryden Press.

Bebko, C.P. & Garg, R.K. 1995. Perceptions of responsiveness in service delivery. *Journal of hospital marketing*. Vol. 9 Issue No. 2 p 35 – 82.

Berry, L.L. 2001. Improving service by acting small. *Managing service quality*. Vol. 11 No. 2 p 75 – 79.

Berry, L.L., Zeithaml, V.A. & Parasuraman, A. 1990. Five imperatives for improving service quality. *Sloan Management Review*. Vol. 31 No. 4, p 29-38.

Besterfield, D.H. 1999. *Quality control* 5th Ed. Upper-Saddle River. Printice Hall.

Bienstock, C.C., Mentzer & Bird, M.M. 1997. Measuring physical distribution service quality. *Journal of Academy of marketing science of marketing science*. Vol. 25 No. 1 p 34 – 44.

Bojanic, D.C. 1991. Quality measurement in professional service firms. *Journal of professional service marketing*. Vol. 7 No. 2 p 27 – 36.

Bolton, R.N. & Drew, J.H. 1991. A multi-stage model of customers assessment of service quality and value. *Journal of consumer research*. Vol. 17 p 375 – 384.

Boschoff C. & Van Eeden, S.M. 2001. South African consumer statements towards marketing: A longitudinal analysis. *South African journal of Business management*. Vol. 32 No. 2 p 23 – 33.

Boshoff, C. & Terblanche, N.S. 1997. An instrument to measure service quality in the road freight transport industry. *Management Dynamics: Contemporary research*. Vol. 6 No. 1 p. 8 –15.

Bolton Report. 1971. H.M. Government: Report of the committee of enquiry on small firms. HMSO. London.

Botha, R.K. 1996. Empowerment of emerging entrepreneurs through business linkages. *9th Annual conference International for Small Business – Southern Africa*. Mpumalanga. p 1 – 16.

Boulding, W., Kulra, A., Staclin, R. & Zeithaml, V.A. 1993. A dynamic process model of service quality: From expectations to behavioural intentions. *Journal of marketing*. Vol. 30 Part 3 p 7 – 27.

Bowers, M.R. Swan, T.E. & Koehler W.F. 1994. What attributes determines quality and satisfaction with health care delivery. *Health care management review*. Vol. 19 (4) p 49 – 55.

Brensinger, R. & Lambert, D. 1990. Can the SERVQUAL instrument be generalized to business to business. Knowledge development in marketing, 1990 AMA's Summer educators' conference proceedings.

Brogowitz A.A., Delens, L.M. & Lyth D.M. 1990. A synthesized service quality model with management implication. *International journal of service industry management*. Vol.1 Part 1 p 27 – 44.

Browne, M.W. & Cudeck, R. 1989. single sample cross validation indices for covariance structures. *Multivariate behavioural research*. Vol. 24 p 445 – 455.

Brown, S.W. & Swartz, T.A. 1989. A gap analysis of professional service quality. *Journal of marketing*. Vol. 53 Issue No. 4 p 92 – 98.

Brown, T.J., Churchill, G.A. & Peter, J.P. 1993. Improving the measurement of service quality. *Journal of retailing*. Vol. 69 No. 1 p 127 – 139.

Brown, T.J., Churchill, G.A. & Peter, P.J. 1993. *Improving the measurement of service quality*. *Journal of Retailing*. Vol. 69 No. 1 p 1-5.

Buttle, F. 1996. SERVQUAL: review, research agenda. *European journal of marketing*. Vol. 30 No. 1 p 8 – 32.

Candido, C.J.F. & Morris, D.S. 2000. Charting service quality gaps. *Total Quality Management*. Vol 11 No 4 pp 463 – 472.

Carman, J.M. 1990. Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *Journal of retailing*. Vol. 66 No. 1 p 33 – 55.

Carson, D. 1985. *The evolution of marketing in small firms*. *European Journal of Marketing*. Vol. 19 No. 5 p 7-16.

Carson, D. 1990. Some exploratory models for assessing small firms' marketing performance a qualitative approach. *European Journal of Marketing*. Vol. 24 No. 11 p 1-51.

Charmes, J. 1990. A critical review of concepts, definitions and studies in the informal sector. In, "The informal sector revisited". Edited by Turnhemd.

Chase, R.B. & Aquilano, N.J. 1998. Production and operations management. Burr-Ridge. IRWIN.

Chell, E., Haworth, J. & Brealey, S. 1991. The entrepreneurial personality: Concepts, cases and categories . London. Routledge.

Christopher, M., Payne, A. & Ballautyne, D. 1993, Relationship marketing – Bringing quality customer service and marketing together. Oxford. Butterworth Heinemann.

Church, A.H., Javitch, M. & Burke, W.W. 1995. Enhancing service professional quality: Feedback is the way to go. *Managing Service Quality*. Vol. 5 No. 3 p 29 – 33.

Churchill, G.A. 1979. A paradigm for developing better measures for marketing constructs. *Journal for marketing research*. Vol. XVI p 64 – 73.

Churchill, G.A. 1992. *Basic marketing research*. Fort Worth: Dryden Press.

Cook, C. & Thompson, B. 2000. Reliability and validity of SERVQUAL scores used to evaluate perception of library services quality. *Journal of academic librarianship*. Vol. 26 Issue 4 p 248 – 259.

Cooper, D.R. & Schindler, P.S. 2001. Research methodology for the business and administration sciences. Cape Town. International Thompson.

Coulter, M. 2003. *Entrepreneurship in action*. Upper Saddle River. Prentice Hall.

Cronbach, L.J. & Mechl, P.E. 1955. *Construct validity in psychological tests*. Vol. 52 No. 4 p 281 – 302.

Cronin, J.J. & Taylor, S.A. 1992. Measuring service quality: An examination and extension. *Journal of Marketing*. Vol. 56 No. 7 p 55 – 68.

Cronje, G.J., Du Toit, G.S. & Motlatla. M.O.C. 2001. Introduction to business management. 5th Ed. Cape Town. Oxford University Press.

Crosby, B.P. 1979. *Quality is free*. New York. McGraw – Hill.

Dabholkar, A., Thorpe, I.D. & Rentz, O.J. 1996. A measure of service quality for retail stores. Scale development and validation. *Journal of the Academy of Marketing Science*. Vol. 24 No. 1 p 3 – 16.

Dahlgaard, J.J., Kristensen, K. & Kanji, G.K. 1998. Fundamentals of Total quality management. London. Chapman & Hall

Davis, T.R.V. 1999. Different service firms, different core competencies. *Business Horizons*. Vol. 42 Issue 5 p 23-35.

De Beyer, J. & Maasdorp, G. 1983. The urban informal sector. Unpublished paper.

De Vletter, F. 1996. The informal sector in Maputo and Beiru. Unpublished paper.

Deakins, D., & Freel, M. 2003. Entrepreneurship and Small firms. Bokshine. McGraw-Hill

Deming, W.E. 1986. Out of the crisis. Cambridge, M.A.M.I.T. Centre for advanced engineering.

DeVellis, R.F. 1991. Scale development: Theory and applications. *Applied social research methods series*. Vol. 26 p1 - 121. London. SAGE publications.

Devlin, S.J. and Dong, H.K. 1994. Service quality from the customers' perspectives. *Marketing Research: A Magazine of Management and Applications*. Vol. 6 No. 1 p 4-13.

Dhlamini, A.S. 1994. *The financing of small business in the greater Soweto Area*, Soweto: Dissertation. M Comm: Vista University.

Dillon, W.R., Madden, N.J. & Firtle, N.H. 1990. Marketing research in marketing environment 2nd Ed. Boston. Erwin.

Ekinci, Y. 2001. Validation of the generic service quality dimensions: An alternative approach. *Journal of retailing and consumer services*. Vol. 8 p 311 – 324.

Elliot, P. & Reed, R. 1999. *The evaluation of fast-food outlets: Analysis, Methodology, and Reliability* Vol. 67 Issue 4 p 359 – 371.

Farrel, A. 2001. Customer behavioural intention, satisfaction and service quality. *Total Quality Management*. Vol. 12 No 4 p 571 – 592.

Feingenbaum, A.V. 1983. *Total Quality Control*. U.S.A. McGraw Hill.

Fick, G.R. & Richie J.R.B., 1991. Measuring service quality in the travel and tourism industry. *Travel research association*. Vol. 30 Part 2 p 2 – 9.

Finn, D.W. & Lamb, C.W. 1991. An evaluation of the SERVQUAL scales in a retailing setting. *Advances in consumer research*. Vol. 18 p 483 – 490.

Flynn, B.B., Schroeder, R.G. & Sakukiburus, S. 1994. A framework for Quality management research and an associated instrument. *Journal of operations management*. Vol. 11 p 339 – 366.

Freemon K.D., & Dart, J. 1993. Measuring the perceived quality of professional business services. *Journal of professional service marketing*. Vol. 9 (1) p 27 – 47.

Fusilier, M.R. & Simpson, P.M. 1995. AIDS patients' perception of nursing care quality. *Journal of health care marketing*. Vol. 15 Issue No 1 p 49 – 53.

Garvin, D.A. 1988. *Managing quality: The strategic and competitive edge*. New York. The free press.

Grönroos, C. 1982. An applied service marketing theory. *Journal of marketing*. Vol. 16 Part 7 p 30 – 41.

Grönroos, C. 1984. A service quality model and marketing applications. *European journal of marketing*. Vol. 18 p 36 – 44.

Grönroos, C. 1990. *Service management and marketing. Managing the moments of truth in service competition*, Toronto: Lexington Books.

Grönroos, C. 1998. Marketing services: the case of a missing product. *Journal of business industry marketing*. Vol. 13 Issue 4/5 p 322 – 338.

Grönroos, C. 2001. The perceived service quality concept – a mistake? *Management service quality*. Vol. 11 No. 3 p 150 –152.

Gummesson, E. 1990. *Marketing organisation in service businesses: The role of part-time marketers*. London. Cassell.

Guy, R.F., Edgley, C.E., Arafat, I. & Allen, D.E. 1987. *Social Research Methods. Puzzles and Solutions*. Boston Allyn and Bacon Inc.

Hair, J.F., Bush, R.P. & Ortinau D.J. 2000. *Marketing research: A practical approach for the new millennium*. Boston. McGraw Hill.

Hart, K. 1973. Informal Income opportunities and urban employment in Ghana. *Journal of modern African studies* Vol. 2.

Harte, H.G. & Dale, B.G. 1995. Improving quality in professional service organizations: A review of key issues. *Managing Service Quality*. Vol. 5 No. 3 p 34 – 44.

Haywood – Farmer, J. 1987. A conceptual model of service quality. *International journal of operation and production management*. Vol. 8 p19 – 29.

Hedvol, M. & Paltchik, M. 1991. Intrinsic services quality determinants pharmacy customers. *International journal of service industry management*. Vol. 2 No. 2 p 38 – 48.

Hernon, P., Nitecki, D. & Altman, E. 1999. Service quality and consumer satisfaction: An assessment and future directions. *Journal of Academic Librarianship*. Vol. 25 Issue 1 pp9 – 20.

Hirschowitz, R. 1991. The NTB/ HSRC. Investigation into the training for informal sector: Training guidelines. *Issues in development*. No3. Friderick Stiftung. Johannesburg.

Hisrich, R.D. & Peters, M.P. 2002. *Entrepreneurship*. Boston. Mcgrowhill.

Ho, S. & Cicmil, S. 1995. Total quality management transfer to small and medium industries in Malaysia by SIRIM. *Total Quality Management*. Vol. 8 p 273 – 285.

Hodgetts, R.M. & Kuratko, D.F. 1998. *Effective small business management*. Orlando. The Dryden Press.

Hoffman, K.D & Bateson, J.E.G. 2002. Essentials of services marketing: Concepts, strategies, and cases 2nd Ed. Fortworth: Harcourt College Publishers. p 569.

Hofstede, G. 1980. Culture's consequences. London. SAGE.

ILO. 1972. Employment, Income and Equality. A strategy for increasing productive employment in Kenya, Geneva.

Irons, K. 1994. Managing services companies – Strategies for success. Workingham. Addison-Wesley.

Ishikawa, K. 1985. *What is total quality control? The Japanese way.* Engewood Cliffs, N.J. Printice Hall.

Jackson, B. 1985. Build customers relations that last. *Harvard Business Review*. November/December, p. 120 – 128.

Johnson, R.L., Tsiros, M. & Lancion, R.A. 1995. Measuring service quality: A system approach. *Journal of services marketing*. Vol. 9 Issue.

Jones, J. 1991. In search of excellent customer service. *Bank Management*. Vol. 67 No. 2, p 40 – 41.

Joreskog, K.G. & Sorbom, D. 1989. Analysis of internal linear structural relationship by maximum likelihood and least square methods. Research report. University of Uppala. Sweden pp 81 – 88.

Kandampully, J. 1998. Service quality to service loyalty: A relationship between which goes beyond customer services. *Total quality management*. Vol. 9 Issue 6 p 431 – 443.

Kanji, G.K. & Asher, M. 1995. Total Quality Management – A systematic approach. Madras. Productivity Press.

Kanji, G.K. & Asher, M. 1996. 100 Methods for Total Quality Management. London. SAGE.

Kanji, G.K. 1998. An innovative approach to make ISO 9000 standards more effective. *Total Quality Management*. Vol. 9 No 1 p 67 – 78.

Keiser, T.C. & Smith, D.A. 1994. Customer-driven strategies moving from talk to action. *Managing Service Quality*, Vol. 4 No. 2 p 5 – 9.

Kekana, D. 1993. The role of the informal sector in SA. Institute for African alternatives. *Development and Reconstruction in SA*. Johannesburg. FIAA.

Kerlinger, F.K. 1986. Foundation of behavioural research. 3rd Ed. New York. CBS international editions.

Kim, B., Shim, J. & Kim, J. 2001. Manager's quality and performance perception: the case of the Korean semiconductor industry. *Total Quality Management*. Vol. 12 No. 5 p 643 – 655.

Kirby, D.A. 2003. Entrepreneurship. London. McGrawhill.

Kotler, P. 1997. *Marketing management: Analysis, Planning, Implementation and Control*. 8th edition. New Jersey: Prentice Hall.

Kotler, P., Armstrong, G., Saunders, J. & Wong, V. 1996. *Principles of marketing*. London. Prentice Hall.

Kuhn, R.L. 1982. *Mid-sized firms success strategy and methodology*. New York: Praeger.

Lam, S.S.K. 1997. SERVQUAL: A tool for measuring patients opinions of hospital quality in Hong Kong. *Total quality management*. Vol. 8 Issue 4 p 145 – 153.

Landes, D. 1991. Rethinking development. *Dialogue* no. 91. p 67 – 71.

Le Roux, E.E., De Beer, A.A & Ferreira, E.J. 1999. *Business Management: A practical and interaction approach*. Sandton. Heinemann

Leblanc, G. 1992. Factors affecting customer evaluation of service quality in Travel agencies: An investigation of customer perception. *Journal of travel research* Spring Vol. p10 – 15.

Lee, H. Lee, Y. & Yoo, D. 2000. The determinants of perceived service quality and its relationship with satisfaction. *Journal of services marketing*. Vol. 14 No. 3 p 217 – 231.

Lehtinen, U. & Lehtinen, J.R. 1982. "Service quality": A study of quality dimensions. Unpublished working paper. Helsinki: Service management institute. Finland.

Lengnick-Hall, C.A. 1996. Consumer contributions to quality: A different view of the customer oriented firm. *Academy of management review*. Vol. 21 Issue 3 p 791 – 824.

Levenson, H. 1973. Multidimensional locus on control in psychiatry patients. *Journal of consulting and clinical psychology*. Vol 41 pp 397 – 404.

Lewis, B.R. 1988. Quality in the service sector: A review. *International Journal of Bank Marketing*. Vol. 7 Part 5, p 4 – 9.

Lewis, B.R. 1993. Service quality measurements, *Marketing intelligence and planning*. Vol. 11 No. 4 p 4 – 12.

Lewis, B.R. & Mitchell, V.W. 1990. Defining and measuring the quality of customers service. *Marketing Intelligence and Planning*. Vol. 8 No. 6 p 11 – 17.

Lytle, R.S. & Mokwa, M.P. 1992. Evaluating health care quality: the moderating role of outcomes. *Journal of health care marketing*. Vol. 12 Issue no. 1 p 1 – 14.

Maclarun, P. & McGowen, P. 1999. Managing service quality for competitive advantage in small engineering firm. *International journal of entrepreneurial behaviour and research*. Vol. 5 Issue 2.

Malhotra N.K., Ulgado, F.M., Argarwal, J. & Baalbaki, I.B. 1994. A comparative evaluation of the dimensions of service quality between developed and developing countries. *International marketing review*. Vol. 11 No 2 p 5 – 15.

Mangold, W.G. & Babakus, E. 1991. Service quality: the front-stage vs the back-stage perspective. *Journal of Services Marketing*. Vol. 5 No. 4 p 59 – 70.

Martin, J.H., Loubser, M. & van Wyk, H 1999. Marketing Research: A South African Approach. Pretoria: Unisa Press. p 615.

Marx, S., van Rooyen, D.C., Bosch, J.K. & Reynders, H.J.J. 2001. Business Management 2nd ed. Pretoria. J.L. van Schaik.

Marx, U. 2000. Market orientation. *Australian journal of management*. Vol. 25 Issue 2 p 119 – 130.

Maslow, A.H. 1970. Motivation and personality. 2nd Ed. New York. Harper & Row.

McAlexander, J.H., Kaldenberg, D.O. & Koenig, H.F. 1994. Service quality management: examination of dental practices sheds more light on the relationship between service quality, satisfaction, and purchase intentions in a health care setting. *Journal of health care marketing*. Vol. 14 Issue No. 3 p 34 – 40.

McDaniel, C.D. & Gates, R.H. 1999. Contemporary Market Research. Cincinnati South Western

Megginson, L.C., Byrd, M.J. & Megginson, W.L. 2003. Small Business Management: An Entrepreneur's guidebook. Boston, McGraw-Hill

Meister, J. 1990. Services marketing: rewards reap results. *Marketing News*. Vol. 24 No. 13 p. 11-12.

Mels, G., Boshoff, C. & Nel, D. 1997. The dimensions of service quality: The original perspective revisited. *The service industry journal*. Vol. 172 – 196.

Mentzer, J.T., Flint, D.J. & Kent, J.L. 1999. Developing a logistics service quality scale. *Journal of business logistics*. Vol. 20 p 9 – 33.

Mersha, T. & Udlakha, V. 1992. Attributes of service quality. *International journal of service industry management*. Vol. 3 No. 3 p 34 – 45.

Nel, D. Pitt, L.F. & Berthon, P.R. 1997. The SERVQUAL instrument: Reliability and validity in South Africa. *South African journal of business management*. Vol. 28(3) p 113 – 120.

Nitecki, D.A. & Hernon, P. 2000. Measuring services quality at university libraries. *Journal of academic librarianship*. Vol. 26 Issue 4 p 259 – 279.

Normann, R. 1995. Service management – Strategy and leadership in service business. Chichester. John Wiley.

Novak, M. 1988. Economic development from the button-up. *Journal of economic growth*. Vol. 3 No. 1 p 3 – 11.

O'Connor, S.J., Shewschuk, R.M. & Carney, L.W. 1994. The great gap: physicians' perceptions of patient service quality expectations fall short of reality. *Journal of heal care marketing*. Vol. 14 Issue No. 2 p 32 – 39.

Owlia, M.S. & Aspinwall, E.M. 1998. A framework for measuring quality in engineering education. *Total Quality Management*. Vol. 9 Issue 6 p 501 – 519.

Parasuraman, A. 1991. *Marketing research*. Reading. Addison – Wesley

Parasuraman, A., Berry, L.L. & Zeithaml V.A. 1991. Refinement and reassessment of the SERVQUAL scale. *Journal of retailing*. Vol. 67 No. 4 p 420 – 450.

Parasuraman, A., Berry, L.L. & Zeithaml V.A. 1991. Understanding customer expectations of services. *Sloan management review association*, Spring Vol. 1 p 31 – 38.

Parasuraman, A., Zeithaml V.A. & Berry, L.L. 1994. Alternative scales for measuring service quality: A comparative assessment based on psychometric and diagnostic criteria. *Journal of retailing*. Vol. 70 Part 3 p 201 – 230.

Parasuraman, A., Zeithaml V.A. & Berry, L.L. 1998. SERVQUAL: A Multiple-Item scale for measuring consumer perceptions of service quality. *Journal of retailing*. Vol. 64 p 12 – 40.

Parasuraman, A., Zeithaml, V. & Berry, L. 1988. A multiple item scale for measuring consumer perceptions of service quality. *Journal of retailing*. No. 64 p 12 – 40.

Parasuraman, A., Zeithaml, V.A. & Berry, L.L. 1985. A conceptual model of service quality and its implications for future research, *Journal of Marketing*. Vol. 49(4) p 41 – 50.

Paulhus, D. 1983. Sphere-specific measures of perceived control. *Journal of personality and social psychology*. Vol. 44 p 1253 – 1265.

Perbedy, S. 2000: Mobile entrepreneurship: Informal sectors cross border trade and street trends in South Africa. *Development Southern Africa*. Vol. 17 Issue 2 p 201 – 220.

Philip, G. & Stewards, J. 1999. Assessment of the service quality of a concept information service using a new P-C-P attributes model. *Management service quality*. Vol. 9 No 3 p 167 – 179.

Pitt, L.F. & Watson, R.T. 1997. Measuring information systems service quality: Concerns for a complete canvas. *MIS quarterly*. Vol. 21 Issue 2 p 209 – 223.

Putterson, P.G. & Johnson L.W. 1993. Disconfirmation of expectations and the gap model of service quality: An integrated paradigm. *Journal of consumer satisfaction, dissatisfaction and behaviour*.

Pycraff, M., Singh, H. & Phihlela, K. 1997. *Operating management*. London. Pitmon publishing.

Quazi, H.A., Jemangin, J., Kit, L.W. & Kian, C.L. 1998. Critical factors in quality management and guidelines for self-assessment: The crisis of Singapore. *Total Quality Management*. Vol. 9 No 1 p 35 – 55.

Quinn, B. 1997. Adapting service quality concepts to academic libraries. *Journal of academic librarianship*. Vol. 23 Issue 5 p 359 – 361.

Reeves, C. & Hoy, F. 1993. Employee perceptions of management commitment and customer evaluations of quality service in independent firms. *Journal of Small Business Management*. Vol. 31 No. 4 p 52 – 59.

Reeves, C.A. & Bednar, D.A. 1994. Defining quality: Alternatives and implications. *Academic of management review*. Vol. 19 No. 3 p 419 – 445.

Reidenbach, E.R. & Sandifer–Smallwood, B. 1990. Exploring perceptions of hospital operations by modified SERVQUAL approach. *Journal of health care marketing*. Vol. 10 Issue No. 4 p 47 – 55.

Richard, M.D. & Allaway, A.W. 1993 Service quality attributes and choice behaviour. *Journal of service marketing*. Vol. 7 Part 1.

Robertson, D. 1996. Working at keeping up in the Global Race. *Sunday Times, Business Times*. November 3 p 18.

Rogerson, C.M. 2000. Emerging from Apartheid's shadow: South Africa's informal economy. *Journal of International affairs*. Vol. 53 Issue No. 2 p 673 – 696

Rotter, J.B. 1966. Generalization expectancies for internal versus external control of reinforcement. *Psychological monographs*. Vol. 80 No. 4 p 609.

RSA, 1995. October household survey. Central Statistical Service.

Sandberg, W.R. 1986. *New Venture Performance: The Role Strategy and Industry Structure*. Lexington, MA: Lexington Books.

Saraph, J.V., Benson, G.P & Schroeder, R.G. 1989. An instrument for measuring the critical factors of quality management. *Decision sciences*. Vol. 20 p 810 – 829.

Satorra, A. & Saris, W.E. 1985. The power of the likelihood ratio test in covariance structure analysis. *Psychometrika*. Vol. 50 p 83 – 90.

Schneider, H. 1999. Bridging the quality gap: Working with frontline providers to improve quality of primary health care in the North West Province. University of the Witwatersrand. Centre for Health Policy.

Schumacher, E.F. 1974. *Small is beautiful. A study of economics as if people mattered*. London. Abacus.

Seurborough, N.M. & Zimmerer, J.W. 2003. *Effective small business management: An entrepreneurship approach*. Upper saddle river. Prentice hall.

Shostack, G.L. 1984. Designing services that deliver. *Harvard Business review*. Vol. 62 p 133 – 139.

Smith, A. 1990. Quality aspects of services marketing. *Marketing Intelligence and Planning*. Vol. 8 No. 6, p 25-35.

Staffort, M.R., Prybutox, V., Wills, B.P. & Kappelman, L. 1999. Assessing the fit and stability of alternative measures of service quality. *Journal of applied business research*. Vol. 15 Issue No. 2 p13 – 33.

Steers, R.M. & Braunstein, D.N. 1976. A behavioural based measure of manifest needs in work settings. *Journal of vocational behaviour*. Vol. 9 p 151 – 166.

Steiger, J.H. 1990. Ezputh: A supplementary module for SYSTAT and SYGRAPH. Evanston: SYSTAT.

Steward, H., Hope, C. & Muhlemann, A. 1998. Professional Service quality: A step beyond other services. *Journal for retailing and consumer services*. Vol. 8 p 209 – 220.

Story, D.J. 1994. Understanding the Small Business Sector. Routledge: London.

Struwig, F.W. 1992. Entrepreneurship: A strategy for managing change and innovation. PhD. Thesis. Vista University.

Sudman, S & Blair, E. 1998. Marketing research: A problem solving approach. Boston. McGrawhill.

Sunter, C. 1993. *Pretoria will provide and other myths*. Cape Town: Tafelberg.

Sureshchandar, G.S., Chandrasekharun, R. & Anantharaman, R.N. 2001. A conceptual model for total quality management in service organisations. *Total Quality Management*. Vol. 12 No. 3 p 343 – 363.

Swanepoel, D.J. & Van Zyl, J.S. 2000. Economics 2000. Cape Town Nasou.

Swartz, T.A. & Brown S.W. 1989. Consumer and provider expectations and experiences in evaluating professional service quality. *Journal of academy of marketing science*. Vol. 17 No. 2 p 189 – 195.

Teal, T. 1991. Service comes first: an interview with USA's Robert F. McDermott. *Harvard Business Review*. Vol. 69 No. 5 p 116 – 127.

Teas, R.K. 1994. Expectations as a comparison standard in measuring service quality an assessment of a reassessment. *Journal of Marketing*. Vol. 58 No. 1 p 132 – 139.

Terblanche, M., & Durrheim, K. 1999. *Research in practice: Applied methods for the school sciences*. Cape Town. University of Cape Town press.

Terblanche, N.S. & Boshoff, C. 2001. Measuring customer satisfaction with controllable elements of the in-store shopping experience. *South African journal of business management*. Vol. 32(4) p 11 – 20.

Thornton, D.S. 2000. Political attitudes and participation in the informal and formal sector worker in Mexico. *Comparative political studies*. Vol. 3 Issue No. 10 p 1279 – 1310.

Turker, L.R. & Lewis, C. 1973. A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*. Vol. 38 p 1 – 10.

Tzener, A. & Elizur, D. 1985. The achievement motive construct. *Journal of organisational behaviour*. Vol. 1 p 209 – 227.

Vandamme, R. & Leunis, J. 1992. Development of a multiple item scale for measuring hospital service quality. *International journal of service industry management*. Vol. 4 Part 4 p 30 – 49.

Watson, D. 1992. The meaning of service in business. *Business Horizons*. January/February p 55 – 60.

Wong, C.L. & Tjosvold, D. 1995. Goal interdependence and quality in marketing services. *Psychology and Marketing*. Vol. 12 No. 3 p 189-205.

Yusof, S. & Aspinwall, E. 2000. Total Quality Management implementation framework: Comparison and Review. *Total Quality Management*. Vol. 11 Issue No. 3 p 281 – 300.

Yusof, S.M. & Aspinwall, E.M. 1999. Critical factors success factors for total quality management implementations in small and medium enterprise. *Total Quality Management*. Vol. 10 p 803 – 809.

Zabada, C., Rivers, P.A. & Munchus, G. 1998. Obstacles to the application of total quality management in Health-care organisations. *Total Quality Management*. Vol. 9 No. 1 p 67 – 78.

Zeithaml, V.A. 1988. Consumer perceptions of price, quality and value. A mean-end model and synthesis of evidence. *Journal of marketing*. Vol. 52(3), p 35 – 48.

Zeithaml, V.A. 2000. Service quality profitability, and economic worth of customer: What we know and what we need to learn. *Journal of academy of marketing sciences*. Vol. 28 Issue No. 1 p 67 – 86.

Zeithaml, V.A., Berry, L.L. & Parasuraman, A. 1988. Communication and control processes in the delivery of service quality. *Journal of Marketing*. Vol. 52 April, p 35-48.

Zikmund, W.C. 2000. Business research methods 6th Ed. Oklahoma. Harcourt Publisher.

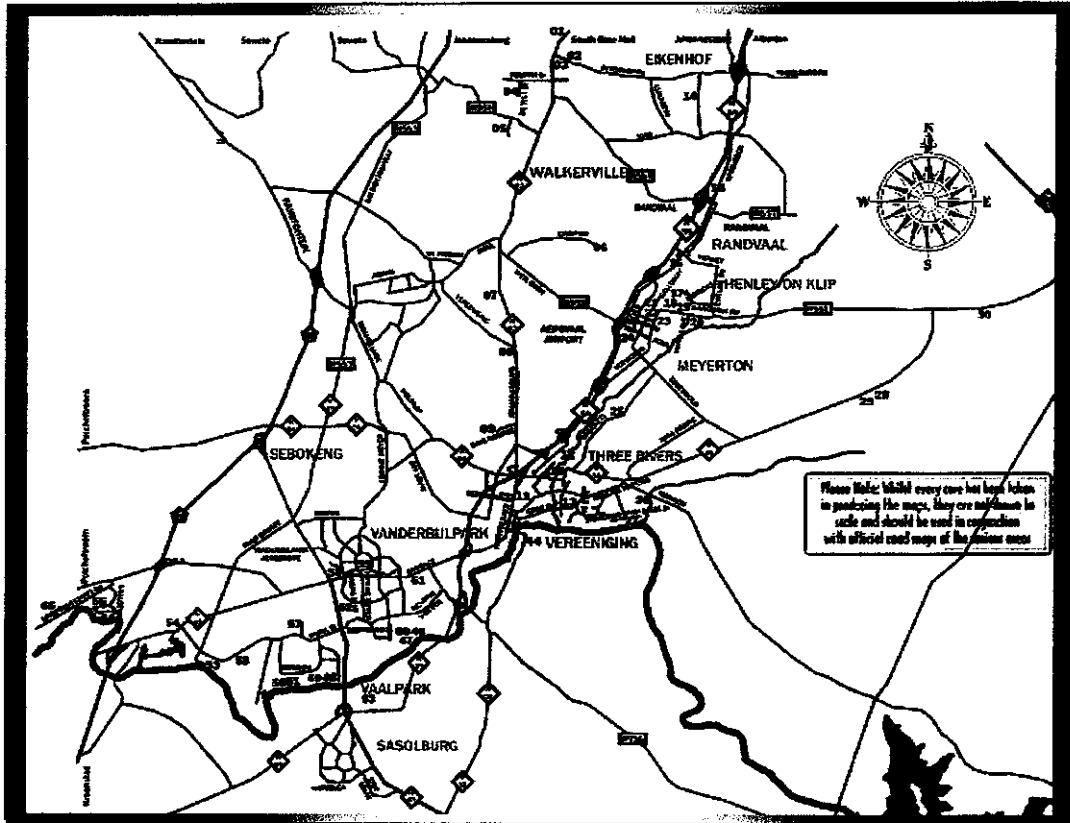
Zimmerer, T.W. & Scarborough, N.W. 2002. Essentials of Entrepreneurship and Small business management. 3rd Edition. New Jersey. Printies Hall.

ANNEXURE A

MAP OF THE VAAL TRIANGLE AREA

ANNEXURE A

Map of the Vaal Triangle area



ANNEXURE B
QUESTIONNAIRE

Dear Sir/Madam

**RESEARCH: MEASUREMENT OF SERVICE QUALITY OF SMALL
BUSINESS IN THE VAAL AREA**

I am currently conducting research for a PhD study. I will appreciate your kind assistance in completing the attached questionnaire, which should not take twenty five minutes of your precious time.

I wish to assure you that all responses will be treated as **highly confidential** and information will be used for statistical purposes only.

Please do not hesitate to contact me on 016-950 9264 (w), 016-985 3679(h) or 083 630 3836(c) should you have any queries.

Should you require to receive a copy of this research finding please indicate your name and your business in the spaces provided on the questionnaire.

I wish that you for your support.

Yours sincerely

Joseph E.M. Sekolanyane

Senior Director Marketing and Development

ANNEXTURE B

SECTION A

Questions used to determine whether the business is a small business.

Please provide the following information:

1. Name of business :.....
2. Address :.....
.....
3. Telephone numbers :.....

Please provide the following:

1. Is the business privately owned?

YES	NO
-----	----
2. Is the business managed by the owner(s)?

YES	NO
-----	----
3. Is part of the capital supplied by the owner(s)?

YES	NO
-----	----
4. If the answer to 3. is yes, what part of the capital is supplied by the owners?

5%	10%	20%	30%	40%	50%	>50%
----	-----	-----	-----	-----	-----	------
5. How many people are employed by the business?.....
6. Indicate the nature of your business...

- a. Hair salon
- b. Medical practitioner
- c. Motor mechanics
- d. Food outlets

SECTION B

The SERVQUAL questionnaire

Directions

This survey deals with your options of _____ service. Please show the extent to which you think firm offering _____ service should possess the feature described by each statement. Do this by picking one of the seven numbers next to each statement. If you strongly agree that these firms should possess a feature, circle the number 7. If you strongly disagree that these firms should possess feature, circle 1. If your feeling is not stronger, circle one of the numbers in the middle. There is no right or wrong answers _____ all we are interested in is a number that best shows your expectations about firms offering _____ service.

E1 They should have up-to-date equipment.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E2 Their physical facilities should be visually appealing

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E3 Their employees should be well dressed and appear neat.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E4 The appearance of the physical facilities of these firms should be in keeping with the type of service provided

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E5 When these promise to do something by certain time, they should do so.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E6 When customers have problems, these firms should be sympathetic and reassuring

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E7 These firms should be dependable

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E8 They should provide their service at the time they provide to do so

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E9 They should keep their records accurately

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E10 They shouldn't be expected to tell customers exactly when service would be perform

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E11 It is not realistic for customers to expect prompt service from employees of these firms

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E12 Their employees don't always have to be willing to help customers

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E13 It is okay they are too busy to respond to customer's request promptly

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E14 Customers should be able to trust employees of these firms

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E15 Customers should be able to feel safe in their transaction with these firms' employees.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E16 Their employees should be polite.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E17 Their employees should get adequate support from these firms to do their jobs

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E18 These employees should not be expected to give customers personal attention

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E19 Employees of these firms cannot be expected to give customers personal attention

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E20 It is unrealistic to expect employees to know what the needs of their customers are

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E21 It is unrealistic to expect this firm to have their customers best at heart

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

E22 They shouldn't be expected to have operating hours convenient to all their customers

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

Directions:

The following set of statement relates to feelings about XYZ. for each statement, please show the extent to which you believe XYZ has the feature describe by the statement. Once again, circling a 7 means that you strongly agree that XYZ has that feature, and circling a 1 means that you strongly disagree. You may circle any of the number in the middle that shows how strong your feeling is. There is no right or wrong answer, all we interested in that is a number that best shown your best perceptions about XYZ.

P1 XYZ has up-to date equipment

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P2 Exis's physical facilities are visually appealing

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P3 XYZ's employees are be well dressed and appear neat.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P4 The appearance of the physical facilities of XYZ is in keeping with the type of service provided

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P5 When XYZ promises to do something by certain time, it does so

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P6 When you have problems, XYZ is sympathetic and reassuring

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P7 XYZ is dependable

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P8 XYZ provide its service at the time it provides to do so

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P9 XYZ keep its records accurately

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P10 XYZ does not tell customers exactly when service will be perform

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P11 You do not prompt service from Axis's employees

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P12 Employees of XYZ are not always willing to help customers

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P13 Employees of XYZ are too busy to respond to customer's request promptly

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P14 You could trust employees of XYZ

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P15 You feel in your transaction with XYZ's employees.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P16 Employees of XYZ are polite.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P17 Employees get adequate support from XYZ to do their jobs well

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P18 XYZ does not give individual attention

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P19 Employees of XYZ do not give you personal attention

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P20 Employees to XYZ do not know what your needs are

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P21 XYZ does not you best of interest at heart

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

P22 XYZ does not have operating hour convenient to all customers

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly Agree

THANK YOU

I require a copy of the findings: Name: _____

Business name: _____

ANNEXURE C

LIST OF BUSINESSES IN THE VAAL AREA

**ACCOMMODATION
ACCOMMODATION BOOKING**

South Gauteng Tourism Info Centre		Cell: 082 893 2371
Vaal Accommodation Centre		Tel: (016) 933-9539

GAME LODGES

Karma Game & Nature Reserve	Box 3034 Vdb Farm is 16km from Ver. Huts, lodge, safaris with picnics, bar, swimming pool, snooker room, sauna, hall for hire, hunting facilities, bird watching, fishing, hiking trails, conference facilities	Tel: (016) 424-3651 Fax: (016) 424-3651
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**GUEST HOUSES
HEIDELBERG**

Suiker Bosrand Guest House		31 Pretorius St Hdlbrg Box 1518 Hdlbrg	Tel: (016) 341-7671
Victorian Lodge		67 HF Verwoerd St Hdlbrg	Tel: (016) 341-4232
Willowbrook B & B		20 Du Preez St Hdlbrg Box 173 Hdlbrg	Tel: (016) 341-7384

MEYERTON & HENLEY-ON-KLIP

Aldershof Guest House	Treat yourself to nature's own little holiday. We offer single/double rooms / Honeymoon Suite in our Thatch Guesthouse. Share this bird's paradise under the oak trees or in a natural rain forest listening to a flowing stream. Huge pool / tennis court facilities. Experience the special aura of the only underground restaurant – "Could be Greek"	5 Boundary Dr Meyerton	Tel: (016) 362-4593 Fax: (016) 451-6630
Ducks Country Lodge	Irma Coetzee Situated in the banks of the Klip River. 3 log cabins with bedroom, full bathroom, veranda. 3 double bedrooms in the	32 Mitchell Dr Henley-on-Klip	Tel: (016) 366-0421 Fax: (016) 366-1336 Cell: 082 413 6184 Cell: 082 335 6100

	manor house. 6 double bedrooms with fireplaces. Tennis, squash court, swimming pool.		
Henley River Lodge		1797 Wargrave St Henley-on-Klip Box 11 Mondeor	Tel: (016) 366-0855
Lavender Lady (self catering cottages)	Mrs. J Van Eck 3 self-catering cottages, on the banks of the river, surrounded by lawn & herbal gardens. Sleeper lounge couch, Breakfast can be arranged. TV & braai area at each unit, restaurants close by. Swimming dam, canoeing, bird watching, fishing	Box 81 Henley-on-Klip Winsor Ave Henley-on-Klip	Tel: (016) 366-0465 Fax: (016) 366-0465
Plaas Kombuis & Gastehuis		C/o Boundary & Donald Rd Meyerton	Tel: (016) 364-1008

VANDERBIJLPARK

Allegro Guest House	Suzanne Le Roux Situating 2km from the University. TV with Mnet, safe parking, solar heated pool, braai facilities. One double room en suite with private entrance in garden.	47 Danie Theron Dr SE 2Vdb	Tel: (016) 932-4162 Fax: (016) 889-2812 Cell: 082 443 3528
Amadeus Guest House	Breggie Human	8 Mozart St Vdb Box 4580 Vdb	Tel: (016) 932-2434 Cell: 082 852 1175
Ansodel Guest House	Annatjie De Lange	28 Chopin St Vdb	Tel: (016) 932-4551
Ardenwold Guest House	Paula	Vaalview	Tel: (016) 987-1205 Fax: (016) 987-1228
Baltimore B+B / Self catering	Maggie Lubbe	F.W. Beyer St (CBD) Vdb	Tel: (016) 981 0873
Bauhinia Guest House	Mrs. Steenkamp	94 Beethoven St SE3 Vdb	Tel: (016) 932-4431
Borezze Guest House	Mandy Potgieter: B+B, Conferencing, Breakfast, Lunches, Dinners, Entrepreneurs Village	100 Piet Retief St SE2 Vdb	Tel: (016) 982 3057 Cell: 082 781 6326 E/MAIL borezze@lantic.net
Christiani Garden Guest House		74 Beethoven St Vdb	Tel & Fax: (016) 932-3601
Emfuleni Lodge	Sue de Klerk Various sized rooms with TV & MNet, laundry, bar, swimming pool, jacuzzi, braai facilities, dinner on request, health & beauty	9 Moerdyk St Vdb	Tel: (016) 932-4661 Fax: (016) 932-4661

	therapist available.		
Emerald Guesthouse	Johan	7 Groendoring Str SE 3 , Vdbp	Tel: (016) 982-2782 Cell: 082 558 9086
Huts & Home Bed & Breakfast	TV+Mnet+DSTV, Secure Parking, Luxury rooms	11 Kameeldoring Street SE3 Vdb	(016) 982 5644 083 700 5852 083 4117667
Idle Winds Guest House	Eve Luxurious suites available, all meals can be arranged, tea garden, bar & lounge area, full conference facilities, Wedding Venue	131 Zuurfontein Vdb Box 14371 Zuurfontein	Tel: 016) 932-4323 Fax: (016) 932-4659
Igoli River Castle	Annemarie Weber Come and relax! This art and culture castle creates a magical mood, the garden filled with greenery, hidden corners and access paths to quiet spots. Enjoy the cosy outside braai area. Other facilities include: conference catering, serene chapel, bridal party hosting. Township art & craft tours. 2 min from River Resort and 3 min from casino	4 Beethoven St Vdb	Tel: (016) 932-4242 Fax: (016) 932-4242
Ingwe Guest Lodge and Conference Centre	Mr Grobelaal Chapel , Conference Room , lapa, & 21 Rooms.	River Road, Vanderbijlpark Box 14109 Zuurfontein	Tel: (016) 987-3811 Fax: (016) 987-3844
Nessie Oppie Loch Guest House		Plt 46 Klplts	Tel: (016) 987-1651
River Palace		Plt 13 Northdene	Tel & Fax :987-1610
Shalom Guest Lodge	Mr. Van Zyl	Plt 11 Slviavle	Tel: 982-2930
Stone Haven on Vaal	Carole/Jenny/Rosemary 45 min from Jhb. Enchanting & beautiful 10 acre garden estate set right on the banks of the Vaal River. Restaurant & garden restaurant, cosy river pub, tea garden, river cruises with on board dining, children's play area, Sunday buffets, functions (extensive selection of various menus), weddings & chapel, corporate motivational days.	Next to Baddrift Bridge Vanderbijlpark Box 6140 Vdb Vaal River Vdb	Tel: (016) 982-2951 Fax: (016) 932-3977 Email: www.vaal.co.za/stonehaven

	Satellite TV, laundry, independent phone lines, room service, library, boating facilities, lounge & dining room, swimming pool		
Trip /Tych Tours & Geusthouses	Mrs.Lisa Haasbroek For fun in the sun Trips, Tours & Treats	2 Bellonna Road P.O.Box 23149 Vanderbijlpark 1900	Tel:&Fax (016)985-1003 Cell:083 299 1642 e-mail :jan elise@absamail.co.za
Tropicana Lodge	Four suites and two family units adjoining the main lodge style hotel.	Plot 139 Mntvrede Box 12353 Vdb	Tel:(016) 932-1466/7 932-5396 Fax: (016) 932-1466
Waterfront Country Lodge	Shane Geyer On the Vaal river, luxurious en-suites, room service, laundry, shuttle service to Jhb airport, Vaal Triangle & Sun City, satellite TV, a la carte restaurant, sports bar, swimming pool, jacuzzi, golf, water sports, river cruises, casino & golf courses close by, full conference facilities, wedding functions, baby sitting service.	Plt 280 Vaalview Box 1823 Vdb	Tel: (016) 987-3434 Fax: (016) 987-3480
Wil-La-Ri Guest House	Adri / Willem 5 Double rooms with en suite bathrooms and own entrances, Fridge, dstv coffee included, braai facilities, safe parking	36 Stephano park Barrage Rd (R42) Box 1729 Vdb	Cell: 082 873 5190 Cell: 082 968 5958

VEREENIGING

Avon Lodge	Mrs Vicki Steyn There is a choice of meals to be eaten on your own patio, garden or dinning room. Swimming pool and towels are available. Tv in every room, telephone available. Laundry will be done on request. Beverages are available until 10pm in the dinning room or your own room. Lodge is situated within 5km to Riversquare and 10km to the Riverfront.	2 Avon Dr 3Rivers P O Box 264466 3Rivers	Tel: (016) 423-3967 Cell: 083 285 8620
Brandmuller's Garden Pavilion	Self-catering or bed & breakfast cottages. Horse	5 Dave Nourse St Untsprk	Tel: (016) 590 1182 Cell: 082 953 0101

	trails, bush camp, walks and picnic. Nursery		
Garden Corner Guest House		13 Ivy Ave Arcnprk	Tel: (016) 428-4763 Cell: 082 937 8684
Golf Road Lodge		25 Golf Rd 3Rivers	Tel: (016)454 8512
Gundagai Guest House		7 Jimmy Sinclair St Untsprk Box 1609 Ver	Tel: (016) 428-3629 Fax: (016) 421-1382
Hadeda Guest House	Ina van Schalkwyk Separate flat with bedroom, bathroom, kitchen, lounge. Own front entrance, back entrance onto swimming pool, braai facilities. Breakfast and dinner can be arranged, as well as laundry. Small pets welcome.	9 Hadeda St 3Rivers Box 24280 3Rivers East	Tel: 082 426 9285
Inge's Guest House	Ingrid Strydom 45 min from Jhb on the Sugarbusch River. Spacious rooms with own bathrooms, breakfast included, TV, fax, swimming pool, tennis court	33 Fish Eagle St 3Rivers Box 263535 3Rivers	Tel: (016) 454-9022 Fax: (016) 454-9022 Cell: 083 450 2452
Sidiba Lodge		P.O. Box 263245 3 Rivers 1935	Tel: (016) 423-5562 Fax: (016) 423-6504
Three Rivers Lodge & Conference Centre	2 Bridal suites, 16 en-suite bedrooms, each room has telephone, M-Net & DSTV	52 Golf Rd 3Rivers	Tel: (016) 423-6046 Fax: (016) 423-6048
Weaver's Nest Guest House	Rudi On the banks of the Sugarbusch River, five star accommodation, pub, conference facilities, a la carte menu, swimming pool, tennis, trampoline, braai facilities, river activities, French beauty salon	21 Weaver St 3Rivers Box 264465 3Rivers	Tel: (016) 423-5182 Fax: (016) 423-1211
Willows Waters		Plot 15 Uitvlgt	

HOTELS / INNS

MEYERTON & HENLEY-ON-KLIP

Meyerton Hotel	1 Loch St Meyerton Box 217 Meyerton	Tel: 362-0110 Fax: 362-0923
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VANDERBIJLPARK

Killaney Hotel Mike	15 Siemens St Vdb Box 2310 Vdb	Tel: 933-4021 Fax: 933-4021
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Lochvaal Hotel	Barrage Road	Tel: 987-2006
Mashigo Motel	1423 Easton Road Evaton	Tel: 593.3488
Palm Court Hotel	Jean Str Vdbp	Tel: 981-1073 Fax:981-1074
Riverside Hotel & Conference Centre	Karel Wilson Dr Vdb Box 740 Vdb	Tel: 932-1111 Fax: 932-1348
Shakespeare Inn Mr.Greeff	C/o Faraday & Shakespeare St Vdb	Tel: 933-4821

VEREENIGING

Cassanova Inn	84 Magnolia St RTV		Tel: 556-1211
Central Hotel	21 Beaconsfield Ave Ver		Tel: 455-3182
Formula 1 Hotel	Voortrekker St Ver	R190.00	Tel: 422-0704 Fax: 422-0705
Maccauvlei Hotel	Maccauvlei Vereeniging	Single B&B:R380:00 Double:B&B:R584	Tel: 420 2271 Fax: 421-3776
Riviera on the vaal	Vereeniging		Tel: 422-2861

ACCOUNTANTS

Charma acc.services	Box 23175 Bedworthpark	Tel :985-2467
DE BRUIN, PH	Ladegraard House Eric Louw St Vdb	Tel: 981-0498
ESTERHUYSEN, N	23 Hendrik van Eck Blvd Vdb	Tel: 932-3817
Fraser & Co	142 River Rd Mntvrde Box 7 Vdb	Tel: 932-1107 Fax: 932-5454
Genuis Accounting & Tax Services	203 Pasteur Blvd Vdb	Tel: 933-2224 Fax: 933-1702
PVE	Rietbok bldg Genl Hertzog St Vdb Box 1505 Vdb	Tel: 981-1036 Fax: 933-2912
Steyn Smith & Fourie	Rietbok bldg Genl Hertzog St Vdb	Tel: 931-1573
Vaal Bookkeeping Services		Cell: 082 574 1454

ADVERTISING

Erocommunication		Tel: 982-4475 Fax: 982-4475 Email: erc@lantic.co.za
Mr. Info Vaal Triangle	SAP bldg Bella Donna Dr Vdb Box 5919 Vdb	Tel: 933-6666
Vaal Ster & Vaalweekblad Snuffelgids	Box 351 Vdb	Tel: 950-7000 Fax: 981-0604
Wilde fax vert	F W Beyers Str	Tel:931-3198

AGENCIES

Mentz Agentskappe	11 Beauchamp Proctor St Vdb	Tel: 933-5032 Fax: 933-5011
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Park Collection Agencies	Rembrandt bldg Vdb	Tel: 932-4229
TAB Agency	16747 Zone 7 Sbkng	Tel: 593-4923
Wilsan Agencies	Special Eye bldg Van Rijhn Square Vdb Box 703 Vdb	Tel: 931-1795 Fax: 931-1607

AGENTS

APPLIANCE AGENTS

Electrolux Agents	President bldg Van Rijn Square Vdb Box 3285 Vdb	Tel: 933-9644
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MOTORBIKE AGENTS

Honda Agents	Triangle Kawasaki Suzuki & Honda 16 FW Beyers St Vdb	Tel: 981-7232 Fax: 981-2962
Suzuki Agents	Triangle Kawasaki Suzuki & Honda 16 FW Beyers St Vdb Box 1622 Vdb	Tel: 981-7232 Fax: 981-2962
Yamaha Agents	Ossie's Bike & Car 145 JW Mushet St Vdb Box 2845 Vdb	Tel: 933-7607 Fax: 981-7156

AIRCONDITIONING SERVICES

Elma Airconditioning & Refrigeration	9 Edison Blvd Vdb Box 2017 Vdb	Tel: 933-5747 Fax: 933-0387
Cool Sound	Livingstone Bd	Tel: 933-0722 Fax: 933-5915
IDC Management Agency	Overvaal bldg Frikkie Meyer Blvd Vdb Box 1312 Vdb	Tel: 982-4205 Fax: 982-4206 Cell: 083 292 2630
Indoor Air Quality Specialists	Dart Investment bldg Edison Blvd Vdb	Tel: 933-3773 Fax: 933-3773
Jeantons Refrigeration & Airconditioners	Nevada bldg Rabie St Vdb Box 6245 Vdb	Tel: 933-6692
MMA Airconditioning & Refrigeration	12 Chrome St Vdb Box 561 Vdb	Tel: 931-2914
Martonair	9 Rabie St Vdb Box 3467 Vdb	Tel: 981-0135
Metraclark	13 Rabie St Vdb	Tel: 931-1600 Fax: 931-1664
Refritech	127 Chrome St Vdb	Tel: 933-2562
S & Sons	Leland St Vdb Box 1320 Vdb	Tel: 986-1461 Fax: 986-1461

AIRPORT RELATED

Lekoa Vaal Airports Co	Overvaal bldg Frikkie Meyer Blvd Vdb Box 6023 Vdb	Tel: 982-4291 Fax: 985-4296
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ALUMINIUM & CHROME

Chrome Craft	BMW bldg Vdb	Tel: 981-5629
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JJ's Glass & Accessories	2 Edison Blvd Vdb Box 2323 Vdb	Tel: 933-2828 Fax: 981-3314 Cell: 083 629 7082
Julies Glass	5 Vondel St Vdb Box 2138 Vdb	Tel: 933-7563

ANIMAL CLINICS

Driehoek Dierehospitaal	142 Piet Retief Blvd Vdb	Tel: 932-2258
SPCA	Box 888 Vdb	Tel: 987-1800
Triangle Animal Hospital	142 Piet Retief Blvd Vdb	Tel: 932-2258
Vaal Animal Clinic	52 Carter St Vdb	Tel: 982-1401
Vanderbijl Veteriere Kliniek	77 Faraday Blvd Vdb Box 535 Vdb	Tel: 931-2870

APPLIANCES

AMC Cookware		Tel: 423-3940 Cell: 082 673 7378
Coetzee Microwave Centre	3 Milton St Vdb	Tel: 981-8548
Electro Appliances	President bldg Van Rijn Square Vdb Box 3285 Vdb	Tel: 933-9644
Giddy's Electric Express	Bontbok bldg CR Swart Centre Vdb	Tel: 933-3406 Fax: 933-3410
Jeanton Appliances	Del Rio bldg Becquerel St Vdb	Tel: 981-6027
Kings Vision	Del Rio bldg Becquerel St Vdb Box 6053 Vdb 19 Pres Hoffman St Vdb	Tel: 931-3415 Fax: 981-0781 Tel: 982-2154
Park Appliances	20 Ericsson St Vdb	Tel: 933-5030
Phillips Consumer Products Services	Ekspa bldg DF Malan St Vdb Box 642 Vdb	Tel: 931-1740
Verimark	Vaalgate Centre Vdb	Tel: 981-8904
WAP SA	36 JW Mushet St Vdb Box 879 Vdb	Tel: 981-3064 Fax: 931-2795

APPLIANCES – REPAIRS

Early Bird Services	Luxembourg bldg Voortrekker St. Ver Cosmo Centre Vdb	Tel: 421-4087 Tel: 933-9660
Electro Appliances	President bldg Van Rijn Square Vdb Box 3285 Vdb	Tel: 933-9644
Jeanton Appliances	Del Rio bldg Becquerel St Vdb	Tel: 981-6027
Kings Vision	Del Rio bldg Becquerel St Vdb Box 6053 Vdb 19 Pres Hoffman St Vdb	Tel: 931-3415 Fax: 981-0781 Tel: 982-2154
Mastercare	5 Bushbuck Crt S Le Roux Square Vdb Box 4356 Vdb	Tel: 981-1021 Fax: 931-3297
Pride Video & TV Repairs	Springbok bldg Genl Hertzog St Vdb	Tel: 931-1916
Thomas Televisie	Van Rijn bldg FW Beyers St Vdb Box 1332 Vdb	Tel: 933-0214 Fax: 933-5592

WAP SA	36 JW Mushet St Vdb Box 879 Vdb	Tel: 981-3064 Fax: 931-2795
W & J Appliance City	Concorde bldg Attie Fourie St Vdb	Tel: 931-1911

ARCHITECTS

APMI Argitekto	Vesco bldg FW Beyers St Vdb	Tel: 933-9695
Ben Peels Architect	100 L Wepener St Vdb	Tel: 933-7566
Bonang Bophelo Development	Procrust bld Box 1259 Bpt	Tel:981-8701
Botha Venootskap	1 Proliba bldg Vdb Box 10 Vdb	Tel: 933-9642
FTS	9 Sparman St Vdb Box 13295 Elspark	Tel: 931-1722

ARTS & CRAFTS SHOPS

Canvas Clinic	7 Nikkel St Vdb	Tel: 981-7946 Fax: 981-7947
Lindie Loe	DF Malan St Vanderbijlpark	Tel: 981 8249
Old Millstream Arts & Crafts Shoppe	Plt 8 Lasndra	Tel: 932-3228
Rock Art	Roval bldg S Waterson St Vdb	Tel: 933-2902
Vaal River Meander	Pieter Nagel Petra Stuart	Tel: 987-1806 Tel: 987-2423
Vaal Unique Art Institute	124 Sebenzile St Rsdnsia	Tel: 593-5805

ASSESSORS

Pre-Bosch Assessors	23 NJ van der Merwe St Vdb	Tel: 981-8615
Universal Assessors	Plt 124 Sphnoprk	Tel: 988-4051

ATTORNEYS & LAWYERS

ACKERMAN, J	Box 3785 Vdb	Tel: 933-2743 Cell: 082 565 0354
Bekker & Viktor Attorneys	Rietbok bldg S Le Roux Square Vdb	Tel: 933-4305
Christo Uys Attorneys	21 Carte Street Vanderbijlpark	Tel: 932-1725
Combrink & Associates		Tel: 933-6060
Danie (DP) Du Plessis Attorneys	Medquin bldg Pasteur Blvd Vdb Box 2150 Vdb	Tel: 931-1500 Fax: 931-1586
De Klerk Vermaak & Partners	Omega bldg FW Beyers St Vdb Box 875 Vdb	Tel: 931-1707 Fax: 981-7403
DE WET, C	Omega bldg FW Beyers St Vdb 22 Delius St Vdb	Tel: 931-1707 Tel: 932-4272
DU PLESSIS, AW	16e Hertz Blvd Vdb Pbag X012 Vdb	Tel: 981-0167 Fax: 933-0279
DU PLESSIS, DH	16e Hertz Blvd Vdb Pbag X012 Vdb	Tel: 981-0167 Fax: 933-0279
DU PLESSIS, PJ	16e Hertz Blvd Vdb Pbag X012 Vdb	Tel: 981-0167 Fax: 933-0279
Du Plessis Pieterse & Associates	16e Hertz Blvd Vdb Pbag X012 Vdb	Tel: 981-0167 Fax: 933-0279
Duren Attorneys	16e Hertz Blvd Vdb Pbag X012 Vdb	Tel: 981-0167 Fax: 933-0279

Fantisis	BW bldg Van Rijn Square Vdb	Tel: 981-6634
Greyling & Vermooten	6 Consolidated bldg Vdb	Tel: 981-4024
Gys Louw & Vennote	CommrcUn bldg Hertz Blvd Vdb	Tel: 931-1755 Fax: 981-7788
JANZEN VAN RENSBURG, HJ		Cell: 082 857 0448
Kobeli & Morabe	President Kruger Str	Tel: 933-2469
Legal Wise	Procust Building	Tel: 931-3391
Meise Malan & Hoffman	Ericsson Str	Tel: 933-2220
Mmoleli & Associates	1 st Floor, Proctrust Bld,	Tel: 931-3391
Pienaar Swart & Nkaiseng	Ekspa bldg Attie Fourie St Vdb Pb X041 Vdb	Tel: 981-4651 Fax: 981-9805
PIETERSE, JM	16e Hertz Blvd Vdb 2 Wessels St Vdb	Tel: 981-0167 Tel: 932-3252 (h)
Pooe & Associates	Roal bldg S Waterson St Vdb Box 1703 Vdb	Tel: 981-8614
PRETORIUS, WP	Omega bldg FW Beyers St Vdb	Tel: 931-1707
Rasegoete M.M.:Att	54 President Kruger	Tel: 933-8812
Raubenheimer Theron & Ferreira	United bldg Vdb	Tel: 931-2883
Rooth & Wessels	Rooth & Wessels bldg Attie Fourie St Vdb Box 21 Vdb	Tel: 933-0081 Fax: 981-0704
ROPER, GA	Omega bldg FW Beyers St Vdb	Tel: 931-1707
Snyman & Vennote	FW Beyers St Box 375 Vdb	Tel: 931 1637
Steyn Lyell & Marais	Goodwill bldg Frikkie Meyer St Vdb Near Johan Heyns Hospital	Tel: 981-8090 Fax: 981-8092
SWART, LP	Ekspa bldg Attie Fourie St Vdb	Tel: 981-4651
Van Wyk & Ferreira Prokureurs	Van Wyk bldg 30 J W Mushet St Vdb	Tel: 931-1470
Van Wyk Nel & Kruger	3 Hertz Boulevard CW 1 Vdb	Tel: 931 2380 Fax: 981-7701

AUCTIONEERS

Alpha Afslaers & Motors	Plt 120 Zrftn Box 1913 Vdb	Tel: 986-2175 Fax: 986-1443
Central Auction Mart	Westcliff House Vdb	Tel: 933-2572
Direct Estate Agents & Auctioneers	112 Alfa bldg Vdb	Tel: 981-9234
Hersa Afslaers & Slagpale	Plt 59 Rtsprt Box 1257 Vdb	Tel: 987-1159 A/h: 987-3842

AUDITORS

FP Van Niekerk Ouditeure	Rushmore bldg Chrome St Vdb	Tel: 933-5092 Fax: 933-7277
Fraser & Co	142 River Rd Mntvrde Box 7 Vdb	Tel: 932-1107 Fax: 932-5454
P v e Auditors	Hertzog bd	Tel: 981-1036

AUTO ELECTRICIANS

AR Auto Electrical & Motor Spares	30 Edison Blvd Vdb Box 4374 Vdb	Tel: 981-5730 Fax: 933-8734
BSA Auto Electric	17 Edison Blvd Vdb	Tel: 981-7808

DB Auto Electric & Field Services	Burns St Vdb	Tel: 933-0756
DE Auto Electrical Services	4a Cartwright St Vdb	Tel: 933-5171 Fax: 933-4240
Dan's Quality Auto Body	McColm Blvd Vdb	Tel: 986-0791 Cell: 082 931 2944
EJ Electrical Services	20 Mentz St Vdb	Tel: 932-2386
Harry's Auto Electric	8 Chrome St Vdb Box 4543 Ver	Tel: 933-7139 Fax: 933-5673 Cell: 083 635 7733
Repco Auto Repairs	9 Leland St Vdb	Tel: 986-2410 Cell: 082 968 2715
Tony's Auto Services	6 Edison Blvd Vdb	Tel: 981-3649 Cell: 082 967 2072
Vaal Electric Motor Centre	5 Rabie St Vdb	Tel: 933-4700 Fax: 981-0622 Cell: 082 652 9500



BAKERIES & CONFECTIONERS

Bread On Wheels	30 Lombard Str Vdbp	Tel: 982-3596
Butterfield Bakery	Vaalgate Sebokeng Plaza	Tel: 981-1628 Tel: 592-4464 & Fax: 592-4495
Civic Confectioners & Bakers	Civic Centre Vdb	Tel: 933-5323
Food Zone	Market bldg Jeans St Vdb	Tel: 933-1113
Hot Bake Systems	Sanlam Centre Attie Fourie St Vdb	Tel: 981-3316 Fax: 981-3316
Joe's Confectionery	Col Gordon St Vdb	Tel: 933-7474
M & T Bakery (Monday Tuesday)	12 Molliër St Vdb	Tel: 931-1704 Cell: 082 577 7254
Thusanangs Bakery & Confection	Stand 3344/5 Stretford Box 3554 Cresta	Tel: 581-2162 Cell: 082 374 8840
Vaal Portuguese Bakery & Supermarket	Market bldg Vdb	Tel: 933-7966
Willie's Confectionery	7 Vondel St Vdb Box 14135 Zrfin	Tel: 933-4350

BEAUTY SALONS

Daleen's Health & Beauty Clinic	37 Carter St Vdb Box 2574 Vdb	Tel: 932-4771 Fax: 932-4771
Dream Nails	Vaalgate Centre Vdb Box 3723 Vdb	Tel: 933-0505
Excel Beauty Skin Care Clinic	Van Rijn Square Vdb Box 3926 Vdb	Tel: 981-7331
Faces Today	9 Moerdyk St Vdb	Tel: 932-2806

Fashion and Beauty Incorporation	Ekspa bldg DF Malan St Vdb	Tel: 981-1027 Fax: 981-1024
Hatari's Gesondheidsentrum	7 Shakespeare St Vdb	Tel: 933-0304
Heads Together	3 Van Rijn Square Vdb Box 6534 Vdb	Tel: 931-2178
Hennie's Pharmacy & Beauty Salon	Standard Bank bldg Van Rijn St Vdb Box 1018 Vdb	Tel: 933-8097 A/h: 932-1681
Hilda's Nail & Beauty Clinic	206 Frikkie Meyer Blvd Vdb	Tel: 931-2667 Fax: 931-9510
Madame & Monsieur	Top Level Centre Fitzsimon St Vdb	Tel: 982-1175
Salon Leanne	17 Faraday blvd Vdb	Tel: 931-2002 Cell: 082 630 1184
Sensuous Nails	D F Malan Str	Tel: 933-9395
Unique Hair & Nail Boutique	Overvaal bldg Frikkie Meyer Blvd Vdb	Tel: 932-3187

BICYCLES

Excelsior Fietswinkel & Grassnyer Kliniek	JW Mushet St Vdb	Tel: 933-3137 Fax: 981-0808
Metro Cycle Works	22 Shakespeare St Vdb	Tel: 933-3187 Cell: 082 643 6362
SW5 Bicycles & Hardware	Saamtrek bldg Carter St Vdb	Tel: 932-2398

BOOKSHOPS

CAN	Sanlam Centre DF Malan St Vdb	Tel: 933-4092
Carpe Diem Boeke Religieus	123 Hendrik van Eck Blvd Vdb Box 5801 Vdb	Tel: 982-3617 Fax: 982-3618 Cell: 083 271 3645
Global Bookz	Vaalgate Centre Vdb	Cell: 082 766 0390
Lux Verbi	Vaalgate Centre Vdb	Tel: 933-2300 Fax: 933-8843
Nasboek	Vaal River Campus Vdb	Tel: 910-3111
The Bookshope	Olympia Cntr Pick & Pay Centre	Tel: 933-6275 Tel: 985-3641 Fax: 985-3642
Vaal Driehoek Bookshop	Pick & Pay Centre	Tel: 985-3641
Van Schaik Bookstore	Technicon Andries Potgieter Blvd Vdb	Tel: 985-1209 Fax: 985-1210
Varia	Sanlam Centre Hans Strydom St Vdb	Tel: 933-3603

BUILDING CONTRACTORS / BUILDERS

Atecs Contractors	Rabie Str	Tel: 981-6977
Benoni Builders Supplies Vaal	2 Faber St Vdb Box 14686 Zrftn	Tel: 986-2085 Fax: 986-1320
C W Contractors	454 Playfair Bd	Tel: 931-3488
De Necker Building	Plot 116 Stephanopark	Tel: 987-3646
Duprojekte Boukontrakteurs	11 Bauhinia Ave Bedwrtprk Box 439 Vdb	Tel: 932-4264

Encore Projects cc	3 Macowen Str	Tel: 932-4840
Expert Huisverbeteringe	Box 3036 Vdb	Tel: 981-6226
FTS	9 Sparrman St Vdb Box 13295 Elspark	Tel: 931-1722
Handy Home Repairs	3 Rautenbach St Vdb Box 14493 Zrftn	Tel: 933-1295 Cell: 082 893 0414
Klipkor Building Materials	Golden Highway Zrftn Box 3368 Vdb	Tel: 986-1441 Fax: 986-1908
Lads Building & Plumbing Consultants	Loch Vaal Box 3009 Vdb	Tel: 987-3202 Fax: 987-2122
Lahesa Developmetnt	8 Rabie Str	Tel: 981-0408
Lima Towers & Conctruction	5 Chrome Str	Tel: 931-2053
Mahlasela Building Construction	18235 Zone 14 Sbkng	Tel: 592-2874
McLachlan Du Plooy Ing	Box 518 Vdb	Tel: 889-3779
P C Van Rensburg & Sons	222 Louis Trichardt	Tel: 932-4668
Rainbow Conctruction	A/Potgieter	Tel: 982-1264
Sim Builders	Plt 85 SthphoPrk Box 3351 Vdb	Tel: 987-3714 Fax: 933-2835
Solid Builders	Rietbok bldg Vdb	Tel: 981-9264
WA Builders	23 Lub St Vdb	Tel: 932-1491

BURGLAR ALARMS

Bataleur Alarms	G/Froneman Str	Tel: 933-5912 & Fax
Dak Security Services	70 Stokkiedraai	Tel: 982-2900
Delta Alarms	3 Carter Str	Tel: 932-5591
Master Guard Alarms	27 P/kruger Str	Tel: 931-9113

BUSSES / TRANSPORT FOR HIRE

Dhlamini Bus Service	23178 Zone 13 Sbkng	Tel: 592-3517
Dlamini Bus Service	61585 Zone 17 Sbkng	Tel: 592-3103
Eldo's School Transport Co-Ordinators	Stand 1676 Palm Springs	Tel: 581-0327
Ipeleng Transport	Stand 535 Mafatsana	Tel: 596-1121
Kruger Bus Service	3 Faber St Vdb Box 187 Vdb	Tel: 986-1308 Fax: 986-1412
Malundi Intercity		Cell: 082 459 3503
Vaal Triangle Bus Services	19351 Zone 14 Sbkng	Tel: 592-9205

BUTCHERIES & ABATTOIR

Alex Meats	Vdb	Cell: 082 800 3705
Bantu Butchery	1155 Matthew St Bphng	Tel: 986-0086
Bosveld Slaghuis	Kitkin Hse Eric Louw St Vdb	Tel: 933-7363
Botsane & Sons	1074 Zone 10 Sbkng	Tel: 592-2543
Butcher Boys	Carter St Vdb	Cell: 932-3898
Classic Butchery	7296 Zone Sbkng	Tel: 594-1488
Delfos Meat Market	6 Delfos Blvd Vdb	Tel: 986-0666 Fax: 986-0910
Everest Vleismark	Everest St Vdb	Tel: 933-5333
Economic Butchery	Faraday Blvd Vdb	Tel: 933-2594
El Torro Butchery	Barrage Rd Zrftn	Tel: 981-6903
Enyoni Butchery	23244 Zone 13 Sbkng	Tel: 594-7644

Everest Vleismark	Everest bldg Everest St Vdb	Tel: 933-5333
Excelsior Slaghuis	37 JW Mushet St Vdb	Tel: 933-3011
Golden Meat Market	144 Hans Strydom St Vdb	Tel: 933-6738
Golden Rise Butchery	1 Currie Centre Vdb Box 14908 Zrftn	Tel: 986-1014
Hersa Afslaers & Slagpale	Plt 59 Rtsprt Box 1257 Vdb	Tel: 987-1159 A/h: 987-3842
Hersa Slaghuis	Steelville bldg Heavyside St Vdb Peristone House Helena Lochner St Vdb	Tel: 981-8409 Tel: 933-1739
Jabulani Meat Market	The Mall Vdb	Tel: 981-0442
Jobe Meat Centre	1738 Zone 10 Sbkng Box 237 Mashoeng	Tel: 594-0245
Kammaland Plaas Slaghuis	Plt 36 Kmmlnd	Tel: 592-1760
Kammaland Slaghuis	Plt 35 Kmmlnd	Tel: 592-1740
Keur Butchery	Saamtrek bldg Schumann St Vdb	Tel: 989-7007
La oma Butchery	Ascot Str	Tel: 985-2226
Louisrus Slaghuis	Plt 83 Lsrs	Tel: 989-1465
MM Butchery	12855 Zone 11 Sbkng	Tel: 594-2686
Msibi's Butchery	502 Zone 14 Sbkng	Tel: 592-4006
Mtambo's Butchery	Thjaba Tsatsi Centre Noble Blvd Vdb	Tel: 988-1568
New Nhlapo Butchery	2a DF Malan St Vdb Box 10 Sbkng P/Kruger	Tel: 981-4189 Fax: 931-9042 Tel: 933-5995
New Kiris Butchery	151 Petter Str	Tel: 981-9621
Park Slaghuis	20 Shakespeare St Vdb	Tel: 933-3928 Cell: 083 263 1724
Parkview Slaghuis	439 Frikkie Meyer Blvd Vdb	Tel: 931-1420
Prime Hyper Meat	Sbkng Plaza	Tel: 592-1598
Pro-Meat Slaghuis	1 Napier St Vdb	Tel: 933-1625
Protea Vleismark	Santrust bldg FW Beyers St Vdb	Tel: 933-2686
Rainbow Butchery	18 Fairbank Str	Tel: 986-1745
SW5 Slaghuis & Melk Depot	Avando bldg Carter St Vdb	Tel: 982-2895 Cell: 082 456 4808
Sentrale Vleismark	18 Ericson St Vdb	Tel: 933-2298
Shakespeare Slaghuis	Geshe bldg Vdb	Tel: 981-8700
Star Butchery	Box 13 Sbkng	Tel: 593-1832
Tabeng Butchery	574 Zone 12 Sbkng	Tel: 594-4444
Thabeng Butchery	574 Zone 12 Sbkng	Tel: 596-4706
Tony's Meat Market	Park Square Eric Louw St Vdb	Tel: 931-9876
Triptiek Slaghuis	Geshe bldg Shakespeare St Vdb	Tel: 933-0494
Vaal Industrial Slaghuis	2 Fairbank St Vdb	Tel: 986-1065
Vaal Slaghuis	Christiaan De Wet St Vdb	Tel: 933-2737 Fax: 933-4888
Vanderbijlpark Super Meat Centre	Becquerel St Vdb	Tel: 981-8252
Vleiskor Butchery	28 Robert Broom St Vdb Box 2213 Vdb	Tel: 933-1481 Fax: 931-3507
Vleismark	Macowen St Vdb	Tel: 932-3898
Vleissentraal Koop	Currie Blvd Vdb	Tel: 986-2491
Zulu Slaghuis	Sbkng	Tel: 592-1015

CAFES & TAKE AWAYS

Aero Café	Libra Crt Vdb	Tel: 933-1932
Alamays Café & Take Aways	Parkville bldg Pulpin St Vdb	Tel: 933-7090
Alex Road House	Barrage Rd Zrftn	Tel: 933-1824 Fax: 981-8982
Barbeque Palace	The Mall Paul Sauer Sq Vdb	Tel: 933-0242
Bon Appetit	17 Pres Kruger St Vdb	Tel: 933-3204
Café-Late	Steelpark Centre Pres Kruger St Vdb	Tel: 933-5746
Café Portugal	Jean St Vdb	Tel: 933-4289
Campanella Pizzeria	Ekspa bldg DF Malan St Vdb	Tel: 933-2769
Caribbean Take Away	Eric Louw St Vdb	Tel: 981-3272
Cherokee Cave Roadhouse & Restaurant	Genl Hertzog St Vdb	Tel: 933-9865 Fax: 933-9863
Chip n' Dip	Vaalgate Centre	Tel: 933-0176
Choice Pies	A/Fourie	Tel: 981-4310
College Café & Fast Foods	College Crt 2 Van Riebeeck Blvd Vdb	Tel: 933-4705
Cosmo Corner	F W Beyers Str	Tel: 933-6507
Faraday Café	Faraday bldg 1 Faraday St Vdb	Tel: 933-0333
Food Fox Roadhouse & Take Aways	Michelin St Vdb	Tel: 986-0415
Food Point	Park Square Vdb	Tel: 981-9804
Foodies Convenience	Overvaal bldg Wieland St Vdb 3 Frikkie Meyer Blvd Vdb	Tel: 982-4409 Fax: 982-1467 Tel: 933-2299
George's Café	Peristone House Helena Lochner St Vdb	Tel: 933-4823
Global Standard Internet Café	Vaalgate Vdb	Tel: 931-9357
Grab-a-Bite	Old Mutual bldg pres Kruger St Vdb	Tel: 933-7769
International Café	Carel De Wet St Vdb	Tel: 933-7464
Internet Café	Pick 'n Pay Bedwrtprk	Tel: 985-2782
Itumeleng Fish & Chips	Box 200 Sbkng	Tel: 593-1636
Jabula Kitchen	Willigh Str	Tel: 986-0999
Kentucky Fried Chicken	Vaal Gate Centre Vdb 21057 Zone 14 Sbkng	Tel: 933-1790 Tel: 592-4016
Ketzbye Fish & Chips	58 Zone 10/1 Sbkng	Tel: 592-1016
King Pie	Jan van Riebeeck St Vdb	Tel: 981-9068 Fax: 933-6845
Leser Rock	27 Frikkie Meyer Bd	Tel: 981-3330
Lindie Loe	DF Malan St Vanderbijlpark	Tel: 981 8249
Little Caesar's Pizza	C/o Frikkie Botha & Van Riebeeck Blvd Vdb	Tel: 981-2866
MM Fish & Chips	21079 Zone 14 Sbkng	Tel: 592-2603

Ma Maggie Café	36 Fairbank St Vdb	Tel: 986-0249
Mashego Café	5 Zone 11 Sbkng	Tel: 594-1532
McDonalds	16c Hertz Blvd Vdb	Tel: 933-2008 Fax: 933-2009
Middendorffs Coffee Shop	Vaalgate Centre Vdb	Tel: 982-5999
Mighty Pies	Vaalgate Centre Vdb	Tel: 933-7045
Milky Lane	Sanlam Centre Vdb	Tel: 982-8133
Milky Palace	P'nP Bedwrtprk	Tel: 985-1583
Milky Paradise	Vaalgate Centre Vdb	Tel: 933-9937
Mimi's Biltong & Take Away	Vaalgate Centre Vdb	Cell: 083 540 9562
Mini Take Away Café	27 IndPrk Sbkng	Tel: 593-2334
Mokete Fish & Chips	1074 Zone 10 Sbkng	Tel: 592-2405
Motaung Fish & Chips	Stand 67/2 Sbkng	Tel: 593-1168
Mr Fishy Fast Foods	Santrust bldg FW Beyers St Vdb	Tel: 933-8011
Munchy Foods	Corco bldg Eric Louw St Vdb	Tel: 933-6517
NK Tasty Chicken Centre	IndustPrk Residencia	Tel: 593-4420
Nando's Chicken	Frikkie Meyer Bd	Tel: 933-3060 Fax: 933-4117
Napolitana Pizza & Fast Food	Saamtrek bldg Carter St Vdb	Tel: 982-2441
New Kiris Take Aways	Petter St Vdb	Tel: 981-8113
Ocean Fish & Chips	74 Fairbank St Vdb	Tel: 986-0493
Oreco Superette & Café	5 Gie St Vdb	Tel: 933-2185
Panarottis Pizza Pasta Restaurant	Genl Hertzog St Vdb	Tel: 981-0158
Panda Take Aways	Rietbok bldg Vdb	Tel: 931-9549
Pegasus Café Bar	Vaal Gate Centre Vdb	Tel: 981-5550
Pie City	D F Malan	Tel: 981-6750
Pizza Den	Arcnprk Checkers Centre Vdb	Tel: 981-1591
Pizza Perfect	16b Hertz Blvd Vdb	Tel: 931-9777
Portugalito Flame Grilled Chicken	The Mall DF Malan St Vdb	Tel: 981-9173
Protea Fish & Chips	47 Carter St Vdb	Tel: 932-3523
Queen Pies	Executive bldg FW Beyers St Vdb Box 3417 Vdb	Tel: 933-3457
Reja Ha Monate	VIP bldg CR Swart St Vdb Box 1028 Vdb	Tel: 933-2531
Something Fishy	168 Hertz Blvd Vdb	Tel: 933-2155
Steers	Vaalgate Centre Vdb	Tel: 933-5661
TJ's Fast Foods	1 Ramsay St Vdb	Tel: 981-0334
Tasty Turbo Take-Aways & Café	Langenhoven St Vdb	Tel: 933-0302
Three Star Café	Frikkie Meyer Blvd Vdb	Tel: 933-2138
United Café	Sharpville	Tel: 985-5230
Tony's Take Aways	Hans Strydom St Vdb	Tel: 981-0504
Vaal Fish & Chips	Saamtrek bldg Vdb	Tel: 982-3200
Vasco Da Gama Fish & Chips	Imperium bldg Vdb	Tel: 933-1958
Vetkoek Den	Buscbuck bldg Attie Fourie St Vdb	Tel: 981-8223
Wimpy	12 Pres Kruger St Vdb Pick 'n Pay Bedwrtprk Emerald Casino Shoprite Chekers	Tel: 933-3906 Tel: 985-1240 Tel: 982-8338 Tel: 933-7770

Ye Old Sandwich Shop	P/Kruger	Tel: 931-3668
Zamane Café	Zone 12 Sbkng	Tel: 594-5411

VANDERBIJLPARK

Avoca Karavaanpark	Plt 16 Cyferpan	Tel: (016) 988-1129
Erina Spa	Box 14470 Zuurfontein Next to the Barrage Wall on the Vaal River between Parys & Vdb. House, 100 caravan stands with electricity, toilet facilities, laundry, braai facilities, heated swimming pool, waterslides, café, putt-putt, fishing, play park, go-karts, horse riding, lapa, hall for hire Pets are allowed	Tel: (016) 983-0005 Fax: (016) 983-0001
Rotsdrif Ontspanningsoord	Plt 28 Lndeqsdrf	Tel: (016) 987-1574
Tropicana River Lodge	139 River Road Mantevrede Vdp 4 Self-catering, luxury double chalets each sleeping 6 people. 6 Self-catering, luxury single chalets each sleeping 4 people.	Tel: (016) 932-1467 (016) 932-5396 Fax: (016) 932-1466
Vaalrus	Box 14194 Zuurfontein	Tel: (016) 987-7227
Willows on Vaal Caravan Park	Plt 581 Driefft	Tel: (016) 987-1091 Fax: (016) 982-3987

VEREENIGING

Club Groenoevers	Box 17 Viljoensdrif 22 km from Ver on Viljoensdrif / Daleside Rd on the Vaal River. 24 rondavels, 200 caravan stands with electricity, café & restaurant, braai facilities, play ground, water slides, canoeing, swimming pool, horse ridding, waterslides, fishing Pets are allowed.	Tel: (016) 457-1168
Club Koppisol	Box 93 De Deur 8km from Ver on the R82. 80 caravan stands – 50 with electricity, 6 chalets, 2 train trucks, toilet facilities, heated swimming pool, waterslides, putt-putt, braai facilities, halls to let, café, play ground, games room, trampoline, badminton, chess, go-karts, horse rides, No pets allowed	Tel: (016) 556-1112 Fax: (016) 556-1155
Dickinson Park	In Ver on the Vaal River. 50 caravan stands with electricity, toilet facilities, fishing, boat facilities, braai facilities, rondavel for 100 people, 4 lapa's, 3 verandahs	Tel: (016) 932-3683

Louw's Holiday Resort	Box 64 De Deur 8km from Ver on old JHB Rd. 8 chalets, 120 caravan stands – 72 stands with electricity, toilet facilities, laundry, swimming pool, water slides, play park, trampoline, volleyball, go-karts, putt-putt, TV Room, horse rides, café, braai facilities, tennis court, hall for hire Pets are allowed	Tel: (016) 590-1204
Sidiba Lodge	2 Chalets sleeping 2 guests. 3 Chalets sleeping 6 guests. 20 Tents, 3 per tent.	Tel: (016) 423 5562 Cell: 082 938 1378 Fax: (016) 423-6504
Vosloo Park	In Ver on the Vaal River. Picnic area, braai facilities, toilet facilities, close to Riverfront,	Tel: (016) 932-3683/4

CARAVANS & CAMPING EQUIPMENT

Berg Shack	1 Vla Vanessa FlraGdns	Tel: 933-4162
Elite Tentverhuring	73 George St Mntvrde Box 3607 Vdb	Tel: 932-1931 Fax: 982-2262
Gibbon Caravan Clinic	5 Nikkel St CE6 Vdb Box 14077 Zuurfontein	Tel: 981-9500 Fax: 981-9588

CARPENTERS & KITCHENS & BARS

Bafana Bafana African Kitchens	The Mall Vdb	Tel: 933-6009
Champagne Skrynwerker	13199 Zone 11 Sbkng	Tel: 594-1604
Concept Kitchens	Vecor bldg McColm Blvd Vdb	Tel: 986-2563
Cupboard Craft	Hans Strydom Centre Genl Smuts St Vdb Box 2891 Ver	Tel: 981-8181 Fax: 981-8181 Cell: 082 895 4375
Davidson Woodcraft	28 Daimler St Vdb Box 2436 Vdb	Tel: 986-0482 Fax: 986-1676 Cell: 082 893 4717
Elite Houtwerke	KSOK bldg Vdb	Tel: 986-2388
Hanekom Woodcraft	Box 2446 Vdb	Tel: 985-2419 Fax: 985-2419
Jansen Houtwerke	Plt 25 Northdene	Tel: 987-2083 Cell: 083 442 2063
Kombuishuis Houtwerke	4 Krupp St Vdb Box 1932 Vdb	Tel: 986-1768 Fax: 986-2230 Cell: 082 571 2447
Le Grandt Woodcraft	8 Wolfram St Vdb	Tel: 931-1040
Meklo Houtwerke	Currie Blvd Vdb Box 1330 Vdb	Tel: 986-2248 Fax: 986-1831
Metwud Manufacturing	7 Daimler St Vdb	Tel: 986-1285 Fax: 986-1286
Olienhout Houtwerke	5 Technopark Vdb	Tel: 981-8125
RG Davidson Woodcraft	28 Daimler St Vdb	Tel: 986-1676
The Sun Cupboards Enterprises	1 Houtkop Rd Sbkng	Tel: 988-2996
TST Woodwork	1 Noble Blvd Vdb	Tel: 988-2150
Valencia Kombuise	Vecor bldg McColm Blvd Vdb	Tel: 986-0085

Wyncor Cabinets	5 Daimler St Vdb	Tel: 986-0883 Cell: 082 896 1327
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CARPET CLEANING SERVICES

Carpet King		Tel: 933-2514
Cheapy Car Deals & Elite Carpet Care	25 Fleming St Vdb	Tel: 931-3407
Delta Carpet Cleaner	19 Wessels	Tel: 932-2772
Multi Serve	Pick 'n Pay Bedwrtprk	Tel: 985-1212
Rug Doctor Pro	40 Hans van Rensburg St Vdb Box 4631 Vdb 12 Leyds	Tel: 981-3849 Tel: 933-0862
Sebo Stofsuiers & Matwassers	24 Fortuna Rd Bedwrtprk	Tel: 985-2403

CATERERS

Alma	4 Attie Fourie St Vdb	Tel: 933-6773 Fax: 933-6772
Amodeus		Cell: 083 741 7830(Tersia)
Annette / Winnie		Cell: 082 467 8142 (Annette) Tel: 556 1249 (Winnie)
Anette Visagie		Tel: 423-3581
Ardenvold Prima Vere		Tel: 987-1205 Cell: 082 967 1790
Ascot Willows (Marlize)	(Functions at premises)	Tel: 985-5926 Cell: 082 566 1448
BJ's (Anita)		Tel: 422-2091 Cell: 083 272 5169
Baluba Restaurant	Emerald Cassino Vdb (functions on their premises)	Tel: 982-7777 x 2280
Black Hat Chef	7 Sugarbusch Ave 3Rivers	Tel: 423-6305 Fax: 423-4109
Caffee Late Coffee Shop	2 Pres Kruger St Vdb	Tel: 933-5746
Catering	62 Beethoven St Vdb	Tel: 932-4263
Cathy's Catering & Services	21 Van Boeschoten St Meyerton Box 170 Meyerton	Tel: 362-2607
Chouta, Zohra		Tel: 556-4514
Connie Mariti		Tel: 592-5674
Continental Caterers	87Brandmuller Dr 3Rivers	Tel: 423-5634 Cell: 082 900 9006(Susan)
Dial-a-Picnic		Cell: 083 442 2042
Eagles Ladies Bar	(Functions on Premises)	Tel: 454-0335
Edwina	(Meals for dinner time & various platters)	Tel: 933-1727
Elite Caterers		Tel: 423-5340 Cell: 082 551 8043(Tinus)
Eliza Venter		Tel: 363-1335
Excell Caterers		Tel: 363-0274 Cell: 083 430 2471
Executive Catering & Functions	12 Frans Erasmus St Vdb	Tel: 933-6772 Cell: 082 852 5186
Helen van Emmenis		Tel: 33-4612
Henks Kitchen (Marelaine)		Tel: 971-1262

Hettie Rademan		Tel: 016022 x 1631
JR Spyseniering (Ronel)		Tel: 932-3705 Cell: 083 271 4715
Jaminge Chefs	Youth Centre Faraday Blvd Vdb Box 263005 3Rivers	Tel: 933-6572 Fax: 933-6572 Cell: 082 856 4311/2
Louise Erasmus		Tel: 932-1353
M & E Spyseniens		Tel: 423-3363 (Marie) Tel: 423-4258 (Ethel)
Makiti Caterers	20 Geranium St Arcnprk	Tel: 428-2472 Cell: 083 263 8058
Mamsie		Cell: 082 829 4843
Mrs. SJ van Rensburg		Tel: 987-3032
Oewerspens	Box 900 Ver	Tel: 807-3129
Pieter	Schools/Leadership camps/Church	Tel: 422-1901
Pieter Swanepoel		Tel: 362-1366
Pinky		Tel: 592-1168
Plaaskombuis		Tel: 932-5116
Pop Out	2 Pou St Pcehvn	Tel: 422-3215
Premier Catering Services		Tel: 450-4211
Pumphouse Vaalriver	(Functions at premises)	Tel: 973-1816
Rachel		Tel: 985-5661
Ronel Van Rensburg	Box 4449 Vdb	Tel: 981-1098
Sanjo		Cell: 082 760 3499(Joan) Cell: 083 444 9240(Sandra)
Sonja Hartman		Tel: 362-3686 Cell: 082 556 5497
Star Caterers (Jeanette Visser)		Tel: 423-1602 Fax: 423-1602 Cell: 082 335 8267
Sunset Cove	45 Umtata St 3Rivers	Tel: 423-5045
Thabo Nteso		Cell: 083 284 5456
Vans Caters		Tel: 364-1591
Vra na Meer		Tel: 987-3047
Willa Delpport		Tel: 423-3921
Zandi		Tel: 933-1391
Zomerlust (Willie Slabbert)		Tel: 455-4553 Cell: 082 633 1970

CHICKEN FAST FOOD SHOPS

Chicken Bonanza	Park Square Eric Louw St Vdb	Tel: 933-7540
Chicken Grillos	17 Noble Blvd Vdb	Tel: 988-2992
Chicken King	Elotte House Eric Louw St Vdb	Tel: 933-2135
Monate Chicken	Park Square Eric Louw St Vdb Box 3417 Vdb	Tel: 981-0406
Kentucky Fried Chicken	Mushet Str .Vdbp 21057 Zone 14 Sbkng	Tel: 933-1790 Tel: 592-4016
NK Tasty Chicken Centre	IndustPrk Residensia	Tel: 593-4420
Nando's Chicken	Box 53618 Troyeville	Tel: 933-3060 Fax: 933-4117

CLOTHING STORES

Baby Talk	Vaalgate Centre Vdb	Tel: 981-1959
Baby-go-Round	Fitzsimon St Vdb	Tel: 981-2021
Casual Man	3 Hans Strydom Centre Vdb	Tel: 933-0255
Chaps	Vaalgate Centre Vdb Box 3187 Vdb	Tel: 933-7915
Navada Clothing Factors	2292 Zone 13 Sbkng	Tel: 592-1142
New Evaton Outfitters & Stationery	Prtn 7 Rftm	Tel: 596-1217

COAL

Coal Merchant	47/10 Small Farms Evaton	Tel: 596-1218
Emangadai A1 Wood & Coal	Stand 1438 Evaton	Tel: 593-1549
Khambule Wood & Coal	Plt 98 Lnkhlm	Tel: 989-1502
Park Coal	Eastman St Vdb	Tel: 986-0424
Thusanang Wood & Coal Supply	1170 Khambule St Bphng	Tel: 986-0037
Thusang Dikwena Wood & Coal	13253 Zone 11 Sbkng	Tel: 594-1812

COMMUNICATION

BizzNet		Tel: 931-9835 Cell: 082 338 5373 Email: willie@bizznet.co.za
Eliza Rautenbach Communication	8 Seder St Vdb	Tel: 982-4475
Erocommunication		Tel: 982-4475 Fax: 982-4475 Email: erc@lantic.co.za
Executeletech Communications	Von Park bldg Attie Fourie St Vdb	Tel: 981-6710 Fax: 981-6711
Multi Telcomm Service	Plt 1 Brnasdl	Tel: 987-2213 Fax: 987-2216 Cell: 083 230 0585
Radio Paging	Permanent bldg Pres Kruger St Vdb	Tel: 981-4450
Telnet & Communications	36 Fairbank St Vdb	Tel: 986-3106 Fax: 986-3105

COMMUNITY CENTRES & PROJECTS

Boipatong Development	1 Noble Blvd Vdb	Tel: 988-1470
Ebenezer Community Centre	Stand 1049 Evaton	Tel: 591-1754
Gamont Development	8 Rabie St Vdb	Tel: 981-0423
Johan Heyns Community Health Centre	Box 023 Vdb	Tel: 950-6000 Fax: 981-1064
Lekoa Vaal Community Economic Development Centre	Executive Centre FW Beyers St Vdb Box 2080 Vdb	Tel: 933-6655 Fax: 981-1414

COMPRESSORS

Mann Machinery Services	6 Michelin Str	Tel: 986-0778
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COMPUTERS & ACCESSORIES & TRAINING

Abacus Micro Systems	33 Peter St Vdb	Tel: 981-8280 Fax: 981-8284
Actnet	Plt 99 Mntvrde Box 854 Vdb	Tel: 982-2629 A/h: 932-4434
Amazitech Computers	Box 3535 Vdb	Tel: 981-2155 Fax: 981-0327
BS Computers	887 Zone 10/3 Sbkng	Tel: 594-3951
CM Computers	Vaalgate Centre Vdb Box 28127 Slnldrpk	Tel: 421-1959 Fax: 455-3778 Email: mwncc@mweb.co.za
Compu Square	Genl Hertzog St Vdb Box 6058 Vdb	Tel: 933-1579 Fax: 933-1579
Computadora	Faraday bldg Faraday St Vdb	Tel: 933-0796 Fax: 933-0794
Computer Dreams	Plt 45 Zrftn	Tel: 981-4610
Computer Plus	Sanlam Centre Attie Fourie St Vdb Box 585 Vdb	Tel: 931-1120 Fax: 931-1124
Compuward	Rietbok Bld Tielman Le Roux & Gen Hertzog	Tel: 981-6547 Fax: 981-6979
Creative Minds		Tel: 973-1525
Cyberline	213 Louis Trichardt Blvd Vdb Box 6126 Vdb	Tel: 982-2391 Fax: 982-2391 Cell: 082 852 6454 Email: cyberline@acenet.co.za
Edu Wise Learning Centre	Van Rijn Square Pres Kruger St Vdb Box 3012 Vdb	Tel: 981-2926 Fax: 933-7909
El Shaddai Computers	1 Heide Ave FlaGdns Box 4720 Vdb	Tel: 933-9256 Fax: 933-0148 Cell: 082 490 0577
Fujitech Computers	Plt 99 Mntvrde Box 854 Vdb	Tel: 982-2629
Masai Audio-Visual & Computers	35 Honeyball St Vdb	Tel: 982-1508
Media Unlimited	Colloseum bldg Delius St Vdb	Tel: 932-5681 Fax: 932-5684
Meitron	Plt 16 Vdb Box 4776 Vdb	Tel: 987-2713 Cell: 082 442 5658
Microspec	67 Livingstone Blvd Vdb Box 4460 Vdb	Tel: 931-2122 Fax: 931-2122
Millenium Computers	Exhibition 2000 Frikkie Meyer Blvd Vdb	Tel: 931-2038 Fax: 931-2040
NNC - Vanderbijlpark	Vaal Gate Centre Vdb	Tel: 931-9695 Fax: 931-9628
OP Data	NAC bldg Becquerel St Vdb Box 450 Vdb	Tel: 931-1733 Fax: 933-7795
Progressive Systems	28 Cosmos Cresent Flora Gardens Box 2347Vdb	Tel: 933-2913 Fax: 933-1191 Cell: 082 789 6255
Raiden Business Services		Tel: 981-2926

		Cell: 083 414 5290 Email: raiden@webmail.co.za
Teggo Computers	17 Fitzsimmons St Vdb	Tel: 982-2309 Fax: 982-2377 Cell: 082 322 3198
Tele Computer Systems	Box 4071 Vdb	Tel: 982-3568
Triangle Computers	Vaalgate Centre Vdb Box 3655 Vdb	Tel: 933-9671 Fax: 933-9773
Winburgh Trading	201 Standard Bank Bld	Tel: 981-6487
Wiz Tech Services	2 A / Young Str	Tel: 982-4611

CONFERENCE FACILITIES

Abrahamsrust Resort	Box 60 Sasolburg Opposite Riverside Sun Hotel in Sasolburg on the Vaal River. 16 houses & 28 park homes, 100 caravan stands with electricity, toilet facilities, waterslides, cafeteria, braai facilities, swimming pool, lapa, boat facilities, play park, putt-putt mini train, No pets allowed	Tel: (016) 971-2222
Ascot Willows	Situated on the banks of the Vaal River. River rafting, team building activities, out door conference facilities, birthday/year end functions	Tel: (016) 985-5926 Cell: 082 566 1448
Baluba Restaurant	Emerald Cassino Vdb	Tel: 982-7777 x 2280
Cherokee Restaurant	Genl Hertzog St Vdb	Tel: (016) 933-9865
Maccavlei Conference Centre	Box 649 Vereeniging, 1930	Tel: (016) 420-2000 E mail: kmcartnery@maccavlei.co.za

CONSTRUCTION

AMT Construction	Santrust bldg FW Beyers St Vdb	Tel: 981-0326
Amco Konstruksie & Arbeid Verhuring	Frikkie Meyer Blvd Vdb	Tel: 931-1874
Brakkenjan Construction Civil & Steel	12 Chrome St Vdb	Tel: 933-5295 Fax: 933-5296
Cabeleira & Loucao Construction	7 Fleming St Vdb	Tel: 933-1916
Cachucho Piping Construction	1 Gill St Vdb	Tel: 933-5686
Circle Seven	10426 Evaton West	Cell: 083 954 2207
Construction Site Services	Plt 81 Mantevreede	Tel: 932-3588
D & H Construction	4 Chrome St Vdb	Tel: 931-3321 Fax: 933-1799
DRJ Construction & All Chem	18 Okulis St Vdb	Tel: 932-4619
Delta Pipe Construction	Plt 11 Lasndra	Tel: 982-1562
Dynamic Electrical & Civil Construction		Fax: 931-2912 Cell: 082 675 3354

Esun Construction	Roval bldg S Waterson St Vdb	Tel: 931-3030
Fanie Robberts Construction	Box 10060 Staal	Tel: 889-4249 Fax: 889-4248
GWT Construction	3a Daimler St Vdb Box 2411 Sslbrg	Tel: 986-2637 Fax: 986-2639
Harrisson & White Contractors	9 Daimler Str	Tel: 986-1248
High Tech Construction & Brokers	Goodwill Painter bldg Frikkie Meyer Blvd Vdb Box 1007 Vdb	Tel: 933-6336
Hydro Construction	38 Edison Blvd Vdb Box 814 Vdb	Tel: 981-4055 Fax: 933-2695
Insulation & Sheetmetal Construction	13 Daimler St Vdb Box 3268 Vdb	Tel: 986-1189 Fax: 986-0540
JPJ Engineering & Construction	AlduInPrk Rabie St Vdb	Tel: 933-2459 Fax: 981-7350
Kenev Construction	7a Grieg St Vdb	Tel: 932-4229
Contruction Projects Ent	Petter Str	Tel: 981-2861 Fax: 933-7100
Lima Towers & Contruction	5 Chrome St Vdb	Tel: 931-2053 Fax: 931-2050
Nado Contruction	11 Kobalt Str	Tel: 981-2068
PC Construction	22 Hans van Eck Blvd Vdb	Tel: 932-4668
Petrochem Electrical Construction	28 Daimler St Vdb	Tel: 986-0221 Fax: 986-0225
REM Construction	6 Fraser St Vdb Box 869 Vdb	Tel: 931-3553 Fax: 981-7428
Rainbow Construction	Andries Potgieter Blvd Vdb	Tel: 982-1264 Fax: 982-1882
Raquel Engineering & Construction	19 Michelin St Vdb Box 654 Vdb	Tel: 986-0784 Fax: 986-0788
Shanys Construction	Roval bldg S Waterson St Vdb	Tel: 931-2996 Fax: 931-2998
Vuma Construction	Plt 14 Slviavle	Tel: 932-2495 Fax: 982-1917

COURIERS /DELIVERIES

Delivery King	Maltimore Mansions FW Beyers St Vdb	Tel: 981-4501
Document Exchange	Rietbok bldg S Le Roux Square Vdb	Tel: 933-4305
Mail a Million	Sweidan bldg Attie Fourie St Vdb Box 1458 Vdb	Tel: 982-1347 Fax: 982-1384
Post Net	President Kruger	Tel: 981-4390
Sun Couriers	Edison bldg Edison Blvd Vdb	Tel: 981-1402 Fax: 981-1411
Transport Couriers	Box 1531 Vdb	Tel: 971-3503 Cell: 083 547 5271

CURTAINS & BLINDS

Curtain Palace	14 Attie Fourie St Vdb Box 1034 Vdb	Tel: 981-0149 Fax: 931-2049
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Distinctive Blinds	Delfos bldg Fairbank St Vdb Box 14901 Zrftn	Tel: 986-0328 Fax: 986-0396
Emfuleni Blinds	The Mall DF Malan St Vdb	Tel: 931-3249 Cell: 083 271 7219
Jay Cee Blinds	18 Genl Froneman St Vdb Box 4376 Vdb	Tel: 931-3212 Fax: 931-3212 Cell: 082 455 1926
Richie's Pelmet Makers	17684 Zone 14 Sbkng	Tel: 592-3944
Square One	Ladegaard House Eric Louw St Vdb	Tel: 933-4259
Transvaal Blinds & Awnings	Delfos bldg Fairbanks St Vdb Box 14901 Zrftn	Tel: 986-0328 Fax: 986-0396
Ultra Fibre		Tel: 931-3768 Cell: 082 255 6793



DAIRIES

Clover SA	20 Edison Blvd Vdb Box 71 Vdb	Tel: 910-1000 Fax: 981-5405
Daily Milk	18 Graham Str	Tel: 982-5603
Driehoek Melk Depot	6 Rembrandt House Vdb	Tel: 933-4961
Ekono Melk Depot	Joymar bldg Springbokhof Vdb	Tel: 933-3833
Itsoseng Dairy & General Dealer	Jabavu St Bphng	Tel: 986-0481
Kaloelie Melkdepot	Lupinion bldg Shakespeare St Vdb Box 2941 Vdb	Tel: 933-7880 Cell: 083 353 1763
SW5 Slaghuis & Melk Depot	Avando bldg Carter St Vdb	Tel: 982-2895
Vanderbijlpark Melkdepot	Moulis bldg Vdb	Tel: 981-3938

DENTIST

Charlton Dental Laboratory	28 Hertz Blvd Vdb	Tel: 931-1391
DU TOIT, H	7 Carter St Vdb	Tel: 932-1479
ERASMUS, P	128 Hans Strydom Vdb	Tel: 981-0967
FOURIE, JE	28 Hertz Blvd Vdb Box 1780 Vdb 10 Okulis St Vdb	Tel: 933-7606 Fax: 933-7606 Tel: 932-2095 (h)
GROVE, P	35 Beethoven St Vdb Box 4698 Vdb	Tel: 982-6645 Cell: 082 441 9667
GULDENPFENNIG, G	73 Beethoven St Vdb	Tel: 982-4356
JANSE VAN RENSBURG, C	128 Hans Strydom St Vdb	Tel: 981-0967
KOK, OT	Omega bldg FW Beyers St Vdb 20 Delius St Vdb	Tel: 933-3850 Tel: 932-4337 (h)
KONE, NH	20223 Zone 14 Sbkng 14 Aldela Vdb	Tel: 592-3075 Fax: 592-3906 Tel: 982-1217
LEMMEN, H	1 Medquant Vdb 4 Wren St Vdb	Tel: 981-8180 Tel: 986-1661 (h)

MAAROGANYE, TP	1470 Zone 13 Sbkng	Tel: 594-5358
MAHOMED, YE	The Mall Vdb	Tel: 931-1212
MAKAKANE, P		Cell: 082 859 7439
MKHABELA, J	63538 Zone 16 Sbkng	Tel: 592-2139
MONARENG, PT	Stand 3318 Stretford 17959 Zone 14 Sbkng	Tel: 581-1311 Tel: 592-3009 Fax: 592-9002
MOTLADI, SJ	21061 Zone 14 Sbkng 1353 Emfuleni Dr Vdb	Tel: 592-3926 Tel: 932-3927 (h)
MYBURGH, JH	Medquant bldg Pasteur Blvd Vdb	Tel: 981-8180
NAGELSBACH, LJE	2a Langenhoven St Vdb	Tel: 933-3134
Ortho-Rite Dental Laboratory	Medquant bldg Pasteur Blvd Vdb	Tel: 933-0481
Regional Dental Health Services	Stand 1993 Bptng	Tel: 988-3381

GENERAL PRACTITIONERS

ABBA, SA	Roodia Plaza Eric Louw St Vdb	Tel: 981-3207
BHABHA, AE	1e Adams Rd Evaton	Tel: 596-1288
BOSCH,	23 Livingstone Blvd Vdb Box 1186 Vdb	Tel: 933-4012 Fax: 933-4083
CASSIM, A A	223 Hostel 5b Sbkng	Tel: 592-1162
CRAEMER, CLA	Bontbok bldg Vdb	Tel: 981-2266 Fax: 933-7469 Cell: 083 658 6080
DE CLERCQ, J	Omega bldg FW Beyers St Vdb	Tel: 981-3111 Fax: 981-9126 Cell: 083 379 6730
DE KOCK, GM	Corned bldg Pasteur Blvd Vdb 29 Listz St Vdb	Tel: 931-1751 Tel: 932-4695 (h) Cell: 083 379 6730
DE LANGE, JT	Omega bldg FW Beyers St Vdb Box 473 Vdb Bptng	Tel: 931-1515 Fax: 931-1517 A/h: 931-1516 Tel: 988-1433
DESAI, AK	23207 Zone 13 Sbkng	Tel: 594-3108 Fax: 594-0930
DESAI, MF	23207 Zone 13 Sbkng	Tel: 594-3108 Fax: 594-0930
DLAMINI, SJ	Fam Eals bldg Eric Louw St Vdb	Tel: 933-3231
DOOREWAARD, G	23 Livingstone Blvd Vdb Box 1186 Vdb Plt 108 Stphnoprk	Tel: 933-4012 Fax: 933-4083 Tel: 987-2048 (h)
DU TOIT, AG	Vaalmed bldg Jan van Riebeeck Blvd Vdb	Tel: 950-8000
DZIRBA, BH	The Mall Vdb	Tel: 933-1044 Cell: 082 553 8077
FOURIE, B	14 Sammy Marks St Vdb 11 Listz St Vdb	Tel: 932-3371 Tel: 932-3371
GROENEWALD, BHJ	38 Stinkhout St Vdb 20 Oliver St SE3	Tel: 932-4511 (h) Tel: 932-4511
HERIMBI, J	4562 Zone 12 Sbkng	Tel: 594-7425 Fax: 594-1541
HUMPHRIS, DF	Omega bldg FW Beyers St Vdb	Tel: 981-3111

		Fax: 981-9126 Cell: 083 379 6730
JACOBS, JB	14 Pasteur bldg Vdb Box 3343 Vdb	Tel: 933-5143
JINA, A	Park Square Eric Louw St Vdb	Tel: 933-7246
KAEANE, MF	4498 Zone 12 Sbkng	Tel: 594-1781
KHAN, MH	Stand 398 Evaton	Tel: 591-1606
KHOALI, RJ	12855 Zone 11 Sbkng	Tel: 594-7724
KOSTER, BH	Omega bldg FW Beyers St Vdb	Tel: 981-3111 Fax: 981-9126 A/h: 362-1777
KOTO, MZ	Naledi Nkanyzi Hospital Sbkng	Tel: 988-1712 Cell: 082 455 3322
LATAKGOMO, LL	Naledi Nkanyzi Hospital Sbkng	Tel: 988-1334 Cell: 082 957 6779
LATEGAN, CJ	Cormed bldg Pasteur Blvd Vdb Box 397 Vdb	Tel: 931-1751 Fax: 933-8457 Cell: 083 379 6730
LATEGAN, PJ	Cormed bldg Pasteur Blvd Vdb Box 397 Vdb 4 Keeromberg St Vdb	Tel: 981-0956 Fax: 933-8457 Cell: 083 379 6730 Tel: 971-1646 (h)
MABELE, NA	61501 Zone 17 Sbkng	Tel: 592-4814 Cell: 082 856 8632
MADUNA, PJ	939 Zone 13 Sbkng	Tel: 594-7449
MALEMELA, KI	63538 Zone 16 Sbkng	Tel: 592-2753 Fax: 592-1507
MALOKA, SS	21082 Zone 14 Sbkng	Tel: 592-4797
MANOTO, LMRL	570001 Zone 3 Sbkng	Tel: 593-1342
MANOTO, MA	683 Newman Rd Evaton	Tel: 591-1208 (h)
MASOPHA, MP	23175 Zone 13 Sbkng	Tel: 592-2072
MATSHANA, KJ	584 Zone 10/3 Sbkng	Tel: 594-0824
MESSERSCHMIDT, HM	Omega bldg FW Beyers St Vdb	Tel: 981-3111 Fax: 981-9126 Cell: 083 379 6730
MHLANGA, NJ	Stand 61585 Zone 17 Sbkng	Tel: 592-1025
MMBARA, NW	333 Zone 7 Sbkng	Tel: 593-2801
MOKOENA, ZM	1692 Zone 6 Sbkng	Tel: 593-0466
MOKONE, MA	20029 Zone 14 Sbkng	Tel: 592-2215 Fax: 592-2085
MOMAMA, K	14659 Zone 11 Sbkng	Tel: 594-1620
MOORKEY, AM	12855 Zone 11 Sbkng	Tel: 594-2542 Cell: 083 600 3280
MPHAKALASI, T	Stand 229 Evaton	Tel: 591-1901
MURANDA, AZ	Naledi Nkanyzi Hospital Sbkng	Tel: 988-1710
NDUMISO, LBM	155 Zone 8 Sbkng	Tel: 596-2726
NKABINDE, MS	71 Pres Kruger St Vdb 1155 Matthews St Bphng	Tel: 933-6750 Tel: 986-2532
NOBELA, SHK	862 Zone 6/2 Sbkng	Tel: 593-0818
NTEO, SRS	7743 Zone 7b Residensia	Tel: 593-5191 Fax: 593-3306
OKITALONGE, S	Sbkng Hospital 11 Cornwallis Harris St Vdb	Tel: 988-1100 Tel: 933-6867 (h)

PATEL, AH	Adams Rd Mftsna	Tel: 591-1007
PRELLER, SF	67 Livingstone Blvd Vdb	Tel: 981-7470
PROWSE, CM	32 Beethoven St Vdb	Tel: 932-4461 Fax: 932-1164
RADEBE, JC	Stand 3536 Sbkng	Tel: 581-1438 Fax: 581-1423
RAMAGOLE, AD	538002 Zone 3 Sbkng	Tel: 593-3279
RAMBIYANA, MS	Stand 3995 Sbkng	Tel: 594-3233
SAKOANE, RW	14 Lemoa St Vdb	Tel: 988-3075
SENYAKOE, LJ	17959 Zone 14 Sbkng	Tel: 592-9101
SETLALE, C	62994 Zone 16 Sbkng	Tel: 592-2838
SMUTS, NM	Omega bldg FW Beyers St Vdb	Tel: 981-3111 Fax: 981-9126 Cell: 083 379 6730
TLHOIWA, VB	11285 Jan van der Merwe St Vdb	Tel: 593-1522
UBISI, BW	24001 Zone 10 Sbkng	Tel: 594-1234 Fax: 594-0996
VAN EEDEN, J	Cormed bldg Pasteur Blvd Vdb	Tel: 931-1751 Fax: 933-8457 Cell: 083 379 6730
VAN EEDEN, SG	Cormed bldg Pasteur Blvd Vdb 22 Beethoven St Vdb	Tel: 931-1751 Fax: 933-8457 Tel: 932-5466 (h) Cell: 083 379 6730
VAN SCHOOR, JJF	1 Jannie de Waal St Vdb Box 1502 Vdb 2 Oliver St Vdb	Tel: 932-1966 Fax: 932-1985 Tel: 982-2500 (h) Cell: 083 379 6730
VENTER, DF	Playfair Blvd Vdb Medina on Vaal	Tel: 933-1497 Fax: 933-7798 Tel: 932-4722 (h)

GYNAECOLOGIST

CLARK, JK	Naledi Nkanyzi Hospital Moshoeshoe St Sbkng	Tel: 988-2901 Cell: 082 654 1733
LENAKE, ZIM	Naledi Nkanyzi Hospital Sbkng	Tel: 988-4788 Cell: 083 345 5922
MOTAUNG, JM	Naledi Nkanyzi Hospital Sbkng	Tel: 988-1702 Fax: 455-3841 Cell: 082 558 9177

HOMEOPATH

Banareng Herbalist	Tjhaba Tsatsi Centre Noble Blvd Vdb	Tel: 988-2767
LESTSELE, TS	1738 Zone 10 Sbkng	Tel: 594-3960
NHLAPO, MS	13975 Zone 11 Sbkng	Tel: 594-2039
VAN DER VEEN, RD	86 Macowen St Vdb	Tel: 932-2986

PHYSIOTHERAPIST

APS Therapy	Lamees bldg Hertz Blvd Vdb	Tel: 933-4061
BASSON, M	64 Beethoven St Vdb	Tel: 982-2206
Louise Coetzee	Omega bldg FW Beyers St Vdb	Tel: 981-7424
MOKONE, LL	Naledi Nkanyzi Hospital Sbkng	Tel: 988-1611

		Cell: 082 258 3710
RALINALA, TE	Naledi Nkanyzi Hospital Sbkng	Tel: 988-1611 Cell: 083 440 2647
SENEKAL, P	82 Faraday Blvd Vdb	Tel: 933-7169

DRESS MAKERS

Madia		Tel: 971-3603
Mashinini, S	18970 Zone 14 Sbkng	Tel: 592-4826
Mazibuko, M	574 Zone 13 Sbkng	Tel: 594-2407
Mehz Creations		Tel: 556-4553
Milo Malhou		Tel: 985-2505
Najis Dressmaking	The Mall Vdb	Tel: 933-6957
Printex Needlework	3 Leland St Vdb	Tel: 986-1183
Queenie Dressmaking	28 Industrialpark	Tel: 592-9952

DRIVING SCHOOLS

African Driving School	Ekspa bldg DF Malan St Vdb	Tel: 981-4980
Alpha Bestuurskool	19 Thomas St Vdb Box 4387 Vdb	Tel: 933-4540 Cell: 082 829 4970
Century Driving School		Cell: 083 258 3457
Code 8 to Code 14 Driving School	10 Newton St Vdb	Tel: 933-2909
Driehoek Driving School	85 Ramsbottom Str	Tel: 932-2634
Park Driving School	34 Jan Kock St Vdb	Tel: 933-9609
Professional Driving School	Corso Bld Eric Louw Str	Tel: 931-9603
Reliable Driving School	Santrust bldg FW Beyers St Vdb	Tel: 981-6447
S & P Driving School	94 Louis Trichardt	Tel: 932-2223
Triumph Driving School	17 Rossini Bd	Tel: 982-5272

DRY CLEANERS & LAUNDROMATS

Aero Dry Cleaners	31 D De Wet St Vdb	Tel: 933-7465
Batloung Dry Cleaners	1074 Zone 10 Sbkng	Tel: 592-3213
Driehoek Stoomskoonmakers	15 Platinum Ave Steelpark 4 Klasie Havenga St Vdb	Tel: 451-2106 Tel: 933-8254
Drive In Dry Cleaners	27 Langenhoven St Vdb Box 330 Vdb Saamtrek bldg Carter St Vdb	Tel: 933-3030 Tel: 932-3970
Dry - Cleaners	1705 Zone 6	Tel: 593-1475
Eastern Dry Cleaners & Laundry	15 Zone 6 Sbkng	Tel: 593-1862
Eezy Wash Launderette	Del Rio Flats Becquerel St Vdb	Tel: 931-2020
Emfuleni Dry Cleaners	The Mall DF Malan St Vdb	Tel: 931-3249
Mpahane Dry Cleaners	21075 Zone 14 Sbkng	Tel: 592-5019
P & A Dry Cleaners	21079 Zone 14 Sbkng	Tel: 592-2234
Sunshine Dry- Cleaners	9 Thabatsatsi Centre 1 Noble Bd	Tel: 988-3867
Stephen's Dry Cleaners	61475 one 17 Sbkng	Tel: 592-2347
Super Dry Cleaners	Rietspruit	Tel: 591-1019
Swan Dry Cleaners	122 Hans Strydom	Tel: 981-6714

ELECTRIC MOTORS

Electric Motor Centre	5 Rabie Str	Tel: 933-4700
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ELECTRICAL CONTRACTORS

AE De Abreu Electrical & Engineering	Box 2552 Vdb	Tel: 981-8388
All Voltage Electrical Engineering Services & Supplies	Plt 115 Vlakfontein Box 5398 Vdb	Tel: 987-1403 Fax: 987-2949 Cell: 082-853 4910
Ancor Electron	3 Tecnopark Rabie St Vdb	Tel: 933-2199 Fax: 933-2201
Appliance Workshop	23 langenhoven	Tel: 933-3592
Auto Spark Electrical Service	Currie Blvd Vdb	Tel: 986-1774
Automation Electric	33 Lady Ann Barnard St Vdb	Tel: 933-9913
CH Electrical & Hydraulics Supplies	Edison Blvd Vdb	Tel: 933-2158
Centralec	Box 3593 Vdb	Tel: 932-5353 Fax: 982-2718
Cometa Electronics	19 Stals St Vdb	Tel: 932-3792 Fax: 982-2638
D B Sales Suppliers	Frikkie Meyer Bd	Tel: 981-8882
Dows Electrical	Dart bldg Edison Blvd Vdb	Tel: 931-1450 Fax: 931-1452
Dup Electrical Construction	24 Magda Smit St Vdb Box 1338 Vdb	Tel: 932-3638 Fax: 932-3897
Dynamic Electrical & Civil Construction		Fax: 931-2912 Cell: 082 675 3354
Eclipse Alarms & Electrical	1 Smeaton St Vdb	Tel: 932-1883 Fax: 932-1891
Elcon Electrical Wholesalers	Saamtrek bldg Carter St Vdb	Tel: 932-5631 Fax: 932-4506 Cell: 082 550 5195
Electcon Electrical Contractors	6 Sullivan St Vdb	Tel: 932-4023 Fax: 932-4506 A/h: 932-3860
Electric Fit	117 Linkholm St Lsrs	Tel: 989-1445
Electric Motor Centre	5 Rabie St Vdb	Tel: 933-4700 Fax: 981-0622 Cell: 082 652 9500
Electric Workshop	Anker Bld	Tel: 933-3592
Electrical Contractors Gemini	105 Danie Theron Str	Tel: 932-3443
Electrical Energy	23 H/Lochner Str	Tel: 982-2712
Electrical Maintenance Services	20 Fairbank St Vdb Box 2257 Vdb	Tel: 986-1704
Electro Clinic	15 Jacobs St Vdb	Tel: 982-1414 Fax: 932-1186

Electrolux Agents	22 Attie Fourie	Tel: 933-9644
Elektronia	Techno Park Rabie St Vdb Box 5593 Vdb	Tel: 933-3999 Fax: 933-3766 Cell: 082 851 2317
Elite Appliances	Fitzsimmons Str	Tel: 982-2563
Ellison Electrical Supplies	6 Fraser St Vdb Box 869 Vdb	Tel: 931-1127 Fax: 981-7428
Emabheleni Electrician	20103 Zone 14 Sbkng	Tel: 592-1097
Ems Electrical Maintenance Services	20 Fairbank St Vdb Box 2257 Vdb	Tel: 986-1704
Excel Elektriese Kontrakteurs	Van Rijn Square Vdb Box 3926 Vdb	Tel: 981-7331 Fax: 933-2917 Cell: 082 652 7331
Finlec Electrical Spares	Overvaal bldg Wielland St Vdb	Tel: 931-4130 Fax: 932-4120
IDC Management Agency	Overvaal bldg Frikkie Meyer Blvd Vdb Box 1312 Vdb	Tel: 982-4205 Fax: 982-4206 Cell: 083 292 2630
JT Elektries	13 Mopani St Vdb	Tel: 633-1646
KG Electrical	3 Mopanie Flats Vdb	Tel: 933-0348
Louw's Electrical Sales & Services	KSOK bldg Delfos Blvd Vdb	Tel: 986-1556
Ltav Electrical	2 Teebos St Vdb	Tel: 982-5500
Nado Electrical Services	22 Shakepeare St Vdb	Tel: 981-2068
Park Appliances	20 Ericsson St Vdb	Tel: 933-5030
Petrochem Electrical Construction	28 Daimler St Vdb	Tel: 986-0221 Fax: 986-0225
Professional Electronic Services	Fam Eales Eric Louw St Vdb	Tel: 933-1225 Fax: 981-2673
QC Electrix	3 Fulton St Vdb	Tel: 933-9110
RMJ Elektries	Vdb	Cell: 082 650 5458
Radical Electric	13 Rabie St Vdb	Tel: 933-0954 Fax: 933-3442
Specialized Electronic Services	Dart bldg Edison Blvd Vdb Box 6578 Vdb	Tel: 981-2843 Cell: 082 966 6596
Swift Electronics	The Mall Vdb	Tel: 981-5853
Tabo Elektriese Dienste	Sweiden bldg Attie Fourie St Vdb	Tel: 981-4383
The Electro Clinic	Attie Fourie	Tel: 982-1414
Top Fix Electronics	Ben Schoeman Sq	Tel: 931-2124
Ucus	Satara bldg Karel Havenga St Vdb Box 504 Vdb	Tel: 933-1878
Vulcan Electrical Contractors	28 Daimler St Vdb Box 758 Vdb	Tel: 986-0221

EYE SPECIALISTS & CENTRES

Atkinson Optometrists	Special Eye bldg Van Rhin Square Box 265 Vdb	Tel: 933-4412 Fax: 981-8966
CLAASSEN, LF	Vonpark bldg Attie Fourie St Vdb	Tel: 933-1513

HORN, A	13 Oliver St Vdb	Tel: 982-3673
Huma Optometrist	Parkpl Eric Louw St Vdb	Tel: 981-1598
JANSEN, J	40 Hans Coetzee St Vdb	Tel: 982-1077
Mellin Oogkundiges	Sanlam Centre Vdb Box 1203 Vdb	Tel: 933-9742
Mohlammiy Optometrist	21131 Zone 14 Sbkng	Tel: 592-2715
NKHUMELENI, RE	20223 Zone 14 Sbkng	Tel: 592-1840
NORTJE, D	4 Vonpark bldg Attie Fourie St Vdb	Tel: 933-1513
Ocumed Eye & Laser Institute	Sylviavale Vaal Dve	Tel: 982-4371 Fax: 982-4370
REID, R	98 Beethoven St Vdb Ocumed Vaal Ave Slviavle	Tel: 982-1712 (h) Tel: 982-4020
Pule Optometrist	20029 Zone 14 Sbkng	Tel: 592-5519
Special Eyes	Special Eye bldg Van Rijn Square Vdb Box 265 Vdb	Tel: 933-2273
Stanley & De Kock	Consolidated bldg Attie Fourie St Vdb Box 1169 Vdb	Tel: 981-4036
Vaalgate Eye Centre	Vaal Gate Centre Vdb	Tel: 981-1186 Fax: 931-2506
Wardeck Optics	Bank bldg Vdb	Tel: 933-7909



FENCING

CWI	6 Telford St Vdb Box 102 Vdb	Tel: 980-3111 Fax: 980-1522
Cape Gate	Noble Blvd Vdb Box 54 Vdb	Tel: 980-2121 Fax: 988-1418
Consolidates Wire Industries	6 Telford St Vdb Box 102 Vdb	Tel: 980-3111 Fax: 980-1522
LCM Steel	6 Chrome St Vdb	Tel: 981-0456 Cell: 082 896 1516
Sigma Betonmure	74 Fairbank St Vdb	Tel: 986-0155 Fax: 986-1337
TC Omheinings	14 Delfos St Vdb	Tel: 986-0846
Vosbeton	Michelin St Vdb Box 2608 Vdb	Tel: 986-1200 Fax: 986-0598 Cell: 083 650 7772

FERTILIZER

Greenlands	2 Michelin St Vdb Box 6852 Vdb	Tel: 986-1577 Fax: 986-1511
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FINANCING COMPANIES

Bafana Finance	President bldg Attie Fourie St Vdb	Tel: 933-0447
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Cash for Africa	Vaalgate Centre Vdb	Tel: 933-2109
D & E Pro Finance	1 Bonte Bok bldg CRSwart St Vdb Box 2354 Ver	Tel: 932-2726
Finsure Consultants	Baltimore bldg FW Beyers St Vdb Box 5344 Vdb	Tel: 933-0990 Fax: 933-0994
Five Star Loans	Consolidated bldg Van Rijn Square Vdb Box 2354 Ver	Tel: 981-7599
Jabulani Cash Loan	ParkPI Eric Louw St Vdb	Tel: 981-4708
Lend a Bob Cash Loans	Impala bldg Edison Blvd Vdb	Tel: 933-2863
Money Wise	Ladegaard House Eric Louw St Vdb	Tel: 931-1359 Fax: 931-9630
New World Cash Loans	5 Alvard Civic Vdb	Tel: 933-0353
Phahamang Financial Services	97 Livingstone Blvd Vdb Box 4948 Vdb	Tel: 933-1000 Fax: 933-0999
Quick Money	Standard bank bldg Van Rijn Square Vdb Box 3789 Vdb	Tel: 981-8394 Fax: 933-4113
Setshaba Cash Loans	Consolidated Bldg Attie Fourie St Vdb	Tel: 931-1825
Simunye Financial Services	Corco bldg Eric Louw St Vdb Box 263756 3Rivers Joyamar Flats Genl Hertzog St Vdb	Tel: 933-2163 Tel: 933-1317
Reid's Cash Fever	Monitor bldg Ericson St Vdb	Tel: 981-4929
Small Business Development Corp	SBDC bldg Delfos Blvd Vdb Box 4187 Vdb	Tel: 986-1297 Fax: 986-1302
Thusanang Cash Loans	Leoni bldg Pres Kruger St Vdb	Tel: 981-9027

FLORISTS

Fleurette Florist	Vaalgate Centre Vdb	Tel: 981-9901
JAAC Gifts & Flowers	Saamtrek bldg Carter St Vdb Box 12095 Lumier	Tel: 932-2807 Fax: 932-2807
Joles Enterprises		Cell: 083 734 7032
Multi-Plant Florists	Jan Van Riebeeck Blvd Vdb	Tel: 931-3365 Fax: 931-3400
Rachels Flowers & Gifts	Vaal Gate Centre Vdb Box 2514 Sslbrg	Tel: 931-1909
Reds Rose Florist	8 Crisco Plaza , Bedworthpark	Tel: 985-3023
Uniflora Bloemiste	Saamtrek bldg Carter St Vdb	Tel: 932-1426 Fax: 982-1992

FRUIT & VEGETABLE MARKETS / SELLERS

CE1 New Fruit Market	Hondaan bldg Robert Broom St Vdb	Tel: 933-2335
Empire fruit & Veg	Stand 1066 Evaton	Tel: 591-2701
Fruity Spice Bag	1 Eric Louw St Vdb	Tel: 933-8398
George's Mini Market	4 Jenner St Vdb	Tel: 933-2242
Golden Highway Fruiters	Plt 121 Zrftn	Tel: 986-0076
Happy In Fruit Markets	The Mall Vdb	Tel: 933-0328

Joes Fruit Market	Becquerel St Vdb	Tel: 933-1129
Lisbon Fruiteurs	Periston bldg Vdb	Tel: 933-1784
Lisbon Fruit Market	Olympia Centre Col Gordon St Vdb	Tel: 933-4335
M & A Fresh Producer	14659 Zone 11 Sbkng	Tel: 594-4671
New Portuguese Market Garden	9 Napier St Vdb	Tel: 933-1731
Porto Fruit & Vegetables	24 Shakespeare St Vdb Carter St Vdb Civic Centre Vdb Jenner bldg Jenner St Vdb	Tel: 933-1377 Tel: 932-1345 Tel: 933-4746 Tel: 933-2242
Porto Mini Market	4 Fox St Vdb	Tel: 933-5857
Segole Fresh Produce	Stand 570014 Sbkng	Tel: 593-1122
Sloopy Fruit	Del Rio bldg Vdb	Tel: 981-5187
Starking Fruiteurs	37 Fitzsimons Str	Tel: 932-1343
Unity Fruit & Vegetable Distributors	Zone 13 Sbkng	Tel: 594-3629
Vasco Da Gama Fruiteurs	Effora bldg Vdb	Tel: 933-5179
Vegie Town	141 Hans Strydom St Vdb	Tel: 933-7253 Fax: 981-1328
Vitasol	Van Rijn bldg FW Beyers St Vdb	Tel: 933-4301

FUNERAL UNDERTAKERS

Avbob	FW Beyers St Vdb Box 472 Vdb	Tel: 933-9734 Fax: 933-9940
Bophelong Funeral Services	Box 6420 Vdb	Tel: 986-1405 Fax: 986-2037
Doves & Saffas Funeral Directors	Tielman Roos Blvd Vdb Box 2078 Vdb Zone 10 Sbkng Box 5497 Jhb	Tel: 981-4014 Fax: 981-8063 Cell: 082 429 1800 Tel: 592-1277
Elnatan Begrafnis Ondernemings	Concorde bldg Attie Fourie St Vdb	Tel: 931-9602
Family Burial Society	1352 Makwatse St Bphing	Tel: 986-0192
Khambules Macdon Funeral Directors	126 Sebe Str , Residensia	Tel: 593-1656
Kutlwelo-Bohloko-Burial Society	431 Zone 8 Sbkng	Tel: 596-2400
Masakhane Areaganeng Funeral Undertakers	2699 Adams Road , Evaton	Tel: 596-3732
Mbongo Funerals	Tjhaba Tsatsi Centre Noble Blvd Vdb	Tel: 988-3999
Metro Burial Soc	Ekspa bldg DF Malan St Vdb	Tel: 931-9053
Moedi Funeral Services	Perm bldg Pres Kruger St Vdb	Tel: 931-9078
Park Town Funeral	96 West Rd Evaton Russles bldg Pres Kruger St Vdb	Tel: 591-1842 Tel: 933-2602
Peacemakers Funeral Undertakers	17 Zone Sebokeng	Tel: 592-1917
Residensia Funeral Undertakers	J van der Merwe St Rsdnsia	Tel: 593-1812
Rio Grafstene	FW Beyer St Vdb	Tel: 981-0210
Saffas	Tielman Roos Blvd Vdb Box 2078 Vdb	Tel: 981-4014
Thando funeral Services	14 Henry Str , Boipatong	Tel: 988-0000

GALVANISING & WATERPROOFING

Mike's Powder Cote	2 Fairbank St Vdb	Tel: 986-1553 Fax: 973-3940
PJ's Coatings	Plt 28 Blmprk Box 6187 Vdb	Tel: 987-1483 Fax: 987-1483 Cell: 083 588 2199
Prospect Coatings	5 Wedgewood St Vdb	Tel: 986-3477
Quality Powder Coatings	6 Chrome St Vdb Box 5487 Vdb	Tel: 931-1809 Fax: 933-6552
Stuart's Coatings	Burns St Vdb	Tel: 931-2790 Fax: 933-1070

GARAGES & SERVICE STATIONS

Armstrong Filling Station	2 Zone 10/3 Sbkng	Tel: 594-6812
Beverly Hills Garage	Stand 834 BvrlyHls	Tel: 582-0631
Boulevard Motors	381 Frikkie Meyer Blvd Vdb	Tel: 933-5530
Carter Street Service Station	39 Carter St Vdb	Tel: 932-1166 Fax: 982-1804
D & F Motors	2 Boswell Str	Tel: 981-8912
Elite Auto Repairs	Box 4572 Vdbp	Tel: 931-3338
Emfuleni Brandstofverspreiders Forum	23 Mansard St Vdp	Tel: 982-4778
Emmies Auto Repair	3 Daimler Str	Tel: 986-1807
Errol's Garage	Frikkie Meyer Blvd Vdb	Tel: 932-1171
Fouries Garage	9 Westing House Blvd Vdb	Tel: 931-2976
Iemas Motorland	1 Hertz Bd	Tel: 986-0210 Fax: 986-3964
Parkview Motors	439 Frikkie Meyer Blvd Vdb	Tel: 931-2855
Playfair Motors	425 Playfair Blvd Vdb Box 6328 Vdb	Tel: 981-9860 Cell: 082 853 0346
Saspark Auto	Golden Highway Zrftn	Tel: 932-3915 Fax: 982-2310
Sharpe Garage	13 Kariba St PwrPrk	Tel: 985-2203
Sollys Unipark Garage	Noble Bd	Tel: 988-1505
Sonic Motors	2 Zone 10 Sbkng	Tel: 594-1203
TK Filling Station	1172 Zone 10 Sbkng	Tel: 592-4063
TK Spihwe Service Station	177 Zone 6/5 Sbkng 101 McColm Blvd Vdb	Tel: 593-4800 Fax: 593-1228 Tel: 986-0818
Techni Motors	152 Playfair Blvd Vdb	Tel: 981-1884

Total Motors	132 Hans Strydom St Vdb	Tel: 981-2126
Unipark Engen Garage	19 Martin Blvd Vdb	Tel: 988-1505
Viltra Motors	18 Cyferpan Lsrs	Tel: 989-1641
Wessels & Van Tubbergh Service Centre	Edison Blvd Vdb Box 3018 Vdb	Tel: 933-7661 A/h: 932-5406
Wilcor Motors	264 Louis Trichardt Blvd	Tel: 981-6668
Yours & Mine Filing Station	Stand 394 Evaton	Tel: 591-5394

GARDEN SERVICES / LANDSCAPING

Buzzy Bee Garden Services	9b Goethe St Vdb	Tel: 931-3900
Enmalige Tuindienste		Tel: 981-6440 Cell: 082 254 6297
Everite Garden Products	Klipriver Factory Heidelberg off ramp R59	Tel: 903 8049
Mararlet Garden Services		Tel: 985-2955
New Era Fountains	Plt 13 Mrravl Box 3863 Vdb	Tel: 987-3195 Cell: 083 229 8659
Oberholzer Tuindienste		Tel: 982-1222
T S L Cleaning Services	Standard Bank Bld , Van Rijn Ave	Tel: 981-2444
Vesco Eco	Box 612 Vdbp	Tel: 988-3300

GIFT SHOPS

Anastazia's Gift & Audio's	Sanlam bldg Vdb	Tel: 981-6656
Civic Gifts & Repairs	Rietbok bldg Vdb	Tel: 931-1173
Clicks Stores	Blesbok Crt Vdb	Tel: 981-1106
Crazy Store	Sanlam Centre Attie Fourie St Vdb	Tel: 933-3324
Dickies Cards & Gifts	Jan Van Riebeeck Blvd Vdb	Tel: 933-3986
Funchal Travel & Gift Shop	16 Westcliff House Vdb	Tel: 981-1733
JAAC Gifts & Flowers	Saamtrek bldg Carter St Vdb Box 12095 Lumier	Tel: 932-2807 Fax: 932-2807
Kardies	Sanlam Centre Vdb	Tel: 933-2805
Lindie Loe	Bar Five bldg FW Beyers St Vdb	Tel: 981-8249
Magic Candles & Gifts	Vaal Gate Centre Vdb	Tel: 933-0797 Cell: 082 928 2496
Old & New	Fam Eals bldg Eric Louw St Vdb	Tel: 931-2588
Paradise Gift Shop	Consolidated bldg Attie Fourie St Vdb	Tel: 933-8309
Rachels Flowers & Gifts	Vaal Gate Centre Vdb Box 2514 Sslbrg	Tel: 931-1909
Screen Art	Saamtrek bldg Carter St Vdb	Tel: 932-3112 Cell: 082 420 2344
Selected Gifts	Vaalgate Centre Vdb	Tel: 933-0830
The Gift Gallery	Attie Fourie Str , Vaalgate	Tel: 933-6921



HAIRDRESSERS

African Style Hair Salon Boutique	Nashua bldg Eric Louw St Vdb	Tel: 933-3287
Alvaro & Amici Hairstylists	Vaalgate Centre Vdb	Tel: 933-4294
American Hair Salon	6479 Sharpville	Tel: 988-1277
Arise & Fall Hair Salon	Stand 20/3 Mftsna	Tel: 596-1338
Carla's Unisex Hair Boutique	16 Westcliff House Vdb	Tel: 933-4243
Casablanca Hair Salon	Ekspa bldg DF Malan St Vdb	Tel: 933-9395
Coiffure Sherelle Ronel	Pick 'n Pay Bedwrtprk	Tel: 985-2815
Curly Coiffure	Kosmos Centre FW Beyers St Vdb	Tel: 933-4960
Estetica Hair Salon	2 Attie Fourie St Vdb	Tel: 933-4140 Cell: 082 257 1710
Excellent Hair Designers	Zone 14 Sbkng	Tel: 592-5828
Faraday Manshaarkappers	12 Faraday Blvd Vdb	Tel: 981-8507
Franco's Hair Studio	Box 958 Vdb	Tel: 932-4524
Golden Opportune Hair Stylists	Moulysis bldg DF Malan St Vdb	Tel: 933-4616
Grand Hair Gallery	Sanlam Centre Vdb Box 6519 Vdb	Tel: 982-5506 Fax: 982-4751
Hair Designs	Sanlam Centre Vdb Box 14 Vdb	Tel: 933-1430
Hair Tavern	Roodia Plaza Eric Louw St Vdb	Tel: 981-8861
Hair Today	Van Riebeeck St Vdb	Tel: 933-5393
Hair Vibes	Van Rijn Square Vdb	Tel: 933-0945
Hair 2000 Unisex	Helena Lochner, Vdbp	Tel: 933-5478
Hair 9000	Kotkin House Eric Louw St Vdb	Tel: 933-8243
Hairline Unisex Salon	Bushbuck bldg Vdb	Tel: 933-5822
Hairtique	Corcorde bld , Attie Fourie	Tel: 933-1135
Heads Together	3 Van Rijn Square Vdb Box 6534 Vdb	Tel: 931-2178
Italia Hair Stylists	Ekspa bldg Van Rijn Square Vdb	Tel: 933-8695
Juliette Hair Boutique	Effora bldg Helena Lochner St Vdb	Tel: 933-3051
Lapas Hair Designer	570003 Zone 3 Sbkng	Tel: 593-3651
Lovoe Hair Saloon	4 Penelope St Bdwrtprk	Tel: 985-1497
Merle's Hair Boutique	President bldg Attie Fourie St Vdb Box 2028 Vdb	Tel: 933-1855
Mnguni's Hair Saloon	Stand 2797 Stretford	Tel: 581-2395
Motsumi	584020 Zone 3 Sbkng	Tel: 593-5405
Okie-Dokie Dames- en Manshaarkappers	Libro bldg Napier St Vdb	Tel: 933-2553
Salon Allinone	Saamtrek bldg Vdb	Tel: 932-4637
Salon Christine	Lenmos bldg Vdb	Tel: 933-7211
Salon Future	Union St Ver 2 Eric Louw St Vdb	Tel: 455-5134 Tel: 981-8607
Salon Karins	Imporium Bldg Shakespeare St Vdb	Tel: 933-2441
Salon Loui-Ann	Everest bldg Fox St Vdb	Tel: 933-5831
Salon Madeleine	2 Gill St Vdb	Tel: 981-9311
Salon Mari	Steelville bldg Heavyside St Vdb	Tel: 933-2613

Salon Marsanel	Sasbank Bldg Pres Kruger St Vdb	Tel: 933-9719 Cell: 083 420 5052
Salon Suzette	Steelville Bldg Heavyside St Vdb	Tel: 933-2613
Salon Ton	Faraday Centre Faraday Blvd Vdb	Tel: 933-9560
Sharon's Hair Studio	21 Liszt St Vdb	Tel: 982-2032
Staal Mans & Dames Haarkappers	4 Wells St Vdb	Tel: 933-0731
Status Hair Salon	394 Zone 10 Sbkng	Tel: 592-1089
Touch of Class Hair Design	Lamees bldg Hertz Blvd Vdb	Tel: 981-1968
Tru-Cut Hairdressers	Alpha bldg Pres Kruger St Vdb	Tel: 933-4590
Unique Hair & Nail Boutique	Overvaal bldg Frikkie Meyer Blvd Vdb	Tel: 932-3187
Unisex Hair Creations	Macowen St Vdb	Tel: 932-4160

HEALTH STUDIOS/GYMNASIUMS

Bill Slater Health Club	Chapman House B Schoeman Sq Vdb	Tel: 981-4078
Hatari's Gesonheidsentrum	7 Shakespeare St Vdb	Tel: 933-0304
Homeotech	23 Livingstone Blvd Vdb	Tel: 933-4012 Cell: 083 379 6730
Johan Heyns Community Health Centre	Box 023 Vdb	Tel: 950-6000 Fax: 981-1064
Public Health	Stand 47 Mftsna Box 1836 Vdb	Tel: 596-3873
Riverside Health Hydro	Box 2098 Vdb	Tel: 932-3867
Slater Health & Fitness Club	Chapman House Vdb Delius St Vdb	Tel: 981-4078 Tel: 932-3337 Fax: 932-2316
Vaalmed Rehabilitation and Wellness Network		Tel: 950-8118
Vanderbijlpark Health & Racquet Club	493 Frikkie Meyer Blvd Vdb	Tel: 982-4441 Fax: 982-4456
Virgin Active	Cherry Drive ,Box 2401 Vdbp 1900	Tel: 982-4441 Fax: 982-4456

HEALTH FOODS & SHOPS

Dr Helga Kuhn	2063 Chestnut Str ,Palm Springs	Tel: 581-0476
Empilisweni Clinic	Stand 7724 Zone 7 Sbkng	Tel: 593-7352

HEALTH RELATED BUSINESSES

Tyraye Marketing	Exhibition 2000 Genl Hertzog Rd Vdb Box 6277 Vdb	Tel: 981-9487 Fax: 981-6428
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INTERIOR DECORATORS

Alternative Design & Decorating	24 Wilger St Vdb	Tel: 932-2520
Decotex Interior Design	11 Ford Str , Vdbp	Tel: 931-3333
Image Services – Shop Fitters	Vaalgate Centre Vdb	Tel: 933-4556
Incite Interiors	4 Foster St Vdb	Tel: 982-3497
Kamma Cottage	Van Rijn Pl Vdb	Tel: 986-2229
Maison Binnehuise Versierders	Vesco bldg FW Beyers St Vdb	Tel: 933-9696
Merrills Interiors	Van Rijn Square Vdb	Tel: 981-8605 Fax: 981-8966
New Era Fountains	Plt 13 Mrravl Box 3863 Vdb	Tel: 987-3195 Cell: 083 229 8659
Quilt Gallery	Expa Bldg M Noble Blvd Vdb Box 6229 Vdb	Tel: 933-3733
Richie's Pelmet Makers	17684 Zone 14 Sbkng	Tel: 592-3944
Trans-oranje Flooring	Coloseum Bldg Delius St Vdb	Tel: 932-5645 Fax: 932-5646

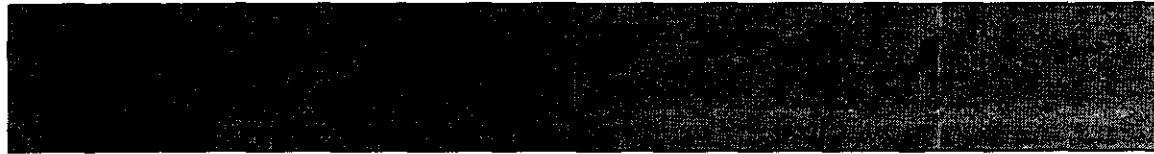
**KITCHEN RENOVATIONS**

Davidson Woodcraft	28 Daimler St Vdb Box 2436 Vdb	Tel: 986-0482 Fax: 986-1676 Cell: 082 893 4717
Le Grandt Woodcraft	264 Louis Treihardt Blvd Vdb Box 60306 Vaalpark	Tel: 931-1040 Fax: 931-1040

KITCHEN UNITS

Bafana Bafana African Kitchens	The Mall Vdb	Tel: 933-6009
Concept Kitchens	Vecor bldg McColm Blvd Vdb	Tel: 986-2563
Cupboard Craft	Hans Strydom Centre Genl Smuts St Vdb Box 2891 Ver	Tel: 981-8181 Fax: 981-8181 Cell: 082 895 4375
Davidson Woodcraft	28 Daimler St Vdb Box 2436 Vdb	Tel: 986-0482 Fax: 986-1676 Cell: 082 893 4717
DS Kitchens		Cell: 083 267 0209
Jansen Houtwerke	Plt 25 Northdene	Tel: 987-2083 Cell: 083 442 2063
Kombuishuis Houtwerke	4 Krupp St Vdb Box 1932 Vdb	Tel: 986-1768 Fax: 986-2230 Cell: 082 571 2447
Le Grandt Woodcraft	264 Louis Treihardt Blvd Vdb Box 60306 Vaalpark	Tel: 931-1040 Fax: 931-1040
Meklo Houtwerke	Currie Blvd Vdb Box 1330 Vdb	Tel: 986-2248 Fax: 986-1831
Purpose Cupboards	12 Cobalt Str , Box 1932 Vdbp	Tel: 981-2300/1 Fax: 981-2302

Valencia Kombuise	Vecor bldg McColm Blvd Vdb	Tel: 986-0085
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LAUNCHING FACILITIES

Willows on Vaal	Plt 581 Driefontein Vdb	Tel: 987-1091
Stonehaven on Vaal	Next to the Baddrift Bridge Vdb	Tel: 982-2951
Sports & Boating	Vdb	Tel: 932-5603
Abrahams Rust Resort	Opposite Riverside Sun on the Vaal River Sslbrg	Tel: 971 2222
Emfuleni Resort	Vdb	Tel: 932-3683
The Pumphouse	Ascot Dr Vdb	Tel: 985-1685
Dickinson Park	Mario Milani Dr Ver	Tel: 450 3911
Sam Gross Jetty	Brandmuller Dr 3Rivers	Tel: 362 0060
Riverside Sun	Karel Wilson Dr Vdb	Tel: 932-1111

LIQUOR STORES

Apollo Cellars	6 Stephenson St Vdb Perfect Centre Macowen St Vdb	Tel: 986-1333 Tel: 932-2402
Beukes Bottlestore	Serfonteinpln DF Malan St Vdb	Tel: 933-0892
Boipathong Bottle Store	Stand 1989 Bptng	Tel: 988-2033
Concorde Liquor Store	Concorde bldg Attie Fourie St Vdb Box 3843 Vdb	Tel: 981-4908
Daisy's Bottel Stoor	28 Robert Broom St Vdb	Tel: 933-1733
Dop Shop	3 Bush Buch Crt Vdb	Tel: 981-7220 Fax: 981-7218
Fairplay Liquorstore	17834 Zone 14 Sbkng	Tel: 592-2726
Freddie's Bottle Dealer	Box 200 Sbkng	Tel: 592-3196
KNJ Liquor Store	Stand 69/2 Evaton	Tel: 596-3614
Liquor City	3 Currie Centre Vdb	Tel: 986-2851
Liquor Town	Tequila bldg Fox St Vdb Box 5682 Vdb	Tel: 933-9876 Fax: 933-9876
Louisrus Bottlestoor	Plt 83 Lsrs	Tel: 989-1531
Mita's Hyper Liquor Store	Mumford St Vdb	Tel: 981-9636
Oranjerivier Wynkelders	KSOK bldg Delfos Blvd Vdb Box 5501 Vdb	Tel: 986-1755 Fax: 986-1992
Park Bottle Store	Emporium bldg Shakespeare St Vdb	Tel: 933-2500
Park Square Liquor Store	Hans Strydom St Vdb	Tel: 981-5225
Party Time Bottle Store	Periston House Helena Lochner St Vdb	Tel: 933-5956
Poolside Liquor Cellars	Macowen St Vdb	Tel: 932-2402
Rietspruit Liquor Store	Plt 99 Rtsprt	Tel: 592-3997
Riverview Liquor Store	Riverview Centre Vdb	Tel: 932-5585
Rum Drum	Lemnos Centre Carel de Wet St	Tel: 933-1052

	Vdb	Fax: 981-7537
Steelville Drankwinkel	Steelville bldg Marconi St Vdb	Tel: 933-5309
Sun Bottle Store	Plt 14 Rtsprt Box 53264 Troyeville	Tel: 591-5037
Super Liquor Bedworth Park	Pick 'n Pay Bedwrtprk	Tel: 985-3233
Super Liquor Discounters	Shoprite Centre Jan van Riebeeck Blvd Vdb Box 2772 Vdb	Tel: 933-1061
Tappies Liquor Store	8 Platinum St Vdb	Tel: 933-0597
Vuka Bottle Store	27e Dubula Dr Shrpvil	Tel: 985-4986
Westlike Provinsie Kelders	Saamtrek bldg Carter St Vdb Box 596 Vdb	Tel: 932-1137 Fax: 932-1136
Zone 11 Liquor Store	14659 Zone 11 Sbkng	Tel: 594-2299

MAINTENANCE

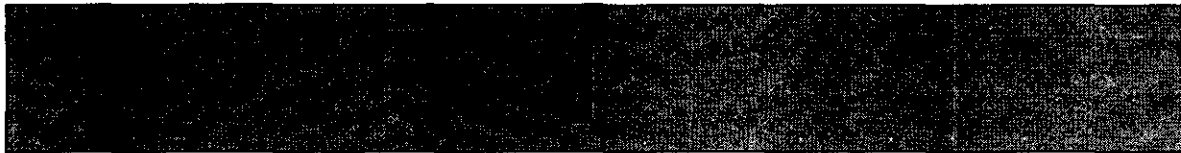
Logar Maintenance	YskorIndPrk Eastman St Vdb	Tel: 986-1044
Maintenance & Wiring	14915 Zone 7 Sbkng	Tel: 593-1736
RG Maintenance Services	23 Rabie St Vdb Box 6768 Vdb	Tel: 931-3583 Fax: 931-3922 Cell: 082 655 8740
Rainbow Renovations & Maintenance	8 Rabie St Vdb Box 977 Vdb	Tel: 981-0243 Fax: 981-0244 Cell: 082 900 9668
Servuton	16 DF Malan St Vdb	Tel: 981-6090 Fax: 981-6197

LCM Steel	Triangle Business Centre Chrome St Vdb	Tel: 981-0456 Cell: 082 896 1516
MSJ Metals	Plt 120 Zrftm	Tel: 986-1645
Sasolburg Scrap Metals	13 Firestone St Vdb Box 1517 Vdb	Tel: 986-0732 Fax: 986-0500
Stockwell Vaal	3 Edison Blvd Vdb	Tel: 981-2020 Fax: 981-2050
Vaal Scrap Metals	19 Mitchelin St Vdb Box 1508 Vdb	Tel: 986-1415 Fax: 986-1415

MOTORCAR MAINTENANCE

All Brake & Clutch	Sarvan bldg Delfos Blvd Vdb Box 2192 Vdb	Tel: 986-0715 Fax: 986-0720
Andre Bam Auto Clinic	4 Wolfram St Vdb Box 6850 Vdb	Tel: 981-8709 Fax: 981-8709
Auto Care	22 Ericson St Vdb Box 272 Vdb	Tel: 981-5071
Auto Centre	4 Well St Vdb	Tel: 931-1078
Autofix	11 Westinghouse Blvd Vdb Box 3315 Vdb	Tel: 933-8694
Brake & Clutch Centre	6 Nikkel Str , Box 1069Vdb	Tel: 931-1596
Brathoms Motor Spares	1446 Adams Rd Residencia	Tel: 593-4375
Bredies Tune Up Centre	24 Ericson St Vdb	Tel: 981-3099
Bullet Auto Clinic	Edison bldg Edison Blvd Vdb	Tel: 931-9041
CV City	Edison bldg Edison Blvd Vdb	Tel: 933-0841
Camilo's Auto Centre	9 Techno Park Rabie St Vdb	Tel: 933-9893
Carlos Auto Centre	7 Chrome St Vdb Box 3393 Ver	Tel: 931-1951 Fax: 981-7868 Cell: 082 925 8941
Cecil's Auto Electrical	6 Edison Blvd Vdb	Tel: 981-3649 Cell: 082 967 2072
Coetzee Brake & Propshaft Centre	L & M bldg Edison Blvd Vdb Box 4600 Vdb	Tel: 981-9704 Fax: 981-9704
Competition Motors	32 Becquerel St Vdb	Tel: 933-4381
D & L Auto Repairs	13 Rabie St Vdb	Tel: 981-7796

Dan's Quality Auto Body	McColm Blvd Vdb	Tel: 986-0791 Cell: 082 931 2944
Domento Mechanical Services Donmar	3 MarESolFlt Vdb 105 McColm Blvd Vdb Box 1776 Vdb	Tel: 933-4945 Tel: 986-0696 Fax: 986-0697
GPS Gearbox Services & CV	23 Rabie St Vdb Box 3698 Vdb	Tel: 981-7602
Gearbox Masters Gearbox Services	14 Chrome St Vdb 23 Rabie St Vdb Box 3698 Vdb	Tel: 981-9175 Tel: 981-7602
Jabu Engines & Gearboxes	Executive bldg Van Rijn St Vdb Box 6665 Vdb	Tel: 933-1170 Fax: 933-1164
Jan's Tune-Up Centre Jones Motorhawe Mobile Tuning	Erasmus Str , Vdbp Barrage Rd Vdb	Tel: 981-6120 Tel: 981-0220 Cell: 082 335 1974 Cell: 082 654 0662
Mr. Gearbox	Louis Trichardt Blvd Vdb	Tel: 981-2826 Cell: 082 411 9057
Muller's Diesel Injection	Edison Blvd Vdb Box 1321 Vdb	Tel: 933-2762 Fax: 933-2762 Cell: 083 268 2994
Nel's Diesel Fuel Injection	183 Edison Blvd Vdb Box 1377 Vdb	Tel: 931-2090
Propshaft Centre	L & M bldg Edison Blvd Vdb Box 4600 Vdb	Tel: 981-9704 Fax: 981-9704
Reivilo Industrial	Kobalt St Vdb	Tel: 981-3162 Fax: 933-2911
Setai Motor Spares & Accessories	99 Golden Highway Rtsprt	Tel: 591-7632
Springbok Auto General	7 Edison Blvd Vdb Box 3162 Vdb	Tel: 931-1748 Fax: 933-7143
Steve's Auto Clinic	3 Flaubert St Vdb Box 1613 Vdb	Tel: 933-9972 Fax: 933-2035 Email: sac.vdb@mweb.co.za
Supa Quick Auto Centre	23 P/ Kruger Str , Vdbp	Tel: 933-4210 Fax: 981-5706
Triangle Brake & Clutch Vaal CV Centre	74 Fairbank St Vdb Dart bldg Edison Blvd Vdb Box 5065 Vdb	Tel: 986-0765 Tel: 931-1724 Fax: 931-1724
Vaaltech CV Joints & Propshaft Centre	103 McColm Blvd Vdb Box 1735 Vdb	Tel: 986-1703 Fax: 986-0957 Cell: 083 442 0684
Vanderbijlpark Exhaust & Silencer Services	C/o Edison Blvd & Ahrbeck St Vdb Box 4044 Vdb	Tel: 933-2915 Fax: 933-1571 Cell: 082 254 6296
Walcon Exhaust & Auto Clinic	5 Preller St Vdb Box 5023 Vdb	Tel: 933-5449
Warrior Truck & Car Services	74 Fairbank St Vdb	Tel: 986-0334 A/h: 083 334 1660
Wessles & Van Tubbergh Diensentrum	Edison Blvd Vdb Box 3018 Vdb	Tel: 933-7661 A/h: 932-5406
World Engine & Transmission	7 Krupp St Vdb Box 3093 Vdb	Tel: 986-2196 Fax: 986-1899
Ziehl's Brake & Clutch	38 Hans Strydom Rd Vdb	Tel: 931-1596 & Fax

**PACKAGING**

Lochvaal Packaging	16 Darbez St Vdb	Tel: 981-9089
Reliant Packaging	3 McColm Blvd Vdb	Tel: 986-0501
Resinite SA	5 Leland St Vdb Box 670 Vdb	Tel: 986-1204 Fax: 986-2245
Van Leer SA	Martin Blvd Vdb Box 271 Vdb	Tel: 988-1120 Fax: 988-2800

PAINTERS / PAINTING CONTRACTORS

Advanced Painters		Cell: 083 590 3110
Alimtech Waterproofing	22 Heiden Ave ,Flora Gardens	Tel: 933-5605
Alpha	30 Bellona Ave , Bedworthpark	Tel: 985-1227
D D M Painters	Box 2782 Vdbp	Tel: 931-3559
D & S Roof Maintenance Crews	127 Northdene Vdb Box 26859 Vdb	Tel: 987-1515 Cell: 083 400 5394 Cell: 082 335 6435
Elite		Tel: 981-1590 Cell: 082 961 1372
Emfuleni		Tel: 981-6301 Cell: 082 853 7028
Goodwill Painters	26 Frikkie Meyer Blvd Vdb Box 3059 Vdb	Tel: 933-5043 Fax: 981-9893
JH Verfkontrakteurs		Cell: 083 508 5759 Cell: 083 536 1658
Roof Crew	1 Avando Bld , Carter Str	Tel: 932-2566
Tronic Trade	3 Daimler Str	Tel: 986-1991

PANEL BEATERS

Andrew's Panel Beaters	7 Krupp St Vdb Box 141277 Zrftn	Tel: 986-1345 Cell: 082 923 4085 Cell: 082 454 2754
Caritzas Panel Beaters	1 Fairbank St Vdb	Tel: 986-1802
D & F Panelbeaters	Helena Lochner St Vdb	Tel: 933-2953
Dan's Quality Auto Body	McColm Blvd Vdb	Tel: 986-0791 Cell: 082 931 2944
Emerald Auto Body	19 Edison Blvd Vdb	Tel: 933-2772 Fax: 931-3111
Euro Panelbeaters & Spray Painters	107 Curie Blvd Vdb Box 832 Vdb	Tel: 986-0556 Fax: 986-0629
Executive Panelbeaters & Spray Painters	34 Edison Blvd Vdb	Tel: 933-1111 Fax: 933-1107 Cell: 082 671 8856
Kunene Panelbeaters	Stand 801 Evaton	Tel: 591-1660
Lucas Panel Beaters	Zone 6/4 Sbkng	Tel: 593-8796
Multispray Paneelkloppers	1 Nikkel St Vdb	Tel: 933-5551

PJ Panelbeaters	19797 Zone 14 Sbkng	Fax: 931-2635
Park Panelbeaters & Spraypainters	10 Cartwright St Vdb Box 1016 Vdb	Tel: 592-1019 Tel: 981-0223 Fax: 981-7118 A/h: 932-2555
Prime Panel Beaters	107 McColm Blvd Vdb	Tel: 986-3190 Fax: 986-0791
Quality Assured Panel Beaters	32 Edison Blvd Vdb	Tel: 933-4141 Fax: 933-5303 Cell: 083 600 0613
SL Panelbeaters	575022 Zone 3 Residencia	Tel: 593-3839
Swan Up Panelbeaters	5 McColm Blvd Vdb	Tel: 986-2690 Fax: 986-2690 Cell: 082 963 6611
Twin City Panelbeaters	13 Edison Bd, Box 2274	Tel: 981-1545
TNT Panelbeaters Spraypainters & Radiar Services	Box 2467 Vdb	Tel: 933-5265 Fax: 933-5658 Cell: 083 600 0615
TNT Paneel Kloppers	7 Weber St Vdb	Tel: 981-6721
Ultra Panel Beaters	154 Playfair Blvd Vdb Box 4617 Vdb	Tel: 933-4110 Cell: 083 303 4338
Ultraspray	1a Rabie St Vdb Box 4617 Vdb	Tel: 931-2853 Fax: 933-2086 Cell: 083 303 4338
Vaaldriehoek Auto Bumper	7 Currie Blvd Vdb	Tel: 986-1495
Van Zyl's Panelbeaters & Spraypainters	Mollier St Vdb Box 1014 Vdb	Tel: 981-9132 Fax: 933-9117

PARTY ORGANIZERS

Preston's Party Farm		Cell: 082 683 6347 Cell: 082 758 9508
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PAVING & WALLS

CC Lapas		Cell: 083 731 6379
Crazy Paving	Box 4359 Vdb	Tel: 987-3916 Cell: 082 901 8888
Farsons Walls	34 Daimler St Vdb	Tel: 986-0635
Harry Mpha Paving & Beton		Cell: 083 485 9658
Henry Tspetsi's Paving Pools & Walls Construction	Stand S889 Shrpvil	Tel: 985-1208
Life Time Walling		Tel: 986-0598
Panther Paving	4 Fairbank St Vdb Box 1509 Vdb	Tel: 986-1612 Fax: 986-1627
Pic 'n Pave		Cell: 083 284 5485
Sigma Betonmure	74 Fairbank St Vdb	Tel: 986-0155 Fax: 986-1337
Speedy Precast Walling	6 Krupp St Vdb	Tel: 986-1749
Stieler Tarr & Paving		Tel: 987-1765 Cell: 083 476 1646
Stokkiedraai Paving	Stokkiedraai Pad	Tel: 987-3077
That Man's Paving	Box 2224 Ver	Tel: 989-1934
Vosbeton	Michelin St Vdb	Tel: 986-1200

	Box 2608 Vdb	Fax: 986-0598 Cell: 083 650 7772
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PHOTO DEVELOPMENT

CNA	Sanlam Centre DF Malan St Vdb	Tel: 933-4092
Foto First	Vaalgate Centre Vdb Box 4088 Vdb	Tel: 933-1649 Fax: 933-7457
Konica Express Lab	Consolidated bldg Attie Fourie St Vdb	Tel: 981-6990
Mardo Photos	Calance House Pres Kruger St Vdb	Tel: 933-0397
Photo First	DF Malan St Vdb	Tel: 933-1649
World Photo	Hans Strydom Centre Vdb	Tel: 933-0280

PHOTOGRAPHERS

Call of the Wild		Tel: 932-4924 Cell: 082 708 2834 Cell: 082 976 3989
Dries Delport		Tel: 971-1886 Cell: 082 895 1561
Ernie Le Roux		Tel: 889-9850(w) Tel: 931-2171(h)
Manie		Tel: 971-3813
Maphale's Photography & Video Productions	Stand 1155Bphng	Tel: 986-3515
Mazibuko Photo Video	4730 Zone 12 Sbkng	Tel: 594-4152
Rankholo, RMD	Vdb	Tel: 593-9433
Photo Image Studio	Consolidated bldg Attie Fourie St Vdb	Tel: 981-6990
Power-Tel Photographic	Box 1576 Vdb	Tel: 981-0146

PLEASURE RESORT

Emeraldi Casino	777 Frikkie Meyer	Tel: 982-8777 Tol Free: 0800 00 777
Erina Spa	Barrage	Tel: 983-0005

PLUMBERS & PLUMBING

Chop Chop		Cell: 082 437 0114
D & S Roof Maintenance Crews	127 Northdene Vdb Box 26859 Vdb	Tel: 987-1515 Cell: 083 400 5394 Cell: 082 335 6435
Drain Surgeon	Montana bldg 25 Rabie St Vdb Box 6007 Vdb	Tel: 981-8262
Lads Building & Plumbing Consultants	Loch Vaal Box 3009 Vdb	Tel: 987-3202 Fax: 987-2122
Pine plumbing Maintenance	4 Lehar St Vdb	Tel: 932-1976
Pipe 'n Drain		Tel: 986-0057 Cell: 083 231 8173
Plumbing Centre	18 Frans Erasmus St Vdb Box 2821 Vdb	Tel: 933-4796 Fax: 981-0782
Vaal Plumbing Bathroom & Hardware	Joymar bldg Eric Louw St Vdb Box 1088 Meyerton	Tel: 933-0878

W & J Loodgieter	36 Okulis St Vdb	Tel: 932-3642
Wilro Plumbers	37 Hendrik van Eck Blvd Vdb Box 5100 Vdb	Tel: 982-3072

PRINTING / DUPLICATING & SIGN WRITING SERVICES

Amor Silkscreening & Sport	Kosmos bldg FW Beyers St Vdb Box 14875 Zuurfontein	Tel: 981-8810 Fax: 981-8810
Arrow Signs	8 Chrome St Vdb Box 181 Vdb	Tel: 981-2817 Fax: 931-1760 Cell: 082 771 8816
Everyday Printers & Stationers	Cosmos bldg FW Beyers St Vdb Box 14872 Zrftn	Tel: 981-2098 Fax: 981-6071
Fast Lane Printers	Joymar bldg Eric Louw St Vdb	Tel: 933-1184 Fax: 981-6256 Cell: 082 705 6105
Fine Forms	21 Langenhoven St Vdb Box 434 Vdb	Tel: 981-7302 Fax: 933-8921
Karolia Printers	56 Daimler St Vdb	Tel: 986-0986 Fax: 986-1038
Manly Screen Printers	Alpha bldg Pres Kruger St Vdb	Tel: 933-3980
Minuteman Press	16b Hertz Blvd Vdb	Tel: 931-2060
Mr. Sign	Vewoerd Square Vdb Box 4379 Vdb	Tel: 933-5690
Ons Drukkers	17 Edison Blvd Vdb Box 4981 Vdb	Tel: 981-9401 Fax: 981-0301
Paradox Design	Sbkng 5 Daimler St Vdb	Tel: 988-4304 Tel: 986-3487
Print Core	Techno Park Rabie St Vdb Box 263377 3Rivers	Tel: 933-6931 Fax: 933-6930
Print Spot	Del Rio bldg Becquerel St Vdb Box 1107 Vaalpark	Tel: 981-6758
Pro Signs	Exhibition 2000 Frikkie Meyer Blvd Vdb	Tel: 931-9559
Sasolburg Litho	6 Chrome St Vdb	Tel: 981-6480
Screen Art	Saantrek bldg Carter St Vdb	Tel: 932-3112 Cell: 082 420 2344
Shogun Screen Printing & Signs		Tel: 976-8372 Fax: 976-8370
Sign & Design	1 Edison Blvd Vdb Box 6668 Vdb	Tel: 981-3503 Fax: 981-3503
Sign-Ads	11 Edison Blvd Vdb	Tel: 931-2028
Signtech	11 Edison Blvd Vdb Box 1206 Vdb	Tel: 931-2028 Fax: 931-2028
The Print Shop	7 McColm Blvd Vdb	Tel: 986-1937
Triangle Printers	Joymar bldg Springbok Crt Vdb	Tel: 981-6255 Fax: 981-6256

REAL ESTATE AGENTS

Aida Eiendomsagentskap	33 Livingstone Blvd Vdb Box 3356 Vdb	Tel: 933-0606 Fax: 933-0692
Alpha Homes	415 Playfair Blvd Vdb Box 1028 Vdb	Tel: 933-0918 Fax: 933-0918
Anieka Estate Agents	29 Joubert St Lasiandra Box1994 Vdb	Tel: 982-1002 Fax: 932-3728
Anne Carstens Properties	Effora bldg H Lochner St Vdb Box 6587 Vdb	Tel: 981-2900 Fax: 981-0239
Annette Daniel Eiendomme	80 Wenning St Vdb	Tel: 982-2850
Chase Properties	Colosseum Centre Chopin St Vdb Box 1033 Vdb	Tel: 982-3750 Fax: 982-3757
Chris Hatting Eiendomme	7 Rietbok bldg Vdb	Tel: 981-4106
Crawfords	FW Beyers St Vdb Box 748 Vdb	Tel: 981-9100 Fax: 931-2328
DG Ladegraard Real Estate	Ladegraad House 11 Eric Louw St Vdb Box 128 Vdb	Tel: 933-9633 Fax: 933-9364
Danie Fourie Eiendomme	81 Sentrale St Vdb	Tel: 981-7979
Dial-a-Home / Town House Group	C/o Frikkie Meyer Blvd & Conradie St Vdb	Tel: 931-1234 Fax: 931-1252
Dinamiq Properties	220 Louis Trichardt Blvd Vdb	Tel: 982-4264 Fax: 982-4265
Direct Estate Agents & Auctioneers	112 Alfa bldg Vdb	Tel: 981-9234
Direction Property Group	SA Perm Pres Kruger St Vdb	Tel: 981-7651
Dirkdup Eiendomme	3 James Chapman St Vdb	Tel: 981-2317
Du Rand Eiendomme	Hertz Blvd Vdb	Tel: 981-4172 Fax: 981-4172
Eksteen Estates	2 Bunsen St Vdb	Tel: 933-4169
Elite Eiendomme	73 George St Mntvrde	Tel: 932-1931 Fax: 982-2262
Gensec Property Services	Sanlam Center Vdb	Tel: 933-5256
Homenet	Vdb	Tel: 933-0606
Lethabo Property Services	Eskom	Cell: 082 561 0816 (Solomon) Tel: 971-1006 (Solomon) Tel: 971-1003 (Linda)
Libra Eiendomskonsultante	Pasadena Crt Junk St Vdb	Tel: 933-9923
M James Estates	3 Macowen St Vdb	Tel: 932-3578 Tel: 982-2567
MMP Real Estates	1 Ladegaard House Vdb	Tel: 981-7394
Magda Zietsman Eiendomme	Perfect Centre Macowen St Vdb Box 6000 Vdb	Tel: 982-1020 A/h: 932-2458
Marc James Estates	9 Grieg St Vdb	Tel: 932-3578
Marie Olivier Properties	Pasteur Crt Vdb	Tel: 933-0093
Marti's Eiendomme	19 Col Blake St Vdb	Tel: 933-1005

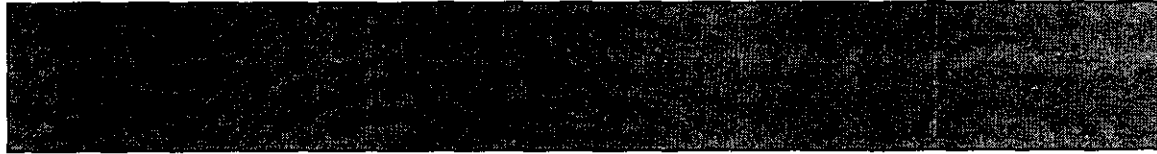
		Cell: 083 263 2144
Multivaal Homes	Rooth & Wessels bldg Attie Fourie St Vdb	Tel: 931-1580 Fax: 981-8100 A/h: 933-7082
Nickelstraat 4 Eiendomme	8 Wolfram St Vdb	Tel: 933-1223
Niel De Klerk Properties	Wasteland bldg Hertz Blvd Vdb Box 1273 Vdb	Tel: 931-2972 Fax: 981-2973
Pam Golding Estates	Vdb	Tel: 982-6095 Fax: 982-6095
Prestige Estate Agents	Vaal Gate Centre Vdb	Tel: 981-8802 Fax: 981-8804
Property Direct	C/o Dick King & Andries Potgieter Blvd Vdb	Tel: 982-3689/96
Property Excellence	262 Louis Trichardt Blvd Vdb Box 4530 Vdb	Tel: 981-1264 Fax: 981-1260
Property Guide	Pres Kruger Ave Vdb	Tel: 981-7651 Cell: 083 432 3256
Property Link	152 Louis Trichardt Blvd Vdb	Tel: 982-2233
Property 2000	Vdb	Tel: 981-1264/5/6
Reality-1 Elk Estates	Vdb	Tel: 981-5820
Rezek Properties Vaal	33 Spruit St Van Watershof	Tel: 932-2510
Riverview Eiendomme	3 William Nichol St Vdb	Tel: 981-8444 Cell: 082 898 9180
Riviera Eiendomme	115 Beethoven St Vdb	Tel: 982-4080
Spektrum Properties	Standard Bank bldg Vdb Box 1904 Vdb	Tel: 981-2233 Fax: 981-2233
Stieler Danie Eiendomme	Plt 42 Stphnoprk	Tel: 987-1765
TID Property Development	Penelope Ave Bedwrtprk	Tel: 985-5880 Fax: 985-5883
TOC Properties & Marketing	Proctrust bldg Attie Fourie St Vdb	Tel: 933-3194
V & L Eiendomme	Van Wyk bldg Vdb Box 1981 Vdb	Tel: 931-1419
Vaal Extension Properties	Lusiana Vdb	Tel: 983-0020
Vaal River Real Estates	Golden Highway Vdb	Tel: 982-3198
Vaaloewer Erwe	Exhibition 2000 Frikkie Meyer Blvd Vdb	Tel: 981-8020 Fax: 987-1789
Vanderbijlpark Eiendoms	Attie Fourie St Vdb Box 1 Vdb	Tel: 931-2946 Fax: 981-3942
Vereeniging Trust	Crawford bldg FW Beyers St Vdb Box 748 Vdb	Tel: 981-9100
Vesco	Attie Fourie St Vdb Box 1 Vdb	Tel: 931-2946 Fax: 981-3942
Waterfront Properties	Top Level Centre Fitzsimmons St Vdb Box 6896 Vdb	Tel: 982-1762 Fax: 982-5305
Yskor Landgoed	Eastman St Vdb	Tel: 986-1144 Fax: 933-1670

REFRIGERATORS & FREEZERS-REPAIRS

Airtech:SBDC Bld	Delfos Bd ,Vdbp	Tel: 986-2004
Appliance Ace	18 Olympus Str	Tel: 981-9627

RENOVATIONS & REPAIRS

BADENHORST, J (piano's)	Box 3428 Vdb	Tel: 987-2668
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**SCRAP YARDS**

All in One Scrapyard	90 Currie Blvd Vdb	Tel: 986-1386
Auto Salvage Motors	Edison St Vdb Box 3798 Vdb	Tel: 981-0003
F B C Scrap Metals	Plot 120 Zuurfontein	Tel: 986-1645
Highway Scrapyard	9 Fairbank	Tel: 986-3795
Hencor Motorrommelwerf	1 Delfos Blvd Vdb Box 2423 Vdb	Tel: 986-0100 Fax: 986-0023
Vaal Scrap Metals	Mitchelin Str	Tel: 986-1415 Fax: 986-0984
VIP Scrap Yard	90 Zone 10 Sbkng	Tel: 592-1285
Van Zyl's Motors & Motor Scrapyard	Mollier St Vdb	Tel: 933-9670 Fax: 933-9117
Willys Truck Scrapyard	28 Fairbank Str	Tel: 986-1281/2

SCREEN PRINTERS

Amor Silkscreening & Sport	6 Cosmos Bld, Van Rijn Sq	Tel: 981-8810
Manly Sreen Printers	Alpha Bld President	Tel: 933-3980
Sreen Art	Saamtrek Bld , Carter Str	Tel: 932-3112

SECURITY & SAFETY

American Safety & Rescue	1 Eloff St Vdb	Tel: 982-2508
Auto Sound & Security	1 Westinghouse Blvd Vdb	Tel: 933-1611 Fax: 933-1621 Email: autosound@yebo.co.za
Car Hi-Fi Specialists	Vaal Gate Centre Vdb	Tel: 981-6240 Fax: 981-7792
Compu Security Alarms	Kronendal bldg Ericson St Vdb	Tel: 981-9244
Cool Sound	133 Genl Smuts Ave Vdb Box 1057 Vdb	Tel: 933-0722 Fax: 933-5915
Cyfer Industrial Supplies	Plt 14 Cfrpn Box 975 Vdb	Tel: 988-1254 Fax: 988-1809
Lethoba Window & Burglar Proofing	474 Zone 6 Sbkng	Tel: 593-5822
Lubbe Staalwerke		Tel: 932-5613 Cell: 082 449 8462
Malola Mingo Burglar Proofing	1414 Mikado Rd Evaton	Tel: 593-4459
SV Sweiswerke		Cell: 082 653 5341

		Cell: 082 898 3526
Sound Lab & Security	Dart bldg Edison Blvd Vdb	Tel: 931-1232 Fax: 931-1232
Triangle Mining & Safety	Plt 8 StphnoPrk	Tel: 987-2432 Fax: 987-2412
Willem		Cell: 083 396 4859

SERVICES

Emmanuel NVT Services	1 Ramsey St Vdb	Tel: 981-0236 Fax: 933-9239 Cell: 082 446 9035
Fergo Services	Springbok bldg S Le Roux Square Vdb Box 5884 Vdb	Tel: 933-1491 Fax: 933-1499 Cell: 082 652 1491
Freddie's Service Centre	Plt 99 Rtsprt	Tel: 592-1115
Golden Highway Services Centre	Golden Highway Vdb	Tel: 986-0262 Fax: 986-2829
Rautenbach Machinery Services	7 Leland St Vdb	Tel: 986-2778
Semistack Services	17 Arnold Bennet St Vdb	Tel: 981-5075
Sertek Services	6 Groendoring St Vdb	Tel: 932-2046 Fax: 982-2406
Specialised Mechanical Services	11 Leland St Vdb	Tel: 986-0795
Tele Services	Baltimore Mansions FW Beyers St Vdb	Tel: 981-3583
Triangle Services	4 Baines St Vdb	Tel: 982-1854

SEWING & KNITTING MACHINE RETAILERS & REPAIRS

Bernina Sew & Knit	The Mall Paul Sauer Square Vdb Box 4881 Vdb	Tel: 933-7863
Eina & Passap	47 Attie Fourie St Vdb Box 2874 Vdb	Tel: 933-2843
Husqvarna	Vaal Gate Centre Vdb	Tel: 933-9812
Sew & Knit Clinic	Edison bldg Vdb	Tel: 933-9525
Singer Sewing & Knitting Machines	Alvaro Arc Pres Kruger St Vdb Box 1217 Lenasia	Tel: 933-5647
Toyota Sewing Machines	Vaal Gate Centre Vdb	Tel: 933-9812

SHOE REPAIRS

Civic Centre Shoe Repairs	S Le Roux Square Vdb	Tel: 933-1838
Multi Serve	Vaalgate Centre Vdb	Tel: 981-3216
TRM Harlem Shoe Maker	Box 8131 Sharpville	Tel: 985-1633

SIGNWRITERS

Network Signage Systems	Stand 1124 Evaton	Tel: 583-1738
Signtech	11 Edison Bd	Tel: 931-2028

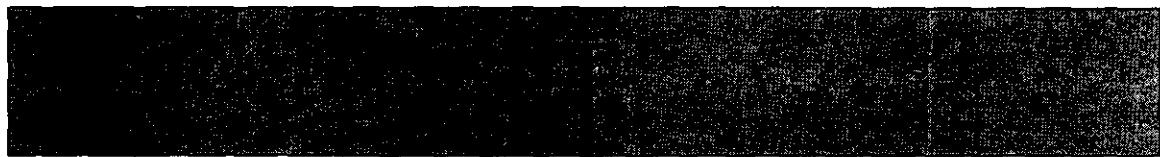
SPRAY PAINTING

Blast & Spray	3 Daimler St Vdb	Tel: 986-0599
Dan's Quality Auto Body	McColm Blvd Vdb	Tel: 986-0791 Cell: 082 931 2944

Euro Panelbeaters & Spray Painters	107 Curie Blvd Vdb Box 832 Vdb	Tel: 986-0556 Fax: 986-0629
Executive Panelbeaters & Spray Painters	34 Edison Blvd Vdb	Tel: 933-1111 Fax: 933-1107 Cell: 082 671 8856
Park Panelbeaters & Spraypainters	10 Cartwright St Vdb Box 1016 Vdb	Tel: 981-0223 Fax: 981-7118 A/h: 932-2555
TNT Panelbeaters Spraypainters & Radiar Services	Box 2467 Vdb	Tel: 933-5265 Fax: 933-5658 Cell: 083 600 0615
Thermo Blast & Spray	7 McColm Blvd Vdb	Tel: 986-0351
Ultraspray	1a Rabie St Vdb Box 4617 Vdb	Tel: 931-2853 Fax: 933-2086 Cell: 083 303 4338
Van Zyl's Panelbeaters & Spraypainters	Mollier St Vdb Box 1014 Vdb	Tel: 981-9132 Fax: 933-9117

STOVE REPAIRS

Lograg Maintanance	Eastman Str	Tel: 986-1044
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**TAXI'S**

B B Futshane Taxi's	1231 Lind Rd Evaton	Tel: 591-1410
Evaton Taxi	184 Adams Rd Evaton	Tel: 591-1314
Khambule Taxi Services	86 Zone 8 Sbkng	Tel: 596-1068
Koekemoer Taxi Diens	23 Stephenson St Vdb	Tel: 986-0496
Mbatha, TW	541031 Zone 3 Sbkng	Tel: 593-4163
Mbele, PP	3898 Zone 12 Sbkng	Tel: 594-1172
Mbongo, ZJ	1665 Zone 10 Sbkng	Tel: 592-3807
Meyerton Taxi Ass	177 Zone 6 Sbkng	Tel: 593-0774
Mkhwanazi, JM	4679 Zone 12 Sbkng	Tel: 594-5787
Moche, Z	13629 Zone 11 Sbkng	Tel: 594-4307
Moletsane, BB	209 Zone 7 Sbkng	Tel: 593-7900
Mphahla, MM	532019 Zone 3 Sbkng	Tel: 593-3067
NN Mngomezulu Taxi Service	5080 Zone 12 Sbkng	Tel: 594-1160
Ndamani, J	7208 Zone 12 Sbkng	Tel: 594-3368
Overvaal River Taxi Ass	121 Golden Highway Zrftn	Tel: 986-2998
Park Radio Taxis	23 Stephenson St Vdb	Tel: 986-0496
Taljaard Taxi		Tel: 982-4459
Taljaards Huurmotors	6 Davisson St Vdb	Tel: 933-5608
Taxi Annelie	24 Diesel St Vdb	Tel: 933-1299
Tshabalala, Jantjie	280 Zone 6 Rsdnsia	Tel: 593-6051
Tumahole, LL	47 Zone 8 Sbkng	Tel: 596-4210
Vaal Taxi Ass	550047 Zone 3 Rsdnsia	Tel: 593-7218
Vanderbijlpark Taxi Association	Currie Blvd Vdb	Tel: 986-2457

Van der Mescht, PW Wgebengu Taxi	10 Olive Schreiner St Vdb 17478 Zone 14 Sbkng	Tel: 933-0680 Tel: 592-1157
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TECHNICAL SERVICES

Colts	7 Daimler Str	Tel: 986-1996
DC Technical Services	19c Michelin St Vdb	Tel: 986-1229 Fax: 986-1076
EM Tech Services	Box 14329 Zrftn	Tel: 982-3234
Professional Technical Services	Plt 120 Mntvrde	Tel: 982-3071
RS Technical Services	28 Edison Blvd Vdb Box 2442 Vdb	Tel: 981-1160 Fax: 931-2475

TELEVISION REPAIRS & SERVICE

Garnet Electronics	Shop 25 & 26 ,Fitzsimmons Str	Tel: 932-5463
Kings Vision	Del Rio Bld , Becquerel Str Erstein Str	Tel: 931-3415 Fax: 981-0781 Tel: 933-9968
Thomas Television	F W Beyers Str	Tel: 933-0214 Fax: 933-0703
Twin Radio	Ekspa Bld , D F Malan	Tel: 931-1740
Triangle Tv & Video	Verwoed Str	Tel: 931-2657

TOWING SERVICES

AA Towing	32Edison Blvd Vdb Box X030 Vdb	Tel: 933-4141
Park Bakkie Lining & Towing Service	10 Cartwright St Vdb Box 5981 Vdb	Tel: 981-9407
Park Panelbeaters & Spraypainters	10 Cartwright St Vdb Box 1016 Vdb	Tel: 981-0223 Fax: 981-7118 A/h: 932-2555
Swan Up Panelbeaters	5 McColm Blvd Vdb	Tel: 986-2690 Fax: 986-2690 Cell: 082 963 6611
Van Zyl's Car Truck Towing Services	Mollier St Vdb	Tel: 986-2249
Warrior Truck & Car Services	74 Fairbank St Vdb	Tel: 986-0334 A/h: 083 334 1660

TRANSPORT SERVICES

Cargo Carriers	Carriers bldg Houtkop Rd Vdb	Tel: 988-1230 Fax: 988-1494
Danie Meyer Transport	12 Hall Caine St Vdb	Tel: 981-5747
De La Rey's Transport	8 Daimler St Vdb Box 61 Vdb	Tel: 986-1219 Fax: 986-0227
Get Ahead Transport	132 Hans Strydom St Vdb	Tel: 931-1174
Hauliers Consortium	9 Delfos Blvd Vdb	Tel: 986-2762 Fax: 986-2763
JP Transport	Plt 28 Rsashf	Tel: 989-1076
JP Van Biljon Transport	11 Mollier St Vdb	Tel: 981-7423
Jippie Ons Trek	6 George Grey St Vdb	Tel: 933-3252 Fax: 931-3483
K & J Transport	3 Delfos Blvd Vdb	Tel: 986-3888 Fax: 986-3893

KGB Transport	8 Firestone St Vdb	Tel: 986-3960 Fax: 986-3966
Kearly's Transport	38 Fairbank St Vdb	Tel: 986-1233 Fax: 986-1325
Kuhne Transport	12 Gilchrist St Vdb	Tel: 933-7427
Megatrans Hauliers	16 Cyferpan	Tel: 988-1447 Fax: 988-1693
Motaung Transport	Stand S919 Shrpvil	Tel: 985-3258
Muller Vervoer	46 Handel St Vdb	Tel: 932-4300
N N T Transport	3 Carel De Wet St Vdb	Tel: 981-4272
National Network Transport	3 Carel De Wet Vdb	Tel: 981-4272
Nico Kemp Transport	38 Fairbank St Vdb	Tel: 986-3940
PC Van Rensburg & Seuns	56 Hendrik van Eck Blvd Vdb	Tel: 982-6970
PC Van Rensburg & Sons	5 Faber St Vdb	Tel: 986-0777
Transport	Box 765 Vdb	Fax: 986-0745
Sharday Trucking	19 Andrew Murray St Vdb	Tel: 981-4904
Stevensons Transport	12 Willie Collins St Vdb	Tel: 933-8162
Stutaford van Lines	Box 5602 Vdb	Tel: 981-0014 Fax: 933-7170
Tanker Services	30 Fairbank St Vdb Box 2290 Vdb	Tel: 986-1235 Fax: 986-0337
Terblanche Transport	Box 283 Donkerhoek	Tel: 976-0910
Vaal Driehoek Meubelvervoer	24 Esias Grobler St Vdb	Tel: 931-1027
Vieceli Transport	27 Klipkop	Tel: 592-2668
Viljoens Transport	Box 4836 Vdb	Tel: 989-1903

TUNE - UP CENTRES

AR Auto Tuning	7 Nikkel St Vdb	Tel: 933-0666
Bredies Tune Up Centre	24 Ericson St Vdb	Tel: 981-3099
Harry's Tune-Up Centre	25 Rutherford Blvd Vdb Box 2483 Vdb	Tel: 981-3136
Jan's Tune-Up Centre	439 Frikkie Meyer Blvd Vdb	Tel: 981-6120
Mobile Tuning		Cell: 082 335 1974 Cell: 082 654 0662
Motor Deal - Pittstop	1 Westing House Blvd Vdb Box 21205 Roshnee	Tel: 981-2386
Park Tuning Centre	Genl Smuts St Vdb Box 805 Vdb	Tel: 933-9846 Fax: 933-2405
Swan Tune-Up	103 McColm Blvd Vdb	Tel: 986-3918
Vaal Piet's Wide Rim & Tune-Up Centre	76 Krupp St Vdb Box 1688 Vdb	Tel: 986-1317 Fax: 986-1686 A/h: 933-5851

**VALETS**

Elite Auto & Professional &	16 Chrome St Vdb	Tel: 981-7753
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Complete Valet Centre		Cell: 083 729 3684
Executive Car Wash & Valet	160 Hans Strydom St Vdb	Tel: 931-1540
Triangle Valet	8 Frans Erasmus St Vdb Box 5397 Vdb	Tel: 931-2112



WASTE DISPOSAL

Waste Group	Mcolm Bd	Tel: 986-3000
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WATCH REPAIRS

Silver Watch Service Centre	17 Woltemade Str	Tel: 933-2708
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WATER PROOFING

Alimtech Waterproofing	22 Heiden Ave Flora Gardensd	Tel: 933-5605
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WHEEL ALIGNMENT & BALANCING

Cross Country Wheel Aligners	7 Gamtoosriver Str	Tel: 932-2711
Henrys Tyre	5a Frikkie Meyer Str	Tel: 933-3856

ANNEXURE D

NATIONAL SMALL BUSINESS ACT, 1996

PRESIDENT'S OFFICE

No. 1901. 27 November 1996

NO. 102 OF 1996: NATIONAL SMALL BUSINESS ACT, 1996.

It is hereby notified that the President has assented to the following Act which is hereby published for general information:-

ACT

To provide for the establishment of the National Small Business Council and the Ntsika Enterprise Promotion Agency; and to provide guidelines for organs of state in order to promote small business in the Republic; and to provide for matters incidental thereto.

(Afrikaans text signed by the President.)

(Assented to 12 November 1996.)

BE IT ENACTED by the Parliament of the Republic of South Africa, as follows:-

CHAPTER I

Definitions

1. In this Act, unless the context otherwise indicates-

- (i) "Agency" means the Ntsika Enterprise Promotion Agency established by section 9; (i)
- (ii) "Board" means the Board of Directors of the Agency contemplated in section 11; (iii)
- (iii) "Chief Executive Officer" means the Chief Executive Officer of the Agency appointed as contemplated in section II (1)(b); (vi)
- (iv) "constitution of the Agency" means the constitution of the Agency contemplated in section 13 and adopted in terms of section 16(1); (ix)
- (v) "constitution of the Council" means the constitution of the Council contemplated in section 4 and adopted as contemplated in section 8(3); (x)
- (vi) "Council" means the National Small Business Council established by section 2; (xv)
- (vii) "Director-General" means the Director-General of the Department of Trade and Industry, or an officer of that Department designated by that Director-General; (iv)
- (viii) "Minister" means the Minister of Trade and Industry; (xi)

(ix) "National Coordinator" means the National Coordinator of the Council appointed as contemplated in section 6(1); (xiii)

(x) "National Small Business Support Strategy" means the national policy in respect of small business support as published by the Minister in the Gazette, and includes the policy as stated in the White Paper on National Strategy for the Development and Promotion of Small Business in South Africa (Notice No. 213 of 1995, published in Gazette No. 16317 of 28 March 1995); (xii)

(xi) "prescribed" means prescribed by regulation; (xvii)

(xii) "provincial council" means a provincial small business council for small business established under the constitution of the Council; (xiv)

(xiii) "regulation" means any regulation made under this Act; (xvi)

(xiv) "service provider" means any public or private entity providing support services to small business; (ii)

(xv) "small business" means a separate and distinct business entity, including cooperative enterprises and non-governmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or subsector of the economy mentioned in column I of the Schedule and which can be classified as a micro-, a very small, a small or a medium enterprise by satisfying the criteria mentioned in columns 3, 4 and 5 of the Schedule opposite the smallest relevant size or class as mentioned in column 2 of the Schedule; (vii)

(xvi) "small business organisation" means any entity, whether or not incorporated or registered under any law, which consists mainly of persons carrying on small business concerns in any economic sector, or which has been established for the purpose of promoting the interests of or representing small business concerns, and includes any federation consisting wholly or partly of such association, and also any branch of such organisation; (viii)

(xvii) "this Act" includes the regulations. (v)

CHAPTER 2

National Small Business Council

Establishment of National Small Business Council

2. The National Small Business Council is hereby established as a juristic person.

Functions of Council

3. (1) The functions of the Council are to-

(a) represent and promote the interests of small business, with emphasis on those entities contemplated in the National Small Business Support Strategy; and

(b) advise the national, provincial and local spheres of government on social and economic policy that promotes the development of small business;

(2) The Council may exercise such powers and must perform such duties as are reasonably necessary for or incidental to the performance of the functions mentioned in subsection (1).

(3) The Council must perform its functions in accordance with this Act and its constitution.

Constitution of Council

4. Subject to this Act and the National Small Business Support Strategy, the constitution of the Council must, among others, provide for-

(a) the composition of the Council consisting of-

(i) 18 members of which each provincial council elects two members from their number; and

(ii) if the members referred to in sub paragraph (i) so elect, five members appointed in an expert or representative capacity;

(b) a provincial council for each province consisting of members elected by small business organisations that meet the criteria set out in the constitution;

(c) subject to this Act, and in order to achieve the objects contemplated in section 3, the powers and duties of the Council and the provincial councils;

(d) criteria for the appointment and procedures for the election of the members referred to in paragraphs (a) and (b);

(e) the appointment of any alternate member to act during the absence or incapacity of a member of the Council or a provincial council;

(f) the election of office bearers of the Council and provincial councils, their functions, and the circumstances and manner in which they may be removed from office;

(g) a two year tenure for members of the Council and provincial councils;

- (h) the circumstances and manner in which membership of the Council and provincial councils may be terminated and procedures for the filling of vacancies;
- (i) the establishment and functioning of committees, including a management committee for the Council and provincial councils;
- (j) the co-opting as a member of any person to assist the Council, a provincial council or any committee in the consideration of any particular matter;
- (k) the rules for the convening and conducting of meetings of the Council and provincial councils, including the quorum required for and the minutes to be kept of those meetings;
- (l) the voting rights of the different members and the manner in which decisions are to be taken by the Council and provincial councils;
- (m) the provision of administrative personnel employed by the Council to assist provincial councils in the performance of their functions;
- (n) subject to section 7(2), the banking and investment of funds by the Council and provincial councils;
- (o) the determination through arbitration of any dispute concerning the interpretation or application of the constitution of the Council;
- (p) the delegation of powers and assignment of duties to members, committees and employees, provided that-
 - (i) the Council or a provincial council may not be divested of any power or duty by virtue of the delegation or assignment; and
 - (ii) the Council or a provincial council, as the case may be, may vary or set aside any decision made under any delegation or in terms of any assignment;
- (q) a procedure for amending the constitution of the Council.

Remuneration of members, alternate members and co-opted members of Council and provincial councils

5. (1) The Minister, with the concurrence of the Minister of Finance, determines the salaries, allowances and conditions of service of members, alternate members and co-opted members of the Council and provincial councils who are not in the full-time service of the State.

(2) The salaries, allowances and conditions of service of the persons referred to in subsection (1) may differ according to the different offices held by them, the different functions performed by them, or whether they serve in a full-time or part-time capacity.

(3) Persons referred to in subsection (I) who are in the service of the State may not receive additional remuneration for serving on the Council or any provincial council, but may be reimbursed for expenses incurred in the performance of their functions in such last-mentioned service.

Staff of Council

6. (1) Work incidental to the performance of the functions of the Council is performed by a National Coordinator, who must be appointed by the Minister, after consultation with the Council.

(2) The National Coordinator may be assisted by-

(a) persons appointed by the Council;

(b) officers in the public service seconded to the service of the Council in terms of any law regulating such secondment.

(3) The conditions of service, remuneration and service benefits of the National Coordinator and the personnel appointed by the Council must be determined by the Council, with the concurrence of the Minister and the Minister of Finance.

(4) If the National Coordinator is for any reason unable to perform his or her functions, the Council may designate a person in its service to act as national coordinator until the National Coordinator is able to resume office.

Finances of Council

7. (1) The funds of the Council consist of-

(a) money appropriated by Parliament;

(b) grants, donations and bequests made to the Council;

(c) money lawfully obtained by the Council from any other source, but loans raised by the Council are subject to approval of both the Minister and the Minister of Finance.

(2) All money received by the Council must be deposited in a banking account in the name of the Council with a bank established under the Banks Act, 1990 (Act No. 94 of 1990), or a mutual bank established under the Mutual Banks Act, 1993 (Act No. 124 of 1993).

(3) The financial year of the Council begins on 1 April and ends on 31 March of the following year.

(4) The National Coordinator is the accounting officer of the Council and must ensure that-

(a) proper record of all the financial transactions, assets and liabilities of the Council are kept; and

(b) as soon as possible, but not later than three months after the end of a financial year, accounts reflecting the income and expenditure of the Council and a balance sheet of the assets and liabilities of the Council as at the end of that financial year are prepared.

(5) The accounts and balance sheet referred to in subsection (4)(b) must be audited by the Auditor-General.

Transitional provisions in respect of Council

8. (1) For the purposes of this section, but subject to this Act, the council of the "National Small Business Council", an association incorporated under section 21 of the Companies Act, 1973 (Act No. 61 of 1973), and with the registration number of 96/08177/08, is deemed to constitute the Council.

(2) The Director-General must-

(a) as soon as practicable convene a meeting of the Council;

(b) determine the procedures for the meeting; and

(c) chair that meeting.

(3) The purpose of the meeting and any subsequent meeting which may be necessary is to define a procedure for the adoption of the constitution by a representative body as contemplated in section 4(a)(i).

(4) On the adoption of the constitution of the Council-

(a) all assets, liabilities, rights and obligations of the association referred to in subsection (1) pass to the Council; and

(b) anything done by or on behalf of the said association is deemed to have been done by the Council, subject to this Act.

(5) The Director-General must as soon as practicable after the adoption of the constitution of the Council in writing notify the Registrar of Companies and the Registrar of Deeds thereof and of the relevant provisions of this section.

(6) On receipt of the notification contemplated in subsection (5)-

(a) the Registrar of Companies must deregister the association referred to in subsection (1); and

(b) the Registrar of Deeds must make the necessary entries and endorsements in respect of any register and document in the registration office, or document submitted to that Registrar.

(7) No transfer duties, stamp duties, fees or taxes have to be paid for the purposes of this section.

(8) The Council constituted as contemplated in subsection (1) dissolves immediately before the first meeting of the Council constituted as contemplated in section 4(a)(i).

(9) The first meeting referred to in subsection (8) must be held within one year after the commencement of this Act.

CHAPTER 3

Ntsika Enterprise Promotion Agency

Establishment of Ntsika Enterprise Promotion Agency

9. The Ntsika Enterprise Promotion Agency is hereby established as a juristic person.

Functions of Agency

10. (1) The main functions of the Agency are-

(a) to expand, coordinate and monitor the provision of training, advice, counselling and any other non-financial services to small business in accordance with the National Small Business Support Strategy;

(b) to provide financial support to service providers that provide the services contemplated in paragraph (a);

(c) to consult with any organ of government, the Council or a service provider in order to-

(i) facilitate the provision of business advice and counselling services to small business;

(ii) facilitate access by small business to raw material and other products;

(iii) facilitate international and national market access for products and services of small business; and

(iv) generally, strengthen the capacity of-

- (aa) service providers to support small business; and
- (bb) small business to compete successfully in the economy; and
- (d) to formulate and coordinate a national programme of policy research, collection and dissemination of information concerning small business.

(2) Other functions of the Agency are-

- (a) to investigate, at the request of the Director-General, the effect of existing and proposed legislation on small business, and to report to the Director-General thereon;
- (b) to provide information and analysis on the implementation of the National Small Business Support Strategy to organs of government-
- (c) to make recommendations to organs of government on existing and proposed policy affecting small business; and
- (d) to improve the general understanding of the public regarding small business' contribution to the South African economic growth, job creation and welfare.

(3) The Agency must perform its functions in accordance with this Act and its constitution.

Board of Directors of Agency

11. (1) The Agency is managed and controlled by a Board of Directors consisting of-

- (a) no fewer than seven, and no more than 15 persons, appointed by the Minister;
- (b) the Chief Executive Officer appointed by the Minister on the recommendation of the Board; and
- (c) if the Board so elects, no more than five persons, appointed by the Board in an expert or representative capacity.

(2) The directors of the Board must be persons who-

- (a) have experience in business or administration; or
- (b) on account of their training or experience-
 - (i) are knowledgeable about trade, industry, finance or the economy; or
 - (ii) have legal knowledge of matters pertaining to small business; or

(c) have experience of matters connected with, and of problems experienced by, small business or any small business enterprise; and

(d) comply with other criteria which the Minister may prescribe.

(3) (a) The Minister must, by notice in the Gazette and in two newspapers which have general circulation throughout the national territory, invite nominations for directors to the Board referred to in subsection (1)(a) and (b).

(b) The directors referred to in subsection (1)(a) and (b) must be appointed by the Minister from nominations received from small business organisations, service providers and any other person involved in small business promotion and support.

(c) The Minister may, in terms of the criteria referred to in subsection (2), appoint persons-

(i) other than those nominated, if sufficient persons who meet the criteria are not nominated; or

(ii) if there are insufficient nominations lodged within the period specified in the notice.

(4) For each director of the Board, other than the Chairperson and the Chief Executive Officer, the Minister may appoint an alternate director, who may attend and vote at meetings of the Board on behalf of a director if that director is unable to attend.

(5) All members of the Board, except the Chief Executive Officer, must serve in a part-time capacity.

(6) (a) The Minister, with the concurrence of the Minister of Finance, determines the remuneration and allowances of directors, alternate directors and co-opted directors of the Board who are not in the full-time service of the State.

(b) Persons referred to in paragraph (a) who are in the service of the State may not receive additional remuneration or allowances for serving on the Board, but may be reimbursed for expenses incurred in the performance of their functions in such last-mentioned service.

Rights and responsibilities of Board

12. The Board will have all of the rights and responsibilities consistent with those which are normally accorded to a board of directors in terms of the Companies Act, 1973 (Act No. 61 of 1973), and that are consistent with this Act.

Constitution of Agency

13. Subject to this Act and the National Small Business Support Strategy, the constitution of the Agency must, among others, provide for-

- (a) the appointment of the additional directors of the Board referred to in section 11 (1)(c);
- (b) the tenure of directors of the Board;
- (c) the circumstances and manner in which directorship is terminated and the procedures for replacing directors.
- (d) the election of office-bearers, their functions, and the circumstances and manner in which they may be removed from office;
- (e) the rules for the convening and conducting of meetings of the Board, including the quorum required for and the minutes to be kept of those meetings;
- (f) the voting rights of the different directors and the manner in which decisions are to be made;
- (g) the establishment of any division of the Agency to perform specialised functions;
- (h) the establishment and functioning of committees, including a management committee;
- (i) the co-opting as a member of any person to assist the Agency or any committee in the consideration of any particular matter;
- (j) the preparation by the Board, for approval by the Minister, of an annual business plan in terms of which the activities of the Agency is annually planned;
- (k) subject to section 15(2), the banking and investment of funds by the Board;
- (l) provisions to regulate the manner in which, and procedures whereby, expertise from any person is obtained in order to further the objects of the Agency;
- (m) the determination through arbitration of any dispute concerning the interpretation of the constitution of the Agency;
- (n) the delegation of powers and assignment of duties to directors, committees and employees, provided that the Board may-
 - (i) not be divested of any power or duty by virtue of the delegation or assignment; and
 - (ii) vary or set aside any decision made under any delegation or in terms of any assignment;

(o) a procedure for amending the constitution.

Staff of Agency

14. (1) Work incidental to the performance of the functions of the Agency is performed by a Chief Executive Officer appointed as contemplated in section 11(1)(b).

(2) The Chief Executive Officer may be assisted by-

(a) persons appointed by the Board;

(b) officers in the public service seconded to the service of the Agency in terms of any law regulating such secondment.

(3) The conditions of service, remuneration and service benefits of the Chief Executive Officer and the personnel appointed by the Board must be determined by the Board, with the concurrence of the Minister and the Minister of Finance.

(4) If the Chief Executive Officer is for any reason unable to perform his or her functions, the Board may designate a person in the service of the Agency to act as chief executive officer until the Chief Executive Officer is able to resume office.

Finances of Agency

15. (1) The funds of the Agency consist of-

(a) money appropriated by Parliament;

(b) grants, donations and bequests made to the Agency;

(c) money lawfully obtained by the Agency from any other source, but loans raised by the Agency are subject to approval of both the Minister and the Minister of Finance.

(2) All money received by the Agency must be deposited in a banking account in the name of the Agency with a bank established under the Banks Act, 1990 (Act No. 94 of 1990), or a mutual bank established under the Mutual Banks Act, 1993 (Act No. 124 of 1993).

(3) The financial year of the Agency begins on 1 April and ends on 31 March of the following year.

(4) The Chief Executive Officer is the accounting officer of the Agency and must ensure that-

(a) proper record of all the financial transactions, assets and liabilities of the Agency are kept; and

(b) as soon as possible, but not later than three months after the end of a financial year, accounts reflecting the income and expenditure of the Agency and a balance sheet of the assets and liabilities of the Agency as at the end of that financial year are prepared.

(5) The accounts and balance sheet referred to in subsection (4)(b) must be audited by the Auditor-General.

Drafting and adoption of constitution of Agency

16. (1) The Director-General must as soon as practicable after the appointment of the directors of the Agency contemplated in section II (1)(a) and (b), and thereafter as often as may be necessary, convene a meeting of those directors in order to draft and adopt the constitution of the Agency.

(2) The Director-General must determine the procedures for the meeting contemplated in subsection (1) and must chair that meeting.

Transitional provisions in respect of Agency

17. (1) On the adoption of the constitution of the Agency in terms of section 16(1)-

(a) all assets, liabilities, rights and obligations of "Ntsika Enterprise Promotion Agency", an association incorporated under section 21 of the Companies Act, 1973 (Act No. 61 of 1973), and with the registration number of 95/02675/08, pass to the Agency; and

(b) anything done by or on behalf of the said association is deemed to have been done by the Agency, subject to this Act.

(2) The Director-General must as soon as practicable after the adoption of the constitution of the Agency in writing notify the Registrar of Companies and the Registrar of Deeds thereof and of the provisions of this section.

(3) On receipt of the notification contemplated in subsection (2)-

(a) the Registrar of Companies must deregister the association referred to in subsection (1); and

(b) the Registrar of Deeds must make the necessary entries and endorsements in respect of any register and document in the registration office, or document submitted to that Registrar.

(4) No transfer duties, stamp duties, fees or taxes have to be paid for the purposes of this section.

CHAPTER 4

General Provisions

Determination of guidelines

18. (1) The Minister may, by notice in the Gazette, publish guidelines for organs of state in national, provincial and local spheres of government to promote small business and the National Small Business Support Strategy.

(2) The guidelines referred to in subsection (1) may include guidelines on-

(a) procedures for consultation with the Department of Trade and Industry on all proposed legislation identified by the Minister under subsection (3);

(b) the assessment of the effect and application of legislation on small business;

(c) coordination between organs of state in order to promote the consistent application of the National Small Business Support Strategy;

(d) procedures for consultation with small business organisations, trade unions and other representative organisations;

(e) the review of the effect of existing legislation on small business and the National Small Business Support Strategy.

(3) The Minister may, by notice in the Gazette, identify the type of legislation that may have an effect on small business and the National Small Business Support Strategy and in respect of which the consultations contemplated in subsection (2)(a) and (d) may be conducted.

Reports

19. (1) (a) As soon as practicable after the end of every financial year the Council and the Agency must each compile a report on their respective activities during that year.

(b) These reports, the respective constitutions, as well as the respective audited annual financial statements, must be submitted to the Minister, who must table them in Parliament.

(2) The Council and the Agency must furnish the Minister with any such other reports as the Minister may request.

(3) Entities designated by the Director-General, must in cooperation with the Director-General annually compile a review, called the Annual Review of Small Business, which must cover areas defined by the Minister or the Director-General, and areas including-

- (a) particulars of the work performed by the Agency and Council and of progress achieved in furtherance of the objects of the National Small Business Support Strategy;
 - (b) summaries of any findings or recommendations of the Director-General in respect of legislation, proposed legislation and administrative practices which restrict the small business sector;
 - (c) an outline of new developments and trends in regard to the small business sector in South Africa;
 - (d) reports on the growth and decline of small business according to sector, size and region;
 - (e) a statistical analysis of the contribution of the small business sector to the economy, to export promotion, to rural development and to the level of incorporation of marginalised groups into the economy.
- (3) The Director-General must submit the Annual Review of Small Business to the Minister before the end of February of each year and the Minister must table it in Parliament.

Regulations and amendment of Schedule

20. (1) The Minister may make regulations regarding-

- (a) any matter which in terms of this Act is required or permitted to be prescribed; and
- (b) generally, any other matter which may be necessary or expedient to prescribe in order to achieve the objects of this Act.

(2) The Minister may, in order to achieve the objects of this Act, by notice in the Gazette amend the Schedule to account for inflation, macro-economic shifts in the economy, any legislation affecting small business, and any other matter which could have an effect on the functionality of the Schedule.

Repeal of laws

21. (1) Subject to subsection (2), the Small Business Development Act, 1981 (Act No. 112 of 1981), the Small Business Development Amendment Act, 1984 (Act No. 54 of 1984), and the Small Business Development Amendment Act, 1990 (Act No. 16 of 1990), are hereby repealed.

(2) Section 2A of the Small Business Development Act, 1981, remains in force until a date determined by the Minister by notice in the Gazette, which date shall not be earlier than 12 months after the date of commencement of this Act.

Short title and commencement

22. This Act is called the *National Small Business Act, 1996*, and comes into operation on a date fixed by the President by proclamation in the Gazette.

SCHEDULE

(See definition of "small business" in section 1)

Sector or sub-sectors in accordance with the Standard Industrial Classification	Size or class	Total full-time equivalent of paid employees <i>Less than:</i>	Total annual turnover <i>Less than:</i>	Total gross asset value (fixed property excluded) <i>Less than:</i>
Agriculture	Medium	100	R 4.00 m	R 4.00 m
	Small	50	R 2.00 m	R 2.00 m
	Very small	10	R 0.40 m	R 0.40 m
	Micro	5	R 0.15 m	R 0.10 m
Mining and Quarrying	Medium	200	R30.00 m	R18.00 m
	Small	50	R 7.50 m	R 4.50 m
	Very small	20	R 3.00 m	R 1.80 m
	Micro	5	R 0.15 m	R 0.10 m
Manufacturing	Medium	200	R40.00 m	R15.00 m
	Small	50	R10.00 m	R 3.75 m
	Very small	20	R 4.00 m	R 1.50 m
	Micro	5	R 0.15 m	R 0.10 m
Electricity, Gas and Water	Medium	200	R40.00 m	R15.00 m
	Small	50	R10.00 m	R 3.75 m
	Very small	20	R 4.00 m	R 1.50 m
	Micro	5	R 0.15 m	R 0.10 m
Construction	Medium	200	R20.00 m	R 4.00 m
	Small	50	R 5.00 m	R 1.00 m
	Very small	20	R 2.00 m	R 0.40 m
	Micro	5	R 0.15 m	R 0.10 m
Retail and Motor Trade and Repair Services	Medium	100	R30.00 m	R 5.00 m
	Small	50	R15.00 m	R 2.50 m
	Very small	10	R 3.00 m	R 0.50 m
	Micro	5	R 0.15 m	R 0.10 m
Wholesale Trade,	Medium	100	R50.00 m	R 8.00 m

Commercial Agents and Allied Services	Small	50	R25.00 m	R 4.00 m
	Very small	10	R 5.00 m	R 0.50 m
	Micro	5	R 0.15 m	R 0.10 m
Catering, Accommodation and other Trade	Medium	100	R10.00 m	R 2.00 m
	Small	50	R 5.00 m	R 1.00 m
	Very small	10	R 1.00 m	R 0.20 m
	Micro	5	R 0.15 m	R 0.10 m
Transport, Storage and Communications	Medium	100	R20.00 m	R 5.00 m
	Small	50	R10.00 m	R 2.50 m
	Very small	10	R 2.00 m	R 0.50 m
	Micro	5	R 0.15 m	R 0.10 m
Finance and Business Services	Medium	100	R20.00 m	R 4.00 m
	Small	50	R10.00 m	R 2.00 m
	Very small	10	R 2.00 m	R 0.40 m
	Micro	5	R 0.15 m	R 0.10 m
Community, Social and Personal Services	Medium	100	R10.00 m	R 5.00 m
	Small	50	R 5.00 m	R 2.50 m
	Very small	10	R 1.00 m	R 0.50 m
	Micro	5	R 0.15 m	R 0.10 m

ANNEXURE E

**NATIONAL SMALL BUSINESS
AMENDMENT ACT, 2003**



Government Gazette

REPUBLIC OF SOUTH AFRICA

Vol. 461 Cape Town 26 November 2003 No. 25763

THE PRESIDENCY

No. 1732

26 November 2003

It is hereby notified that the President has assented to the following Act, which is hereby published for general information:-

No. 26 of 2003: National Small Business Amendment Act, 2003.



AIDS HELPLINE: 0800-123-22 Prevention is the cure

GENERAL EXPLANATORY NOTE:

[] Words in bold type in square brackets indicate omissions from existing enactments.

_____ Words underlined with a solid line indicate insertions in existing enactments.

(English text signed by the President.)
(Assented to 21 November 2003.)

ACT

To amend the National Small Business Act, 1996, so as to repeal all provisions pertaining to the National Small Business Council; to empower the Minister to facilitate and establish an Advisory Body to represent the interests of small business; to make the Public Finance Management Act, 1999, applicable to the Agency; to make further provision in respect of the functions of the Agency; to do away with the requirement of calling for nominations for directors of the Board by notice in the *Gazette*; to repeal the provisions pertaining to alternate directors; and to substitute the Schedule to that Act, in order to reflect the current economic position; and to provide for matters connected therewith.

BE IT ENACTED by the Parliament of the Republic of South Africa, as follows:—

Amendment of section 1 of Act 102 of 1996

1. Section 1 of the National Small Business Act, 1996 (hereinafter referred to as the principal Act), is hereby amended by the deletion of the definitions of "constitution of the Council", "Council", "National Co-ordinator" and "provincial council". 5

Substitution of Chapter 2 of Act 102 of 1996

2. The following Chapter is hereby substituted for Chapter 2 of the principal Act:

"CHAPTER 2

Minister's power to facilitate and establish Advisory Body 10

Minister's power to facilitate and establish Advisory Body

2. The Minister must, within a reasonable time, facilitate a process aimed at the establishment of an Advisory Body to represent and promote the interests of small business as contemplated in the National Strategy for the Development and Promotion of Small Business in South Africa referred to in the definition of "National Small Business Support Strategy" in section 1. 15

Minister's duty to determine Constitution of Advisory Body

3. (1) The Minister must through an open and transparent process of consultation determine a constitution for the Advisory Body referred to in section 2.

(2) The constitution of the Advisory Body must—

- (a) in general provide for—
- (i) the composition of the Advisory Body;
 - (ii) the quorum and meetings of the Advisory Body;
 - (iii) the procedure for the functioning of the Advisory Body;
 - (iv) interaction with Parliament, the Department of Trade and Industry and statutory bodies; and
 - (v) any other matter that may be necessary to facilitate the proceedings, activities or business of the Advisory Body; and
- (b) specifically require the Advisory Body to advise the Minister on—
- (i) strategies to address identified market failures affecting the sector;
 - (ii) the impact of current and new legislation on small business;
 - (iii) national standards pertaining to small business development and regulation;
 - (iv) measures to ensure the creation of physical business infrastructure through viable business sites;
 - (v) the development of skills in all aspects of running a business;
 - (vi) steps to be taken to create access for small business into value chains;
 - (vii) constraints affecting the viability of the small business community;
 - (viii) methods to liaise with the small business community to identify their needs;
 - (ix) methods to monitor and influence the provision of support services to the small business sector; and
 - (x) any other matter that the Minister may deem appropriate.

Amendment of section 9 of Act 102 of 1996

3. Section 9 of the principal Act is hereby amended by the addition of the following subsection, the existing section becoming subsection (1):

"(2) The Public Finance Management Act, 1999 (Act No. 1 of 1999), applies to the Agency."

Amendment of section 10 of Act 102 of 1996

4. Section 10 of the principal Act is hereby amended—

- (a) by the substitution in subsection (1) for paragraph (a) of the following paragraph:
- "(a) to expand, co-ordinate and monitor the provision of training, advice and counselling [and any other non-financial services] to small business in accordance with the National Small Business Support Strategy;"
- (b) by the substitution in subsection (1) (c) for the words preceding subparagraph (i) of the following words:
- "to consult with any organ of government, the [Council] Advisory Body or a service provider in order to—"
- (c) by the substitution in subsection (1) for paragraph (d) of the following paragraph:
- "(d) to facilitate and co-ordinate research relating to support programmes by the Agency;" and
- (d) by the addition in subsection (2) to paragraph (b) of the word "and" and the deletion of paragraph (c).

Amendment of section 11 of Act 102 of 1996

5. Section 11 of the principal Act is hereby amended—

(a) by the substitution in subsection (3) for paragraph (a) of the following paragraph:

“(a) The Minister must, by notice in [the *Gazette* and in] two newspapers which have general circulation throughout the national territory of the Republic, invite nominations for directors to the Board referred to in subsection (1)(a) and (b).”;

(b) by the deletion of subsection (4); and

(c) by the substitution in subsection (6) for paragraph (a) of the following paragraph:

“(a) The Minister, with the concurrence of the Minister of Finance, determines the remuneration and allowances of directors [alternate directors and co-opted directors of the Board] who are not in the full-time service of the State.”.

Amendment of section 19 of Act 102 of 1996

6. Section 19 of the principal Act is hereby amended—

(a) by the substitution in subsection (1) for paragraph (a) of the following paragraph:

“(a) As soon as practicable after the end of every financial year the [Council] Advisory Body and the Agency must each compile a report on their respective activities during that year.”;

(b) by the substitution for subsection (2) of the following subsection:

“(2) The [Council] Advisory Body and the Agency must furnish the Minister with any such other reports as the Minister may request.”;

(c) by the substitution in subsection (3) for paragraph (a) of the following subsection:

“(a) particulars of the work performed by the Agency and [Council] Advisory Body and of progress achieved in furtherance of the objects of the National Small Business Support Strategy;”;

(d) by the substitution for the second subsection (3) of the following subsection:

“[(3)] (4) The Director-General must submit the Annual Review of Small Business to the Minister before the end of [February] June of each year and the Minister must table it in Parliament.”.

Substitution of Schedule to Act 102 of 1996

7. The Schedule to this Act is hereby substituted for the Schedule to the principal Act.

Substitution of long title of Act 102 of 1996

8. The following long title is hereby substituted for the long title to the principal Act:

“To provide for the establishment of the [National Small Business Council] Advisory Body and the Ntsika Enterprise Promotion Agency; [and] to provide guidelines for organs of state in order to promote small business in the Republic; and to provide for matters incidental thereto.”.

Short title

9. This Act is called the National Small Business Amendment Act, 2003.

ANNEXURE F

NATIONAL SMALL BUSINESS
AMENDMENT BILL, 2003

REPUBLIC OF SOUTH AFRICA

NATIONAL SMALL BUSINESS AMENDMENT BILL

*(As introduced in the National Assembly as a section 75 Bill; explanatory summary of Bill
published in Government Gazette No. 24628 of 27 March 2003) (The English text is the
official text of the Bill)*

(MINISTER OF TRADE AND INDUSTRY)

[B 20—2003]

ISBN 0 621 33788 9

No. of copies printed 1 800

GENERAL EXPLANATORY NOTE:

[] Words in bold type in square brackets indicate omissions from existing enactments.

 Words underlined with a solid line indicate insertions in existing enactments.

BILL

To amend the National Small Business Act, 1996, so as to repeal all provisions pertaining to the National Small Business Council; to empower the Minister to consult persons representing the interests of small business; to make the Public Finance Management Act, 1999, applicable to the Agency; to make further provision in respect of the functions of the Agency; to do away with the requirement of calling for nominations for directors of the Board by notice in the *Gazette*; to repeal the provisions pertaining to alternate directors; and to substitute the Schedule to that Act, in order to reflect the current economic position; and to provide for matters connected therewith.

BE IT ENACTED by the Parliament of the Republic of South Africa, as follows:—

Amendment of section 1 of Act 102 of 1996

1. Section 1 of the National Small Business Act, 1996 (hereinafter referred to as the principal Act), is hereby amended by the deletion of the definitions of “constitution of the Council”, “Council”, “National Co-ordinator” and “provincial council”. 5

Substitution of Chapter 2 of Act 102 of 1996

2. The following Chapter is hereby substituted for Chapter 2 of the principal Act:

“CHAPTER 2

Minister’s power to consult small business 10

Minister’s power to consult small business

2. If the Minister is satisfied that any group or body fairly represents the interests of the small business community the Minister may consult such group or body in order to give effect to the objectives of the National Small Business Support Strategy.”. 15

Amendment of section 9 of Act 102 of 1996

3. Section 9 of the principal Act is hereby amended by the addition of the following subsection, the existing section becoming subsection (1):

“(2) The Public Finance Management Act, 1999 (Act No. 1 of 1999), applies to the Agency.”.

Amendment of section 10 of Act 102 of 1996

4. Section 10 of the principal Act is hereby amended—
- (a) by the substitution in subsection (1) for paragraph (a) of the following paragraph: 5
 “(a) to expand, co-ordinate and monitor the provision of training, advice and counselling [and any other non-financial services] to small business in accordance with the National Small Business Support Strategy;”;
- (b) by the substitution in subsection (1) (c) for the words preceding subparagraph (i) of the following words: 10
 “to consult with any organ of government[, the Council] or a service provider in order to—”;
- (c) by the substitution in subsection (1) for paragraph (d) of the following paragraph: 15
 “(d) to facilitate and co-ordinate research relating to support programmes by the Agency.”; and
- (d) by the addition in subsection (2) to paragraph (b) of the word “and” and the deletion of paragraph (c). 20

Amendment of section 11 of Act 102 of 1996

5. Section 11 of the principal Act is hereby amended—
- (a) by the substitution in subsection (3) for paragraph (a) of the following paragraph: 25
 “(a) The Minister must, by notice in [the *Gazette* and in] two newspapers which have general circulation throughout the national territory of the Republic, invite nominations for directors to the Board referred to in subsection (1)(a) and (b).”;
- (b) by the deletion of subsection (4); and
- (c) by the substitution in subsection (6) for paragraph (a) of the following paragraph: 30
 “(a) The Minister, with the concurrence of the Minister of Finance, determines the remuneration and allowances of directors [, alternate directors and co-opted directors of the Board] who are not in the full-time service of the State.”. 35

Amendment of section 19 of Act 102 of 1996

6. Section 19 of the principal Act is hereby amended—
- (a) by the substitution in subsection (1) for paragraph (a) of the following paragraph: 40
 “(a) As soon as practicable after the end of every financial year [the Council and] the Agency must [each] compile a report on [their respective] its activities during that year.”;
- (b) by the substitution for subsection (2) of the following subsection: 45
 “(2) The [Council and the] Agency must furnish the Minister with any such other reports as the Minister may request.”;
- (c) by the substitution in subsection (3) for paragraph (a) of the following subsection: 50
 “(a) particulars of the work performed by the Agency [and Council] and of progress achieved in furtherance of the objects of the National Small Business Support Strategy;”;
- (d) by the substitution for the second subsection (3) of the following subsection: 50
 “[3] (4) The Director-General must submit the Annual Review of Small Business to the Minister before the end of [February] June of each year and the Minister must table it in Parliament.”.

SCHEDULE

"SCHEDULE

(See definition of 'small business' in section 1)

Column 1	Column 2	Column 3	Column 4	Column 5
Sector or subsector in accordance with the Standard Industrial Classification	Size of class	The total full-time equivalent of paid employees	Total turn-over	Total gross asset value (fixed property excluded)
Agriculture	Medium	100	R5m	R5m
	Small	50	R3m	R3m
	Very Small	10	R0.50m	R0.50m
	Micro	5	R0.20m	R0.10m
Mining and Quarrying	Medium	200	R39m	R23m
	Small	50	R10m	R6m
	Very Small	20	R4m	R2m
	Micro	5	R0.20m	R0.10m
Manufacturing	Medium	200	R51m	R19m
	Small	50	R13m	R5m
	Very Small	20	R5m	R2m
	Micro	5	R0.20m	R0.10m
Electricity, Gas and Water	Medium	200	R51m	R19m
	Small	50	R13m	R5m
	Very Small	20	R5.10m	R1.90m
	Micro	5	R0.20m	R0.10m
Construction	Medium	200	R26m	R5m
	Small	50	R6m	R1m
	Very Small	20	R3m	R0.50m
	Micro	5	R0.20m	R0.10m
Retail and Motor Trade and Repair Services	Medium	200	R39m	R6m
	Small	50	R19m	R3m
	Very Small	20	R4m	R0.60m
	Micro	5	R0.20m	R0.10m
Wholesale Trade, Commercial Agents and Allied Services	Medium	200	R64m	R10m
	Small	50	R32m	R5m
	Very Small	20	R6m	R0.60m
	Micro	5	R0.20m	R0.10m
Catering, Accommodation and other Trade	Medium	200	R13m	R3m
	Small	50	R6m	R1m
	Very Small	20	R5.10m	R1.90m
	Micro	5	R0.20m	R0.10m

Column 1	Column 2	Column 3	Column 4	Column 5
Sector or subsector in accordance with the Standard Industrial Classification	Size of class	The total full-time equivalent of paid employees	Total turn-over	Total gross asset value (fixed property excluded)
Transport, Storage and Communications	Medium	200	R26m	R6m
	Small	50	R13m	R3m
	Very Small	20	R3m	R0.60m
	Micro	5	R0.20m	R0.10m
Finance and Business Services	Medium	200	R26m	R5m
	Small	50	R13m	R3m
	Very Small	20	R3m	R0.50m
	Micro	5	R0.20m	R0.10m
Community, Social and Personal Services	Medium	200	R13m	R6m
	Small	50	R6m	R3m
	Very Small	20	R1m	R0.60m
	Micro	5	R0.20m	R0.10m

MEMORANDUM ON THE OBJECTS OF THE NATIONAL SMALL BUSINESS AMENDMENT BILL, 2003

1. The National Small Business Act, 1996 (Act No. 102 of 1996) ("the Act"), provides for the establishment of the Ntsika Enterprise Promotion Agency ("Ntsika") and the National Small Business Council ("the Council"). Ntsika provides for non-financial support services to small business and the Council has acted as an advocacy body. The experience gained by the administration of the Act has brought to light various problems in the Act that need to be addressed.

2. Chapter 2 of the Act provides for the establishment of the Council. The Council has been liquidated since 1998. It is therefore necessary to remove the provisions relating to the Council in the Act since the council is *de facto* no longer in existence. It is, however, proposed that the Minister be empowered to consult persons representing the interests of small business in order to give effect to the objectives of the National Small Business Support Strategy.

3. Chapter 3 of the Act provides for the establishment of Ntsika. It is proposed that the Public Finance Management Act, 1999 (Act No. 1 of 1999), be made applicable to Ntsika. There is an overlapping of functions between Ntsika and the Department of Trade and Industry ("the Department"). In section 10(1)(a) provision is made for Ntsika to be involved in certain "other non-financial services". This provision gives a broad and open-ended mandate to Ntsika and leads to a lack of strategic focus in respect of the core functions of Ntsika. It is proposed that the expression "other non-financial services" be deleted. Section 10(1)(d) provides that Ntsika may undertake both policy-related and programme-related research. Policy formulation and management are the responsibilities of the Department. It is proposed that paragraph (d) be amended in order to eliminate duplication.

4. Section 11(3)(a) of the Act requires the Minister to invite nominations for directors to the Board of Ntsika by notice in the *Gazette* and in two newspapers that have general circulation throughout the national territory. The most practical approach to inviting nominees to the Board would be by advertising in media that reaches all parts of the country. The requirement of publishing a notice in the *Gazette* has in practice proved to be a cumbersome process and it is proposed that the requirement of publishing a notice in the *Gazette* be omitted. Section 11(4) of the Act provides for the appointment of alternate directors. This provision tends to dilute the commitment of directors and also affects the consistency of decisions taken by the Board of Directors. It is proposed that all provisions pertaining to alternate directors be deleted.

5. The Director-General must submit the Annual Review of Small Business to the Minister before the end of February of each year in terms of section 19(4) of the Act. Experience gained in compiling previous reviews has shown that most statistics and information needed for the review are not available before the end of February. It is proposed that the date of submission be changed to the end of June.

6. The definition of "small business" is enhanced by information contained in the Schedule to the Act. However, the values reflected in the Schedule have become outdated due to fluctuations in the value of the rand. It is proposed that the Schedule be amended to reflect the current rand value.

7. CONSULTATION

Consultative workshops were conducted throughout the provinces with the various stakeholders. These included provincial SMME desks, business chambers, service providers, small business organisations, Ntsika, Khula Finance Limited, the Industrial Development Corporation, the South African Bureau of Standards and the National Manufacturing Advisory Centre. They were in support of the proposed amendments.

8. FINANCIAL IMPLICATIONS FOR STATE

None.

9. PARLIAMENTARY PROCEDURE

The State Law Advisers and the Department of Trade and Industry are of the opinion that this Bill must be dealt with in accordance with the procedure established by section 75 of the Constitution since it contains no provision to which the procedure set out in section 74 or 76 of the Constitution applies.