

MARKET ANALYSIS OF ARIVIA.KOM

by

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submitted in fulfilment of the requirements for the degree of

MASTER OF COMMERCE

in the subject

BUSINESS MANAGEMENT

at the

University of South Africa

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June 2004

I declare that

MARKET ANALYSIS OF ARIVIA.KOM

is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

.....

Signature

(MR VM Moodley)

.....

Date

Acknowledgements

I gratefully acknowledge the role and support of the following people during the course of this study:

Carolyn Brady for unfailing support, friendship and love manifested in constant reminders and subtle pressure. It made all the difference.

Professor MC (Michael) Cant for his sense of humour, invaluable professional support, encouragement and empowering attitude.

Professor JW (Johan) Strydom for his sincerity, efficient and prompt support, and professionalism.

Dr D (Deon) Tustin of the Bureau of Market Research (BMR) for professional assistance in the research planning and data analysis for the purposes of this study.

All arivia.com staff who assisted in the pre-testing of the research instrument used in this study.

All Eskom staff who participated in this study including those mentioned below.

Mr Pradeep (Prince) Kara of Eskom Transmission Information Management for his time and assistance in pre-testing the research instrument used in this study.

Mr Sagren (Sagie) Chetty of Eskom Generation for facilitating the participation of the Generation Information Management respondents in this study. It is greatly appreciated.

All Eskom executives, managers and administrators who made time in their demanding work schedules to participate in this study. The candid feedback was invaluable.

Abstract

Arivia.kom was formed out of a merger of the information technology (IT) departments of Eskom, Transnet and Denel. The aim was to address skilled staff losses and to achieve economies of scale. Agreements were drafted ensuring arivia.kom business patronage for a period of five years.

Arivia.kom's commencement was accompanied by problems, affecting its customers to the extent that they indicated dissatisfaction with performance. This study established the extent of those problems, and the reasons for their occurrence. A market analysis was conducted with specific focus on customer and competitor analysis. An investigation was conducted into the quality of service, overall customer impression of the organisation since its inception, as well as performance against competitors.

The major findings indicated that performance problems were not isolated incidents but consistent across the organisation. These problems stemmed from poor organisational design, poorly evolved organisational culture, unclear positioning and poor competitor and customer intelligence capability.

Key terms: B2B, Competitor Analysis, Competitor Intelligence, Customer Analysis, Customer Dissatisfaction, Industrial Marketing, Market Analysis, Privatisation, Segmentation, Unmet Customer Needs.

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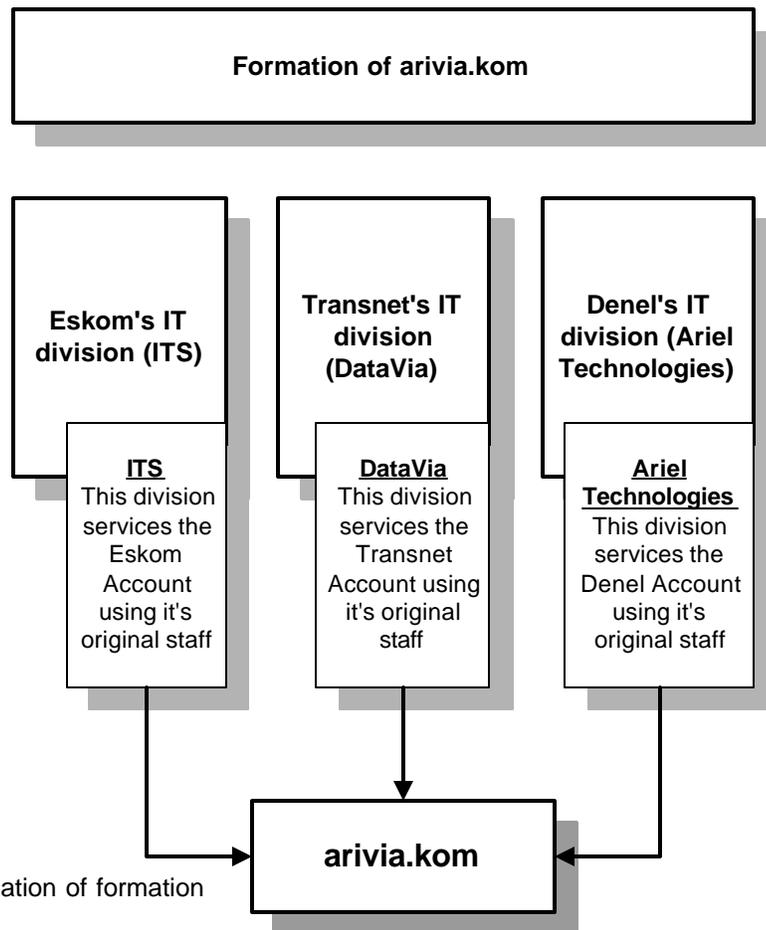
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Chapter 1: Introduction and background to the problem

1.1 INTRODUCTION TO THE STUDY

Over time, South Africa's prominent parastatal organisations (Eskom, Transnet and Denel) developed extensive Information technology (IT) capability and infrastructure. At the end of 2000, the state (the Department of Public Enterprises) decided to merge the IT functions of these three organisations into one organisation. Under this initiative the IT function of each parastatal, namely, Eskom's ITS, Denel's Ariel Technologies and Transnet's DataVia, were formally merged into one state-owned information technology business known as **arivia.kom**[®]. The formation and ownership of arivia.kom is depicted below in figure 1.1.

Figure 1.1: Formation of arivia.kom



Source: Author's visualisation of formation of arivia.kom

Arivia.kom is a "business-to-business" (b2b) organisation, selling IT solutions and services to its founding organisations (Eskom, Denel and Transnet) and to the government (by responding to tenders), as well as to other entities in the private sector (see ch 3 for further elaboration on b2b and arivia.kom's role in Eskom). Its key objectives are to:

- be a profitable player in the IT industry
- provide high quality services to its final customers (the three main customers being Eskom, Transnet and Denel)
- grow its customer base by seeking new business from the private sector, in addition to being the service provider of choice to Eskom, Transnet and Denel

The government had attempted a similar exercise previously. Prior to the inception of arivia.kom, the government authorised the formation of the state Information Technology Agency (SITA). SITA arose from the merger of the IT departments of the South African Police Services (SAPS), Department of Defence, State Expenditure's Chief Directorate and the Central Computer Services. SITA was intended as a b2b organisation, and was tasked to provide IT services to the state. Its main focus was on military applications, integration of information systems across governmental and ministerial departments, implementation and management of human resources systems and the establishment of information quality standards for use in the government. SITA and arivia.kom differ in their operational focus and target market, and hence do not compete for the same business. However, mutual agreement has been reached by the two organisations to provide services to each other where one is deficient and could benefit from the other's expertise.

By way of an initial agreement concluded with Eskom, Transnet and Denel, arivia.kom will be provided with guaranteed business contracts until the end of 2003 (subsequently renewed till the end of 2005). Each of these organisations is now a final customer of arivia.kom. These final customers are defined further as follows:

- Eskom comprises Generation, Transmission, Distribution and Eskom Enterprises. Eskom Enterprises houses all non-core activities such as research and development, maintenance and telecommunications, whilst the former units represent core business responsible for electricity production and delivery.
- Transnet comprises, amongst other businesses, Spoornet, Portnet, Airports Company, and Petronet. These businesses are responsible for transportation services specialising in bulk long-distance haulage.
- Denel is the state-owned manufacturer specialising in armament and military research, design and manufacture.

Arivia.com has "first right of refusal" over all IT services required by its final customers. This implies that these customers may only engage the services of other service providers if arivia.com cannot provide the services required, or if it specifically refuses to perform work requested because of a lack of technical skills.

In the 2002/2003 financial year, Eskom contributed approximately R601 million to arivia.com's revenue, whilst Transnet and Denel contributed R400 million and R90 million respectively (the arivia.com organisation structure is provided in figure 1.2). The services rendered by arivia.com are summarised in the following lines of business (LOB):

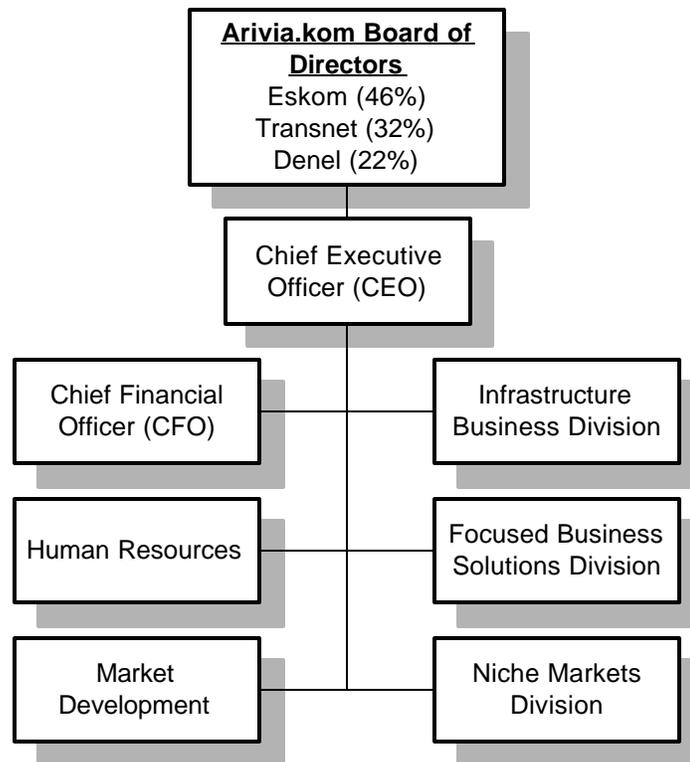
- *Focused Business Solutions.* This LOB provides analytical, design and development services for the purposes of developing specialised (customised) software solutions for customers.
- *Infrastructure Business.* Arivia.com provides customers with local area networks (LAN) and wide area networks (WAN) which provide complex connectivity between computer systems and business system environments to make possible information exchange using specific software, e-mail and usage of the Internet and intranet.

- *Niche Markets.* This LOB provides technology solutions for specific applications such as security systems and geographic surveying.

The formation of arivia.kom was based on certain preconditions:

- The final customer would be contractually bound to offer IT business exclusively to arivia.kom.
- Arivia.kom has the "first right of refusal" over such work offered to it by the final customer.
- No business is to be given to external service providers without prior notification of such intention, and subject to arivia.kom's approval in this regard.

Figure 1.2: Organisational structure of arivia.kom



Source: Arivia.kom annual report 2003

The main reason for the above arrangement was to sustain the cost of employing staff and systems inherited from its founding IT organisations in Eskom, Transnet and Denel (who are now arivia.kom's final customer). The arivia.kom staff were

provided with guarantees of job security and of such positions that they held with their previous employers. This arrangement prevailed until the end of the 2003 financial year, at which time arivia.kom's contracts with its final customers were extended until the end of 2005. These preconditions would have implications for the way in which key people in the customer base view arivia.kom, as well as for the operational constraints faced by arivia.kom.

1.2 PROBLEMS IN THE ARIVIA.KOM ENVIRONMENT

1.2.1 Guaranteed contracts

Given the contracts agreed to with Eskom, Transnet and Denel, arivia.kom initially had the "right of first refusal" on all IT-oriented work conducted by each of the three organisations for at least three years, which has subsequently been renewed until the end of 2005. This exclusivity period commenced on 1 April 2001 and will now continue until 31 December 2005. In instances where arivia.kom does not possess the capability to perform such work, it would then be referred to the "open market".

Customers have expressed concern about being compelled to use arivia.kom as an exclusive service provider until the end of the exclusivity period, and have expressed their desire to engage other competitors. Reasons for such dissatisfaction have often been related to poor service quality. In a survey conducted by arivia.kom during July 2001 with the Eskom customer base, numerous reasons for dissatisfaction were proffered. These are listed below.

1.2.2 Customer dissatisfaction

Certain customers in the arivia.kom customer base have expressed dissatisfaction with the contractual arrangement. In a survey conducted by arivia.kom focusing exclusively on the Eskom final customer in July 2001, the following comments were made (extracted as written by them):

- "I don't mind paying for a service, as long as I get the service. Paying for a pathetic service leaves a bad taste in my mouth."

- "I don't want to know about your logistical problems (e.g. software that was stolen). Don't make excuses, DELIVER, that's what Eskom is paying arivia for."
- "The service provider is not as reactive as the competition available in the market, time to react and the innovation with regard to solutions and meeting the customers needs is lacking, the whole culture of 'business as usual' is still prevalent."

In addition, Eskom customers have engaged the services of external companies without disclosing their intentions to Eskom senior management or to arivia.kom. One example is that of Technology Services International (TSI) which is a research and development group in Eskom. TSI engaged the services of PQ Africa (subsequently called Comparex) at the beginning of July 2001, and did not disclose its reasons for doing so to Eskom management. Arivia.kom support staff discovered the services provided by Comparex when system-planning documentation was issued to TSI. The involvement of Comparex by TSI contradicts arivia.kom's mandate, which also comprises system research, analysis and design.

Other behaviour on the part of Eskom customers has also been a cause of concern. During October 2001, TSI approached external service providers for a payroll system, without involving arivia.kom in the process until one week before the close of the tender date. The contract was then awarded to an external organisation despite arivia.kom's protests. Other customers, such as Eskom (Transmission Division) and Eskom (Generation Division) are also employing technical IT staff in an effort to prevent reliance on arivia.kom.

At present, it is unclear whether arivia.kom is meeting certain customer expectations. Hence it is also unclear whether its key objectives are likely to be met, given the challenges being experienced.

1.3 PROBLEM STATEMENT

The problems that arivia.kom is experiencing seem to emanate from the market environment (from customers and competitors). In order to understand these problems and to investigate possible solutions to them, a market analysis is required, with specific focus on arivia.kom's customers and competitors. It is essential that a market analysis be conducted in order to establish why arivia.kom is not meeting key objectives, which it has identified as being critical to its survival and growth.

Arivia.kom's three largest customers are Eskom, Transnet and Denel. These parastatals contribute approximately 72% of its revenue (approximately R1,091 billion out of a total of R1,51 billion). Eskom is arivia.kom's single largest customer, contributing approximately 55% of the revenue derived from the parastatals (R601 million of the R1,091 billion). Eskom's revenue contribution constitutes approximately 40% of arivia.kom's overall revenue base. Eskom has also been most prominent in expressing dissatisfaction over the quality of service received from arivia.kom. For the purposes of this study, arivia.kom's customers and competitors will be investigated in relation to its Eskom account. Arivia.kom's other key customers, namely the parastatals Transnet and Denel, will not form part of this study since little information has been made available on those entities for the purposes of this study.

Arivia.kom has no intermediaries, and its supplier environment has not been problematic to the extent that customers have been affected by non-delivery.

1.4 RESEARCH OBJECTIVES

1.4.1 Primary objective

The primary objective is to analyse the market environment (customers and competitors) of arivia.kom. Strydom, Jooste and Cant (2000:40) define the market environment as comprising consumers, competitors, intermediaries, suppliers and opportunities and threats in the market in which a firm operates.

1.4.2 Secondary objectives

The secondary objectives are as follows:

- To determine why customers are reluctant to provide more business to arivia.kom, and in some instances, are actively campaigning to replace arivia.kom as their service provider of choice
- To establish whether arivia.kom is conducting customer segmentation effectively for the sake of profitability and survival
- To establish customer perceptions of arivia.kom with regard to quality of service delivery and service provision, and an overall impression of arivia.kom's performance since its inception
- Establishing who the competitors are, the reasons for their progress in arivia.kom's customer base which was seemingly secured contractually
- To identify areas in need of further study

1.5 RESEARCH METHOD AND DATA

The analytical survey method has been chosen as the appropriate methodology for research in the context of this study. The data to be gathered will be essentially quantitative. The purpose is to analyse the data collected and extract certain meanings they may contain that will shed light on the study at hand. The primary method of data collection will be a questionnaire. The Eskom customer base will be required to complete this questionnaire. The questionnaire is to address specific issues that have a direct bearing on the purpose of this study. Primary data will be gathered from the Eskom customer base in one of the following manners:

- sending the questionnaire to customers and evaluating their responses from the completed questionnaires received
- conducting telephone interviews with customers, using the questionnaire as a strict guideline and noting the responses on each questionnaire

In addition, data available from print media and reports generated from within arivia.com will also be used as sources of information. These will be secondary sources of information. Secondary data will also be used to collect information on arivia.com's competitors in the marketplace.

1.5.1 Population

The population that will be targeted for this study is the "Eskom Account" business group. The Eskom Account group represents 90 key customers. These customers authorise and influence key decisions, and represent a user community of approximately 8 000 employees nationally who depend on the availability of arivia.com's computing services. The key Eskom Accounts that receive service from arivia.com are as follows:

- Eskom Enterprises (a subsidiary of Eskom which houses all noncore businesses such as research and development, maintenance and protection metering systems. This represents 15 major stakeholders/customers.
- Generation (part of Eskom's core business comprising power stations for generating electricity). This group represents 20 major stakeholders/customers.
- Transmission (part of Eskom's core business focusing on transmitting electricity from power stations to final customers. This group represents 15 major stakeholders/customers.
- Distribution (part of Eskom's core business focusing on the transport of power to local municipalities, residential areas and townships). This group represents 20 major stakeholders/customers.
- Eskom Corporate Services (includes Eskom Human Resources, Finance, Marketing, Treasury, Pension Fund, Corporate Planning and Corporate Information Management). This group represents 20 major stakeholders/customers.

These customers are direct users of arivia.kom services, and are also involved in either influencing or making decisions about the purchasing of services from arivia.kom. It is their input into and attitude towards arivia.kom that is of interest for the purposes of this study. Their perception of service delivery and value received from arivia.kom will influence future decisions on whether the relationship is worth continuing upon expiry of the exclusive contractual period. For the purposes of this study, the Eskom Account business group will be the total population. A survey of these 90 account holders will therefore be conducted.

1.5.2 Data collection and analysis

Primary data will be collected using a questionnaire to be constructed for the purposes of this study. The questionnaire will focus on customers in the stated Eskom Account areas with whom arivia.kom business managers interact in preparing solutions and services.

1.6 LAYOUT OF THE DISSERTATION

The study is to be structured as follows:

Chapter 1: Introduction and background to the problem

- Background
- Brief description of arivia.kom's business environment
- Problem statement

Chapter 2: Customer and Competitor analysis

- Brief description of a market environment
- Review of the components comprising market analysis, and how this will apply to the investigation of the relationship between arivia.kom and the Eskom customer
- In-depth overview of customer analysis and competitor analysis

Chapter 3: Profile of arivia.kom

- Description of arivia.kom and its history
- Review of SITA and the key differences between SITA and arivia.kom
- Description of products and services offered by arivia.kom
- Description of arivia.kom's objectives
- Review of examples where these objectives have not been met

Chapter 4: Research methodology

- Statement of primary and secondary objectives
- Population targeted
- Questionnaire design
- Data collection - questionnaire constructed for the purpose of establishing the reasons why objectives are not being met
- Data analysis

Chapter 5: Customer and competitor analysis of arivia.kom - survey results

- Analysis of the environment based on results from responses to the questionnaire
- Further areas of research

Chapter 6: Conclusions and recommendations

- Summary of main findings and interpretations
- Conclusions in terms of stated objectives
- Recommendations based on conclusions
- Areas of future research

Chapter 2: Profile of arivia.kom

2.1 INTRODUCTION

When the present government came into power in 1994, it adopted a different approach to public sector management from its predecessors. The previous government's involvement in state owned enterprises (SOEs) dealing with energy, transport and military systems was extensive and came to be viewed as counterproductive and unnecessary by the present government. A white paper published by the Department of Public Enterprises (DPE) during 2000 proposed that economies of scale could be derived from rationalising the energy and transport enterprises, among other SOEs, which provided prominent input costs for vital industries such as tourism, communications, technology and export. Such liberalisation would result in a lowering of input costs in such industries, and generate new streams of wealth creation contributing to domestic economic growth whilst addressing social development needs and relieving the burden on the taxpayer. The decision to pursue public sector reform was therefore an imperative.

In the interests of demonstrating to international communities its commitment to rapid public sector reform, government involvement in IT was considered appropriate for immediate reorganisation. In 1999, the State Information Technology Agency (SITA) was formed with the intention of realising economies of scale from the management of governmental IT needs. Thereafter, in 2001, arivia.kom was created after the DPE decided to merge the IT departments of the government's largest parastatals (Eskom, Transnet and Denel). Arivia.kom is supposed to be a multipurpose IT service provider that comprehensively services the needs of Eskom, Transnet, Denel and other governmental organisations (in collaboration with SITA), as well as the private sector. This chapter focuses on arivia.kom, and its formation and current business environment in terms of its customers and competitors. Since SITA was the first of such initiatives

undertaken by the state, arivia.kom is often regarded as an extension of SITA rather than a separate entity. A brief comparison of both entities follows.

2.2 SALIENT FEATURES OF SITA AND ARIVIAKOM

When arivia.kom was established, it was unclear to many observers whether it would be a distinct entity from SITA. It is therefore appropriate to commence this section with brief descriptions of the salient characteristics of arivia.kom and SITA in order to clarify their differences and the motives underlying their creation by the state.

On 1 April 1999, SITA was formed out of the merger of the IT departments of the South African Police Services (SAPS), the Department of Defence, the Department of State Expenditures Directorate and Central Computer Services. The organisation was formed with the following objectives in mind:

- to render IT planning and advisory services to its key customers in government
- to leverage economies of scale in the procurement of software, hardware and IT services through a single point for government departments
- to address the IT skills drain affecting the public sector by consolidating the resource base in order to manage the rapid losses of IT professionals to the private sector
- to set standards for information security and the interoperability of systems in government departments
- to promote the use of IT to improve service delivery by government (known as e-government initiatives)
- to extend IT services across all government departments commencing with those departments from which it initially arose

SITA was created as the official channel for the advancement of IT initiatives in all state departments, with the intention of managing their diverse needs in a

coordinated fashion. In addition, it was intended to be a single point of interface for state IT requirements thereby minimising delays in the procurement and implementation of hardware and software systems. State expenditure on IT services is in excess of R10 billion annually, making it feasible to ensure that there is prudent and responsible management of such funds, and that IT requirements are addressed in the best interests of the state. Hence SITA was viewed as the appropriate vehicle for the coordinated management of state IT requirements, at the same time eliminating the duplication of efforts to procure products and services at the lowest possible cost.

On 1 January 2001, the DPE announced the merger of the IT departments of Eskom, Transnet and Denel to form arivia.kom, which formally commenced operations on 1 April 2001. Arivia.kom is a "business-to-business" (B2B) organisation. This involves selling services between itself and other formally incorporated organisations. Arivia.kom's operations would thus entail the selling of IT solutions and services to its founding organisations and to the government (in collaboration with SITA), as well as to other entities in the private sector and elsewhere in Africa. Its key objectives are as follows:

- to be a profitable player in the IT industry by providing system infrastructure maintenance and software development services to its three main customers, Eskom, Transnet and Denel
- to provide adequate levels of service to its three main customers which are consistent with their expectations as specified in service level agreements (SLAs) drawn up to this effect
- to maintain the integrity and security of data and information for its key customers;
- to provide IT planning, integration and configuration of systems to its key customers

- to address the IT skills drain affecting the public sector by consolidating the resource base in order to manage the rapid losses of IT professionals to the private sector
- to grow its customer base by seeking new business from the private sector, Eskom, Transnet and Denel, and to service governmental IT needs in conjunction with SITA; also to seek new business opportunities elsewhere on the African continent
- to collaborate with and support SITA's initiatives in the public sector

To avoid confusion about the states' intentions for arivia.kom and SITA, the chairpersons of both entities issued a joint statement on 13 July 2001, which reiterated the complementary nature of the roles fulfilled by both organisations in realising the objectives of the government. Both organisations are expected to comprehensively support the IT needs of the original organisations from which they arose. However, whilst SITA is supposed to remain the official IT advisor and supplier of services to the state, arivia.kom's role is to extend its operations to the private sector, with a view to becoming a commercially functional entity. The creation of arivia.kom, and its eventual operation as a commercial entity, required the unmitigated input and involvement of key organisations. Extensive research was conducted into the feasibility of creating such an organisation and its viability as a going concern.

2.3 FORMATION OF ARIVIAKOM

To achieve the formation of arivia.kom and its ultimate operation as a commercial entity, extensive research and facilitation were required for decision making on crucial aspects of the merger. Throughout the premerger and postmerger phases, consultants, appointed by the DPE, guided the development of processes that would aid decision making on the formation and operation of arivia.kom. The consultants facilitated a comprehensive process of investigation and consultation with stakeholders in Eskom, Transnet, Denel and the DPE. Detailed financial feasibility analyses were conducted, to assist the DPE in its

decision to create arivia.com as well as the drafting of enabling agreements with Eskom, Transnet and Denel, to ensure contractual control over the management of relationships with the entity after the commencement of operations. Human resource issues relating to the transition of IT staff from Eskom, Transnet and Denel to the new entity also merited consideration. Furthermore, the management structures required to ensure the appropriate leadership and management of the organisation on commencement of operations needed to be determined.

2.3.1 Financial modelling

Eskom, Transnet and Denel were required to submit detailed information to the DPE on the income and expenditure specifically related to their IT service divisions that would eventually form part of arivia.com. The information related to various aspects of financial endeavour, and included the following:

- the operating cost of the IT infrastructure used by the parastatals
- the total value (capitalised) of the infrastructure managed by the respective IT departments that would be merged to form arivia.com
- income projections that could be derived from providing maintenance and support to each organisation
- the human resource costs of each IT department including valuations of gratuities, pension funds, training and development requirements, as well as projections of the funds required to achieve parity in salary and employment benefits among the employees of the organisations on conclusion of the merger
- the costs of migration from the parastatal entities to arivia.com, including the of marketing and branding of the new entity

The information was collated into a comprehensive financial model that mapped the financial viability of the organisation and its expected performance for the first three years of its existence, as well as the future financial capital required to

maintain arivia.kom as a going concern. The proportion of services to be purchased from arivia.kom after its inception, as well as the capital outlay made by each parastatal, as determined during financial modelling, formed the basis of each organisation's shareholding in the new entity. The results yielded by the financial modelling exercise indicated that it was financially viable for the state to proceed with the formation of arivia.kom, given that the expected benefits would exceed the costs relating to formation.

Thereafter, negotiation with the three parastatals resulted in the draft enabling agreement describing the entity to be formed, and the terms and conditions that would bind Eskom, Transnet and Denel as shareholders and customers of arivia.kom.

2.3.2 Enabling agreement

The enabling agreement (EA) specified the reasons for the formation of arivia.kom, and facilitated formal cooperation among the parastatals in order to coordinate support for its existence. The aim of the agreement was to ensure that the diverse corporate objectives formulated for each parastatal, and their own privatisation objectives, were aligned with the imperatives defined for arivia.kom. To ensure objectivity and consistency in each parastatal's treatment of arivia.kom, the EA made provision for consultation forums and committees to cope with any operational and strategic discrepancies and disputes that could arise between arivia.kom and the parastatals.

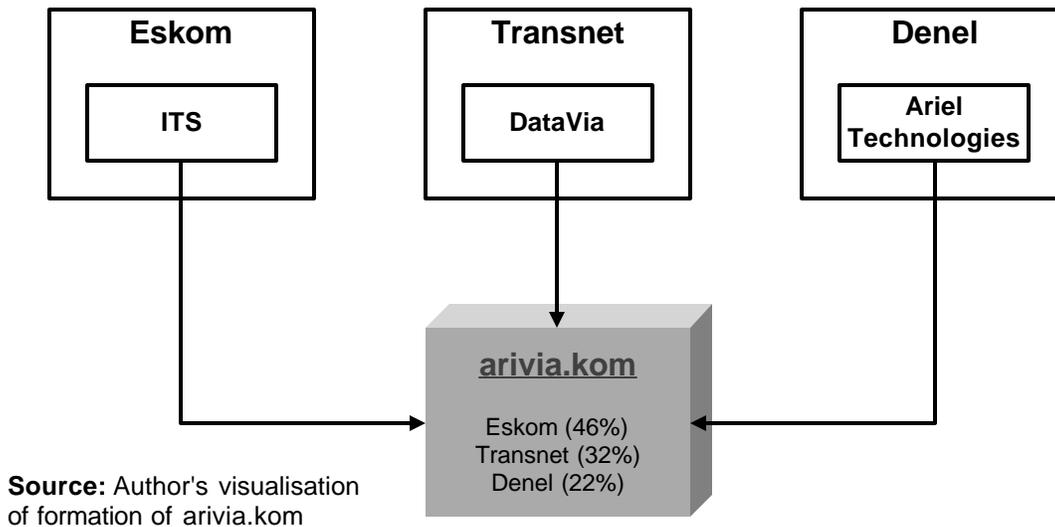
The EA specified the role of the respective shareholders of arivia.kom, and their rights and responsibilities as key customers of the organisation. Amongst the various terms and conditions defined in the EA was a provision compelling the major shareholders to make exclusive use of arivia.kom's services for at least three years (ending on 31 December 2003), with the option of contract renewal upon expiry of that term. In addition, the EA specified the use of service level agreements (SLAs) to control and monitor the quality of service provision. The SLAs specified services to be provided to each customer at group and

subgroup level, and key performance indicators (KPIs) to be monitored for the services provided. Conformance with SLA requirements was to be measured on a monthly basis and nonconformance was to be reported to operational forums. The EA specified the use of operational liaison forums which would convene monthly, and a strategic liaison committee to convene quarterly to monitor the progress of business performance and strategic relationships between arivia.kom and its shareholders, as well as significant deviations from KPI measures specified in the SLAs. The strategic liaison committee also provides input into annual price increase negotiations held with arivia.kom

2.3.3 Incorporation of arivia.kom

Upon finalisation of the financial feasibility study and the drafting of the EA to which Eskom, Transnet and Denel were signatories, the DPE subsequently approved the incorporation of arivia.kom as a legal entity on 1 January 2001. Ownership of the organisation would then vest in the three parastatals, resulting in Eskom owning a 46% of the organisation, with Transnet and Denel owning 32% and 22% respectively. The proportion of ownership was determined by the financial contribution of each entity to the capital costs of forming arivia.kom as an entity, and the number of staff to be transferred from each parastatal to the entity. Thereafter, the migration of the IT entities of the three parastatals into arivia.kom commenced and is illustrated in figure 2.1, along with the shareholder representation of each organisation. The financial year of arivia.kom commences on 1 April of each year and ends on 31 March of the following year. Between 1 January 2001 and 1 April 2001, the migration of staff (human resources unpacking and repacking) from Eskom, Transnet and Denel to arivia.kom was effected.

Figure 2.1: Migration into arivia.kom



2.3.4 Human resource unpacking and repacking

On completion of the transition of employees from the IT departments of Eskom, Transnet and Denel to arivia.kom, the organisation comprised approximately 1 700 employees. As part of the transition from being employees of Eskom, Transnet and Denel, to being employees of arivia.kom, the Employee Participation Forum (EPF) was created comprising of representatives from arivia.kom nationally. The purpose of the EPF was to represent the needs of employees and it was the official forum in which all human resource issues were discussed and communicated. In addition, all management decisions taken as a result of the merger were communicated to the organisation with the approval of the EPF. Initially, the EPF met at two-week intervals to discuss crucial employee-related issues. Thereafter, these issues were discussed with the arivia.kom HR department for feedback and/or action.

One of the main items of concern was the issue of parity in salaries and benefits between employees from the various parastatals, who would now be working together. Comprehensive consultations and negotiations between the EPF and arivia.kom HR and executive management were held in this regard, resulting in a decision that employees would retain benefits that they had held prior to the merger. Any deficiencies in the basic salaries of any group would be raised to

an acceptable level over a specified time period to soften the impact of this on the cash flow of the organisation. Thereafter, all new persons employed by arivia.kom who were not from the parastatals were subject to different conditions of service from the former employees of the parastatals. The principal issue requiring attention was the appointment of senior executives to provide leadership for arivia.kom, which is discussed below.

2.3.5 Appointment of senior executives

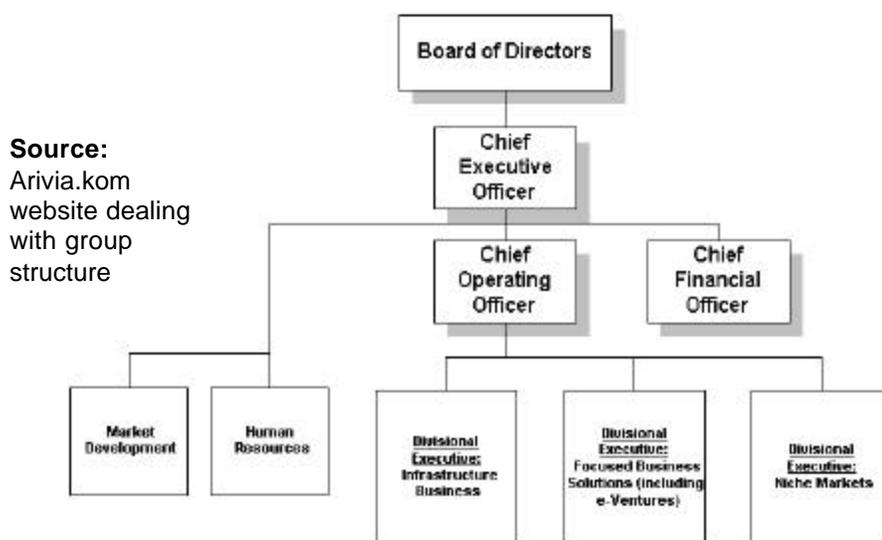
In the appointment of executives, representatives from each parastatal IT department were given prominent roles in arivia.kom. However, the appointment of the chief executive officer (CEO) was made at ministerial level in the DPE. The final senior management structure comprised the following representation:

- Chief Executive Officer (CEO): ex-Denel IT executive
- Chief Financial Officer (CFO): external appointment
- Chief Operating Officer (COO): external appointment
- Infrastructure Line of Business: ex-Eskom IT executive
- Focused Business Solutions: ex-Transnet IT executive
- Niche Markets Business: ex-Denel Executive
- HR Executive: ex-Transnet HR IT manager
- Market Development Executive: ex-Eskom IT executive

Owing to a commitment made by the state to the employees of arivia.kom, no external appointments would be made to key positions within the organisation, unless such skills were not available internally. Hence the majority of senior executive positions were occupied by internal candidates out of deference to their prior positions of seniority held during tenure in the respective parastatal IT departments. All executive positions, with the exception of the COO and CFO, were occupied at the commencement of business on 1 April 2001. The role of

the CFO was managed by the original financial managers of the parastatal IT departments, until the formal appointment was made at the end of July 2002. The role of COO was vacant from the date of commencement of business and was only filled in February 2002. The organisation is governed by a board of directors (mainly external representatives appointed at governmental level) and an executive committee comprising executives from within the organisation. An organisation chart specifying the executive structure of arivia.kom is provided in figure 2.2 below. This chart also alludes to the structure of arivia.kom to be discussed in the section below.

Figure 2.2: Arivia.kom organogram



2.4 STRUCTURE AND FINANCIAL PERFORMANCE OF ARIVIA.KOM

Arivia.kom was structured into distinct lines of business (LOBs), having management representation at the executive committee. In addition, there is a Corporate function that provides a variety of support functions to the three main LOBs. The (LOBs) of arivia.kom are as follows:

- Infrastructure business
- Focused Business Solutions
- Niche Markets

A discussion of the nature and function of these LOBs follows.

2.4.1 Infrastructure Business (IB)

In addition to the vast network of business infrastructure used by its largest customers (Eskom, Transnet and Denel), arivia.kom provides extensive information infrastructure to enable them to manage their businesses effectively. Arivia.kom's customers operate business centres throughout South Africa and rely extensively on IT networks to enable them to communicate. Software, hardware and security systems, managed by arivia.kom, facilitate information transfer daily in these parastatals on a massive scale.

Arivia.kom provides customers with local area networks (LANs) and wide area networks (WANs) which ensure connectivity between business systems for information exchange using specific software, e-mail, Internet and intranet. System security monitoring is provided on all systems. Dedicated network staff provide service and support throughout the year, including weekends and public holidays. Planning and design services are also offered to facilitate the commissioning of new systems for existing customers and for new customers outside the parastatals.

The Infrastructure Business (IB) is the largest generator of revenue for arivia.kom, and contributes approximately R1 billion to turnover annually. It also employs approximately 1 000 employees, constituting 59% of the arivia.kom's workforce of 1 700 people. Working closely in conjunction with the IB, LOB is the Focused Business Solutions LOB.

2.4.2 Focused Business Solutions (FBS)

Focused Business Solutions (FBS) LOB provides business analysis and consulting solutions for customers. Services include business information requirement analysis, business process modelling, systems analysis, systems design and implementation services and systems training and post-implementation support. In addition, enterprise resource planning (ERP) solutions are provided through Csiper Consulting, a wholly owned subsidiary of

arivia.kom. Csiper Consulting is a specialist solution provider of ERP software to medium to large organisations. ERP solutions are able to integrate information throughout large organisations and consolidate reporting at a single point to promote strategic decision making. They are also vast and resource intensive, requiring extensive planning and design prior to implementation.

Arivia.kom also provides software development services, and has developers skilled in a most of the commercially applicable programming languages. Services include the development of web-based applications, to enable customers to access business information using the Internet. Such software development capabilities enable arivia.kom to provide custom-developed software to customers in instances where commercially available software cannot meet specific needs. Such was the case with Eskom, when engineering applications were previously unavailable commercially, requiring the organisation to have customised applications developed for its specific needs.

This LOB contributes approximately R275 million to arivia.kom's annual turnover and employs approximately 300 employees, constituting 15% of the total staff complement. A close counterpart to the FBS division is the Niche Markets portfolio of arivia.kom.

2.4.3 Niche Markets

This LOB provides customers with specialised technologies for specific applications such as security systems and geographic surveying. Tools such as smart card and biometrics systems enable customers to provide access control to their employees in work environments such as hospitals or government facilities where security is vital. Biometrics systems involve technology that has the ability to recognise the specific biological profiles of people, such as employees' fingerprints and are used for access control in organisations.

Clients such as Eskom and Transnet often require important geographic information to plan for the expansion of their electrical and rail infrastructure networks. The Niche Markets LOB provides geographic information systems (GIS) and documentation management systems for this purpose to make

possible terrain mapping, and geographic modelling for infrastructure planning. In addition, this LOB has secured contracts for the provision of electoral systems to help collate election information, and has been involved in numerous tenders from States on the Africa continent where elections have been held.

Niche Markets contributes approximately R209 million to arivia.kom's total annual revenue. It is the smallest of the three LOBs and employs approximately 140 staff members, constituting 8% of the total number of people employed by arivia.kom.

2.4.4 Corporate function

The corporate function of arivia.kom provides service and support to the whole organisation in a way that goes beyond the specific operating scope of the LOBs. The corporate function is not involved with the direct provision of IT services to customers; nor does it earn direct income for the organisation. The corporate environment comprises the following functions:

- Human resource management is responsible for the management of arivia.kom's resource policies, payroll, liaison with the Employee Participation Forum (EPF) and deals with all remuneration-related issues.
- Market development is responsible for the development of marketing plans and brand management initiatives on behalf of arivia.kom. In addition, key account management resides in this function and is responsible for liaison with customers for the identification of problems with existing services, management of service quality and the identification of new opportunities for the organisation. All marketing events are also coordinated through this function.
- Procurement is responsible for the formal procurement of goods and services on behalf of arivia.kom. Procurement enables the organisation to acquire goods and services from suppliers, either for the internal use of arivia.kom, or on behalf of customers who may require it.

- Risk management is responsible for identifying risks to the organisation, and drafting of policies and procedures that may be used to manage such risks appropriately. Internal audit functions are also the responsibility of this department.
- Legal resources is responsible for the management of all legal affairs on behalf of arivia.com, including the drafting of policies on legal matters for the organisation, and the management of all contractual matters affecting the organisation.
- Corporate information management is responsible for the management of all information policies and standards related to software and hardware used in the organisation. This function also regulates control over information security in order to prevent the misuse of information or the access of internal information by external entities.

This function accommodates approximately 260 staff, constituting approximately 15% of the total number of employees at arivia.com.

2.4.5 Financial performance

The financial performance of arivia.com is set out in table 2.1 below.

Table 2.1: Financial performance of arivia.com for year ended 31 March 2003

Financial Indicators		
Revenue	R1,51 bn	
Net income	R65 m	
Revenue Generated by LOB	Contribution to revenue	
Revenue generated by Infrastructure LOB	R1,030 bn	68.0%
Revenue generated by Focused Business LOB	R275 m	18.2%
Revenue generated by Niche Markets LOB	R209 m	13.8%

Source: Arivia.com's Annual report for the 2002/2003 financial year

Arivia.com's revenue is expected to grow modestly until the end of 2004, given the consolidation initiatives undertaken by the IT industry for 2002 and 2003.

2.5 THE MAIN CUSTOMERS OF ARIVIA.KOM

Eskom, Transnet and Denel are the largest of arivia.kom's customers [contracted as per the original enabling agreements (EA)], accounting for approximately 72% of its revenue or R1,091 billion. The contributions to revenue by these customers are as follows:

- Eskom's contribution to revenue is approximately R601 million (40% of turnover overall, and 55% of turnover contributed by EA customers).
- Transnet contributes R400 million (37% of turnover overall and 40% of revenue contributed by EA customers).
- Denel contributes approximately R90 million (6% of turnover overall and 8% contributed by EA customers). Eskom is the largest consumer of IT services in South Africa and remains one of arivia.kom's most valuable customers.

The challenging targets set by the state for the privatisation of its assets, and the liberalisation of the transport and energy markets in South Africa, have implications for future IT services required by SOEs. Eskom and Transnet in particular are faced with difficult and challenging privatisation objectives, and will require further investment in IT services to keep pace with these change imperatives. Denel is also faced with privatisation goals. However, given the involvement of Eskom and Transnet and key drivers of input costs in various key industries in South Africa, the plight of Denel's privatisation initiatives is not considered in the same light as its energy and transport sector counterparts.

2.5.1 Denel and Transnet

Transnet is the state's second largest SOE and was incorporated as a holding company in 1990. It comprises 13 subsidiaries, its core business being the provision of multimodal transportation services to the general public and to industry in South Africa. Of its various subsidiaries, South African Airways (SAA) and Spoornet (rail services) are its most prominent revenue generators. Transnet's restructuring is ongoing, and privatisation is imminent. However,

further progress is dependent on the government's ability to manage the large debt burden the organisation has incurred in the management of its operations.

Denel was incorporated as a private company in 1992 by the South African government, and is the state's seventh largest SOE. It is involved in research, development and the manufacture of armaments and related products for military application and the aerospace industry both in South Africa and internationally. Denel currently supplies approximately 37% of the governments requirements for armaments and derives approximately 50% of its revenues from domestic trade. After 1998 planning was initiated for the partial privatisation of Denel by the government, which subsequently sold an equity stake in the organisation to BAE Systems in August 2000. Denel contributes the least amount of revenue of arivia.kom's three largest customers and prefers to maintain a large in-house IT network. This is largely because of the emphasis on maintaining strict security over information on its intellectual property and business dealings, as opposed to purchasing such services from arivia.kom which utilises generic infrastructure for the provision of its services.

Eskom is the largest consumer of arivia.kom's services and is the primary focus of attention in this study.

2.5.2 Eskom

Eskom is the largest of the SOEs in South Africa with total asset value approximating R80 billion and revenues of R28 billion for the 2002 financial year. Its monopoly over the electricity market in South Africa has long been considered an area for rationalisation. The organisation is currently characterised by volatility induced by the state's decision to introduce competition into the energy market in South Africa by initiating a restructuring programme that commenced in 1995. Prior to 1995, the organisation operated as a single entity with various departments, responsible for the management of electricity production and delivery to customers. The restructuring programme resulted in the organisation being divided into the following ring-fenced entities: Generation, Transmission, Distribution, Eskom Enterprises and Corporate

Functions. Eskom's business environment will now be discussed with specific focus on each of the ring-fenced entities separately.

2.5.2.1 Generation

This entity represents Eskom's power-generating capacity and contains all the active power stations used to produce electricity. Generation has 20 power stations situated throughout South Africa and employs approximately 10 500 people. As part of the liberalisation of the energy market in South Africa, the government intends selling off 30% of Generation's capacity (6 power stations) to external business entities comprising Black Economic Empowerment consortia and representatives of previously disadvantaged communities. The planned launch of this initiative is scheduled to commence at the beginning of 2005.

2.5.2.2 Transmission

The Transmission entity is responsible for the management of power lines and substations that transport the electricity from power stations to wholesale electricity customers such as mines and industrial conglomerates (eg aluminium producers) in South Africa. This entity has two major functions. Firstly, it is responsible for managing a power pool that purchases power hourly from each of the power stations, on the basis of the cost schedules provided by each generating power station. The power pool functions as a trading organisation that evaluates electronic "bids" submitted by each power station, and purchases power from stations in order of priority from the lowest cost generator to the highest, utilising stations that generate highest cost per unit last. This ensures that Eskom optimises the cost of power generation from all its power stations, with exception reporting done on those stations that consistently produce "bids" to sell electricity at high prices, thereby prompting Eskom to manage its power stations' cost of production within certain predefined limits.

Secondly, Transmission is responsible for managing the transport of electricity from the power stations to the consumers which are bulk users of such power, providing guarantees on the quality of the electricity used. All plant and equipment used to transport the electricity belong to Transmission and are maintained by this division of Eskom. Transmission employs approximately 7 000 people. It is government's intention to separate the functions of transporting and pooling and trading electricity. At the beginning of 2005, government plans to form a separate organisation to trade in electricity generated from the various entities resulting from the market liberalisation process.

2.5.2.3 Distribution

Distribution is responsible for transporting electricity to retail customers such as municipalities (which sell electricity to suburban users), townships and metropolitan consumers. Whilst the Transmission division sells large amounts of power to a relatively small number of customers (operating as an electricity wholesaler), the Distribution division sells smaller units of power to a larger number of customers throughout South Africa, thereby operating as an electricity retailer. Distribution employs approximately 8 000 people. The Distribution function is currently in the process of forming Regional Electricity Distributors (REDs) which will be responsible for the distribution of electricity on behalf of municipalities in all nine provinces in South Africa, commencing at the beginning of 2005.

2.5.2.4 Eskom Enterprises (EE)

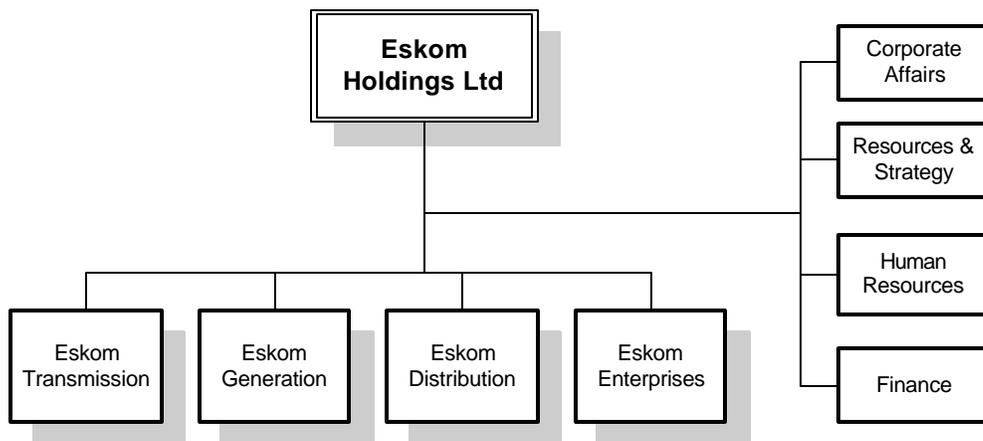
EE is responsible for the management of all services that support the main electricity business of Eskom. EE contains business units that provide consulting and support services for the electrical infrastructure used for the provision, transport and delivery of electricity. Services of EE include the refurbishment of power stations and the servicing of power station equipment (eg turbines). EE has also become a business vehicle for the furthering of Eskom's objectives in Africa and Asia. Eskom's knowledge of power system

development is considered valuable by many developing countries in Africa and Asia, resulting in the extension of EE's involvement to assuming interests in power utilities in countries such as Ghana, Uganda, Manantali and Nigeria. EE employs approximately 2 500 employees and is a wholly owned subsidiary of Eskom Holdings. EE is also the custodian of Eskom's 46% ownership of arivia.kom.

2.5.2.5 Eskom Holdings

This entity owns and controls all the ring-fenced business interests of Eskom and is responsible for managing corporate strategy that drives the management of all its business interests. The South African government owns Eskom Holdings (and therefore the whole of Eskom), and is responsible for formulating the policy and directives governing the management of the organisation and the socioeconomic role it is intended to fulfil in South Africa and on the African continent. Eskom Holdings houses the portfolios of Human Resource Management, Resources and Strategy, Corporate Affairs and Finance. Resources and Strategy is responsible for setting the strategic direction of the organisation and monitoring compliance with government al initiatives.

Figure 2.3: Eskom structure



Source: Author's visualisation of Eskom

The Human Resources function formulates, executes and controls the policies and procedures for the management of human capital in the organisation. Eskom has a Corporate Affairs division responsible for the coordinating of various initiatives such as the management of corporate communications in the organisation as well as with the general public and the state. The Finance function controls the financial management and stewardship of the various financial instruments used by Eskom. Figure 2.3 depicts Eskom's various entities.

2.6 THE RELATIONSHIP BETWEEN ESKOM AND ARIVIA.KOM

Eskom is arivia.kom's largest customer contributing approximately 47% to the IT organisation's annual turnover (about R600 million). Eskom is a technology-driven organisation that places great emphasis on the use of timeous information in the management of its various business units. It is one of the largest consumers of information technology services in South Africa, spending approximately R1,8 billion annually on IT systems' planning, design, implementation and support. Eskom makes extensive use of Enterprise Resource Planning (ERP) systems such as SAP R/3 to integrate financial and human resource information from its various ring-fenced business units. Given the privatisation imperatives defined by government, Eskom is currently involved in various initiatives which render information technology an important tool in the change process. From the outset, it would seem as though arivia.kom is well positioned to take the initiative to provide IT services to meet Eskom's transformation objectives. However, various stakeholders in the organisation's ring-fenced entities have expressed concern about the service provider's ability to meet the objectives specified in the enabling agreement (EA) and the performance measures specified in the service level agreements (SLAs).

From casual observation, there appears to be certain problems underlying the relationship between arivia.kom and Eskom. In a survey conducted by arivia.kom in July 2001 (see 1.2.2 in ch 1), certain comments were made by Eskom customers expressing their dissatisfaction with arivia.kom's performance

as a service provider. In addition, formal representation was also made by customers regarding frustrations arising from the manner in which arivia.kom conducts its business with Eskom. The Transitional Management Committee (TMC) meetings constituted the forum between arivia.kom and Eskom within which such representations were made. The following are some of these observations made by Eskom to arivia during these forums (categorised by general headings):

- Arivia.kom staff are reactive and do not demonstrate sufficient initiative in resolving problems:
 - Customer requests to arivia.kom for new services are often not followed up on, prompting them to follow up with repeated requests.
- Poor customer service is evident.
 - The time taken by arivia.kom to prepare proposals for new services often takes too long. At times, a proposal can take as long as three weeks to prepare.
- Arivia.kom staff are perceived to be poorly trained and lacking in the necessary skills to attend to the problems at hand and understand customer requirements:
 - Problems experienced with customer information system environments are often misdiagnosed. The subsequent implementation of the prescribed solution by arivia.kom meets with customer criticism that arivia.kom does not take the time to understand the customer's business environment before implementing the solution.
 - Customers perceive the attitude of systems support staff to be unprofessional.
- The enabling agreement (EA) entered into between arivia.kom and Eskom is perceived to be a source of frustration by certain Eskom customers:

- They have expressed dissatisfaction at being compelled to adhere to the principles of the enabling agreement (EA) entered into between Eskom and arivia.kom, requiring them to consult arivia.kom for new services first before engaging organisations in the open market.
- They feel restricted by the agreement because they wish to engage suppliers of their choice. Customers also perceive arivia.kom's inability to meet their requirements as a hindrance to effectively meeting their business objectives.

It would be necessary to establish whether the comments made by Eskom customers correlate with any nonconformance with key performance indicators (KPIs) specified in the SLAs. Furthermore, it is necessary to analyse whether this has serious implications for arivia.kom's aspirations to generate further business opportunities in Eskom, and whether it is likely to retain Eskom patronage upon expiry of the initial contractual period specified in the EA. It will be necessary to investigate whether the terms and conditions of the EA are a source of frustration to Eskom, given that arivia.kom could be perceived as a hindrance to change imperatives that Eskom has been bound to by the government's privatisation programme.

2.7 SUMMARY

The formation of arivia.kom and its subsequent role as an IT service provider to Eskom, Transnet and Denel have been notable milestones for the Department of Public Enterprises (DPE). However, since the commencement of operations by arivia.kom, observations made about its role in the Eskom business environment, and the manner in which Eskom has reacted to arivia.kom, warrants further investigation and analysis. In addition, Eskom is well known in the IT industry for its tendency to invest extensively in information technology, which tends to make it a target for many of arivia.kom's aggressive competitors. Arivia.kom's behaviour towards its competitors has thus far not indicated an awareness of the need to respond appropriately; nor is there any indication of a formalised

business objective specifying the approach to competitive threats. Moreover, the presence of the enabling agreement (EA) between arivia.kom and Eskom may also be a factor determining the approach adopted by the organisation, and Eskom's subsequent reaction. The EA may also play a role in determining its competitive stance in the industry with regard to Eskom.

However, further investigation and analysis of the Eskom environment are necessary to establish formally what factors are contributing to the apparent problems experienced in arivia.kom. In addition, investigation and analysis are required on the competitor dimension which seems to be affecting the organisation's ability to exploit new business opportunities in Eskom.

Chapter 3: The environmental landscape of arivia.kom

3.1 INTRODUCTION

Arivia.kom was recently formed as a result of the merger of the information technology (IT) departments of Eskom, Transnet and Denel. Prior to the merger, the separate entities existed as IT service departments within these organisations and were accustomed to insular environments that isolated them from the operating conditions to which business-driven organisations in the private sector are ordinarily accustomed. This environmental landscape changed for arivia.kom on commencement of business on 1 March 2001, and it is now expected to operate in the same manner as organisations in the private sector.

The modern business environment is often turbulent and volatile, and within it arivia.kom is now required to engage competitors and customers in a manner with which it has had little prior experience. However, despite years of experience even the most successful and established organisations commit strategic errors. A case in point is Motorola, which, during 1999 and 2000, misjudged customer preferences and competitor focus in their European market, when launching a new cellphone model, the so-called "Shark Phone", (Crockett 2001:42). The product failed because of Motorola's poor understanding of the preferences of fashion-conscious European customers, and lack of insight into competitor offerings, which were better attuned to those customer preferences.

At present, it is uncertain whether arivia.kom is appropriately attuned to its customers preferences, and whether it is sufficiently aware of the capabilities and threats posed by its competitors. It will be necessary to establish whether it possesses the abilities to cope with these competitor and customer challenges that will arise in its new business environment. This chapter will focus on customer analysis and competitor analysis in relation to the marketing environment. An overview will also be given of the key components that comprise a market analysis, of which customer analysis and competitor analysis are subsets. Given that arivia.kom is a b2b organisation, the concept of business

to business (b2b) marketing (also known as industrial marketing) will be discussed in the context of its relationship with Eskom. This discussion follows below.

3.2 B2B AND INDUSTRIAL MARKETING

Schoell and Guiltinan (1995:166) and Brassington and Pettitt (1997:127) define b2b marketing as the provision of products and services to all buyers except ultimate consumers. Du Plessis, Jooste and Strydom (2001:83) make certain distinctions between b2b marketing and b2c (Business to Consumer, also associated with consumer markets) marketing, which are also specific to the South African business context, as follows:

- The total rand-value of products sold in South Africa is greater for b2b markets than for consumer markets.
- The size of each purchase tends to be significantly larger for b2b markets than for consumer markets.
- The number of business customers are generally fewer than those in consumer markets.
- The business markets tend to be geographically more concentrated than consumer markets.
- In business markets it is often more difficult to identify the real decision maker as more than one person is generally involved in the purchase-decision process (see section 3.4.1.2).

Another aspect of the b2b relationship, as is the case between Eskom and arivia.com, is that business decision makers are generally more knowledgeable and risk-oriented about the products (and services) they are buying than the average consumer (Brassington & Pettitt, 1997:127-129).

Given the above definition and elaboration on b2b marketing, it is clear that the relationship between arivia.com and Eskom is a b2b relationship. Arivia.com

does not sell any services to Eskom's final consumers, but rather to the organisation itself, which in turn uses the service to provide a product (electricity) to final consumers. An example of this is arivia.kom's provision of a scheduling system to Eskom's Transmission and Generation Groups. The system responds to various data inputs by producing a schedule that prioritises that production of electricity on an hourly and half-hourly basis from Eskom's power stations. The information on the schedule enables Eskom to use the cheapest available power stations for power production that is then sold to final consumers such as mines and aluminum producers. In this entire process, arivia.kom merely provides Eskom with the hardware and services to maintain the system that enables efficient electricity management. It is not involved with the selling of services to Eskom's final consumers.

The same b2b principle holds true for all of arivia.kom's customers. The b2b principles that govern the relationship between arivia.kom and Eskom shall be dealt with as relevant later in this chapter. An overview of the market analysis of arivia.kom follows below.

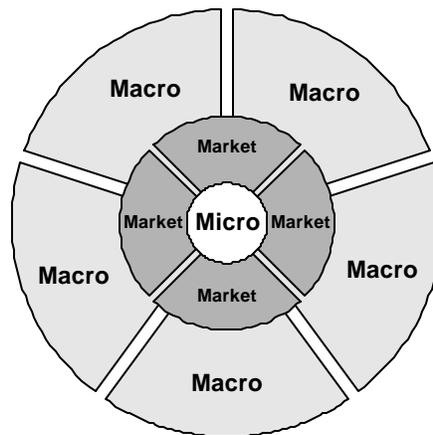
3.3 OVERVIEW OF MARKET ANALYSIS

Market analysis has to do with the study and evaluation of a particular market to establish its attractiveness to current and potential participants (Du Plessis et al, 2001:48). It is associated with two primary objectives, firstly, determining the attractiveness of the market and submarkets that an organisation is targeting, and secondly, understanding the dynamics in that market in order to devise strategies to counter any threats and to exploit appropriate opportunities that may arise (Aaker 1998:22). As part of its ongoing activities, the organisation is required to analyse its own strengths and weaknesses as well as current and possible marketing actions to determine which opportunities it can best pursue (Kotler & Armstrong 2001:69). The frequency and timing of market analysis is important to the organisation because timeous and continuous scanning of the

environment is essential for making sound decisions that will affect its marketing strategy (Strydom et al 2000:35).

The set of environmental variables and forces inside and outside the organisation, which influence the marketing management's decisions, is known as the marketing environment (Strydom et al 2000:34). Changes in these environmental forces and variables affect the organisation's marketing strategy requiring it to adapt accordingly. The entire marketing environment is illustrated in Figure 3.1, which depicts the macroenvironment, market environment and the microenvironments (Strydom et al 2000:40).

Figure 3.1: The marketing environment



The microenvironment represents the organisation itself. An organisation typically comprises interrelated groups such as marketing management, senior management, finance, research and development (R&D), purchasing, manufacturing and accounting (Kotler & Armstrong 2001:88-89). However, the organisation can also be identified by the following components (Strydom et al 2000:39-40):

- the mission and objectives of the organisation (the stated objectives of the organisation and how it intends achieving them)
- the organisation and its management (the structure of the organisation and the management employed to operate the organisation)

- organisational resources (such as human resources/human capital, know-how and information)

The components of the microenvironment are within the control of the organisation, and the proper management of these is essential for its very existence and survival. However, the scope of this study precludes further discussion of this environment, given the focus on the market environment, and customer and competitor analysis in particular.

The market environment comprises those components of the marketing environment that exist outside the organisation (Strydom et al 2000:40-43). The market environment comprises the following variables:

- consumers
- competitors
- intermediaries
- suppliers
- opportunities and threats

Consumers purchase goods and services from the organisation and thus have buying power. Consumer buying power and behaviour have an impact on the number of entrants (competitors) that then enter the market (Strydom et al 2000:43). One of the most significant challenges facing modern organisation is customer scarcity (Wiersema 2001:45), which refers to more competitors entering the various markets and competing vigorously for limited customer spend (customer spend refers to the disposable income that a customer has available to purchase desired goods and services). Consumer and competitor variables are therefore closely intertwined in the market environment.

Competitors are those organisations that sell the same product or service (or similar products or services) and compete for the buying power of the consumer. Competitors may be established organisations in the market, wishing to maintain or improve their position, or may be new or potential organisations wishing to

enter the market (Strydom et al 2000:43). The advent of competition in a market requires the organisation to gain a strategic advantage by strongly positioning its offerings against competitor offerings in the minds of consumers (Kotler & Armstrong 2001:91).

Intermediaries are those organisations that play a bridging role between the manufacturer and consumer and are involved in the transfer of goods and services between them (Cant, Strydom & Jooste 1999:50-51). According to Kotler and Armstrong (2001:89) the role of intermediaries is to help the organisation to promote, sell and distribute its goods to final buyers. These intermediaries may be wholesalers, retailers, commercial agents and spaza stores. While arivia.kom is an organisation that manages the vast IT services for Eskom and Transnet, it can also be regarded as an intermediary, given that it is a distributor of systems for Sun Microsystems (Sun) and Hewlett-Packard (HP). Sun and HP do not sell systems directly to Eskom and Transnet but prefer to use intermediaries for this purpose.

Suppliers provide inputs from the market environment to the organisation. These may comprise raw materials, energy, capital and labour which a supplier may use to produce products or services which the organisation then purchases for its own consumption or resale to its consumers. Having access to reliable suppliers for high-quality, well-priced inputs is essential for success in a competitive market. Poor suppliers and variable supply availability can affect the organisation negatively in the eyes of its customers. Incidents such as supply shortages or delays and labour strikes can lead to lost sales in the short term and impair customer satisfaction in the long term (Kotler & Armstrong, 2001:89).

Opportunities and threats to an organisation emanate from two main sources, namely current and potential customers and competitors (Hooley, Saunders & Piercy 1998:39-41). An opportunity is a favourable condition in the market that can be exploited by management for the benefit of the organisation (Cant et al 1999:52). However, not all opportunities can or should be exploited. They

should first be assessed against the organisation's resources and capabilities. A threat is an unfavourable condition in the market environment, which can lead to failure of the organisation, its products or services, in the absence of intervention by management to counteract it. Hooley et al (1998:40) identify threats as arising from two main sources, namely a changing marketplace which the organisation is either unaware of or cannot keep pace with, and competitive activity designed to change the balance of power in the marketplace.

The macroenvironment surrounds and impacts on the market and the organisation and is associated with trends which either directly or indirectly affect the strategy formulation of the organisation (Du Plessis et al 2001:20). The organisation is required to identify these trends and establish their likely effect on the organisation. The macroenvironment is characterised mainly by the following variables:

- the technological environment (eg the introduction of e-mail and its effect on the telegram services offered by the Post Office)
- the economic environment (high interest rates and fuel prices affect the manner in which an organisation operates on a daily and monthly basis)
- the social/cultural environment (emerging trends in lifestyles and fashions or cultural norms can have implications for the manner in which an organisation does business),
- the physical environment (the actual size of a market and the components that make up that market, such as age, gender and race, will affect the organisation's planning and approach to that market)
- the institutional/political environment (governmental policies such as black economic empowerment may have an effect on the partners with which an organisation associates when conducting future business)
- the international environment (the threat of world war may affect the balance of power globally and influence the outcome of nations with whom an organisation may conduct business).

The variables in the macroenvironment can have a profound impact on the organisation. Changes in these variables are beyond the control of the organisation and may influence its ability to survive. However, the scope of this study precludes further discussion of this environment, given the focus on customer and competitor analysis.

Arivia.kom operates in an industry (the IT industry) which is increasingly volatile and turbulent. Rapid product obsolescence and aggressive price competition are key attributes of this industry. In addition, two of arivia.kom's key customers (Eskom and Transnet) are experiencing rapid change in their industries. Rapid change, global competition and the diversity of buyers in many markets require constant focus of attention to identify shifting buyer requirements, changes in competitive positioning and new opportunities for products and services (Cravens 1997:89). Understanding the competitor dynamics and the nature of customer preferences in these industries is therefore crucial to an understanding of the implications for arivia.kom's ability to survive in its new business environment in the future. Whilst the market environment comprises many important components requiring investigation, the focus of the analysis for the purposes of this study will revolve around customer and competitor analyses.

The objectives of customer analysis are to understand who the organisation's customers are and their aims, priorities and potential needs (Aaker 1998:45-59). Competitor analysis entails identifying the organisation's current and potential competitors, and an evaluation of their potential to threaten its position in the market.

3.4 CUSTOMER ANALYSIS

The purpose of customer analysis is to establish the identity of the organisation's customers, their objectives, priorities and potential needs (Aaker 1998:44-45). Customers are a source of valuable insight into an organisation's relevant operational opportunities, threats and uncertainties for that organisation. Analysis of customers (present and potential) is therefore likely to generate

valuable information that the organisation could use to its advantage. It also enables the organisation to understand the threats it faces (from competitors targeting the same set of customers) and the opportunities that may arise as a result of a better understanding of customers' present and future needs.

Lehmann and Winer (1997:98) consider the objectives of a customer analysis exercise to be:

- establishing who the organisation's customers are
- defining them
- grouping (segmenting) them

The desired outcome of this exercise is to facilitate effective strategic and tactical decision making which ultimately results in greater profits for the organisation (Lemann & Winer 1997:99). Customer analysis is vital because it enables the organisation to become better acquainted with its customers within a logical framework. This framework is discussed further below.

3.4.1 Customer Analysis Framework

A practical framework is necessary in order to analyse the organisation's customers effectively and logically. Aaker (1998:45) proposes the following framework for customer analysis:

- customer segmentation
- customer motivations
- unmet needs of customers and/or customer dissatisfaction

Each of these components is briefly discussed below.

3.4.1.1 Customer segmentation

Customer segmentation involves classifying the different types of customers identified into logical groups to enable one to apply unique business strategies to them where possible (Aaker 1998:45). The resources and efforts of the organisation are then focused on adding value to those specific groups of

customers. Du Plessis et al (2001:332) define segmentation as the process of dividing a market into subsets or segments of consumers such that members within a given segment share common characteristics, which are distinct from members of other segments.

Initially, market segmentation entails defining the market that an organisation has identified to be the focus of its efforts (McDonald & Dunbar 1995:16). However, this is not a simple process, because defining a market inappropriately may result in so-called "Marketing Myopia" (Levitt 1975:1-12). This is characterised by organisations defining their businesses too narrowly, thereby excluding themselves from potential marketing opportunities that could be exploited, had they viewed their markets in a broader context. Levitt (1975) cites the example of railway operators who became casualties of marketing myopia by defining their businesses too narrowly, and subsequently foregoing business opportunities afforded by the wider transport industry (road and air transport), eventually eroding its once dominant market share.

An important prerequisite for customer segmentation is aptly defining the market within which a business operates (Aaker 1998:45). This entails understanding certain crucial issues about that market such as identifying customers according to identifiable characteristics and in accordance with their ability to spend disposable income with the organisation. It also helps to place in perspective the groups of people a company deals with in order to devise strategies that address such groups effectively, efficiently and in a manner consistent with its grand strategy.

There are many ways to segment a market. However, for segmentation to be effective for an organisation, a market segment needs to conform to certain prerequisites (Kotler 1997:269). The characteristics of the market (such as its size and customers' purchasing power) must be measurable. The market segment must be substantial enough for the organisation to earn a profit in it because funds will be invested in formal marketing programmes and will

therefore require sufficient justification prior to investment. If the segment is too small it may not justify investment.

The market must be accessible because the organisation will need to reach its customers effectively if it intends serving them, and customers, in turn, will need to reach the organisation in order to purchase goods and/or services. The organisation must thus be positioned in such a way that customers can easily reach it in order to conduct their business. A market segment must be distinguishable (distinctly recognisable) from other segments to justify organisational investment of effort and resources. It must also be actionable, enabling the organisation to develop specific marketing programmes and product offerings for separate segments. A possible target market exists if it conforms adequately to these criteria.

However, besides establishing whether a particular segment is worthy of targeting marketing efforts, there must be a basis upon which a market is segmented. The bases of segmentation enable the organisation to conceptualise the manner in which a particular market may be approached. Schoell and Gultinan (1995:203-220) differentiate between the bases of segmentation for consumer markets and organisational markets. The focus of market segmentation in consumer markets is ultimate consumers, whilst organisational markets relate to firms (organisations), buying centres in firms and individuals in buying centres.

The bases of segmentation can be classified as follows in consumer markets (Schoell & Gultinan 1995:203):

- *Geographic segmentation.* The organisation may elect to divide the total market into geographic regions, and then target a limited number of geographical areas.
- *Demographic segmentation.* This constitutes a common basis for segmentation and often involves an investigation into the needs of the various race groups, gender, age and culture. However, variables such as education, lifestyle and living standards are increasingly used to determine

the needs of target markets, given that the needs of race groups are approaching similarities that make such bases useful.

- *Psychographic segmentation.* This involves segmenting a market according to attributes such as social class, lifestyle or personality with a view to establishing what drives consumer sentiment. Such knowledge places the organisation in a better position to devise products or services and marketing messages that will appeal to the chosen segments.
- *Product-related segmentation.* This refers to segmentation on the basis of the consumer's relationship to the product (Schoell & Gultinan 1995:216-218). The subcategories of product-related segmentation can be classified as follows:
 - *Amount of usage.* This involves the quantity of the product consumed, the frequency of service or interactions with a retailer during a specific period.
 - *Type of usage.* Products are segmented according to the manner in which they are used for example, home exercise equipment may be targeted at consumers preferring to exercise in privacy rather than visiting gymnasiums.
 - *Brand loyalty.* This refers to the consumer concentration on a particular brand within a specific product category. Understanding which customers are brand-loyal can help marketers to target their marketing efforts more efficiently.
 - *Benefits sought from products.* This refers to the segmentation of consumers based on the benefit they derive from products. This helps an organisation to determine the benefit segments to which its brands appeal, or may even draw attention to a new benefit which is not being catered for.

The bases of segmentation in organisational markets can be classified as follows (Schoell & Gultinan 1995:219):

- *Segmenting organisations within industries.* The objective here is to identify segmentation variables that are good predictors of differences in buying behaviour. The following variables can be used:
 - *Size of firm (organisation).* This involves the number of establishments, the volume of shipments to an organisation or the number of employees in an organisation. All of this helps to determine the value of one organisation being targeted in relation to another organisation.
 - *Geographic location.* Target organisations that are geographically close to one another can be classified as a segment and treated differently from organisations in different geographic locations.
 - *Structure of the procurement function.* This may vary between centralised and decentralised procurement, and will have different implications for the marketing organisation.
 - *Buyer's use of the product.* This may play a part in determining the type of product being manufactured to suit relevant conditions.
 - *Type of buying situation.* This refers to instances where the organisational customer requires modifications to reordered inventory or whether the products will be reordered without modifications.
 - *Inventory requirements.* Certain organisations may prefer to purchase inventory on a just-in-time basis, requiring marketing organisations to tailor their offerings accordingly. Others may prefer a more conventional approach, keeping inventory on site.
 - *Buying criteria.* This refers to customers setting criteria for products or services purchased, to which organisations must conform in order to sell their offerings. Criteria may include accreditation from credible institutions certifying conformance to quality standards.
- *Segmenting buying centres within organisations.* Marketing organisations may segment according to the way in which buying centres in targeted organisations are constituted (whether they have representation from

senior management or personnel in key departments of the organisation). This will determine how the organisation should focus its marketing efforts.

- *Segmenting individuals within buying centres.* Organisational marketers can identify key decision makers and individuals in organisations at whom marketing efforts can be targeted.

By using certain bases for segmentation, the organisation attempts to gain benefits aimed at survival and profitability. Strydom et al (2000:104) identify certain benefits that accompany customer segmentation. This compels organisations to focus more specifically on customer needs. It can lead an organisation to discover new opportunities in segmented markets, which may have remained undiscovered, had segmentation not taken place. Segmentation enables the organisation to develop specific offerings for certain customers or markets. It also allows an organisation to prioritise the allocation of resources to provide maximum benefit for market or customer segments using the appropriate resources, and minimising the misallocation of resources to segments that do not yield optimal benefits for the organisation.

However, segmentation has certain inherent disadvantages inherent in it (Strydom et al 2000:104). Economies of scale that could be afforded by high-volume manufacture (mainly cost savings that could be passed on to the customer) may be sacrificed in favour of product or service variations to suit the specific needs of certain customers or groups of customers. Limited market coverage is a by-product of segmentation. Marketing messages (and advertising spend) are now spread over various segments, as opposed to a generic message which is targeted at a mass market. In addition, those organisations that segment markets and tailor their offerings excessively may run the risk of cannibalisation which means that their own products or services (or even resources in the organisation) compete against one another for market share.

Whilst the above may be valid arguments against segmentation, organisations cannot serve all customers effectively and profitably, and are thus required to

focus on those market segments in which they are most likely to succeed in selling their products and services profitably. Moreover, whilst customers constantly seek lower prices (a function of economies of scale) they also require organisational flexibility that will afford them products or services that are customised to their needs. Schonberger and Knod (1997:18) identify cost and flexibility (among other variables) as imperatives that the organisation must achieve if it wishes to survive, and do not merely view them as trade-offs. Hence segmentation is aimed at customer satisfaction, which in turn generates long-run benefits for the organisation.

Customer segmentation often becomes a difficult and cumbersome exercise, depending on the situation in which an organisation finds itself. To benefit from customer segmentation (Aaker 1995:50), it often helps to:

- confine the analysis to a manageable number of variables
- define the range of variables as widely as possible in order to gather as much useful information as possible about customers
- constantly evaluate the variables identified to assess their relevance to the strategies employed

To illustrate the importance and relevance of customer segmentation, Gilbert (2002:8) relates the results of a study conducted amongst various industries in South Africa namely IT, Industrial Gases, Car Rental, Engineering and Packaging. Two common issues were apparent in this study, namely that there was a distinct lack of market segmentation practised by the majority of organisations, and that there was a tendency towards a "one-size-fits-all" approach. The main conclusion that Gilbert (2002a) drew from the study was that it is important to segment markets in order to target attractive customers, whilst delivering clear marketing messages to each identifiable segment.

Arivia.com derives a large portion of its revenue from the energy sector (Eskom), transport sector (Transnet) and the public sector (inclusive of Denel and government departments). Prior to the merger of the three IT

organisations which resulted in the establishment of arivia.com, those IT departments in Eskom and Transnet specifically, enjoyed preferential status from their parent organisations. There was no need to segment their markets because each department serviced its respective organisations exclusively. In the first few months of operation of arivia.com, management executives discussed the economies of scale that could be realised from adopting a uniform approach to its three major customers. The operational structures have now been in place for approximately two years, and as yet, comprehensive market segmentation has not been discussed as a strategic imperative. One of the objectives of this study would thus be to establish whether arivia.com is conducting customer segmentation effectively for the sake of profitability and survival, and whether segmentation is necessary and relevant to the organisation.

3.4.1.2 Customer Motivations

Motivation is the driving force behind a customer compelling him or her to take action to specify certain needs (Schoell & Guiltinan 1995:143). Understanding customer motivations is essential for those organisations competing for the patronage of a finite set of customers targeted by other competitors. If marketers in organisations can identify those needs, they are able to devise effective strategies to motivate customers to make purchases. The organisation should thus not be viewed only as the manufacturer of goods and services, but should also practice "doing things that will make people want to do business with it" (Levitt, 1975: 10). Hence, organisations should systematically endeavour to understand how these motivations differ from one segment to the next, and the effect on their operations (Aaker 1998:49).

Aaker (1998:50) identifies a customer motivation analysis framework that aims to establish the bases for purchase decisions, their relative priorities and their impact on business decision making. The framework for analysis of customer motivations comprises the following steps:

- *Step 1: Identify motivations for a given segment.* The aim of the identification process is to enable an organisation to place in perspective what exactly motivates a customer to purchase a specific product and/or service. This generally entails systematically interacting with customers regarding the product or service in question. Whilst it may be relatively simple for the organisation's management to speculate internally on customer motivations, the validity of such motivations may be less accurate than those obtained directly from customers (Aaker 1998:50). Schoell & Guiltinan (1995:180) acknowledge that organisations do not influence purchasing decisions, but people within them. It is therefore essential to firstly identify the key people in these organisations, and secondly, to understand the needs of each person who may influence the outcome of marketing efforts. Schoell and Guiltinan (1995) identify the following people in organisations who play key roles:
 - *Users.* There are people in the organisation who use the product(s) or service(s) directly. Talking to these users can help organisations to better understand future requirements and/or improvements to existing products or services
 - *Influencers.* These are people inside or outside the target customer organisations who help to shape buying decisions. For example, engineers in the organisation or consulting engineers outside the organisation may set tolerance levels for equipment.
 - *Gatekeepers.* These people are able to control information entering and exiting the organisation (eg secretaries), and have the ability to limit information made available to the marketing organisation and its salespeople.
 - *Deciders.* They are people with the authority to make the final buying decision (if the product value is considerable) which the customer organisation will implement.

- *Buyers*. These are people tasked with the contractual details involved in the sale with suppliers. However, if the value of the product is considerable, relative to other measures in the organisations, then a committee, as opposed to a single person, may be tasked with this function.
- *Step 2*. This entails the grouping and structuring of the motivations identified. The marketing organisation may be required to deal with large numbers of people in targeted customer environments. These people may contribute information that results in a huge list of motivations which may require categorisation into logical groups. Categorisation will enable management to set priorities according to whether the motivations require a more strategic or focused tactical approach on the part of the organisation.
- *Step 3*. This entails assessing the importance of the motivations to the customer in terms of priority. Aaker (1998:51) refers to this process as determining the relative significance of motivations. Customers may sometimes list certain criteria as decisive in influencing their purchase decision, but these may often be over-ridden by other criteria that influence the actual purchase decision. Knowing the value a customer places on a product will assist in the prioritisation process and simplify key decision making for the organisation (Lehmann & Winer 1997:107).
- *Step 4*. Here the motivations that will be of strategic importance to the organisation must be identified. The motivations that will influence the organisation's strategy will be considered, along with competitive strategies as well as the organisation's overall strategies. The organisation will need to consider the implications of competition and whether these motivations are compatible with the organisation's overall strategy, as well as strategy implementation considerations.

Customer motivations may also have implications for arivia.kom. Gilbert's (2002:8-9) discussion of the study conducted by an Ohio-based consulting

organisation on the critical sales practices of exceptional sales forces, deals with certain issues that have implications for customer motivation in their business decision making. The study concluded that there is a growing need from customers to have supplier organisations move closer to them and to have employees from supplier organisations empowered with decision-making authority to promote flexibility and speed up service delivery.

Changing customer priorities may also be essential for organisations such as arivia.kom. Aaker (1998:52) emphasises the need to understand changing customer priorities, especially in high-tech business, and acknowledges that there is an element of risk in assuming that customer priorities are not changing. Arivia.kom operates in the high-tech industry, which is often criticised by customers as being driven by supplier willingness to sell software and equipment without focusing specifically on their changing needs. Eskom has also criticised arivia.kom for such behaviour, perhaps because of its imperative to pursue profitable growth, and meet stringent revenue targets. Whereas Eskom was previously an engineering-driven organisation, it is now business focused with different objectives. Its motivations are thus changing, and arivia.kom will have to understand and adapt to this new reality. This study needs to establish whether the criticisms of arivia.kom's approach are valid and whether the organisation is aware of the changing motivations driving customer business needs as they undergo restructuring in their industries.

3.4.1.3 Unmet needs and customer dissatisfaction

The concepts of unmet customer needs and customer dissatisfaction are closely intertwined. Both are discussed separately below.

a Unmet needs

Aaker (1998:53) considers customers' unmet needs to be those needs that are not being met by existing product offerings. Successful identification of unmet customer needs may have significant implications for the

organisations that initially discover them, because they could result in a competitive advantage for the organisation, especially in highly competitive industries (Urban & Hauser 2002:22). Unmet needs afford an organisation opportunities to increase market share or access other markets that would ordinarily be difficult to penetrate using conventional techniques. Regular discovery of these needs may be more important in certain industries than in others. In high-tech industries such as the one in which arivia.kom operates, changes are rapid and product obsolescence cycles short. Hence current market research analyses may not be as reliable for the purposes of discovering and satisfying customer needs in businesses dealing with high-tech products (Von Hippel 1986:791). Other techniques and approaches may therefore be necessary.

It is possible to identify unmet customer needs in the following two ways (Aaker 1998:54-55):

- (1) *Using customers to identify such needs.* This can be done in a number of ways. Firstly, one can observe customers using products in their normal environments, and make judgements on how these can be improved upon. Secondly, one can interview customers to determine existing problems with products, frustrations in their use, comparisons with other products, and suggestions on product improvements. Thirdly, surveys can be conducted inviting customers to highlight problems with products and make new product suggestions.
- (2) *Using lead users.* According to (Aaker 1998:55) lead users are often a source of unmet needs and new product concepts. They are users who have certain needs months (or even years) before the marketplace encounters them, and are positioned to benefit significantly by finding a solution to those needs (Von Hippel 1986:796). In essence, they are likely to use products in the marketplace beforehand and thus assist in evolving and refining such products before they are formally launched on

the open market. Von Hippel (1986:797) proposes a four-step process in conducting lead user market research as follows:

- (a) Identify an important market or technical trend.
- (b) Identify lead users who lead that trend in terms of experience and intensity of need.
- (c) Analyse lead user needs data. From this step, information may become available which the organisation may be able to use to determine whether certain needs can be defined, and thereafter to devise products appropriate to those needs.
- (d) Project lead user data into the general market of interest. The organisation may use data discovered in the previous steps to assess how it can apply possible solutions to its larger target market. Von Hippel (1986: 802-803), however, cautions that such data may not be directly transferable to the intended target market, and states that further research and even new approaches may be necessary.

Utilising customers and lead users to identify unmet customer needs is becoming increasingly important for organisations operating in highly competitive industries. In the industry in which arivia.com competes, rapid changes and increasingly demanding customers could make the identification of unmet customer needs a useful approach to consider. Whether the organisation is aware of the benefits of such an approach and whether it may be useful and appropriate in the relevant environment is unclear at this stage.

Unmet customer needs (in their entirety) do not constitute needs that have not yet been contextualised by the customer. They may also exist in the form of customer expectations that have not yet been met by organisations, thereby creating dissatisfaction. Customer dissatisfaction therefore

constitutes an equally important area requiring investigation and action on the part of the organisation.

b Customer dissatisfaction

Customer dissatisfaction (or satisfaction) relates to a comparison of customer expectations about a particular product and supporting service against the actual performance of the product and supporting services (Cravens 1997:143). However, prior experience may also provide a basis of comparison of such expectations. Experiences with poor-quality products or services often generate customer dissatisfaction. Hence dissatisfied customers may often tell up to 11 other people of their unsatisfactory experiences and dissatisfaction with an organisation's service and/or products (Brassington & Pettitt 1997:95). This is two to three times more people than a satisfied customer is likely to speak to if they experience good service. Tax and Brown (1998:86) refer to these dissatisfied customers as "terrorist" customers who actively criticise the organisation upon receiving a poor service or product. As a rule, these customers would previously have been loyal to the organisation prior to the poor service experience.

According to Reichheld (1996:58-60) customer satisfaction is a result of the customer's perception of the value that he or she has received. Often such a perception of value is likely to keep customers loyal to the organisation, although they are often the first to know whether an organisation's value proposition "... is foundering in the face of competition" (Reichheld 1996: 59). He (1996:61) alludes to certain guidelines that may help an organisation to understand its customers better, whilst minimising dissatisfaction. Firstly, it is vital to identify those customers who are most loyal and profitable to the organisation (those who settle their accounts promptly and prefer stable relationships with their business partners). Secondly, it is necessary to identify customers who derive huge benefits from using the organisation's products and/or services. Lastly, it is necessary to differentiate those

customers who are really worth keeping, as opposed to those whom the organisation has difficulty satisfying at a profit.

From the above guidelines, identifying loyal and profitable customers who derive value from the organisation, has implications for the development and management of the relationship between the organisation and the customer. Where relationships between the organisation and the customer develop over a period of time, conflicts are likely to be inevitable (Tax & Brown 1998:87). However, management of such conflict is essential to maintain customer satisfaction, loyalty and trust. If the conflict is poorly managed, the majority of customers will become disillusioned, and this will give rise to dissatisfaction.

In addition to the development of relationships with customers, identifying customers who are worth more to the organisation than to its competitors has implications for profitability. Tax and Brown (1998:86) identify a strong correlation between organisational profitability and service recovery. Service recovery refers to customer complaints that have been followed up, and permanent solutions implemented to address the organisation's problematic service system. Kotler and Armstrong (2001:91) infer that it is imperative for the organisation to provide greater value to its customers than its competitors are able to do in order to keep them satisfied. This implies that actively addressing causes of customer dissatisfaction can help an organisation to position itself more favourably with customers. Hence a competitive advantage can arise from making sincere efforts to address customer dissatisfaction comprehensively and from identifying unmet customer needs by converting these into products or services that add value. In essence, customers should be seen as active participants whose opinion may have a significant effect on the organisation (Brassington & Pettitt 1997:95).

At present, Eskom, Transnet and Denel are compelled (by organisational directive) to use arivia.kom's services. In certain instances, Eskom customers have begun to exploit the definition of certain commercial

processes by interpreting circumstances to exclude arivia.kom from new projects that have been planned. This study will establish whether this is a growing trend, and whether there is a link between it and customer dissatisfaction. Currently, secondary information does exist from a study into customer satisfaction conducted on behalf of arivia.kom (Klein 2003:37). This study alludes to customer dissatisfaction with the Eskom customer environment.

In addition to analysing its customers, arivia.kom is faced with a competitive environment that may benefit from its inability to deal effectively with customer dissatisfaction. As it moves into the future, understanding the value proposition that it offers to customers is essential to assist in organisational planning. However, competitor analysis is also required in order to gain further perspective on the challenges it faces. Arivia.kom may have a government directive compelling parastatals to utilise its services, but this does not guarantee the organisation protection from the competitive forces that exist in the highly competitive high-tech industry. In addition, prior to the formation of arivia.kom, Eskom and Transnet invested heavily in technology solutions from organisations that are now direct competitors of arivia.kom. The relationships that developed at the time still exist. Hence there are undoubtedly competitive pressures which arivia.kom will need to comprehend adequately if it is to act appropriately. This leads on to the topic of competitor analysis.

3.5 COMPETITOR ANALYSIS

3.5.1 Competitive environment of arivia.kom

Since the beginning of 2001, the information technology (IT) industry has experienced poor growth globally. Certain factors contributing to this include the hasty investment in Internet-based start-ups or their systems by many organisations, subsequently followed by widespread failure of many of these ventures. The subsequent so-called "dot.com bust", as it became known, which commenced from approximately 2000 onwards, heralded the onset of

organisational pessimism and scepticism towards the IT industry in general (Bührmann 2001:42-54). A major contributor to this was the initial exaggeration and excessive enthusiasm of organisations in general regarding the potential these Internet web-based organisations promised (Arthur 2002:26-34). Many investors in these ventures questioned their initial enthusiasm for embracing the Internet without giving due attention to its relevance to their organisation and business strategy. Consequently, well-known Internet-based organisations such as WebVan (an Internet grocer) and WorldCom failed, along with lesser-known organisations such as Wholefoods.com, with only a fraction of web-based organisations surviving to date.

As a result industry cutbacks in IT expenditure have affected the IT and telecommunications industries which collaborate to make Internet-based business application possible. Subsequently, the telecommunications industry worldwide, has experienced shrinkage, because of the initial overinvestment in capacity in anticipation of growth that has failed to materialise. Investor and consumer confidence in both industries was significantly affected as a result of these developments.

South Africa has also been affected by developments in the global IT industry, resulting in many well-known organisations resorting to mergers with other organisations or ceasing operations, owing to global market conditions that have impacted on product pricing, and consequently, profit margins. The following are some notable examples of IT service providers that have been adversely affected by changing market conditions in South Africa:

- Computer Configuration Holdings (CCH) which experienced operational and financial difficulties during 2000, was eventually acquired by MGX during 2000/2001. MGX is currently experiencing financial difficulties as well.
- Orca Technologies (providers of storage media solutions) grew aggressively during 1998 and 1999, but experienced problems during 2000. They were subsequently bought over by MGX as well.

- Argil-Ernst and Young (providers of IT and other business consulting services) were purchased by CS Holdings during 2001.
- Siltek, software and hardware distributors, ceased operations during mid-2001 mainly because of cash flow problems.

South Africa's IT industry is currently experiencing a period of consolidation amongst service providers which are making concerted efforts to survive in increasingly volatile circumstances. Whilst the demand for IT services seems to be static in the private sector, there are organisations in the public sector that are investing in IT products and services to assist their transformation initiatives induced by government's restructuring objectives. Eskom is one of the largest of these organisations, spending approximately R1.6 billion annually on IT services. Thus many of South Africa's leading IT service providers constantly seek business opportunities in Eskom, and this has implications for arivia.kom's ability to maintain Eskom as a key account.

Eskom makes extensive use of IT consultants for the design and implementation of its various systems. Organisations such as Accenture, Deloitte & Touche and PriceWaterhouseCoopers (PWC) have been extensively involved in strategy consulting work for Eskom's various divisions and have devised solutions that often have strong IT influences. In addition, IT consulting firms such as Comparex, Global Technologies and Intrinsic Technology also provide IT-specific services to Eskom. Whilst arivia.kom's role was actively publicised in the media at the time of its inception, its role in Eskom being well known, this has not deterred competitors from approaching Eskom's various entities with business propositions, in defiance of the EA that was entered into between Eskom and arivia.kom. Comparex, approached an Eskom subsidiary in August 2001, promising improved service delivery and system improvements. Arivia.kom management was slow to respond, reacting to the potential threat in December 2001, approximately four months later. The threat of lost business was only averted when the senior management of Eskom intervened prompting the departure of Comparex.

In addition, certain groups in EE have also excluded arivia.kom from IT tenders that have been issued for the development of human resource systems. The tendering process for the Human Resource systems in EE was already in progress before arivia.kom was notified of the details. Thereafter, the tender was awarded to an external supplier operating in partnership with a consulting organisation that competes for IT consulting work with arivia.kom in EE. It was later discovered that the competitor was responsible for influencing the tendering process through prior collaboration with the customer.

Arivia.kom therefore appears to have a problem dealing with its competitors effectively. It is unclear whether the executive management of the organisation possess the necessary abilities and mechanisms to identify their competitors effectively, and to devise strategies to protect their business interests from erosion by such competitors.

Kotler (2000:223) defines competitors as companies (organisations) that satisfy the same customer need. For the sake of its survival and profitability any organisation operating in a competitive industry will need to constantly monitor its environment for threats from competitors. Competitor analysis is thus an essential and ongoing exercise that entails identifying and understanding an organisation's current and potential competitors, and evaluating their ability to threaten its position in the market (Aaker 1998:58-59). Competitor analysis should ideally enable the organisation to build stronger defences and provide a foundation for outmanoeuvring the competition in order to gain market position (Brassington & Pettitt 1997:849).

Arivia.kom operates in one of the most volatile industries in South Africa, and competes with many reputable organisations, some of which have global presence. Comparex, IBM, Dimension Data and Accenture are a few of the competitors that have already established a presence in arivia.kom's key customer accounts, Eskom and Transnet, and are held in high regard by influential people in those accounts. According to research (IDC 2002:22),

certain information is known about these competitors as illustrated in table 3.1 below.

Whilst it may have government assistance to aid the viability of its business model, arivia.kom faces competitive challenges from skilled competitors who are able to devise strategies to circumvent such policies they consider obstructive to their business imperatives. Such competition therefore has implications for its ability to conduct effective competitor analysis.

The importance of competitor analysis necessitates a logical framework that will enable the organisation to establish an understanding of business issues and information that could have a direct impact on its survival in its industry. It is therefore necessary to establish if arivia.kom understands the nature of the competition it is likely to face, and whether it has the ability to analyse and address the competitive challenges that are likely to occur.

Table 3.1: Arivia.kom's competitors in the Eskom Account

Competitor	Key areas of focus	Turnover 2002 (R m)	Market share (in SA)
Comparex	Hardware & software integration & support, IT Infrastructure management & professional services	1 744	10.8%
IBM (South Africa)	Hardware & software provider, systems integration & business consulting services	940	5.8%
Dimension Data	Software provider, business consulting, professional services	1 388	8.6%
Accenture	Business technology consulting & outsourcing	472	2.9%

3.5.2 Competitor analysis framework

Du Plessis et al (2001:111) suggest the following framework for competitor analysis:

- Identify present and potential competitors.

- Analyse strategic groups of competitors.
- Infer key competitors' objectives (predicting their likely actions).
- Deduce competitors' strategies (past and present).
- Deduce key competitors' strengths and weaknesses.
- Forecast competitor response patterns (predicting competitor responses to changing market and competitive conditions).

Each component of the competitor analysis is discussed below.

3.5.2.1 Competitor identification

An organisation must understand who its competitors are and identify all possible sources of threats to its profitability and existence. The competitors to an organisation are not only confined to other organisations that are present and visible (offering similar products or services), but also to those that are likely to offer substitute products and/or services which may render the organisation's own offerings obsolete. An organisation can therefore define its competitors in one or more of the following ways (Kotler & Armstrong 2001:682):

- other companies offering similar products and/or services to the same customers at similar prices
- all companies manufacturing the same product or class of product
- all companies making products that supply the same service
- all companies that compete for the same consumer spend

Kotler and Armstrong (2001:682) and Du Plessis et al (2001:111) caution against organisations that define the scope of their competitive environment too narrowly (referred to as competitor myopia). Competitor myopia can cause an organisation to disregard other possible competitors that could render the organisation's products (or the organisation itself) obsolete. Myopic behaviour can also result in the following (Lele 1997:253):

- overlooked markets
- missed growth opportunities
- loss of customers
- loss of market share

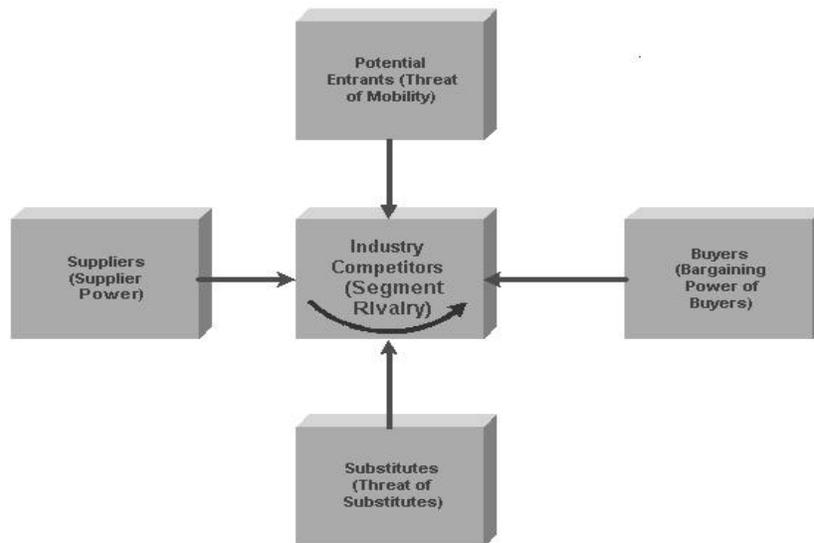
Arivia.kom's ability to identify competitors and react appropriately has already been tested. During the last quarter of 2001, one of its key competitors, Comparex, commenced work for Eskom Enterprises, and the management of arivia.kom only discovered this two months later. It did not consider this to be a threat until major contracts were lost to Comparex. The fact that government had stated its support for guaranteed business to arivia.kom in Eskom and Transnet may have induced a sense of entitlement into the organisation rendering it unable to identify and deal with Comparex decisively. However, its lack of experience in identifying and dealing with competitors efficiently may also have played a part in the incident.

Whilst identifying existing competitors may seem relatively uncomplicated, pinpointing potential competitors may be even more difficult to do. A potential competitor could be a new organisation offering similar products or producing a substitute product that eliminates the need for the organisation's product (Du Plessis et al 2001:111). An organisation faces potential competitors if it enters a new industry that it finds attractive, or if new competitors enter the industry in which it currently operates. In making the decision to enter and invest in a particular market, organisations would typically examine the nature and intensity of competition in those markets to determine their attractiveness. Kotler (1997:228) discusses the five forces model (fig 3.2) which typifies competitive pressures in markets, and which can help to determine a market's attractiveness that gives rise to such pressures.

The threat of intense rivalry refers to existing competitors in the market who engage in fierce competition to protect large investments already made in that market. Arivia.kom has entered an intensely competitive industry and

competitors, such as Comparex, are finding ways to penetrate these markets. However, the advantages afforded to it by government may help it to cope with these competitive pressures. The threat of new entrants into an industry is determined by whether the barriers to entry are low and whether it is profitable to do so. The threat of substitute products can also determine whether an industry or market is sufficiently attractive to enter. Substitute products can result in price limits and curtail profit margins that can be earned in an industry, requiring a potential entrant to be aware of price trends and technology advances because falling prices (and lower profit margins) may have significant impact on new entrant's ability to survive.

Figure 3.2: Porter's five forces model



The bargaining power of buyers (customers) in a market can also determine the attractiveness of that market. If customers have significant buying power (notably in markets where there are substitute products), they have the ability to induce intense competition amongst organisations for better-quality products and/or services at lower prices. Large customers have the ability to exercise significant buying leverage over organisations, especially where they constitute the majority of revenue for that organisation. Arivia.kom finds itself in this position, with Eskom and Transnet being its two largest customers

(constituting approximately 70% of its revenue base). The power of suppliers in an industry can also be a significant factor especially when the threat of substitute products or services is low, and the industry has few powerful suppliers. This may result in prices and margins being maintained at levels acceptable to suppliers.

Analysis of the competitive forces that determine industry profitability enables an organisation to better understand the barriers to entry into the market and gives it the ability to identify significant new entrants into the market. The barriers to entry to a particular industry are obstacles that a potential competitor must overcome in order to compete in a particular market (Dwyer & Tanner 2001:181-182). Dwyer et al (2001) also list a number of barriers to entry. These include product differentiation, which refers to having a unique product or service distinct from the competitor's offerings, and inducing brand and customer loyalty. Other barriers to entry are economies of scale and cost advantages unrelated to size which place potential competitors at a cost disadvantage, rendering their offerings more expensive to customers. However, the barrier to entry that is most relevant to arivia.kom is government policy, which specifies a sunset clause for the organisation which was reviewed on 1 April 2004, prompting the renewal of the original existing contracts until 31 December 2005. In creating arivia.kom, the Department of Public Enterprises had effected government policy compelling Eskom, Transnet and Denel to use it as the primary IT service provider. As a result, the organisation has at its disposal a competitive weapon that could be used effectively if exercised appropriately against potential competitors. The challenge that arivia.kom faces is balancing the policy that supports its existence against providing a level of service that makes it a formidable competitor and a service provider of choice.

However, arivia.kom does not face threats from other organisations only. It also faces competition from other less obvious avenues, such as the following:

- Some customers prefer to develop their own IT departments "in-house", thereby placing less reliance on IT service providers.
- "Easy to configure" IT software and hardware eliminate the need for complex the IT skills sold by arivia.kom and its competitors. The growing ease of use of computer systems today and the abundance of skilled (yet less expensive) resources, makes this option increasingly attractive.

Product lifecycles are shortening (Lehmann & Winer 1997:65). The IT industry is a prime example of an industry where this is occurring. Goldstuck (2001:17) cites Moore's Law, a primary benchmark, which states that the power of the fastest computer chip will double every 18 months whilst the space it occupies will halve in the same period. As a result of such advances in processing capacity, computer systems are becoming more powerful, and technologically advanced, at the same time being simpler to configure and use with each subsequent development. An example is Microsoft's introduction of Windows 3.1 software, at the beginning of the 1990s, which was followed by Windows 95 four years later. Learning the use of Windows 95 was easier and enabled more applications to be used than was possible with its predecessor. Microsoft, and other organisations, have since developed shrink-wrapped software ("ready-to-use" products requiring minimal configuration). These products may not have the in-depth functionality of custom-developed software, but are increasingly sought after as the alternative to custom-developed solutions, which are often time-consuming, complex and expensive to develop and implement.

Arivia.kom employs many skilled resources to conduct custom software development for its key customers. However, the growing popularity of "shrink-wrapped" software from industry leaders may soon have an impact on the ability of arivia.kom to deliver products and services that the customer considers to be of value. At present it is unclear whether arivia.kom has appropriately identified who its direct and potential competitors are, and

whether it is planning appropriate action to counteract potential moves into its customer base.

3.5.2.2 Analysis of strategic competitor groups

Any organisation wishing to conduct a competitive analysis in a vast industry can identify many (possibly hundreds) of competitors. Analysis of each competitor individually is generally time-consuming, thus making it prudent to group competitors into appropriate categories in order to generate strategic information that is relevant and usable. Reducing the large number of competitors to a small number of strategic groups allows for analyses that are compact, feasible and usable (Aaker 1998:62). The organisation's closest competitors are those pursuing the same target market with similar strategies (Kotler 1997:233). In such cases, all such organisations form part of a strategic group. Analysis of the competitive intensity of strategic groups is useful for characterising the various competitors and important for prediction purposes (Wheelen & Hunger 1998:68). Analysis of strategic groups as opposed to each competitor in turn may be less time-consuming. Furthermore, little strategic content and insight will be lost by this exercise, given that these organisations tend to act in similar ways to any arising developments in their industry.

Analysing the strategic groups of competitors can help the organisation to determine its likely future strategies, and also enables it to plan its own actions in turn. Du Plessis et al (2001:113) define the characteristics of strategic groups as follows:

- They pursue similar competitive strategies (eg being low-cost producers).
- They have similar traits (such as size of organisation or use of technologies).
- They possess similar assets or skills (eg use of mass product production to enable high-volume production of products).

The organisation needs to specify the key dimensions that will identify strategic groups in the industry (Kotler & Armstrong 2001:684). These key dimensions may be each competitor's product quality, features and mix, pricing policy, distribution coverage, sales force strategy, advertising and sales promotions programmes, in addition to strategies for research and development (R&D), purchasing and financial detail. Organisations that are grouped together strategically will therefore have similarities, which are generally not prevalent in other organisations that are in different strategic groups within the same industry (Wheelen & Hunger 1998:67). In the IT industry on which arivia.com focuses, the areas in which Comparex, Dimension Data, Accenture and IBM compete directly are illustrated in table 3.2 below (IDC 2002:23-66). These strategic groups will be studied as part of the secondary objectives of the study, and will form the basis for further research into the analysis of these competitor groups and the extent to which they are able to compete effectively against arivia.com in the Eskom business environment.

Table 3.2: Strategic competitors grouped by service provision

Service provided	Key competitor to arivia.com
Hardware & software installation & support	Dimension Data, Comparex, IBM
Network consulting & integration	Dimension Data, Comparex, IBM
Systems integration	Dimension Data, Comparex, IBM, Accenture
Applications consulting & customisation	Dimension Data, Comparex, IBM
Application development	Dimension Data, Comparex, IBM, Accenture
Information system outsourcing	Dimension Data, Comparex, IBM
IT infrastructure services provision	Comparex, IBM
IT consulting services	Accenture (market leader and very strong in Eskom), IBM, Comparex

During the last quarter of 2001, Comparex Africa (a large professional IT services organisation) approached TSI (an Eskom Enterprises subsidiary and

customer of arivia.kom) offering IT services, and was subsequently appointed to administer certain of its high-profile projects. Arivia.kom management only reacted to this occurrence in January 2002, by which time, TSI had made certain contractual commitments to Comparex. Arivia.kom management's slow reaction seems to indicate that its competitive analysis capabilities may not be of a sufficiently high standard to prevent such competitor activities in future. Furthermore, the slow reaction seems to indicate that management intelligence oriented towards competitor analysis is either poorly developed or non-existent. However, this warrants further study to establish the true extent to which arivia.kom approaches competitor groupings as part of its competitor analysis.

Conceptualising the competitive environment by way of strategic groupings fosters a better understanding of the challenges facing the organisation. As part of the systematic competitor analysis process, it also a logical precursor to focusing the organisation on important competitors whose characteristics (objectives, strategies and weaknesses) must be understood, if the organisation plans to counter any anticipated moves.

3.5.2.3 Key competitor objectives

After determining who its competitors are an organisation must establish what each competitor seeks in the marketplace and what its strategies are (Kotler & Armstrong 2001:683). It is important to establish what motivates competitors to act as they do, because developing an understanding of a competitor's product portfolio could provide valuable insight into its objectives (Brassington & Pettitt 1997:852). Insight gained from such analyses could help the organisation to appreciate for how the competitor's strategy is likely to be executed, thereby enabling it to devise an appropriate defence.

Understanding a competitor's objectives enables the organisation to determine whether the competitor's strategy is effective or whether it is likely to be changed in future (Aaker 1998:66). Establishing whether the performance of competitors and their financial objectives are within acceptable levels will help

an organisation to determine whether they are likely to sustain a presence in the market, and whether they have sufficient backing from their investors and management to do so. Kotler and Armstrong (2001:683) infer that competing organisations have a general mix of objectives in common. Understanding the relative importance of this mix to competitors may help the organisation to comprehend how they are likely to react to different competitive actions. This mix comprises (but is not necessarily limited to) the following (Du Plessis et al 2001:113; Kotler & Armstrong 2001:683):

- current and long-term profitability and cash flow (financial goals)
- market share growth
- technological, service, price and market leadership, which are all qualitative objectives.

The degree of importance attached to the components of this mix will vary from one organisation to the next. By understanding its competitor's objectives, the organisation is not only educated about new segments that a competitor may identify, but will also be aware of any competitive threats that will be posed to the market space it occupies. Being "forewarned and, hopefully, forearmed" is thus a key benefit for the organisation when engaging in the practice of establishing competitor objectives (Kotler & Armstrong 2001:683).

The Comparex episode in Eskom Enterprises highlights a key issue regarding the understanding of competitor objectives. Arivia.com was unaware of the intentions of Comparex, and when it did react, chose to cooperate with the organisation rather than devise a strategy to defend market share within Eskom Enterprises. It was only after the competitor's objectives became clear that arivia.com reacted by invoking the government policy clause for "first right of refusal" of work within Eskom and Eskom Enterprises. The wrong course of action initially (cooperation as opposed to confrontation) seemed to indicate a lack of experience in understanding competitor objectives and dealing with them appropriately. It is unclear whether arivia.com possesses any detailed

information on its key competitors or their objectives. There are no apparent formal mechanisms within the organisation that facilitate the collection of pertinent information in this regard. Hence it may be necessary to establish whether arivia.com places any priority on establishing competitor objectives in the planning of its own operations for the sake of protecting the market in which it operates.

3.5.2.4 Competitor strategies

Understanding the current and past strategies of competitors is a vital aspect of competitor analysis. An organisation's knowledge of a competitor's previous strategies may be significant, especially those that have failed, because they could provide insight into the strategic alternatives that the competitor may choose to avoid in future (Aaker 1998:67). Moreover, understanding a competitor's strategies could provide insight into the manner in which a competitor currently operates, thus enabling the organisation to plan for the present and future. Vigorous pursuit of a strategy could result in a sustainable competitive advantage. Understanding the sustainable competitive advantage at which a competitor aims, or currently enjoys, as a result of the strategy pursued, could help the organisation to plan its defence against such competition. Three main issues in particular should be established in trying to understand competitors' current strategies (Hooley, et al 1998:156). Firstly, the organisation should study the market(s) in which those competitors have chosen to operate (the target market). Secondly, the organisation should identify the strategic choices (generic strategies) the competitors have made in order to bring about competitive advantage in those markets. Thirdly, the organisation needs to pinpoint the marketing mix directed at the target market in order to achieve the goals that have been determined by the strategic choices.

A competitor could choose strategies from three broad alternatives, also known as generic strategies (Pearce & Robinson 1997:216). The first is overall low-cost leadership in an industry, where a competitor competes

primarily on the price of the product(s) sold. The second is differentiation through the creation and marketing of unique products and/or services for varied customer groups, by offering distinctly recognisable selling propositions. The third choice entails focusing on a specific customer group or groups of customers, by concentrating on their cost or differentiation concerns. This strategy can be regarded as a subset of low-cost leadership or differentiation strategies, but is generally aimed at a smaller more specific set of customers. Customers targeted by this strategic option usually have specific requirements that are ignored by low-cost or differentiation-oriented competitors who tend to focus on typical customers requiring products that generally have a mass appeal.

By detecting and understanding the type of strategy a competitor adopts, an organisation is better able to ascertain its future growth directions (Aaker 1998:67). Establishing the type of strategy adopted by a competitor can, for example, lead the organisation to the following insights (Aaker 1995:74):

- If a low-cost leadership strategy is pursued, a competitor could have uncovered certain economies of scale or streamlined operations developed over years of practice (experience curve). It may also have production facilities and/or equipment that could lower the cost of a product. It could have access to raw materials (and/or cheap labour) which enable it to deliver products or services at a low cost.
- If a differentiation strategy is pursued it could be because of a competitor's extensive product line or that it produces a high-quality product or service. The competitor may also have an extensive and efficient distribution network, or possess products or services that are positioned as exclusive and unique, and are brand-specific.
- If a focus strategy is pursued, a competitor may have its business scope defined in such a way that it can target consumers in order to address their cost or differentiation concerns in specific manner. An example of such a strategy is the provision of satellite (also known as cable) television

services, provided to subscribers in rural areas that are largely ignored by television networks which target audiences in cities and suburban areas (Pearce & Robinson 1997:217).

Accurately establishing with which generic strategy a competitor identifies, could enable the organisation to plan its own counter-attack effectively. Pearce and Robinson (1997:88), however, observe that an organisation could make mistakes in drawing inferences about competitor strategies. An example of this is possibly misunderstanding the purpose of a strategy by obsessively trying to outsmart competitors, rather than add value to its customers. The organisation could also focus excessively on the competitor's resources or market position, and overstate their importance relative to the competitive ability of such a competitor(s). The organisation could assume that a competitor pursuing a similar strategy could face constraints similar to its own, and hence is likely to base actions on such assumptions. If such assumptions are inaccurate they could be misleading.

In analysing the strategic choices made by competitors, the organisation will need to look beyond what it is currently doing and focus on the possible future actions of its competitors as well. Given any environmental and competitive changes faced by competitors, they are likely to react in a variety of ways. The organisation must be in a position to establish what the future competitive landscape will look like, on the basis of an understanding of the following about their competitors (Hooley et al 1998:165):

- *Establishing whether the competitor is satisfied with its current position.* A competitor that is content may allow indirect exploitation of its market without expending any effort on aggressive defence of that market.
- *Establishing strategic shifts or changes that a competitor could make.* The organisation can assess this, and then evaluate whether its own plans and goals will be sufficient to defend against strategic shifts from competitors.

- *Establishing where a competitor is vulnerable.* This could help the organisation to position its strengths against a competitor's weaknesses in order to gain a competitive advantage.
- *Understanding what actions will provoke effective retaliation from competitors.* This understanding could help the organisation to identify what is likely to provoke a competitor because it could then decide to avoid such a course of action altogether. Alternatively, it may be more sensible for the organisation to pursue a less sensitive route to success, rather than invoke the wrath of a powerful competitor through direct aggression (Hooley et al 1998:166).

Most of arivia.kom's competitors have extensive experience in the IT Industry in South Africa and globally. Competitors (such as Accenture) have provided consulting services to Eskom for more than seven years and have developed good relationships with Eskom management. By establishing a relationship of trust with Eskom management and leveraging its global brand presence, it has been successful in obtaining contracts to provide IT services on a regular basis.

It is presently unclear whether arivia.kom has effectively established the competitive strategies of its competitors. What is known, however, is that Eskom has been criticised for its perceived inability to embrace a business identity that espouses a unique selling proposition to Eskom that will enable it to differentiate itself from its competitors. Eskom has also criticised its cost structure as being uncompetitive compared to those of Accenture or other competing service providers. The question whether this criticism is unanimous and credible needs to be studied to establish its validity.

3.5.2.5 Competitor strengths and weaknesses

Understanding competitor strengths and weaknesses will provide valuable insight into the resources that an organisation has at its disposal. Such knowledge may be useful to an organisation because it may then be in a position to act in a manner that exploits a competitor's weaknesses to its own

advantage, or possibly to pursue actions that will neutralise or bypass a competitor's strength (Aaker 1998:68). In a highly competitive industry, such as the one in which arivia.kom operates, it is essential to have knowledge of competitor's strengths, and where they could be vulnerable. Du Plessis et al (2001:116) consider the understanding of competitor's strengths and weaknesses to be an important prerequisite in the organisation's formulation of a competitive strategy. By understanding a competitor's strengths and weaknesses, an organisation is able to speculate on the likely courses of action that it could take in response to specific actions by competitors, such as price cuts, promotions or new product introductions (Kotler & Armstrong 2001:684). The following factors could make a competitor vulnerable to other organisations (Du Plessis et al 2001:115):

- poor cashflows or lack of cash
- low margins and/or poor growth (in the event of price competition with other organisations, a competitor could experience eroded profitability and losses)
- the high cost of operations and/or distribution
- overdependence on one market or one account (an organisation that derives the bulk of its income from one or a few key customers could be vulnerable if the customer looks elsewhere for the same product)
- strength in failing sectors (high market share in a declining market)
- short-term focus,
- resource problems (eg losses of skilled people)
- predictability (a competitor's moves become easy to read and predict by other competing organisations)
- product or service obsolescence or weakness
- predictability (organisation's abilities are conventional and known to others)
- a cumbersome organisation hampered by bureaucracy

At times, competitors may possess strengths that are beyond the organisation's ability to neutralise. Moreover, if challenged, such strong competitors could respond aggressively to the organisation. Knowledge of such abilities possessed by competitors could assist the organisation to decide not to compete directly, but rather to seek an alternative approach.

Whether or not an organisation chooses to act aggressively (or at all) against a competitor, it is nevertheless prudent to understand the resource availability and abilities of its competitors (Du Plessis et al 2001:115). Hence competitor strengths and/or weaknesses depend on whether they possess the necessary assets or skills (Aaker 1995:76). These assets and skills are critical success factors in the industry in which the organisation and its competitors operate, and represent the bare minimum requirements to stimulate competitiveness. Without these requirements the ability to compete effectively may be lacking. An analysis of assets and skills possessed by competitors can thus be conducted in the following ways (Aaker 1995:76):

- Identify successful organisations in the industry and establish the assets and/or skills that have contributed to their success over time.
- Establish what is important to customers (their main reasons for purchasing) and the key skills or assets necessary to deliver the value they seek.
- Determine whether one (or more) component(s) of the value chain comprise a sustainable competitive advantage (strength) for the competitor. For instance, a primary activity in the value chain such as service, could be a competitive advantage for the competitor to the extent that it is renowned for service excellence. Such an attribute is an asset that differentiates a competitor from the organisation in question.

Organisations such as (but not limited to) Accenture and DiData, are formidable competitors that compete aggressively against arivia.kom for market share in Eskom. As experienced business organisations, it is not inconceivable that they have conducted analyses of arivia.kom's strengths and

weaknesses. Regardless of this, it is necessary for arivia.kom to conduct its own analysis of the strengths and weaknesses of its competitors for the sake of its future profitability and survival.

3.5.2.6 Forecasting competitor response patterns

In a competitive market or industry, any course of action embarked upon by an organisation is likely to induce competitors to respond in some manner. It may therefore be useful for the organisation to predict the likely reaction of these competitors. Du Plessis et al (2001:118) regard competitor responses to changes in the market as well as competitive changes an important objective in competitor analysis. They also consider competitor behaviour in this regard to have three distinct components:

- (1) These are, the likelihood of a competitor responding to changes in the market place;
- (2) The probable response of the competitor to moves from other competitors;
- (3) Speculation on the possibility that the competitor will react aggressively and, if so, the type of reaction it may take.

Du Plessis et al (2001:118) identify four types of competitors that an organisation may typically encounter:

- (1) *The Market Leader.* This competitor has the largest share of the market for its product and usually leads the way in price changes, new product introductions, promotional intensity and distribution coverage. This type of organisation must constantly combat rival offerings such as product innovations, pricing promotions and lower costs, and normally responds by expanding the total market for its product, protecting its current market share through aggressive or defensive actions or by aggressively penetrating the target market. From prior indications, this definition would apply to Accenture in the Eskom context.

- (2) *The Market Challenger*. This is normally a "runner-up" organisation that attacks market leaders in order to increase its own market share. Organisations such as Bentley West would fit into this category in the Eskom business environment (see ch 5 sec 5.3).
- (3) *The Market Follower*. This organisation prefers to follow rather than challenge the market leader, and aims to retain current customers whilst attracting new ones. It follows a business practice that does not openly invite competitive retaliation. The definition would apply to Comparex given their initial dealings with Eskom Enterprises and arivia.kom.
- (4) *The Market Nicher*. This organisation prefers to be a leader in a small (niche) market, and avoids competing directly with larger organisations by targeting smaller organisations that are of little or no interest to the larger ones. This type of organisation specialises in one segment or geographic area or product type. This definition would most suit an organisation such as Enerweb (see ch 5 sec 5.3).

Du Plessis et al (2001:118) espouse the use of a response profile to assist in determining the key competitors to target in relevant segments. Response profiles can help to decide which strategy the organisation would use in each situation. In developing the response profile for its key competitors, the organisation will need to establish the following:

- whether it is satisfied with its current position
- the likelihood that the competitor will change its strategy
- the importance a competitor will attach to a change in its strategy
- the way in which other competitors will respond to such changes in its strategy
- whether new opportunities will be afforded to rivals when competitors make strategic changes

- whether opportunities provided by competitors are likely to endure over time or will be short-lived
- the way competitors will respond to environmental changes, including moves by other competitors
- which moves competitors respond well to, and which they react poorly to,
- what moves a competitor is likely to make in reaction to actions from other competitors

However, in the past, competitors have often emerged unexpectedly and from unanticipated sources and circumstances. Managers are therefore required to be familiarise themselves with competitor scenarios of future markets that are not merely extrapolations of current trends (Fahey 2003:32-44). Such scenarios provide an organisation with the means to learn about the current and potential competitive environment. They also enable it to gain unique insights into the rivals that will shape the nature and direction of marketplace competitiveness and promote learning about both competitors and the competitive context that would otherwise be out of the question. Managers are thus required to think about the broader competitive context and of the implications for their firm's strategy and operations, enabling them to prepare for changing competitive conditions.

Globally, and in South Africa, the IT industry is evolving rapidly and is highly competitive. Arivia.kom is now a rival to other organisations in this industry, and services two organisations (Eskom and Transnet) that are regularly targeted by aggressive competitors. In addition, the nature of the IT industry is changing rapidly and the introduction of the Internet has redefined business models and altered the nature of competition in this as well as in other industries. Forecasting competitor responses cannot therefore be viewed from a conventional perspective, which entails competitor analysis on existing organisations in the IT industry. The rapid nature of change in the IT industry requires forecasting the impact of new competitors and technologies in its markets. Fahey (2003: 39) refers to the creation of so-called "invented

competitors", an exercise that requires the organisation to systematically think about the changing nature of competitors and competitiveness in their markets such that underlying assumptions and the original view of competition are viewed differently. The aim of the invented competitor approach is to establish a radically distinct perspective on its future marketplace from which to review its current strategy.

3.6 SUMMARY

Since the advent of democracy in South Africa in 1994, the has been responsible for a determined push for change in the private and public sector. Eskom and Transnet have been at the centre of government-led initiatives in this regard, and arivia.kom has also been viewed as vital to such initiatives in this context.

The expectations created around the formation of arivia.kom were initially high. However, customer expectations and the presence of formidable competitors in the IT industry which are also targeting Eskom and Transnet are placing a strain on its ability to meet such expectations. The aim of this study is to identify the key contributors in the customer and competitor context, to such pressures so that appropriate attention can be directed towards determining suitable constructs that address them appropriately.

Chapter 4: Research methodology

4.1 INTRODUCTION

Research is usually undertaken to discover facts that may be used to describe and evaluate actions. To attain these overall objectives, it is essential that the facts revealed by the research should be accurate so that they can be measured in statistical terms. Research methodology has distinct characteristics, one of which is the necessity for hard, measurable data to assist in the resolution of the problem that gave rise to the need for research (Leedy 1989:5).

This chapter focuses on the fundamental concepts of the research methodology and describes the practical execution of the research undertaken for this study. The research project was conducted on one of arivia.kom's key customers, Eskom, the respondents being the management and employees of the organisation. The main objective of the study was to conduct a market analysis of arivia.kom. There is no reason to believe that the findings and conclusions drawn will not be applicable, to a lesser or greater degree, to arivia.kom's other key customers. The findings and recommendations of the study should also be relevant to arivia.kom's other key customers, namely Transnet and Denel, given that at the time of inception they were designated as key customers of arivia.kom. They are also state-owned organisations and are subject to the same forces of change as Eskom because they are all governed by the Department of Public Enterprises (DPE). Consequently, they are expected to have similar performance imperatives and expectations from suppliers.

4.2 THE RESEARCH PROCESS

Malhotra (1996:8) defines marketing research as the systematic and objective identification, collection, analysis and dissemination of information for the purpose of improving decision making related to the identification and solution of problems and opportunities in marketing.

According to Kotler and Armstrong (2001:140), marketing research comprises the following four steps:

- step 1: defining the problem and research objectives
- step 2: developing the research plan for collecting the information
- step 3: implementing the research plan - collecting and analysing the data
- step 4: interpreting and reporting the findings

The first step in the research process, namely definition of the problem and the research objectives of this study, was executed in chapter 1. The primary objective (see sec 1.4.1 in ch 1) is a market analysis of arivia.kom. The secondary objectives of the study (see sec 1.4.2 in ch 1) were, firstly, to establish the reasons why Eskom decision makers were reluctant to provide arivia.kom with more business opportunities, and secondly, to establish who arivia.kom's competitors are. The third objective is to establish the customer perception of arivia.kom's service quality, and finally, to identify areas in need of further study.

The second step in the research process, formulating the research design for data collection, and the third step, implementing the research plan to facilitate the collection and analysis of data, will be detailed in this chapter. The final step in the research process, interpreting and reporting the findings will be outlined in chapter 5. Chapter 6 will deal with the recommendations made on the basis of the interpretation of the findings.

4.3 RESEARCH DESIGN FORMULATION

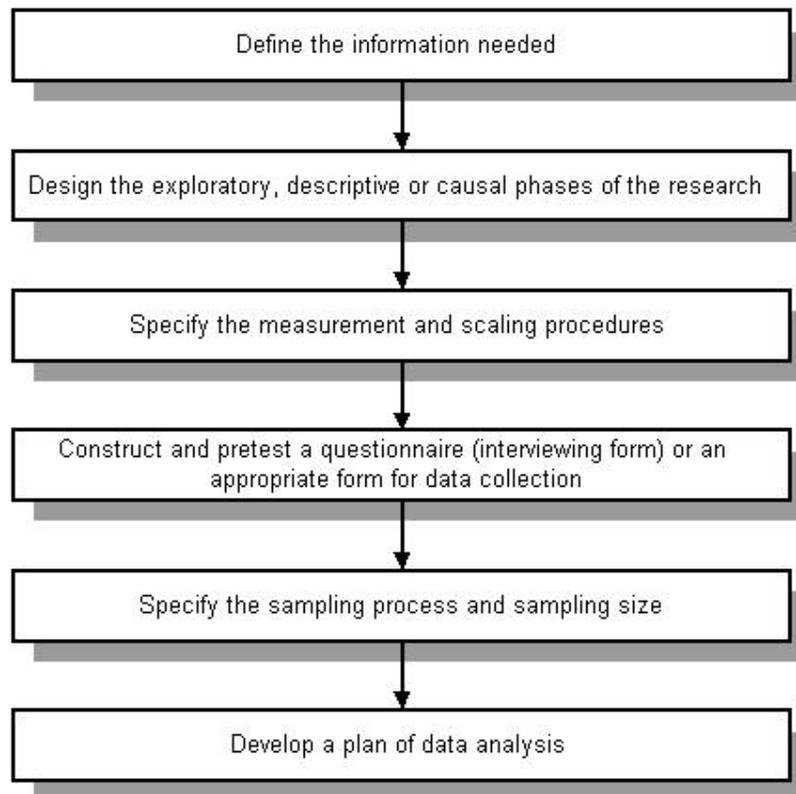
4.3.1 General

Malhotra (1996:86) refers to research design as a framework or blueprint for conducting the marketing research project, which details the procedures necessary for obtaining the information required to structure or solve marketing research problems. A sound research design ensures that the marketing research project is conducted effectively and efficiently, and lays the foundation

for conducting the project. A research design involves certain crucial components as reflected in figure 4.1 below.

Whilst a 1999 version of the text by Malhotra exists, some of the material and processes defined in it differ from the corresponding section in the 1996 version of the textbook. The latter shall be used predominantly since the definitions and processes therein are considered to be more appropriate for the purposes of this study. However, the 1999 version of the textbook will also be referred to where relevant and appropriate.

Figure 4.1 Components of a research design



4.3.2 Define the information needed

According to Malhotra (1999:36-37), of all the steps in the marketing research process, problem definition is the most important. It is only after the marketing research problem has been clearly defined that research can be designed and conducted properly. Inadequate problem definition is considered to be the

leading cause of failure of marketing research projects. However, better communication and greater involvement in problem definition are the most frequently mentioned ways of improving the usefulness of research. In essence, the researcher's role is to help management identify and isolate the problem. Malhotra (1999:45-46) distinguishes between the objectives of the organisational decision maker and the market researcher. The former reviews management decision problems in deciding a course of action, whilst the marketing researcher asks what information is needed and how it can be obtained effectively and efficiently. The process and roles of the decision maker and the researcher are interactive. In defining the information needed, what is initially required is a statement of the market research problem in broad and general terms, thereafter identifying its specific components. In this study, this was done in section 4.2 chapter 1.

4.3.3 Design the exploratory, descriptive or causal phases of the research

Research designs may be broadly classified as exploratory or conclusive (Dillon Madden & Firtle 1993:32-33; Malhotra 1996:86-88). The various aspects of either type of research design will be discussed briefly below.

4.3.3.1 Exploratory research designs

The primary objective of exploratory research is to provide insights into and promote understanding of the problem confronting the researcher. Exploratory research is appropriate in situations of problem identification and definition. After clearly defining the problem, exploratory research can be used to identify alternative courses of action. When conducting exploratory research, qualitative data are often used, and should be regarded as tentative or as input for further research. The insights gained from exploratory research might be verified by conclusive research. Exploratory research designs include secondary data sources, literature reviews, observation and interviews with industry experts. This study utilised a two-step approach. Initially, a literature review was undertaken in chapters 2 and 3, whilst a more structured

approach is used for conclusive purposes in chapter 5. Conclusive research designs are briefly outlined below.

4.3.3.2 *Conclusive research designs*

Conclusive research is typically more formal and structured than exploratory research. This type of research is based on representative samples and the collected data are subjected to quantitative analysis. Findings from conclusive research serve as input into managerial decision making because they assist the marketer to evaluate and select a course of action. Conclusive research can be subdivided into descriptive and causal research, which are explained below.

- *Descriptive Research.* The major objective of descriptive research is to describe something, usually market characteristics or functions. Descriptive research may, for example, be conducted to describe the characteristics of relevant groups such as consumers, organisations or market areas. It can also be used to describe or determine perceptions of certain phenomena, or applied to determine the degree to which marketing variables are related. It can even be used to make specific predictions. Descriptive research makes the assumption that the researcher has much prior knowledge about the problem situation. It is thus preplanned and structured, and is marked by a clear statement of the problem, specific hypotheses and detailed information needs. Descriptive research can be further subclassified into cross-sectional design and longitudinal design. The former involves the collection of information from any given sample of population elements only once. Longitudinal design involves a fixed sample of population elements measured repeatedly over time to provide an illustration of the situation and the changes that are taking place (Malhotra 1996:90-95). The descriptive approach is considered most appropriate for the purposes of this study. However, for the sake of completeness of definition, causal research is briefly outlined below.

- *Causal Research.* The aim of causal research is to obtain evidence of cause-and-effect relationships. Marketing managers continually make decisions based on assumed causal relationships. These assumptions may not be justifiable and the validity of the causal relationships should be examined through formal research. Causal research is appropriate for understanding which variables are the cause (independent variables) and which variables are the effect (dependent variables) of a phenomenon, and can be used to determine the nature of the relationship between causal variables and the effect to be predicted.

4.3.4 Specify the measurement and scaling procedures

Measurement involves assigning numbers or other symbols to characteristics of objects according to certain predetermined rules (Malhotra 1996:271). However, the object itself is not measured, but some characteristic of it. For example, in the course of conducting marketing research, we do not measure consumers but rather their perceptions, attitudes, preferences or other measurable characteristics. In marketing research, numbers are assigned, firstly, to allow the statistical analysis of the resulting data, and secondly, to facilitate the communication of measurement rules and results. The principal aspect of measurement is the specification of rules for assigning numbers to characteristics. The assignment process must be such that there is a one-to-one correspondence between the numbers and the characteristics being measured. Moreover, the rules for assigning numbers should be standardised and uniformly applied, and should not change over objects or time.

Scaling is regarded as an extension of measurement. It involves creating a continuum on which measured objects are located. There are four primary scales of measurement, namely, nominal, ordinal, interval and ratio scales, which will be briefly discussed below.

- *Nominal scale.* In this scale, numbers serve merely as tags for identifying and classifying objects. Each object has only one number assigned to it, and no two objects have the same number.
- *Ordinal scale.* This is a ranking scale in which numbers are assigned to objects to indicate the relative extent to which they possess some characteristic. This scale allows one to determine the relative position of one object to one or more other objects. However, it does not indicate the magnitude of differences between the objects.
- *Interval scale.* An interval scale contains all the information of an ordinal scale, but also allows one to compare the differences between objects. There are numerically equal distances on the scale representing equal values in the characteristic being measured and there is constant interval between scale values. An example of this is a temperature scale.
- *Ratio scale.* A ratio scale possesses all the properties of the nominal, ordinal and interval scales, as well as an absolute zero point. This enables the researcher to identify or classify objects, rank objects and compare intervals or differences. Most importantly, all statistical techniques can be applied to ratio data.

The scaling techniques commonly employed in marketing research can be classified into comparative and noncomparative scales (Malhotra 1996:276-277). These scaling techniques will be briefly outlined below.

4.3.4.1 Comparative Scales

Comparative scales involve the direct comparison of stimulus objects, and data must be interpreted in relative terms and have only ordinal or rank-order properties. The major benefit of comparative scales is that small differences between stimulus objects can be detected, given that respondents are compelled to choose between stimulus objects which they are required to compare. In addition, respondents approach the rating task from the same reference points and there are fewer theoretical assumptions involved in these

scales. However, one of the main disadvantages of the use of such scales is that they do not allow for accurate generalisation beyond the stimulus objects scaled, requiring another study to be conducted if comparison is required with a new stimulus object.

4.3.4.2 Noncomparative Scales

Noncomparative scaling is the most widely used scaling technique in marketing research (Malhotra 1996:277-297; Dillon et al 1993:277). Using this scaling technique, each object is scaled independently of the others in the stimulus set. Respondents evaluate only one object at a time as opposed to rating one object to another or to a predetermined standard.

Noncomparative scales may be classified as continuous or itemised scales. These classifications are briefly explained below.

- *Continuous scales.* Using this scale, the respondents rate the objects by placing a mark at the appropriate position on a line that runs from one extreme of the criterion variable to the other. Continual scales are easy to construct. However, scoring can become cumbersome and unreliable, and such scales often provide little new information.
- *Itemised rating scales.* Respondents are provided with a scale that has a number or brief description associated with each category. The categories are ordered in terms of scale position and the respondents are required to select the specified category that best describes the object being rated. Itemised scales are widely used in marketing research and form the basic components of more complex scales such as multi-item rating scales (Malhotra 1999:270-274). Commonly used itemised rating scales are the Likert scale, Semantic differential scale and Stapel scale. The Likert scale is widely used and requires the respondent to indicate a degree of agreement or disagreement with each of a series of statements about the stimulus objects, with a numerical score being assigned to each statement.

The Semantic differential scale is a seven-point scale with end points associated with bipolar labels. It is versatile and commonly used to compare brand, product and company images. The Stapel scale is a unipolar scale with 10 categories numbered from -5 to +5 without a neutral (zero) point. Using this scale, respondents are asked to indicate how accurately or inaccurately each term describes the object by selecting an appropriate numerical response category. The Stapel scale is the least popular of the itemised scales because it is regarded as confusing and difficult to apply by some researchers (Malhotra 1999:275).

For the purposes of this study, noncomparative scales are considered more appropriate than comparative scales, given the complex issues at hand which require in-depth investigation.

4.3.5 Construct and pre-test the questionnaire

A questionnaire is a formalised set of questions for obtaining information from respondents (Malhotra 1999:293-295; Dillon et al 1993:300). Any questionnaire has three objectives. Firstly, it must translate the required information into a set of specific questions that respondents can and will answer. Secondly, it must be able to motivate and encourage the respondent to become actively involved in the interview so that he or she cooperates and completes it. Thirdly, the questionnaire should minimise response error, which could arise when respondents give inaccurate answers, or when answers are incorrectly recorded or analysed.

Malhotra (1996:318-341) provides some general guidelines on the questionnaire design process. These guidelines or steps are briefly explained below.

- *Step 1.* Specify the information needed. This will entail a review of the problem and approach, the hypotheses and the characteristics that influence the research design. Having a clear concept of the target population is also

important because the characteristics of the respondent group will influence the questionnaire design.

- *Step 2.* Specify the type of interviewing method. The type of interview to be conducted with respondents could be a personal interview, telephone interview, mail questionnaire, computer-assisted interview or even an Internet questionnaire. The length and complexity of questions will vary according to the interview method being used. In addition, the content of the individual questions will also be influenced by the interview method. For the purposes of this study, the researcher decided that the mail questionnaire method would be most appropriate in the interests of time and cost. Moreover, the respondents used in this study were geographically dispersed throughout South Africa, rendering this type of interview method the most suitable in the circumstances. If required, a telephonic follow-up would be conducted.
- *Step 3.* Determine the content of individual questions. Every question in the questionnaire should contribute to the information needed. Neutral questions may need to be incorporated into the questionnaire if considered appropriate in order to establish rapport, and if the topic is considered controversial or sensitive. Efforts should be made to avoid "double-barrelled" questions in order to avoid ambiguity (Malhotra 1999:298). In instances where two answers are required, it is advisable to ask two separate questions to obtain information, as opposed to requesting multiple answers from a single question.
- *Step 4.* Overcome the inability to answer. Researchers should not assume that respondents can provide reasonable answers to all questions. Reasonable steps should thus be taken deal with the likelihood of a respondent's inability to answer. The inability to answer questions generally stems from the respondent not being informed, not remembering information or being unable to articulate certain types of responses. Hence it may be

necessary to use a filter question to screen potential respondents to ensure that they meet the sample requirements.

- *Step 5.* Overcome the unwillingness to answer. There are instances where the respondents are able to answer questions, but may be unwilling to do so. This may arise because there is too much information required, or the context is inappropriate for disclosure, there is no legitimate need for the information requested as perceived by the respondent, or the information is sensitive. In the interests of saving the respondent time and effort, a list of options can be provided from which the respondent can choose items as appropriate. To put the respondents at ease and manage their apprehensions about potentially sensitive issues, it may be necessary to first make statements to place the issue in question in context before asking the actual question. Respondents may also question the legitimacy of questions being asked hence the need for a preliminary statement to justify the question to follow. Respondents are also likely to be unwilling to answer sensitive questions, or give biased responses, because of a perceived threat to their prestige or self-image. In order to avoid this, sensitive questions could be placed at the end of the questionnaire, by which time initial mistrust could be overcome. In addition, questions could be categorised to enable the respondent to indicate a general category rather than a specific answer (eg in the case of annual income) or questions can be phrased using the third person technique.
- *Step 6.* Choose the question structure. A question may be unstructured or structured. Unstructured questions are open-ended questions that respondents answer in their own words. They are useful in exploratory research and are often appropriate as first questions on a topic. However, the data recorded are prone to interviewer bias and the validity of the data recorded depends on the recording ability of the interviewer. Structured questions specify the set of response alternatives and the response format. There are three types, namely multiple-choice questions, dichotomous

questions or a scale. Multiple-choice questions provide a choice of answers and respondents are asked to select one or more alternatives. Dichotomous questions often have only two response alternatives between which a respondent must choose. In certain instances, a neutral alternative is also provided where it is considered that a large number of responses may be neutral or undecided about the issue in question. Scales can also be used to structure questions where alternatives are given from which respondents are asked to select an answer along a continuum.

- *Step 7.* Choose the wording of questions. The wording of questions must be such that respondents can clearly and easily understand them. To avoid bias in responses, the following guidelines are suggested (Malhotra 1999:305):
 - ❑ The issues must be clearly defined.
 - ❑ Ordinary words and easily understood phrases should be used.
 - ❑ Unambiguous words must be used such that respondents clearly understand the question.
 - ❑ Leading or biased questions, which are likely to elicit skew responses should be avoided.
 - ❑ Questions must be explicit to give the respondents a clear indication of what the issue at hand relates to.
 - ❑ Questions that do not contain assumptions to clarify the issue at hand should be avoided.
 - ❑ Generalisations should be avoided in favour of specific information requested from respondents. At times, this may require two simple questions rather than one complex question.

- Dual statements can be used to gain a better understanding of the information received from respondents. Dual statements may be positive and negative, and when used appropriately, can help to eliminate bias from the directionality of statements.
- *Step 8.* Determine the order of questions. Opening questions can be crucial in promoting the confidence and cooperation of respondents. The opening questions should thus be interesting, simple and nonthreatening. Difficult, embarrassing or complex should often be placed late in the sequence of questions. Questions should be asked in a logical order and should follow a funnel approach where the questionnaire begins with general questions followed by progressively specific ones.
- *Step 9.* Decide on the form and layout. The format, spacing and positioning of questions can have a significant effect on results. The way in which questions are placed on the questionnaire, and the numbering of questionnaires and the questions contained in them are important considerations in assisting the researcher to process data after they have been collected from respondents.
- *Step 10.* Reproduce the questionnaire. The manner in which a questionnaire is reproduced could influence the results. Use of poor quality paper or an unprofessional appearance could affect the perception of respondents. The questionnaire should therefore be printed on good quality paper and look professional. If the document is extensive, it should be suitably bound rather than untidily stapled together. Questions should be neatly presented, and the tendency to make questionnaires look shorter than they really are, should be avoided. The questionnaire should ultimately be easy to read and answer by respondents.
- *Step 11.* Pretest the questionnaire. This involves testing the questionnaire on a small sample of respondents for the purposes of identifying and eliminating potential problems. The respondents in the pretest phase should

be similar in background to the actual respondents participating in the survey. Moreover, the pretest respondents should be interviewed in person, regardless of the actual telephonic interview, in order to gauge the participants actual responses to questions in the questionnaire. If significant revision of the questionnaire is required, another pretest session should be conducted.

Taking into account the guidelines discussed above, a questionnaire (attached as per annexure B) was created for the purposes of this study to obtain the necessary information. The questionnaire defined for the process of this study comprises the following fields for which information is required from respondents:

- *Section 1: demographic details.* Respondents are required to provide their names and contact details as well as the relevant Eskom division they represent.
- *Section 2: service providers.* Respondents are requested to identify, from a list of service providers, organisations that they have used in the past three years. Arivia.kom is included in this list of service providers. Thereafter, the customer is required to rate the three best service providers. The aim of this section is to establish arivia.kom's competitors, and the extent to which Eskom holds them in higher regard. The types of questions in this section are not intended to be open-ended but rather dichotomous.
- *Section 3: enabling agreement.* The enabling agreement between Eskom and arivia.kom is investigated to establish whether Eskom customers feel compelled to work with arivia.kom, and to establish whether customers would use another service provider if the opportunity arose to do so.
- *Section 4: service delivery criteria.* Using a 10-point scale, respondents are required to rate arivia.kom and any other information technology

service provider (which has rendered service to Eskom in the past three years) on specific service delivery criteria. The criteria are consistent with the format as specified in chapter 3 regarding customer analysis, and comprise the broad categories of "Customer segmentation", "Customer motivations to purchase", "Unmet customer needs" and "Customer dissatisfaction".

- *Section 5: additional comments.* Respondents are required to state their overall impression of the service rendered by arivia.com over the past three years. This question is intended to be open ended.

The questionnaire was also put through pretesting in order to eliminate any errors that were overlooked, and to gauge the response of readers that would help in rendering it user-friendlier. During this phase input was received from two arivia.com colleagues and an Eskom employee (Transmission IT manager). As a result changes were made to the questionnaire with regard to explanation of the rating system (section 4 of the questionnaire) and elimination of ambiguous phrases and terms that were used at the time in favour of simpler and clearer alternatives. Table 4.1, below provides a summary of the type of questions employed in the questionnaire.

Table 4.1: Summary of questions employed in questionnaire

Section	Type of questions posed to respondents
Section 1: demographic details	Name, contact details and BU they are employed by
Section 2: service providers	Indication (by way of cross or tick) of organisations dealt with by the respondent
Section 3: enabling agreement	Specific questions asked with regard to EA
Section 4: service delivery criteria	Ratio scale (10-point scale) used. Respondents asked to rate arivia.com and competitor on given criteria
Section 5: additional comments	respondents asked to summarise their overall perception

4.3.6 Specify the sampling process and sample size

The aim of most marketing research projects is to obtain information about the characteristics or parameters of a population. Malhotra (1999:328) defines a population as "the aggregate of all the elements, sharing some set of characteristics, comprising the universe for the purpose of the marketing research problem". Information about population parameters may be obtained by taking a census or a sample. A census involves a complete enumeration of the elements of a population. The population parameters can be calculated directly in a straightforward manner after the census has been enumerated. A sample, on the other hand, is a subgroup of the elements of the population selected for participation in the study. Sample characteristics, called statistics, are then used to make inferences about population parameters.

Budget and time constraints are factors that favour the use of sampling (Kinneer & Taylor 1996:406). A census is unrealistic if the population is large. If the cost of sampling errors is high, a census, which eliminates such errors, is desirable. However, a high cost of nonsampling errors would favour sampling. A census can greatly increase nonsampling error to the point that these errors exceed the sampling errors of a sample. Although Eskom has a relatively large population of employees (approximately 30 000 employees), they are housed in five main business units. Of all the employees at Eskom, only 8 000 use arivia.com services directly. However, these employees work in one of five business units and are represented by IT managers in these units. In arriving at the appropriate number of people to participate in this study it is still considered appropriate to assess the sampling process for the sake of completeness. Malhotra (1999:329-333) suggests a five-step process for the specification of the sampling process and sampling size. This process is discussed below.

- *Step 1.* Define the population. The target population is the collection of elements or objects that possess the information sought by the researcher and about which inferences are to be made (Malhotra 1999:330). The target population for the purposes of this study is the employees of Eskom. The

study will focus in particular on those business units in Eskom which procure services directly from arivia.kom. These business units represent approximately 8 000 users of IT services provided by arivia.kom.

- *Step 2.* Determine the sampling frame. Direct liaison with arivia.kom is done via the management and team leaders of the business units which have a direct impact on whether further services should be procured from arivia.kom or from its competitors. The five business units that comprise the Eskom business formed part of this study (from which 90 respondents were identified). These 90 respondents are the key decision makers constituting managerial and technical staff with sufficient authority and responsibility to influence decisions made regarding work to be done with arivia.kom on behalf of their various BUs in Eskom. The study will therefore comprise a census as opposed to being a sample. The five business units of Eskom are represented in table 4.2.

Table 4.2: Representation of elements in the target population

Business group in Eskom	No of interviewees
Eskom Enterprises	15
Generation	20
Transmission	15
Distribution	20
Eskom Corporate Services	20
Total	90

- *Step 3.* Select a sampling technique. Malhotra (1999:331) refers to three distinct sampling techniques that can be used in the sampling process, namely the Bayesian approach, sampling with replacement and sampling

without replacement. The Bayesian approach entails selecting elements sequentially, and incorporates prior information about population parameters as well as the costs and probabilities associated with making wrong decisions. In sampling with replacement, an element is selected from the sampling frame and appropriate data obtained. Thereafter, the element is placed back in the sampling frame, making it possible for the sample to be selected more than once. Using the technique of sampling without replacement, an element is selected from the sampling frame and appropriate data collected. It is then removed from the sampling frame and cannot be included in the sample more than once. For the purposes of this study, because the elements will be interviewed once, sampling without replacement will be used. However, as stated earlier (see step 2) this study will comprise a census as opposed to the use of sampling.

- *Step 4.* Determine the sample size. Sample size refers to the number of elements to be included in the study. Determining the sample size is complex and involves several qualitative and quantitative factors (Malhotra 1999:332). Important qualitative factors in determining the sample size include the importance of the decision, the nature of the research, the number of variables, the nature of the analysis, sample sizes used in similar studies, incident rates, completion rates and resource constraints.
- *Step 5.* Execute the sampling process. Execution of the sampling process requires a detailed specification of how the sampling design decisions with respect to the population, sampling frame, sampling unit, sampling technique and sample size are to be implemented. In the case of Eskom, all business unit managers and unit team leaders for each unit (as specified in table 4.1) would comprise the population for this study. As a result, there was no sampling process to execute as all 90 key decision makers were identified as participants in the study.

4.3.7 Develop a plan of analysis

After the sampling process has been completed, data collection and analysis are required. Data collection takes place through fieldwork. Malhotra (1999:405) observes that data collection, for marketing research purposes, is rarely conducted by the person who designs the research. However, for the purposes of this study, and given the cost and time constraints, this is the case.

Before raw data contained in the questionnaires can be subjected to statistical analysis, they must be converted into a form suitable for analysis (Malhotra 1999:419; Kinnear & Taylor 1996:566). The quality of the results depends on the care exercised in the data preparation phase. Malhotra (1999:420) outlines an eight-step approach to data preparation prior to the process of analysis. The approach is briefly outlined below.

- *Step 1.* Prepare the preliminary plan of data analysis. This is an initial guide of how the research will be conducted, as determined during the research design phase. This method may differ significantly from the final data analysis strategy. This step incorporates the data preparation process and seeks to reveal any problems likely to occur that will influence the modification of any fieldwork if necessary.
- *Step 2.* Check the questionnaire. This involves checking the questionnaires for completeness and interviewing quality. This can be done while fieldwork is in progress. However, a pretesting phase will be done prior to the commencement of fieldwork in order to detect any errors or problems with the questionnaire, to test for readability and to eliminate ambiguity where possible.
- *Step 3.* Edit. The questionnaire is edited in order to increase its accuracy and precision. Questionnaires are screened to identify illegible, incomplete, inconsistent or ambiguous responses. Poor recording may occur for both unstructured and structured questions, requiring questionnaire editing to reduce the likelihood of further occurrence as fieldwork progresses. In

cases where unsatisfactory responses do occur, they may have to be treated by returning the questionnaire to the field to clarify responses, or assigning missing values to unsatisfactory responses, or discarding the relevant respondents altogether.

- *Step 4. Code.* Coding refers to assigning a code, usually a number, to each possible response to each question, along with the data record and column position the code will occupy. Malhotra (1999:425) recommends the formulation of a codebook containing instructions and the necessary information about the variables in the data set.
- *Step 5. Transcribe.* Transcribing involves transferring the coded data from the questionnaires into computing systems.
- *Step 6. Cleaning the data.* The data produced from the computer systems are then checked thoroughly for consistency and missing responses. Consistency checks identify data that are out of range, logically inconsistent or have extreme values. This is done to identify data with values that are not in the coding scheme because they are inadmissible. Missing responses refer to values of a variable that are unknown because the respondents gave ambiguous answers to the question. The researcher decided to enlist the assistance of the Bureau of Market Research (BMR), a division of Unisa, for the purposes of coding, transcribing, data cleaning and statistical contextualisation.
- *Step 7. Adjust data statistically.* This is not always necessary, but can enhance the quality of data analysis. This can be done by weighting, where each respondent in the database is assigned a weight to reflect its importance relative to other cases or respondents. Variable re-specification can also be used to create new variables or modify existing ones to render them more consistent with the objectives of the study. Scale transformation is another option available to the researcher, which entails a manipulation of

scale values to ensure comparability with other scales or otherwise make data suitable for analysis.

- *Step 8.* Select a data analysis strategy. The selection of a data analysis strategy should be based on the earlier steps of the marketing research process (problem definition, development of an approach and research design). Consideration should be given to the validity and reliability of the data because this will have direct implications for the credibility of the study. Furthermore, consideration should also be given to the ability to replicate the study at a later stage using the same techniques and steps. Thereafter, the known characteristics of the data must be considered. For example, the scales used may exert an influence on the choice of statistical techniques employed during analysis. The properties of statistical techniques can also influence the outcome of analysis. Hence understanding the value and strengths of certain techniques can assist in the choices made for the purposes of data analysis. The final step prior to the choice of a data analysis strategy is consideration of the philosophy and background of the researcher. The background of the researcher and his or her philosophy will determine the choice of techniques appropriate for analysing the data for a given project.

4.4 SUMMARY

In this chapter, the research methodology used to investigate the customer and competitor environments of arivia.kom was detailed. The marketing research investigation was dealt with according to the steps of the marketing research process, namely defining the problem and research objectives, developing the research plan for collecting the information, implementing the research plan, collecting and analysing the data and interpreting and reporting the findings. Defining the problem and the research objectives was detailed in chapter 1 of the study. This chapter focused on the next two steps, namely research design formulation and the approach to data collection. Research design formulation

comprises designing exploratory and/or conclusive phases of the research, determining the sources of data, specifying scaling procedures, constructing and pretesting questionnaires, specifying the sampling process and size and developing a plan of analysis. The data collection process involved the use of questionnaires in order to obtain the relevant information required for the purposes of this study.

When the fieldwork has been completed, the research proceeds to an analysis of the research results, which constitutes the next step of the marketing research process to be dealt with in chapter 5.

Chapter 5: Customer and competitor analysis of arivia.kom - survey results

5.1 INTRODUCTION

Upon planning and designing of an appropriate research method (see ch 4), a research instrument (questionnaire) was devised for data collection at Eskom. The questionnaire was then used to gather data which were subsequently analysed. Each of the questions contained in the questionnaire (see annexure B) is analysed and discussed in this chapter. The results of the survey are based on 75 completed questionnaires received from a census survey of 90 respondents employed in the main business divisions of Eskom, which is the universe from which the sample is drawn. The sample is large enough to be representative of the universe, and there is no reason why the conclusions drawn and recommendations made in the study should not also be applicable to arivia.kom's other key customers, including Transnet and Denel.

The first section of the questionnaire relates to the demographic details of the respondents from each business unit (BU). The subsequent sections identify service providers, including arivia.kom, with which Eskom has dealt since the inception of arivia.kom. The respondents are asked to rate the top three service providers they preferred to engage with in order of preference, and were also questioned about the current enabling agreement (EA) between Eskom and arivia.kom and their preference of service provider, if given freedom of choice. For the purposes of comparison, arivia.kom was also rated on the basis of specific service delivery criteria, and measured against a corresponding rating for a preferred "other" service provider that was used, or is currently employed by Eskom.

Whilst all of the results are also available at BU level, given the consistency in results between the BUs and the similarities in services provided across BU, it was only considered necessary to discuss them where further emphasis was

required. In addition, the results at BU level, when viewed in isolation are not considered to be as useful as when viewed at organisation level.

5.2 SURVEY RESULTS: DEMOGRAPHIC DETAILS

Table 5.1 lists the respondents from Eskom who participated in the study according to business unit (BU). Initially, 90 respondents were identified for the purposes of the study. Owing to time constraints, 15 respondents were unavailable to participate in the study, which meant that 75 respondents were involved in the study with a response rate of 83.3%.

Table 5.1: Respondents according to business unit

Eskom business unit (BU)	Number of respondents initially identified	Actual number of respondents (% response rate per BU)	Actual responses as a % of total	Importance of each BU to arivia.kom (income in millions)
Eskom Corporate	20	16 (80%)	21.3%	R125
Generation	20	19 (95%)	25.3%	R57
Transmission	15	12 (80%)	16.0%	R21
Distribution	20	13 (65%)	17.3%	R380
Eskom Enterprises	15	15 (100%)	20.0%	R18
Total	90	75 (83%)	100%	R601

Of all BUs, Eskom Enterprises and Generation provided the highest actual response rates from interviewees. Eskom Corporate and Transmission responded with 80% of identified interviewees participating in the study. The relative importance of each BU is also evident from their contribution to arivia.kom's income (approximated) for 2002. Most notably, whilst Distribution contributed the largest portion of income to arivia.kom (R380 million) it attained

the lowest response rate of all the Eskom divisions (65%), and was a cause for further deliberation. Nevertheless, the rating received from Distribution for all criteria is consistent with those achieved by the other Eskom BUs, and thereby validates the conclusions drawn. However, the validity of the information is a vital issue for the purposes of this study, given Distribution's importance to arivia.kom. Hence criterion validity, content validity and construct validity will be discussed later in this chapter in the context of sample size and its relevance to Distribution and to the study as a whole.

5.3 SURVEY RESULTS: SERVICE PROVIDERS

The aim of section 2 of the questionnaire was to identify the frequency of use of particular service providers and Eskom's preference for such service providers in relation to arivia.kom. A list of service providers contracted by Eskom BUs in the previous three years (2001 to 2003) was compiled, and respondents were required to identify those used. Respondents were also asked whether the EA currently in place between arivia.kom and Eskom compelled them to make use of arivia.kom's services. They were asked whether, if given freedom of choice, they would prefer to use another service provider instead of arivia.kom. In instances where the respondents indicated that they preferred to use another service provider, the primary reasons for the decision were required, as well as their personal preference of service provider.

Table 5.2 refers to the responses received from Eskom regarding their rate of usage of service providers, including arivia.kom, and their rating of service providers according to their perception of the quality of service received. This table gives an indication of arivia.kom's closest competitors and Eskom's perception of these organisations in relation to arivia.kom. Arivia.kom was identified as being used by all BUs at Eskom (100%). However, Accenture was identified as being its closest competitor with a response rate of 60% from the respondents that had made use of their services. Bentley West (45.3%) and

Deloitte Consulting (44%) were also identified as being preferred service providers.

Table 5.2: Service providers used by Eskom

Service provider used	Actual number out of 75 respondents	% of Respondents using service provider	Top 3 service providers preferred by Eskom BUs ito service quality
Accenture	45	60.0%	1
Arivia.kom	75	100.0%	
AST	27	36.0%	
Bentley West	34	45.3%	2
Comparex	11	14.7%	
Data Centrix	3	4.0%	
Deloitte Consulting	33	44.0%	3
IBM	14	18.7%	
IST	15	20.0%	
PriceWaterhouseCoopers (PwC)	27	36.0%	
Other (Enerweb, Meta, Gartner, Harvey-Jones Systems, Schlumberger-Sema, RealRM, KPMG, In-house resources, independent contractors)	29	38.7%	

Whilst arivia.kom is used by all BUs in Eskom, it is obviously not held in high regard as a preferred service provider. Accenture, Bentley West and Deloitte Consulting were rated as the top three service providers in terms of the responses received for question 2.2 of the questionnaire dealing with perception

of service quality. This is further supported by responses obtained from section 3 of the questionnaire relating to the EA, and whether it compelled customers to comply with the Eskom directive specifying exclusive use of arivia.kom's services. The responses for section 3 are discussed in section 5.4 below.

5.4 SURVEY RESULTS: ENABLING AGREEMENT (EA)

Section 3 of the questionnaire deals with the EA. Eskom respondents were asked whether they felt compelled by the EA to make use of the services of arivia.kom. In addition, they were asked whether they would still use arivia.kom's services if the EA were not in place. The aim was to establish whether key decision makers and/or persons influencing IT purchasing decisions would choose other service providers rather than arivia.kom if allowed freedom of choice. The main reasons for not using arivia.kom are discussed together with the service provider preferred to arivia.kom. Table 5.3 below outlines the responses to the two key questions on the EA.

Table 5.3: Opinions regarding the EA and choice of service provider

Questions asked in section 3 of questionnaire	% of respondents	Actual number of respondents out of 75
(Question 3.2) Respondents who considered their BUs compelled to use arivia.kom's services exclusively because of the EA	85%	60
(Question 3.3) Respondents who would prefer to use another service provider to arivia.kom if allowed freedom of choice	92%	69

From the responses in table 5.3, it is apparent that 85% (60 out of 75 respondents) felt compelled to make use of arivia.kom's services. Moreover, 92% (69 out of 75 respondents) preferred using another service provider if allowed freedom of choice. In instances where the respondents indicated that

their preference was not to use arivia.kom's services, the reasons for their decision were required. The 69 respondents gave the following reasons (in order of priority):

- poor quality of service (30 respondents - 43%)
- slow delivery times to requests (11 respondents - 16%)
- cost/pricing considered to be too high for value received (9 respondents - 13%)
- lack of customer focus (9 respondents - 13%)
- lack of skills and expertise in the organisation (10 respondents - 14%)

The final question in section 3 (question 3.4) sought to establish which service providers customers preferred, given the freedom of choice. This question was asked in conjunction with the responses received in table 5.2 above, where the service providers were listed in order of priority (whilst most respondents listed their choices in relation to table 5.2, certain respondents also mentioned additional service providers). The preferred "other" service providers by Eskom BUs are indicated in figure 5.1.

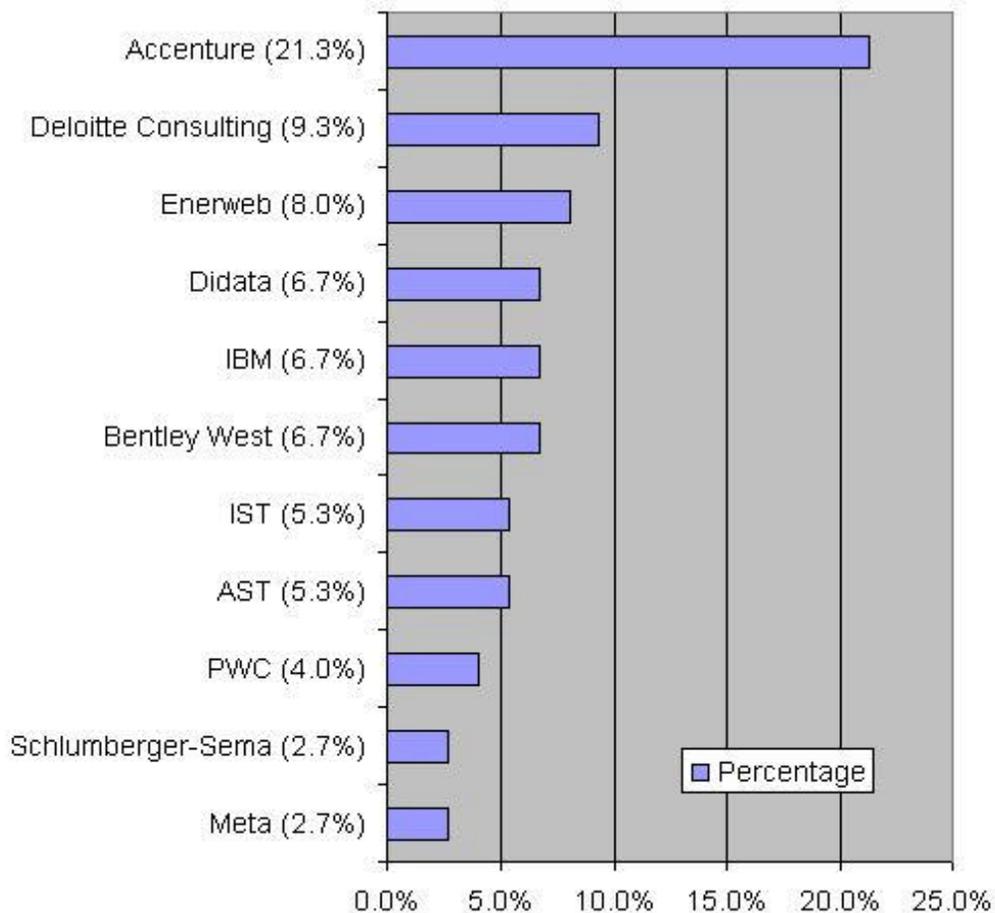
Figure 5.1 shows that Accenture commands a preference amongst Eskom BUs (21.3%), which is significantly larger than that of the other service providers listed. These figures therefore demonstrate the following:

- Accenture is arivia.kom's largest competitor in Eskom.
- Despite the existence of the EA Eskom BUs are engaging with other service providers either in contravention of the EA, or are seeking services which arivia.kom currently does not offer.

The most notable implication for arivia.kom regarding this section is that Accenture is well known in Eskom, and is widely regarded as a service provider of choice to various areas of the business. In addition, Accenture has a

preference rate that is 12% greater than that of its nearest rival (Deloitte Consulting).

Figure 5.1: Service providers preferred to arivia.kom



In table 5.2, Bentley West and Deloitte are rated second and third respectively in terms of service quality. However, figure 5.1 indicates that Deloitte Consulting and Enerweb are the preferred service providers to Bentley West. Hence Accenture seems to have the appropriate mix of criteria that renders it a formidable competitor to arivia.kom for market share in Eskom. In general, the competitive environment in Eskom should thus be a concern for arivia.kom, with threats emanating from Accenture, Deloitte Consulting, Enerweb and Bentley West. Section 3 thus far illustrates a preference amongst Eskom BUs to conduct business with other service providers because of dissatisfaction with arivia.kom's

service offerings. Section 4 of the questionnaire seeks to establish whether there is consistency between customer preference to do business with other service providers and the rating of arivia.kom's service delivery ability. This is discussed in the next section.

5.5 SURVEY RESULTS: SERVICE DELIVERY CRITERIA

Section 4 of the questionnaire deals with service delivery criteria. Central to this study are four key aspects of customer analysis, namely customer segmentation, customer motivations to purchase, unmet customer needs and customer dissatisfaction. The theoretical aspects of customer analysis were covered in detail in chapter 3 (sec 3.4) of this study.

This section of the questionnaire deals with each of the customer analysis components separately. The aim of the section is to establish Eskom's perception of arivia.kom's performance for each of the criteria specified in relation to a corresponding rating given for preferred "other" service providers. A 10-point scale is used in this section with 1 representing "totally disagree" and 10 representing "totally agree" for the criteria listed, whilst 5 represents "average/acceptable" performance. In instances where a rating could not be given for "other" service providers (eg where no other service providers were used) a rating of 11, representing "don't know", was allowed. A rating of 11 therefore did not apply to arivia.kom, given that it serviced all Eskom business units without exception. Each aspect of the customer analysis will be discussed below.

5.5.1 Customer segmentation

Customer segmentation is dealt with in section 4.1.1 of the questionnaire (see annexure B). The ratings for each of the criteria in this section are summarised in table 5.4 below. The intention of this section was to establish whether arivia.kom's offerings were aligned with customer requirements and if a constant effort was made to adapt services to meet changing customer needs.

This section also investigates customer perception of whether arivia.com delivers value for money, the effectiveness of service definitions in its formal service level contracts and its ability to effectively control service quality promised in such contracts. Lastly, this section also establishes arivia.com's rating against industry standards, and whether the brand is associated with quality products and services.

Customers were asked to rate a preferred "other" service provider on the same criteria. The ratings provided for arivia.com and for "other" service provider are discussed below, together with their implications.

Table 5.4: Customer segmentation and fulfilling customers needs

Criteria	Arivia.com rating			"Other" SP's rating			Market average
	Minimum	Maximum	Arivia.com mean	Minimum	Maximum	Other SP mean	
Current offerings in line with unique needs	1	8	4.53	4	10	7.76	6.15
Tailors service to meet changing needs	1	9	3.99	5	10	7.72	5.86
Delivers value for money	1	9	3.23	3	10	7.28	5.26
IT services properly defined in SLA	1	10	5.49	3	10	7.30	6.40
SLA effectively controls quality of service	1	8	3.75	3	10	7.55	5.65
Service quality meets industry standards	1	7	3.65	5	10	7.91	5.78
Association of brand with quality products/services	1	7	3.04	5	10	8.04	5.54
Average for customer segmentation			3.95			7.65	5.80

Source: Question 4.1.1 of questionnaire

Customer segmentation comprised seven criteria on which arivia.com and "other" service providers were rated. The highest mean rating attained by arivia.com (5.49) related to proper definition of services in the service level

agreements (SLAs), indicating that arivia.kom's ability to define its services in contractual form was marginally acceptable or above average. Of all the ratings in sections 4 and 5, this would be the highest mean score attained by arivia.kom. However, for this criterion the preferred "other" service provider attained a higher rating (7.30). Whilst arivia.kom defines its services reasonably well, its competitors are seemingly able to do so considerably better.

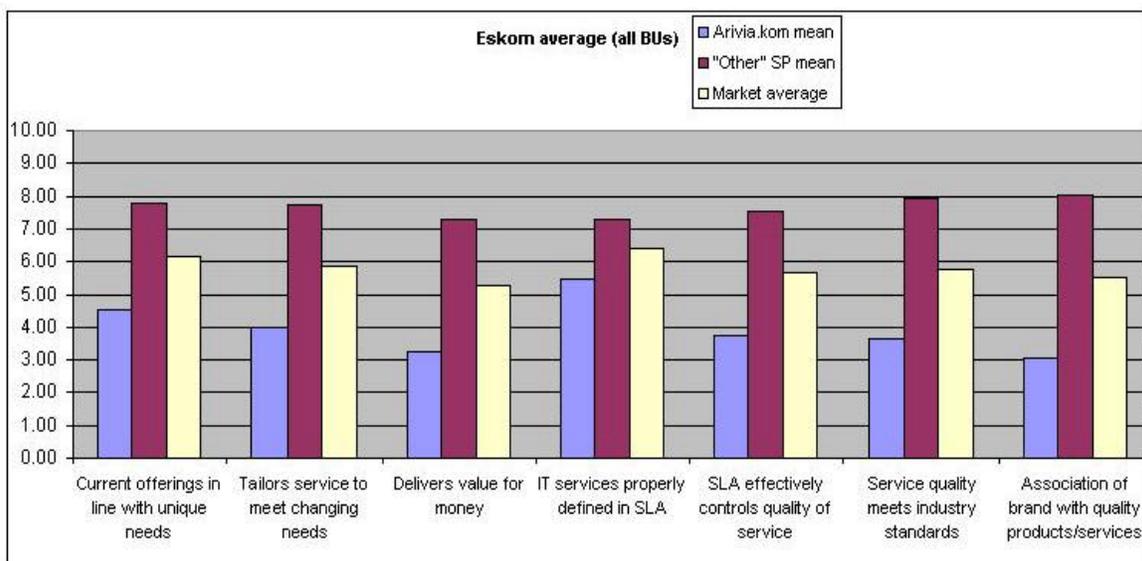
The second highest mean rating (4.53) related to customer perception of whether arivia.kom's services were in line with the unique needs of their business. Arivia.kom's ability to tailor its service offerings to meet the changing needs of the customer business environment was given a mean rating of 3.99, whilst the ability of the organisation to effectively control the quality of its service delivery was rated as 3.75. These were the third and fourth highest scores respectively. Customer perception of whether arivia.kom matches the industry standard was rated as 3.65, attaining fifth position. The lowest mean attained was for delivering value for money (3.23) and customer association of the "arivia.kom" brand with quality products and services (3.04). With the exception of defining the services in the SLA, all other criteria for arivia.kom attained a mean rating less than 5, indicating below average and/or unacceptable performance for those criteria from the customer's point of view. The highest score received by arivia.kom from an individual customer was 10, and related to the definition of IT services in the SLA. The lowest score received from any given customer was 1, and this was achieved in each of the criteria. These scores imply that arivia.kom's performance for most criteria in customer segmentation are unacceptable from the customer's point of view.

The highest mean rating awarded to the "other" service provider (8.04) related to the customer's association of the particular organisation with quality products and services. This rating coincides with the lowest mean rating attained by arivia.kom for the same criterion. The second highest mean rating (7.91) was attained for perception of service quality meeting industry standards. In addition, all other criteria attained an average mean rating in excess of 7,

indicating an above average level of performance as perceived by customers. The highest individual score attained (for each of the criteria) from a given customer was 10, whilst the lowest score received from an individual customer was 3 (relating to the perception of delivering value for money for services rendered).

None of the mean ratings for arivia.kom exceeded any of those for the preferred "other" service provider in the customer segmentation section. In addition, arivia.kom performed below the market average, which was derived from an average of the combined scores of arivia.kom and the "other" service provider. Overall, arivia.kom attained a mean rating of 3.95 for customer segmentation, while the "other" service provider attained 7.65. The overall arivia.kom mean rating was also below the overall market average of 5.80. Arivia.kom's lowest score was attained for the customer perception of its brand, whilst the "other" service provider received the highest mean rating for the same criterion. Viewed broadly, such performance indicates that arivia.kom does not perform as well as its competitors with regard to market segmentation and fulfilling customers needs, and that its brand is not associated as readily with quality products and services as the brands of its competitors.

Figure 5.2: Customer segmentation and fulfilling customers needs



Arivia.kom's overall performance and that of the preferred "other" service provider are graphically illustrated in figure 5.2, which clearly indicates arivia.kom's performance against the market average and the mean rating for a given competitor. (The market average was calculated by adding the mean rating for arivia.kom and that of the preferred "other" service provider and dividing by 2.)

The poor customer perception ratings seem to indicate problems and areas of concern with regard to the following:

- offering services and products that are more closely aligned to the unique needs of Eskom Business
- being attuned to the changing Eskom business environment and tailoring services and products to meet evolving business needs,
- managing the perception of value delivered to Eskom (in essence delivering value for money)
- IT services being better defined in the SLA
- ensuring more effective control of the quality of service delivered to customers, using the SLA as well as other tools
- managing customer perception of whether quality standards currently set by arivia.kom meet industry standards
- management of the quality of services and products rendered such that the perception of the quality brand is perceived in a more positive light

The mean rating for arivia.kom in each of the criteria has consistently fallen behind that for a preferred "other" competitor rated by Eskom. This seems to indicate poor ability on the part of arivia.kom to effectively conduct customer segmentation in a manner that meets Eskom business needs, and is supported by literature and previous research referred to in section 3.4.1.1 of chapter 3 of this study. However, conclusions drawn and recommendations made regarding customer segmentation and fulfilling customer needs will be discussed in

chapter 6. The next section analyses the results obtained for criteria relating to customer motivations purchase products and services.

5.5.2 Customer motivations to purchase

Customer motivations to purchase are dealt with in section 4.1.2 of the questionnaire (see annexure B), and comprises eight criteria on which arivia.kom and "other" service providers were rated.

The intention of this section was to establish whether arivia.kom possesses adequate understanding of the Eskom business model and the challenges that face the organisation and the environment in which it operates. This section also investigates whether arivia.kom is perceived as being appropriately skilled to support the Eskom business in its day-to-day IT activities and whether it is able to guide the transformation of Eskom to meet increasingly complex strategic challenges. The final two questions in the section relate to whether Eskom decision makers would prefer to make regular purchases from arivia.kom, and whether it is considered a supplier of choice for the future. The ratings for each of the criteria in this section are summarised in table 5.5.

Arivia.kom scored the highest mean rating for knowledge of the Eskom business model (4.28). This was not surprising, given that arivia.kom staff and management comprise former Eskom employees who were well acquainted with the Eskom business model. However, the score attained was below 5, indicating that Eskom was not satisfied with arivia.kom's level of proficiency in knowledge of its business model. The implication of this rating in particular is that arivia.kom may not have kept touch with the changing needs of Eskom, resulting in a lack of knowledge of Eskom's current business model. Moreover, arivia.kom's competitors seem to have invested time and effort to become better acquainted with Eskom, and thus demonstrate a level of knowledge of the Eskom business model that meets with Eskom's approval, resulting in a higher rating than the corresponding rating for arivia.kom.

Table 5.5: Customer motivations to purchase from service providers

Criteria	arivia.kom rating			Other SP's rating			Market average
	Minimum	Maximum	Arivia.kom mean	Minimum	Maximum	Other SP mean	
Knowledge of business model	1	9	4.28	3	10	7.39	5.84
Awareness of future challenges facing the business	1	9	3.80	4	10	7.65	5.73
Strategic understanding of challenges facing the industry	1	8	3.60	3	10	7.76	5.68
Understands how industry challenges will affect the business	1	9	3.59	2	10	7.35	5.47
SP possesses expertise required	1	10	3.66	3	10	7.73	5.70
SP possesses transformational skills to help the business	1	10	3.67	4	10	7.66	5.67
Willingness to purchase regularly from SP	1	10	3.29	3	10	7.59	5.44
SP preferred as supplier of choice in future	1	8	3.03	4	10	7.90	5.47
Average for customer motivations to purchase			3.62			7.63	5.62

Source: Question 4.1.2 of questionnaire

Arivia.kom's awareness of the future challenges facing Eskom was the second highest mean rating attained (3.80), and once again indicated a lack of understanding of the complexities faced by the utility, and how these complexities affect it operationally and strategically. Relating to the challenges facing Eskom are the challenges the electricity industry is encountering and more generally, the energy industry of which it is a subset. Forces and developments that occur in the energy industry therefore impact directly on Eskom's business and its revenues. With regard to demonstrating an understanding of the energy industry and its implications for Eskom, mean ratings attained by arivia.kom were 3.60 and 3.59 respectively. Arivia.kom's

lack of understanding of the complexities of these future challenges therefore renders it unable to forecast strategic scenarios that will help Eskom to prepare itself to meet these challenges from an IT perspective.

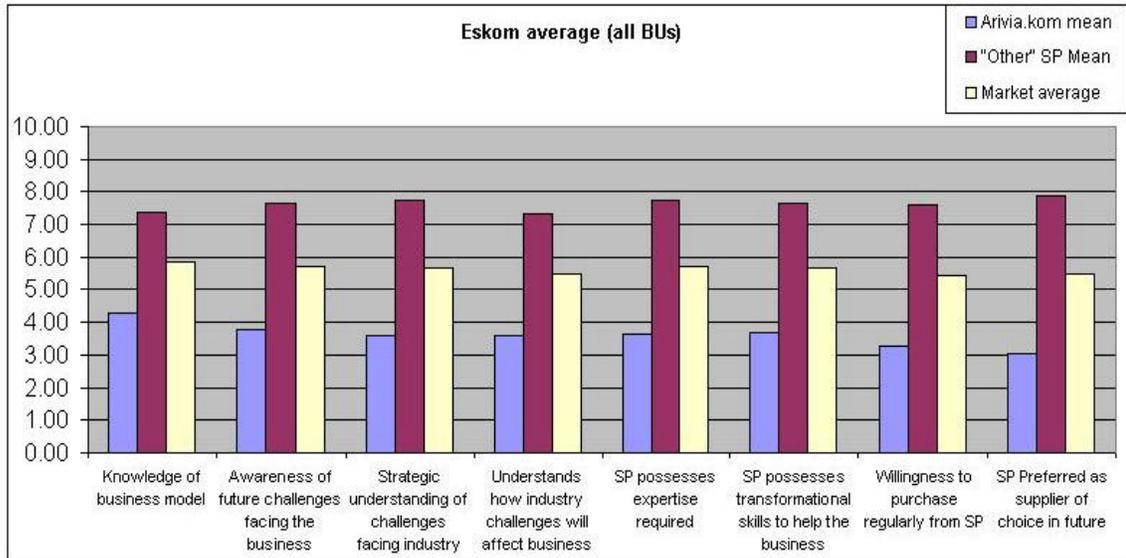
Regarding the skills possessed by arivia.kom to service Eskom's business needs effectively, and to assist the utility with organisational transformation from an IT perspective, arivia.kom's mean ratings were 3.66 and 3.67 respectively. The second lowest mean ratings attained by arivia.kom involved Eskom's preference to make regular purchases from the organisation (3.29), whilst the lowest mean rating related to whether it was considered a service provider of choice to Eskom (3.03). The highest rating awarded by individual customers to arivia.kom was 10 in three areas (possessing business skills, transformational skills and customer willingness to make regular purchases from arivia.kom). However, the lowest scores from individuals were evident in all areas, as illustrated in table 5.5. The implications of these ratings for arivia.kom is that it is perceived to be unable to assist Eskom with effective organisational transformation, or assist the utility to transform to meet future challenges that are likely to affect it. Moreover, these ratings depict arivia.kom as an organisation from which Eskom is unwilling to make regular voluntary purchases.

For the preferred "other" service provider, the highest mean rating attained related to being considered as a service provider of choice (7.90). Mean ratings for understanding the challenges facing the energy and electricity industry (7.76), having the necessary skills to service Eskom's business needs (7.73) and possessing skills to assist with organisational IT transformation (7.66) were also higher than those of arivia.kom. The lowest score attained had to do with understanding how industry challenges and developments will affect Eskom (7.35).

Figure 5.3 illustrates the comparative performance of arivia.kom and the preferred "other" service provider. The figure shows that arivia.kom is rated

below the market average and the mean ratings for its competitor in all eight categories.

Figure 5.3: Customer motivations to purchase



Overall, arivia.kom scored 3.62 whilst its competitor scored 7.63 in this section. The overall market average was 5.62. The implications of these ratings are that the preferred "other" service provider is perceived to understand Eskom's business and its environmental challenges to a greater extent, and is considered to be better equipped to assist the utility with organisational transformation from an IT perspective. Arivia.kom's overall rating is not only lower than that of its competitor, but is also lower than the market average, indicating a lack of ability to create the appropriate perception in Eskom with regard to understanding Eskom's business motivations, and how that translates into strategic IT needs and requirements. Hence Eskom considers arivia.kom to be lacking an in-depth understanding of its needs and environmental challenges, whilst arivia.kom's competitors are making an effort to better align themselves with Eskom, in a manner that renders them preferred suppliers of choice to the organisation.

The next section deals with unmet customer needs and focuses on whether a proactive approach is adopted in doing business with Eskom.

5.5.3 Unmet customer needs

Unmet customer needs are dealt with in section 4.1.3 of the questionnaire (see annexure B), and comprise four criteria on which arivia.kom and "other" service providers were rated.

The aim of this section was to investigate the customer perception of arivia.kom's ability to provide creative business solutions and proactively impart research and development information that could assist with strategic planning. This section also investigated whether arivia.kom was perceived to be proficient in thought leadership such that it could be considered a trusted advisor of choice to Eskom decision during strategic planning initiatives. The ratings for this section are summarised in table 5.6.

Table 5.6: Unmet customer needs

Criteria	arivia.kom rating			Other SP's rating			Market average
	Minimum	Maximum	Arivia.kom mean	Minimum	Maximum	Other SP mean	
Regularly provides creative solutions not yet considered	1	8	2.48	2	10	7.56	5.02
Proactive provision of R&D information for the business	1	7	2.19	4	10	7.49	4.84
Demonstration of thought leadership in the IT field	1	7	2.93	4	10	7.72	5.33
Thought leadership advisor of choice for the business	1	7	2.75	3	10	7.49	5.12
Average for unmet customer needs			2.59			7.57	5.08

Source: Question 4.1.3 of questionnaire

The highest rating received in this section was for demonstrating thought leadership in the IT field (2.93). The second highest rating (2.75) was attained for being considered thought leadership advisor for the business. The lowest mean ratings were for the provision of creative solutions not yet considered (2.48) and for proactively providing research information that Eskom would find useful (2.19). The highest score received from an individual customer was 8, whilst a score of 1 was attained in all criteria. Overall, arivia.kom scored a mean rating of 2.59 for unmet customer needs. All of the mean ratings were below average, and demonstrated that arivia.kom as an organisation is not readily associated with proactive solution creation, research and development or thought leadership.

The preferred "other" service provider scored highest for proficiency of thought leadership (7.72), with 7.56 for the provision of creative solutions that were not yet considered. The proactive provision of research and development information, and Eskom's preference for the organisation to be the preferred thought leadership advisor of choice scored equal mean ratings of 7.49. Overall, the preferred "other" service provider scored 7.57 for unmet customer needs.

Figure 5.4: Unmet customer needs

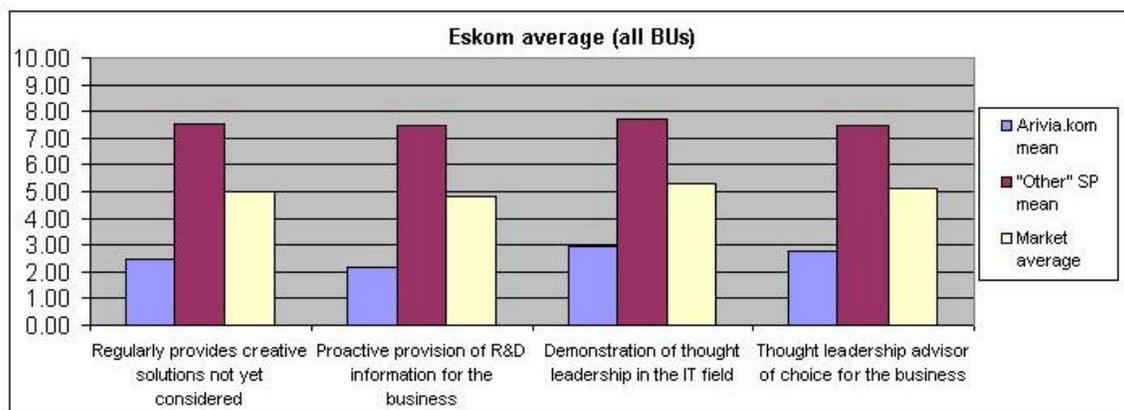


Figure 5.4 provides a graphical illustration of the mean ratings of arivia.kom against the market average and that of the "other" service provider. This

demonstrates that arivia.kom is not perceived to be a creative provider of unique solutions to Eskom; nor is it considered proactive in providing research and development information that will enable Eskom to be at the forefront of technological developments in the IT field. In contrast, the preferred "other" service provider exceeded the market average for all criteria, and is clearly stronger than arivia.kom in each area identified in this section. Arivia.kom is not considered an effective thought leader in the IT field; nor is it a preferred thought leadership advisor of choice to Eskom. In contrast, Eskom's rating for the preferred "other" service provider indicates that arivia.kom's competitors provide thought leadership support to Eskom in a manner that earns them preference as thought leadership advisors. In addition, arivia.kom may not be attuned to the emphasis that Eskom places on proactive business solutions, research and development and thought leadership, rendering a perception within the organisation that it is less proficient than external service providers. These ratings indicate dissatisfaction with arivia.kom's service approach and abilities. The next section deals with customer dissatisfaction.

5.5.4 Customer dissatisfaction

Customer dissatisfaction comprises section 4.1.4 of the questionnaire (see annexure B). This section comprises six criteria on which arivia.kom and the preferred "other" service provider were evaluated. The results of this section are summarised in table 5.7.

The objective of this section was to establish whether arivia.kom was adhering to the provisions of the SLA in servicing Eskom's daily IT needs, and whether complaints and serious problems were being attended to efficiently and professionally. The survey also sought to uncover whether arivia.kom service staff were appropriately skilled to provide the service contracted for and whether proposals for new work required were properly documented and professionally presented. Lastly, this section sought to establish whether Eskom was generally satisfied with the level of service provided. The results of this section

and how arivia.kom compared with the preferred "other" service provider are discussed below.

Table 5.7: Customer dissatisfaction

Criteria	Arivia.kom rating			Other SP's rating			Market average
	Minimum	Maximum	Arivia.kom mean	Minimum	Maximum	Other SP mean	
SP resolves most problems within SLA times	1	8	3.23	2	10	7.70	5.47
SP follows up efficiently on complaints	1	7	2.77	4	10	7.71	5.24
SP gives regular feedback on serious problems being resolved	1	8	3.07	3	10	7.80	5.44
SP's staff perceived as well skilled to provide service	1	8	3.56	4	10	8.06	5.81
SP delivers high-quality proposals (timeous & error-free)	1	10	3.00	3	10	8.11	5.56
Satisfaction with level of service from service provider	1	7	2.69	2	10	7.94	5.32
Average for customer dissatisfaction			3.05			7.89	5.47

Source: Question 4.1.4 of Questionnaire

Arivia.kom attained the highest mean rating in this section for being perceived to have well-skilled staff to enable provision of the services contracted for (3.56), whilst its competitor was rated at 8.06. The highest score awarded to arivia.kom by a given individual for this criterion was 8. The perception of resolving problems within the times specified in the SLA was rated second highest (3.23), whilst the competitor achieved a corresponding mean rating of 7.70 (the highest individual score given to arivia.kom was 8). On providing regular feedback on serious service problems, arivia.kom scored 3.07, whilst its competitor scored 7.80. In following up on complaints efficiently and delivering high-quality proposals timeously and free of error, arivia.kom scored 2.77 and

3.00 respectively. The lowest score achieved by arivia.kom was 2.69 for Eskom's general impression of service delivered. Overall, arivia.kom's mean rating for customer dissatisfaction was 3.05 compared with its competitor's 7.89. This indicates a general level of customer dissatisfaction by Eskom with arivia.kom's service, whilst the corresponding overall rating for the preferred "other" service provider indicates a great degree of satisfaction with the quality of services received.

Figure 5.5: Customer dissatisfaction

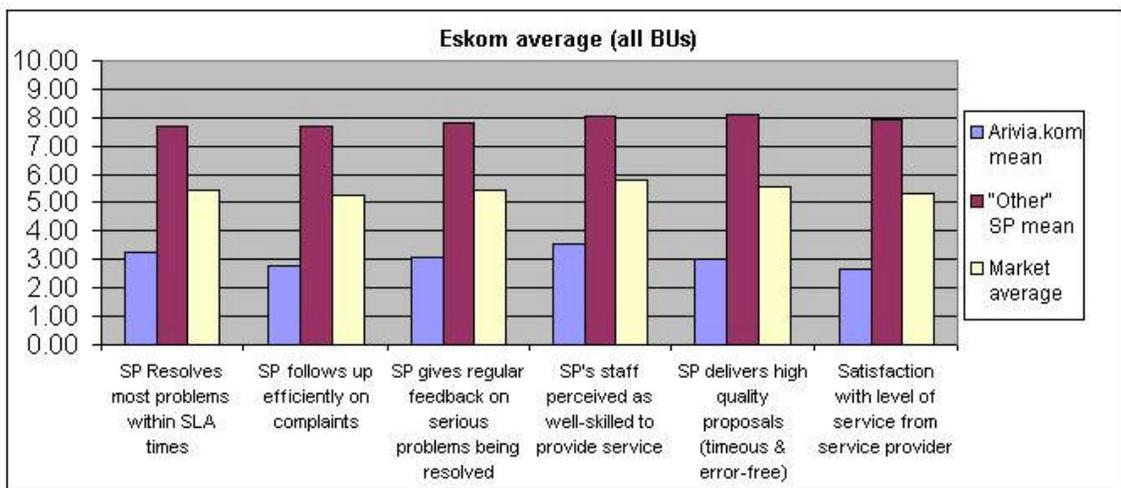


Figure 5.5 graphically illustrates the comparison between the mean performance of arivia.kom and its competitors in this section.

In comparison, arivia.kom performed below an acceptable level of performance for Eskom (mean rating below 5) in all six criteria. It also performed below the market average and below the mean ratings for all criteria on which its competitor was evaluated. Arivia.kom's problems can thus be summarised as follows:

- problematic systems and processes in solving problems within times contracted for in the SLA with Eskom
- inefficient follow-up on complaints lodged by customers

- communication problems in providing regular feedback on serious problems being attended to
- service staff not regarded as being adequately skilled to deliver the services promised
- proposals submitted for new work required by Eskom not up to the standard of those delivered by preferred "other" service providers
- general satisfaction with overall level of service provided by arivia.kom below average and below what is being provided by competitors

The implications of these ratings are that Eskom relates more readily to the performance of the preferred "other" service provider than to arivia.kom. Arivia.kom thus has significant room for performance improvement in pursuing customer satisfaction for its Eskom customers. The conclusions drawn and recommendations made in this regard will be discussed in chapter 6.

Section 5 of the questionnaire deals with arivia.kom's service provision ability, and the data analysis of this section is discussed below.

5.6 SURVEY RESULTS: SERVICE PROVISION CRITERIA

Section 5 of the questionnaire deals with service provision and comprises five criteria on which arivia.kom was evaluated. These are summarised in table 5.8.

The aim of this section was to establish arivia.kom's ability in key areas that were being targeted by its competitors who were also servicing Eskom BUs. The key areas in which arivia.kom operated, which it had in common with other service providers, were as follows:

- IT and information system (IS) consulting capability, involves IT and IS strategy planning and development.
- System Integration capability conventionally entails planning, designing and integrating complex systems into large corporate environments.

- IT systems maintenance and support refers to the commissioning and support of networks and computer hardware and software to enable the organisation to work efficiently in a computer-based environment.
- Application development refers to custom-developed software that is specifically designed for a particular use in the organisation.
- Outsourcing is a common trend for many large organisations nationally and internationally. They outsource their internal IT services departments to external companies in order to reduce cost expenditure. Arivia.kom now competes with other organisations such as Didata, Data Centrix and Comparex for such business, and these organisations, in turn, regularly target Eskom.

The results of this section are provided in table 5.8.

Table 5.8: Service provision criteria

Criteria	arivia.kom rating			Other SP's rating			Market average
	Minimum	Maximum	Arivia.kom mean	Minimum	Maximum	Other SP mean	
IT/IS consulting ability	1	8	3.17	4	10	7.93	5.55
System ntegration ability	1	8	3.67	3	10	7.67	5.67
IT systems maintenance & support	1	8	4.12	4	10	7.62	5.87
Application (software) development	1	8	3.96	3	10	7.67	5.82
Outsourcing	1	7	3.39	4	10	7.79	5.59
Average for service provision criteria			3.66			7.74	5.70

Source: Section 5 of Questionnaire

Arivia.kom was rated highest for IT systems maintenance and support (4.12) and second highest for application development and support (3.96). These were two key functions in which former IT staff were most frequently involved prior to the

formation of arivia.kom. However, whilst the prominence of these two criteria is to be expected in relation to the other three criteria, it was rather surprising that they were below 5, which is regarded as average/acceptable performance. This could be attributed to Eskom's decreasing preference for custom-developed software in favour of more commercially available applications. However, IT maintenance and support are a core business function of arivia.kom, and was therefore expected to achieve a higher mean rating. By contrast, the preferred "other" service provider scored respective mean ratings of 7.62 and 7.67, indicating a higher level of satisfaction amongst Eskom BUs. However, the ratings for arivia.kom for these two criteria are consistent with the overall level of satisfaction of Eskom BUs with the performance of services (see sec 5.5.4).

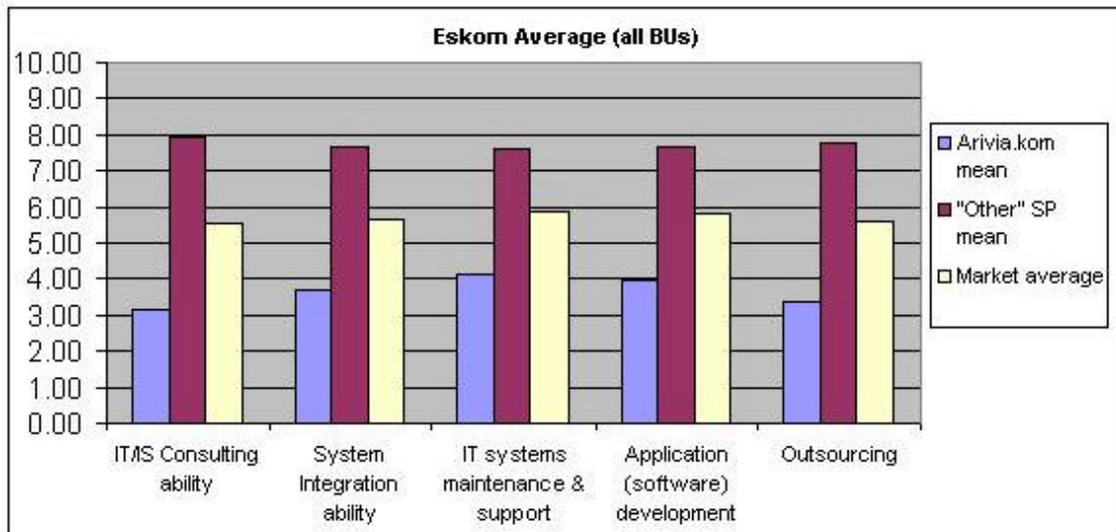
Arivia.kom attained a mean rating of 3.67 for system integration whilst its competitors attained a comparative rating of 7.67. This could be attributed to arivia.kom's relative age in relation to competitors who have had more experience in this particular area of IT business. However, during 2002, arivia.kom did acquire an experienced systems integration business which contributed to its progress in this area of IT business consulting, hence the rating could conceivably have been higher.

With regard to IT and IS consulting ability and outsourcing, arivia.kom obtained scores of 3.17 and 3.39, whilst the preferred "other" service providers received 7.93 (the highest overall score of either arivia.kom or "other" service provider) and 7.79 respectively. These areas are also not traditional areas of strength for arivia.kom, and the mean ratings were therefore expected to be lower than those of its competitors. However, as with all the other ratings in this section, none are equal to or in excess of 5, implying a level of dissatisfaction amongst Eskom BUs with arivia.kom's service delivery ability in these key business areas.

Figure 5.6 provides a graphical illustration and summation of the overall performance of arivia.kom with respect to the market average and the performance of its competitor. Besides scoring below 5 (which represents

average/acceptable performance), arivia.kom also scored below the market average for each of the criteria. Whilst maintenance and support and application development have traditionally been areas of strength for the organisation, its competitors seem to be perceived as superior in those areas.

Figure 5.6: Service delivery criteria



Arivia.kom's deficiencies in this section can thus be summarised as follows:

- Poor ability in IT/IS consulting
- improvement required in system integration ability
- apparent weakening in traditional strength in IT systems maintenance and support
- a weakening in traditional strength in the area of application development, with the prospect of diminishing demand as global and national trends indicate a preference for commercially available solutions which are becoming increasingly cost effective
- poor ability in the area of outsourcing

Overall, arivia.kom's mean rating for service provision was 3.66 whilst its competitor received a rating 7.74. In all areas that were evaluated, arivia.kom

consistently performed worse than its competitors. Arivia.kom's poor performance in areas in which it ought to be strong traditionally indicates a growing dissatisfaction amongst Eskom customers with services rendered. In addition, the poor perception of arivia.kom's abilities seems to indicate a lack of confidence in the abilities of arivia.kom to adequately support business imperatives in the manner required. The extent to which this is the case will be examined in the next section, which summarises the overall impressions of respondents of arivia.kom's service over the past three years.

5.7 SURVEY RESULTS: OVERALL IMPRESSION OF ARIVIA.KOM'S SERVICE

Section 6 comprised the final section of the questionnaire. This section contained a single question asking respondents to comment on the overall impression of arivia.kom's service over the past three years.

Table 5.9: Overall impression of arivia.kom's service

Criteria	%
Total number of respondents who commented (62 of 75 respondents)	82.7%
Total number of respondents who did not comment (13 of 75 respondents)	17.3%
Total number of respondents	100%
Break-down of respondents who commented (62 respondents)	
Poor service quality	41.1%
Customer orientation & poor organisational culture	23.1%
Skills & capacity	14.5%
High costs	4.0%
Total number of respondents who commented	82.7%

Source: Section 6 of questionnaire

Table 5.9 is a summary of the comments made by respondents. Owing to the different wording used for the comments made by respondents, it was necessary to group all the responses into general categories and to combine the scores

obtained into those categories. The comments made in the general categories are extended to the actual comments summarised from customer responses as follows:

5.7.1 Comments on the poor quality of services

- The quality of services deteriorated.
- The response is slow - there is no sense of urgency.
- Network issues are not timeously addressed.
- Staff are not committed to resolving problems.
- There is a lack of continuity.
- Performance is inconsistent.
- Quality of output is poor.
- A proactive approach is lacking.
- There is a lack of coordination between departments.
- The staff lack commitment.
- The staff are inefficient.
- The organisation does not secure return on investment.

5.7.2 Comments on customer orientation and poor organisational culture

- The organisation is not competitive.
- It is unaware of customer business needs.
- It is not customer focused.
- It is not driven by the clients' demands.
- Customers are captive (possibly implying complacency).
- A "private sector" approach to business is lacking.
- There is a lack of leadership (management).

- Management is ineffective.
- There is no coordination between management and operations.
- Communication is poor.

5.7.3 Comments on lack of skills and capacity

- Staff have limited skills/expertise.
- There are skills/attitude problems in the production systems area.
- Strategic skills are inadequate.
- Skilled staff are not empowered to provide quality service.
- There is a lack of effective maintenance and support services.
- Staff numbers are inadequate.
- There is a lack of capacity to handle all contracts awarded.
- There is a high labour turnaround (turnover).

5.7.4 Comments on cost

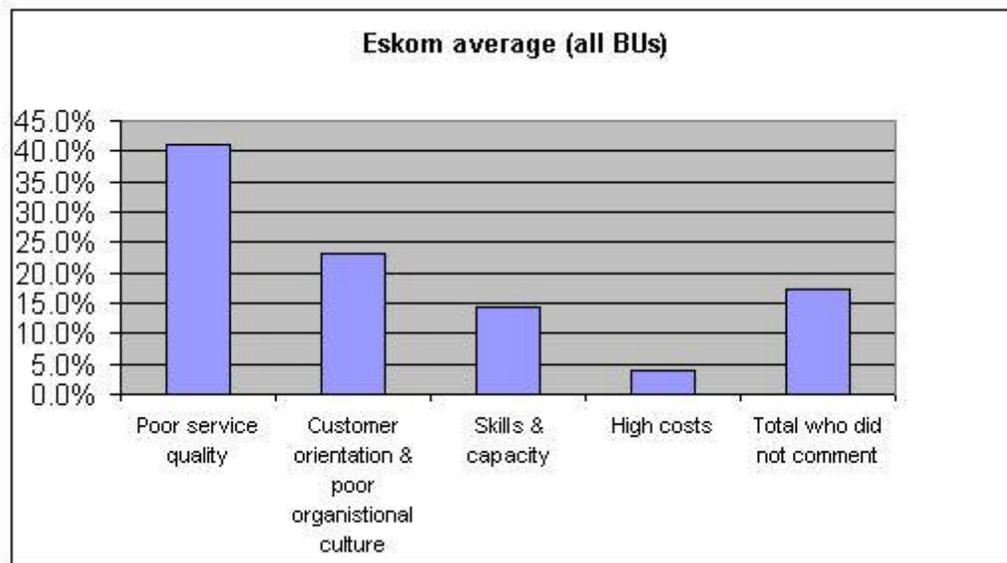
- Services are too expensive and application development costs too high.

Figure 5.7 provides a graphical summary of the scores provided in table 5.9. Of all comments made, none were positive about service improvement on the part of arivia.kom.

Poor service quality was a noticeable comment by many respondents (41.1%) who perceived that the quality of service of arivia.kom has deteriorated in the past three years. Customer orientation and poor organisational culture received the second highest rating (23.1%) for customers' overall impression. Lack of skills and capacity were cited by 14.5% of the respondents while 4% highlighted costs being too high as an overall impression. In general, arivia.kom's cost base is considered to be relatively low compared with the industry standard. However, the customers responses may be interpreted as follows: they do not associate arivia.kom's service with value for money rather than the fact that costs are too

high. This is substantiated by the perception of poor service quality highlighted earlier, as well as arivia.kom not being perceived as delivering value for money (see table 5.4), and the brand not being associated with quality products and services (see sec 5.5.1 in this chapter).

Figure 5.7 Overall impression of arivia.kom service



In general, 82.7% of the respondents gave a negative overall impression of arivia.kom for the past three years, whilst 17.3% of respondents did not comment. In addition, Eskom customers made no positive comments when giving an overall impression of arivia.kom over the past three years. The comments made in this section and the lack of positive comments from Eskom, are consistent with the results tabulated for service delivery criteria (sec 5.5) and service provision criteria (sec 5.6).

The overall implication of the results of this section is that in general terms, arivia.kom's image in Eskom has deteriorated among the Eskom customer base. The organisation is also deemed to have a poor business and customer orientation and consistently renders poor quality service. This is further substantiated by the absence of positive feedback from customers of arivia.kom's service since its inception in 2001.

A discussion on result validity in this study follows in the next section, and in particular, the results obtained from Distribution in relation to the other BUs.

5.8 DISCUSSION OF RESULT VALIDITY: DISTRIBUTION BU

The issue of validity was raised at the start of this chapter with reference to the representation of results from the Distribution BU in Eskom. Distribution contributes the largest portion of income for arivia.kom (approximately R380 m annually) from the Eskom account, yet only a 65% response rate (13 respondents out of 20 staff initially identified) was obtained from the BU, which was the lowest response rate of all the BUs. In order to dispel any concerns about the representativeness of the study results from the Distribution BU it was decided to assess its validity thereof in relation to the results from the other BUs. The objective of this section is to demonstrate that whilst the response rate from Distribution is the lowest of all the BUs, the results are nevertheless inherently valid and consistent with those from the other Eskom BUs involved in the study. A brief discussion on validity follows together with a discussion of Distribution's results in relation to the study as a whole.

Malhotra (1999:219) mentions the following two goals that a researcher should pursue when conducting an experiment:

- (1) He or she should draw valid conclusions about the effects of independent variables on the study group. This goal concerns internal validity, which measures the accuracy of an experiment and essentially measures whether or not the manipulation of the independent variables actually caused the effects on the dependent variable(s). Kumar, Aaker and Day (1999:353) further define internal validity as the ability of the experiment to show relationships unambiguously. In instances where observed effects are drawn from extraneous variables it is difficult to draw valid inferences about the causal relationship between independent and dependent variables.
- (2) He or she should make valid generalisations to a larger population of interest. This goal has to do external validity, and seeks to determine whether the

cause-and-effect relationships found in the experiment can be generalised beyond the experimental situation. Threats to external validity arise when the specific set of experimental conditions does not realistically take into account the interactions of other relevant variables in real-world situations.

In its broadest context, validity is essentially concerned with error (Tull & Hawkins 1993:316). Furthermore, an attitude measure has validity if it measures what it is supposed to measure (Aaker, Kumar & Day 1998:295). Tull and Hawkins (1993:317-318) refer to three types of validity, namely content validity, construct validity and criterion-related validity. These are discussed briefly below:

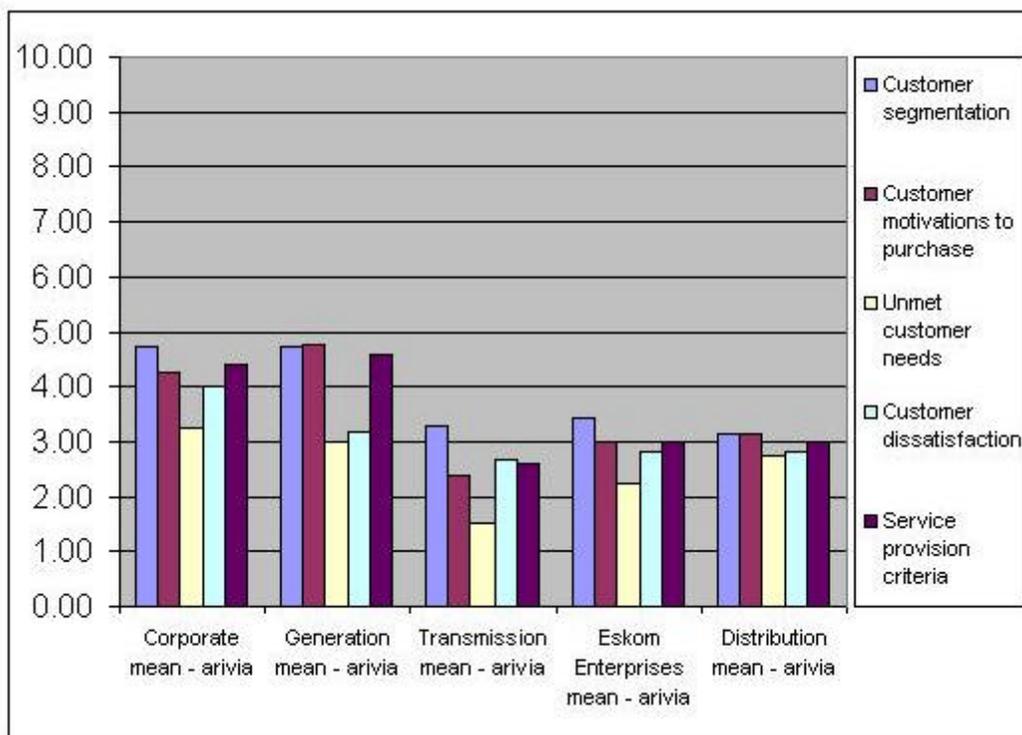
- (1) *Content Validity*. This is the most common form of validation applied in market research. Content validity estimates refer to systematic, but subjective evaluations of the appropriateness of the measuring instrument for the task at hand. It is most commonly used in multi-item measures, where the researcher assesses the sampling adequacy of the included items in the light of the purpose of the measuring instrument.
- (2) *Criterion-related Validity*. This is based on empirical evidence and involves inferring an individual's score or standing on a specific criterion, from the measurement at hand. Criterion validity has two further subsets, namely concurrent validity and predictive validity. If, during the study, two variables are measured at the same time, concurrent validity is established. Furthermore, if the measurement can predict some future event, then predictive validity can then be established.
- (3) *Construct Validity*. This involves understanding the meaning of the measurements obtained. It is achieved when a logical argument is advanced to defend a particular measure (Aaker et al 1998:296). Construct validity is not commonly attempted in the marketing field largely because of a lack of well-established measures that can be used in a variety of circumstances.

From the above parameters governing validity, it can be inferred that if a particular measure in a study or experiment conforms to the criteria relating to

content validity, criterion-related and construct validity, then greater reliance can be placed on conclusions and inferences derived from the criteria. Consequently, the results from the Distribution BU were evaluated using the same criteria in order to establish the validity of the results obtained and their representativeness in the study as a whole.

If the parameters of construct validity are applied in the Distribution context, subjectively, it could be argued that whilst Distribution yielded only a 65% response rate for the study, it is nevertheless considered adequate. This deduction is derived after assessing whether or not the results at BU level deviated significantly from the results achieved for the other BUs. No significant deviations were evident in the absence of in-depth analysis.

Figure 5.8: Mean overall ratings per BU for arivia.kom



Regarding criterion-related validity, empirical evidence is required to infer an individual's score or standing on a specific criterion. In attempting to satisfy concurrent and predictive validity requirements, information was extracted from

the statistical information available in order to illustrate consistency of information received from BU to BU.

Figure 5.8 illustrates the overall mean ratings provided at BU level for each of the customer criteria on which arivia.com was evaluated. From these mean ratings, it can be seen that the Distribution BUs ratings do not significantly differ from those of the other BUs. Whilst the Corporate and Generation BUs tended to be slightly higher in their overall ratings, they did indicate, by virtue of being below 5 overall, that arivia.com did not perform well in each of the sections evaluated. In addition, the Distribution BUs ratings were consistent with those for Transmission and Eskom Enterprises. Overall, no significant deviations could be detected.

Figure 5.9: Mean overall ratings per BU for preferred "other" service provider

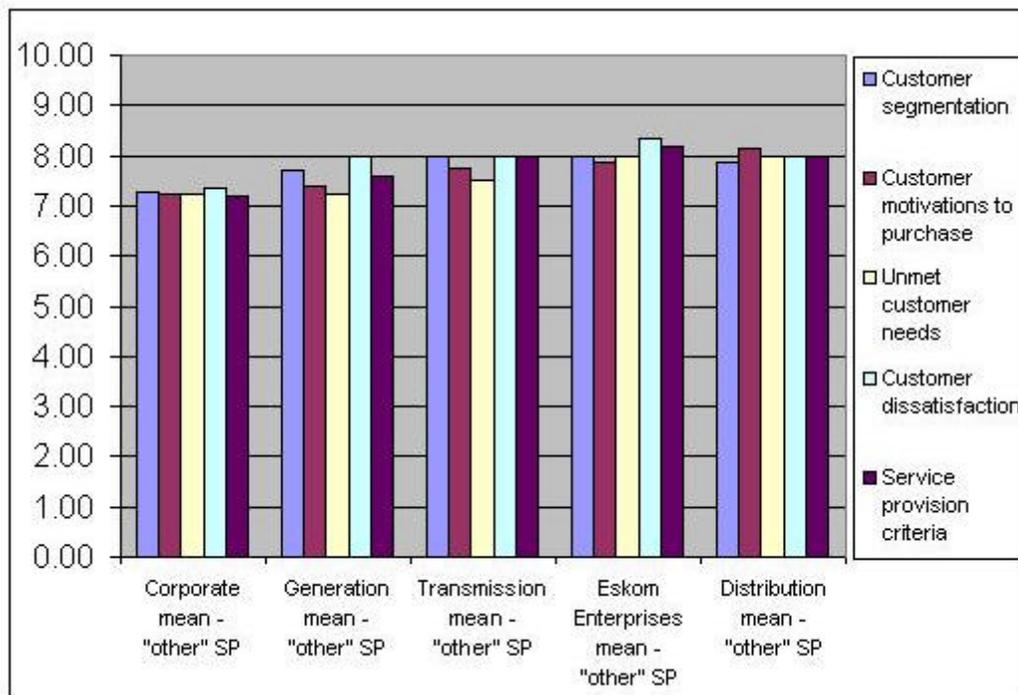


Figure 5.9 refers to the mean ratings provided by each of the BUs for the customer criteria on which the preferred "other" service provider(s) were rated. From the graphical illustration of the mean scores, it can be seen that there is consistency from BU to BU on the ratings achieved, without significant deviation

on any of the criteria. The Distribution BUs scores are consistent with those of the other BUs. It is noticeable once again that the Corporate and Generation BUs have mean scores that differ from slightly from the other BUs, and that Transmission, Eskom Enterprises and Distribution have similar profiles in their mean scores. However, overall scores indicate a consistency in assessment of criteria from BU to BU, indicating no significant deviation that could render the Distribution BU scores unreliable or misleading.

Regarding construct validity, it was considered appropriate to refer to the graphical representation of the Distribution scores in relation to the other BUs. These scores for arivia.kom and for the preferred "other" service provider yield no significant deviation that could detract from the findings already indicated in this study. The consistency in results for each BU indicates a sentiment among Eskom BUs that was evident in the mean ratings for each of the sections discussed previously in this chapter, further substantiating the issues and challenges already facing arivia.kom.

The information obtained during the course of this study is therefore considered valid and representative, implying that a significant degree of reliance can therefore be placed on the analysis of results and conclusions drawn.

5.9 SUMMARY

From the results discussed in this chapter, it is clear that arivia.kom's performance is below that of preferred "other" service providers being used by Eskom. Customer comments also indicate consistency between the ratings that were awarded and the overall impression of arivia.kom's performance for the three years after its inception. Poor business culture and customer orientation and ineffectual management and leadership are problems that Eskom identified as being part of the symptoms contributing to the level of service rendered by arivia.kom. The consistency in results achieved across BUs, rendered it unnecessary to discuss all the results at BU level, and this is further supported by the fact that Eskom's BUs procure similar services from arivia.kom, and have

similar IT requirements from BU to BU. However, given the seemingly low representation from the Distribution BU, it was deemed necessary to discuss the issues relating to validity for the sake of completeness and to dispel any doubts that may have arisen from any perceived lack of representative information.

Chapter 6 deals with the conclusions drawn and recommendations made regarding problems identified in this chapter.

Chapter 6: Conclusions and recommendations

6.1 INTRODUCTION

Privatisation is a relatively new practice in previously state-owned entities in South Africa. Whilst there were instances of privatisation initiatives by the previous government (eg the formation of Iscor and its subsequent flotation on the Johannesburg Stock Exchange), it was not widely advocated until the advent of the newly elected government in 1994. Since then the state has placed greater emphasis on fiscal discipline resulting in the planning and design of privatisation initiatives with a view to realising greater efficiency in the utilisation of state-owned resources and the generation of revenue from the sale of state-owned assets. The state has adopted this policy to reassure foreign investors and government s of its intentions to pursue market-driven economic policies that are investor-friendly.

Arivia.kom commenced operations in April 2001 under the auspices of this new policy direction adopted by the state, resulting in the IT organisations of Eskom (IT Services), Transnet (Datavia) and Denel (Ariel Technologies) being merged into one entity (arivia.kom) to serve the organisations from which they originated. The rationale behind the merger was to provide more efficient IT capability at lower cost to the parastatals, whilst curtailing the rapid loss of IT skills from those parastatals to the private sector. The merger was also effected to ensure that the standard of service received by Eskom, Transnet and Denel would improve.

The sections in this chapter revisit the primary and secondary objectives of the study, summarise the findings of the survey and make recommendations on the basis of the objectives. The chapter concludes with recommendations on areas of further study that could be useful to arivia.kom.

Three years have elapsed since the inception of arivia.kom. The aim of this study was to establish whether arivia.kom has met the expectations of one of its key customers (Eskom) regarding to the initial rationale advocated by the state in

forming the IT service provider. Primary and secondary objectives were formulated for the purposes of this study, and these will be briefly discussed together with the methodology adopted and the validity issues relating to the methodology.

The main findings and conclusions of the study will now be discussed.

6.2 SUMMARY OF MAIN FINDINGS AND INTERPRETATIONS

This review of the results and findings of the study commences with a few comments on the respondents who participated in the survey. Of the 90 respondents originally identified, only 75 participated in the survey (83% response), with representation from Eskom's five main business units (BUs) namely Corporate, Generation, Transmission, Distribution and Eskom Enterprises. Adequate representation was achieved in each BU with the lowest response rate (65%) from Distribution and the highest from Eskom Enterprises (100%). Overall, the responses received from each BU correlate with the mean ratings achieved for Eskom as a whole. Consequently, the results for Eskom are interpreted at organisational level to promote a strategic understanding of the problems experienced and facilitate a conceptual approach to the resolution of such problems. The similarities in structure amongst the BUs, and the type of service they require from IT service providers also render this approach appropriate. Moreover, little or no further benefit can be derived for this study by analysing information at BU level.

Eskom's BUs have employed a number of service providers since the inception of arivia.kom. However, the survey established that arivia.kom was used by all the BUs. This was to be expected, given that Eskom is compelled to use arivia.kom because of the provisions in the EA. Most notably, Eskom also makes frequent use of other service providers such as Accenture, Bentley West, Deloitte Consulting, IBM and IST. When the respondents were asked to rate the top three service providers in terms of quality of service, the following were selected in order of priority:

(1) Accenture

(2) Bentley West

(3) Deloitte Consulting

Arivia.kom was not ranked amongst the top three service providers in terms of service quality. At this stage, it is evident that staff at Eskom do not regard arivia.kom as a top-quality service provider.

When questioned about the EA entered into between Eskom and arivia.kom, 85% of the respondents felt compelled to use arivia.kom's services because of the provisions in the EA. This indicates that whilst Eskom executive management support the EA, decision makers at IT management level feel compelled to comply with the company policy and directive. The respondents were asked whether, given freedom of choice, they would use another service provider instead of arivia.kom 92% of them indicated that they would. The reasons for using a service provider other than arivia.kom were attributed mainly to the following:

- poor service quality
- lack of customer focus
- lack of skills and expertise in the organisation to adequately support Eskom's business needs

These reasons, and the high percentage of customers (92%) seeking an alternative, are consistent with the initial view of arivia.kom not being regarded as a high-quality service provider as indicated by customers in the preceding question. It is also important to note the preference that customers have for doing business with Accenture and other organisations, despite the existence of the EA. This indicates that whilst Eskom BUs acknowledge the decision taken by senior management regarding the EA, regardless of this decision they are also engaging other service providers where possible.

The ratings for service delivery and service provision criteria are summarised in table 6.1. A graphical illustration of these ratings is also provided in figure 6.1.

Table 6.1: Service delivery and service provision criteria

Criteria	Arivia.kom mean	Other SP mean	Market average
Customer segmentation	3.95	7.65	5.80
Customer motivations to purchase	3.62	7.63	5.62
Unmet customer needs	2.59	7.57	5.08
Customer dissatisfaction	3.05	7.89	5.47
Service provision criteria	3.66	7.74	5.70

It is evident from table 6.1 that arivia.kom has not performed well compared with the rating for the preferred "other" service provider. In addition, it has not obtained a rating equal to or greater than 5 to indicate that customers are reasonably satisfied with the level at which arivia.kom is operating in Eskom. It is clear therefore that arivia.kom has performed below the market average in all instances.

From these results, it can be inferred that arivia.kom has placed little emphasis on segmenting its market in Eskom in an effort to tailor service offerings to meet its unique customer needs. Furthermore, the seeming lack of ability to address service quality issues has also affected its standing with customers, resulting in erosion of its brand equity from the customer's point of view. Overall, the preferred "other" service provider seems to excel in customer segmentation ability (arivia.kom obtained a rating of 3.95 compared with 7.65 for its competitor).

In assessing customer motivations to purchase, arivia.kom performed poorly overall. The preferred "other" service provider achieved a mean rating of 7.63 for customer motivations to purchase, whilst arivia.kom obtained only 3.62. This can be attributed to arivia.kom's reliance on past knowledge of Eskom's business model and the challenges facing its business environment, and an assumption that this model has remained unchanged. As an organisation, Eskom has altered its structure and focus in the past three years with a consequent shift in business emphasis, rendering arivia.kom largely out of touch with the organisation's strategic aspirations. Eskom staff therefore perceive arivia.kom to be lacking in organisational transformation and operational skills rendering it to be a less than ideal future supplier of choice. Arivia.kom's ability to strategically understand Eskom's motivation to purchase goods and services poses a serious threat to the future sustainability of the organisation in the absence of political support for the organisation from within Eskom.

In anticipating unmet customer needs, arivia.kom is clearly not considered to be proactive in the way it does business with Eskom because it obtained a mean rating of 2.59 compared with 7.57 for the preferred "other" service provider. Organisations such as Accenture are known to visit Eskom IT managers and senior IT staff regularly and present information on industry best practices and methodologies that are relatively unknown to the organisation. These practices prepare Eskom for future challenges and aid its transformation in a rapidly evolving IT environment, by providing useful education on future strategic possibilities. Such exercises are considered part of the culture of many consulting firms that do business with Eskom, thereby enabling them to be positioned as preferred thought leadership advisors to the organisation. Arivia.kom is not viewed in the same light as these organisations; nor is it considered to exude the culture and business qualities that Eskom expects from service providers on a regular basis.

In attending to customer dissatisfaction issues, arivia.kom received an overall mean rating of 3.05 against 7.89 for the preferred "other" service provider.

Customers feel that most serious operational problems are not followed up on efficiently; nor does arivia.kom communicate effectively with them in times of crisis. Operational staff are not considered to be highly skilled, and proposals for new work are considered to be of a lower quality than those of its competitors. Frequently, proposals for new work are submitted late to Eskom, and sometimes contain errors. This requires arivia.kom sales staff to redo the proposals. In contrast, proposals from organisations such as Accenture are of such a high standard that they are well received and often commended in Eskom. During the interviews conducted, staff often verbalised the contrast in the quality of the proposals received from arivia.kom and other external service providers. Overall, the level of customer satisfaction with arivia.kom's service is below that of the preferred "other" service providers, indicating that competitors practise a culture of customer orientation which is lacking in arivia.kom itself.

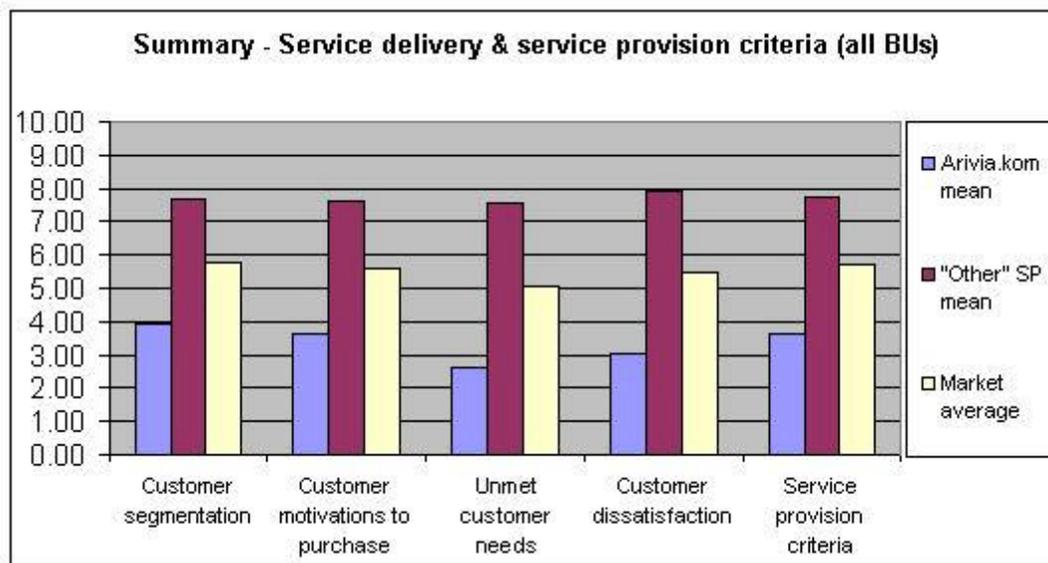
Service provision criteria were also evaluated and summarised in table 6.1. The overall mean rating obtained by arivia.kom was 3.66, whilst its competitor averaged 7.74. Eskom considers arivia.kom's ability in IT consulting, system integration, systems maintenance and support, software development and IT outsourcing to be below par. Regarding software development in particular, arivia.kom employs a division of programmers to develop customised applications for use by Eskom. The demand for customised applications has started to decline because of off-the-shelf software that is commercially available for customisation by organisations. Such software is also of a higher quality and can be integrated into an organisation in less time than customised applications, and most often at a significantly lower cost.

Figure 6.1 graphically depicts arivia.kom's deficiencies in each area of customer and competitor analysis, the most notable deficiency being in unmet customer needs. Arivia.kom is often accused of having a "fire-fighting" culture, and the tendency to react to situations rather than to pre-empt service problems. In substantiation of this perception, figure 5.7 (see ch 5, sec 5.7) summarises the overall impression given by respondents of arivia.kom's performance since the

start of its operations. In general, the impressions were negative, indicating that arivia.kom did not have a positive impact on Eskom customers overall. Four common areas in which arivia.kom has been criticised are as follows:

- extremely low service quality
- customer orientation and poor organisational culture (the organisation is considered to be unfocused on business and customer orientation)
- skills and capacity (it is considered to be lacking and/or diminishing)
- high costs (this can be interpreted as customers not receiving desired value for money spent)

Figure 6.1: Summary of service delivery and service provision criteria



A frequent criticism on the part of Eskom customers is that arivia.kom lacks a sense of urgency because there is an EA in place which guarantees it revenue for a fixed period. The predictability afforded by the EA to arivia.kom could quite conceivably breed complacency in the organisation, resulting in a poor attitude towards customer service. The extent to which the EA breeds complacency and is linked to a lack of strategic market planning is an area that merits further study in relation to the objectives that were originally formulated. In addition, the

linkages between complacency and the apparent state in leadership of the organisation warrant further study. The conclusions in terms of the stated objectives will be discussed below.

6.3 CONCLUSIONS IN TERMS OF STATED OBJECTIVES

The previous section summarised the main findings of the survey conducted in Eskom. From the discussion, it is now possible to draw conclusions in terms of the objectives formulated for the study. However, it is first necessary to revisit the primary and secondary objectives.

The primary objective of the study was to conduct a customer and competitor analysis of arivia.kom to establish whether it has segmented its market appropriately, is focused on customer purchasing motivations, has devised a proactive approach to doing business and has attended to any factors that may have contributed to customer dissatisfaction.

The secondary objectives of this study were as follows:

- to determine why customers are reluctant to provide more business to arivia.kom, and in some instances, are actively campaigning to replace arivia.kom as their service provider of choice
- to establish who its competitors are, and their comparative performance with arivia.kom which enables them to operate effectively in arivia.kom's customer base
- To establish whether arivia.kom is conducting customer segmentation effectively for the sake of profitability and survival
- to establish customer perceptions of arivia.kom regarding quality of service delivery and service provision, and an overall impression of arivia.kom's performance since its inception
- to identify areas meriting further study.

Based on the information in the preceding (sec 6.2) and the analysis of results in chapter 5 of the study, the primary and all the secondary objectives formulated for this study are considered to have been met. A discussion of the conclusions that can be drawn and the corresponding recommendations, follows below.

6.3.1 Discussion of conclusions

The survey demonstrated that adequate and valid representation was received from respondents in all of Eskom's BUs (see ch 5, sec 5.8) and that arivia.kom is not considered to be amongst Eskom's top three service providers in terms of quality. The following also came to light:

- The EA compels Eskom IT decision makers to engage arivia.kom's services, but they would choose differently if allowed freedom in selecting service providers.
- Arivia.kom's main competitor in Eskom is undoubtedly Accenture. Arivia.kom's other competitors, Deloitte Consulting and Bentley West, also feature prominently.
- A comparison of arivia.kom's performance to that of preferred "other" service providers illustrates that it performed poorly in all areas of service delivery and was rated poorly in terms of service offerings.
- The respondents were also asked to give their brief overall impressions of arivia.kom's service for the past three years. All these impressions were negative, and were consistent with the mean ratings allocated in the preceding sections of the questionnaire.
- In establishing whether customers are reluctant to afford arivia.kom more strategic IT work, rather than contracting it out to competitors, this is in all probability a reality in the light of the ratings received by arivia.kom.
- The customer perception of arivia.kom is such that the quality of the organisation is perceived to be low and in need of much attention.

Arivia.kom's brand is clearly not associated with top-quality products and services in the way that its competitors brands are.

On the strength of the findings as discussed above certain inferences can be made. These will be discussed below.

6.3.1.1 Inappropriate Organisational Design

Arivia.kom's organisational design is not conducive to conducting business in a manner aligned with customer objectives. The organisation employs a silo-based design that separates internal entities into distinct areas according to function. This has created divisional rifts in the organisation resulting in miscommunication and duplication of effort as well as inconsistencies in the efficient use of resources. Hence seemingly routine operations are made difficult because of poor coordination and the lack of singular focus on common objectives.

The current structure reflects an internal focus rather than a customer centricity. Arivia.kom's major areas of business include Energy, Transport, Defence and the Public Sector (eg servicing the South African Revenue Services [SARS] and other government departments). However, the current organisation relies on operations being structured in a manner that utilises resources generically rather than having them focused on a sector-by-sector basis. Consequently, sector-based expertise and knowledge building is not consistently developed because resources are constantly shifted from sector to sector to attend to crises that arise.

6.3.1.2 Organisational Culture

A lack of operational and strategic coordination is evident from the comments and ratings of Eskom respondents. As indicated in section 6.3.1.1, there seems to be a preoccupation with internal issues rather than a business and customer orientation. Internal processes in the organisation are complex and cumbersome, and are often subject to change, resulting in a "fire-fighting"

environment that is constantly in crisis management mode. Arivia.kom's senior management are often criticised by its own staff as not being visible enough to the organisation. A perception also exists among Eskom customers that there is little empowerment at middle and junior management levels in arivia.kom. There is a distinct lack of decision-making authority at these levels because company policy on senior management authorisation of documentation for new and existing projects. An example of this is the requirement that all proposals for new work should have at least four signatures of approval from various managers, prior to final submission to the customer. Any amendments to the document (including minor changes) require documentation to be resubmitted for signature and authorisation, resulting in lengthy delays and increasing customer frustration. Decision making on critical issues is slow and cumbersome, and further reinforces the Eskom perception of poor quality in service offerings and delivery.

Another notable concern is that the corporate strategy of the arivia.kom was not formulated clearly at its inception, and was only finalised during 2002, indicating an unclear strategic orientation and lack of focus on common intent and objectives of the organisation. The complexity of internal processes and lack of a conceptually driven view of the organisation further exacerbate the crisis management culture and contribute to the poor service delivery already perceived by customers.

The above problems are symptomatic of the lack of a business-driven and customer-oriented culture in the organisation. The preoccupation with the internal workings of the organisation and a concentration of decision-making authority amongst a few managers in the management hierarchy create a business environment that hinders speed and flexibility. This environment and culture create and perpetuate an impression amongst customers that their importance and business needs are secondary to those of arivia.kom.

When arivia.kom was established in 2001, three distinct organisational cultures were noticeable because most of the employees came from three

main organisations, namely Eskom, Transnet and Denel. During the past three years, little or no effort has been made to create a unique arivia.kom culture hence certain fragments of the three previous cultures remain entrenched in certain areas of the organisation, further contributing to the coordination problems that currently exist.

6.3.1.3 Unclear positioning of the organisation

Customers perceive arivia.kom not to be of the same calibre of organisation as Accenture or Deloitte Consulting, yet it competes for the same type of work in the Eskom market. Accenture and Deloitte Consulting have reputations as top-quality service providers with access to knowledge and expertise of strategic value to the organisations they target. Arivia.kom's approach in this regard is unclear and often incoherent to its target customer. It currently, derives much of its revenue from the maintenance and support of hardware, software and infrastructure in Eskom and its other key accounts. These services are offered by many organisations in a competitive market, rendering them low-margin businesses, whilst consulting and strategically oriented business offerings generally yield higher profit margins. Whilst arivia.kom does claim to offer these services, they are not seen to be actively marketed; nor are organisational resources devoted to building this part of the business. In effect, the infrastructure maintenance portion of the business still commands the majority of funding and resources. Hence arivia.kom is perceived as an infrastructure service provider whilst it competes rather ineffectively with consulting firms for strategic consulting work which customers feel it is unable to handle effectively.

6.3.1.4 Poor competitor and customer intelligence capability

Arivia.kom's intelligence capability is clearly not on a par with, for example, Accenture, or its other key competitors at Eskom. Arivia.kom was rated below its competitors for its ability to understand customer needs effectively (see sec 5.5.1 in ch 5). Its competitors, however, are seen to be more effective in this regard, demonstrating a level of proficiency that wins Eskom's approval.

Moreover, arivia.com has demonstrated an inability to keep track of its competitors and their capabilities, strengths, weaknesses and strategies. Opportunities to learn from competitor abilities and strengths are not widely embraced by the organisation for the sake of introspection and the resultant development of a much-needed competitive outlook.

6.4 RECOMMENDATIONS BASED ON THE CONCLUSIONS

It would seem from the discussion of the main findings that Eskom perceives arivia.com to be a substandard service provider. The main reasons for this can be attributed to inappropriate organisational design, lack of a distinct customer and business-focused corporate culture and poor competitive intelligence capability.

The lack of a quality-driven, customer-focused corporate culture invariably results in a poor perception of the quality of services and products delivered by an organisation. Customers are likely to feel as though they are not sufficiently valued or that they are taken for granted, resulting in the organisation being viewed in a negative light. This inhibits future prospects for business. Poor intelligence capability, which in this study refers specifically to the customer, and to a certain extent, competitor intelligence, reflects an organisation, firstly, as an ill-informed supplier, and secondly, as an indifferent competitor in the marketplace. Such an organisation is less likely to succeed over time because it cannot satisfy customer requirements for creative, ground-breaking solutions and allows competitors, who it does not actively monitor, to erode its market share. These observations of arivia.com emerged in this study.

To resolve these problems, certain recommendations are made which will be discussed below. However, prior to these recommendations being discussed under their respective subheadings, a main recommendation is made as a catalyst for organisational renewal, namely to formulate a strategy for the organisation, to specifically address the problems highlighted above. The strategy formulation process should be supported

at senior management level, and also viewed as an ongoing process aimed at providing direction for the organisation and its people, whilst seeking sustained business growth through coordination and teamwork.

A discussion of the recommendations based on the conclusions drawn follows below.

6.4.1 Recommendations for addressing poor organisational design

Poor organisational design often results in ineffective coordination of workflow and inconsistent delivery of products and services, as well as duplication of effort which invariably affects resource availability. The strategy formulation process must highlight the deficiencies in the current organisational structure and design. It must seek collaborative input, creative suggestions and consensus from participants that will address flaws experienced in the current structure. Management support and a liberal attitude will be of paramount importance in this process. A redesigned organisation should be flexible and adaptable to changing circumstances, whilst rendering acceptable quality products and services through the efficient use of available resources.

In so doing, arivia.kom staff and management will need to seriously consider adopting a sector-based structure in which resources are focused on the key areas and/or industries the business serves. The energy, transport and defence sectors generate most of arivia.kom's revenue, and the organisation should therefore focus on structuring itself in order to target resources at each sector in an effort to deepen knowledge and expertise in these industries. In this way, duplication of effort can be eliminated, and solutions can be readily focused on the customer without requiring staff to learn about certain aspects of his or her business before taking action to render the required service.

6.4.2 Recommendations for promoting an organisational culture

Understanding the need for and adopting a corporate culture that is business-driven and customer-oriented is a vital part of the strategy formulation process.

Participation by management and their leadership by example, will be crucial to the adoption of this culture by the organisation as a whole. Processes and policies alone are insufficient as reliable drivers of quality and customer orientation. A culture, whilst intangible to a large extent, permeates the organisation and filters through to service delivery, ultimately creating and influencing customers' perceptions. Given that quality can be measured tangibly, it is imperative to agree on certain measures that are also valued by customers, requiring liaison and collaboration with them to establish common values to which arivia.kom and Eskom can jointly relate.

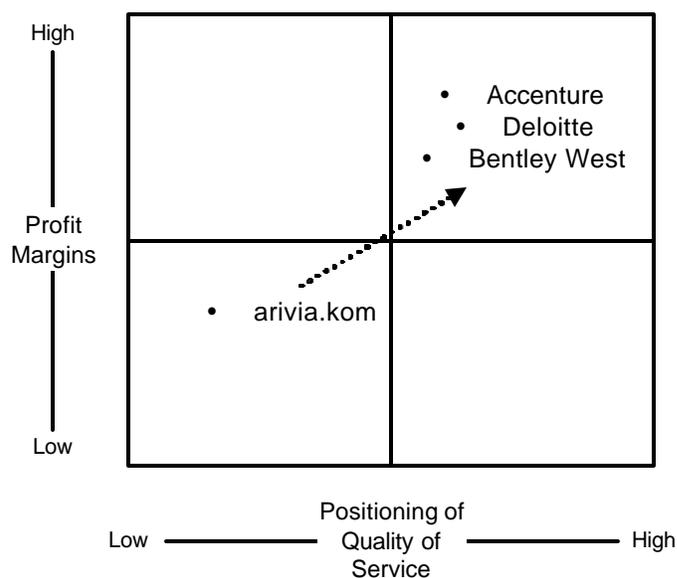
Arivia.kom comprises former employees of Eskom, Transnet and Denel, which were previously parastatal organisations. The attitude that prevailed in those organisations at the time of arivia.kom's formation was one of bureaucracy and poor business orientation, resulting in the same orientation filtering into the new organisation. The fact that arivia.kom has developed a similar poor attitude towards business orientation is therefore not surprising, and this issue needs to be addressed. The strategy formulation process and any renewed effort in creating a vision and mission will need to encompass the imperative for change towards a business-oriented approach. Central to such an approach is the identification of problems such as the lack of a proactive problem-solving environment and the crisis management mentality that prevails in the organisation. The business-oriented approach will also need to emphasise re-engineering the organisation and shedding bureaucratic processes that hamper value delivery to the customer. Speed and flexibility must be the key focuses of business orientation, such that Eskom and arivia.kom's other customers derive value from conducting business with the organisation.

6.4.3 Recommendations for positioning the organisation

Arivia.kom's unclear competitive positioning is a hindrance to the organisation and its customers. The apparent fixation on infrastructure support services and the devotion of resources to the infrastructure business (IB) in arivia.kom, conveys a message that it is predominantly a maintenance and support

organisation. However, its aspirations towards being a provider of consulting services have received poor attention in the past. As part of the strategy process, arivia.kom will need to devote time, human capital and financial resources towards establishing centre's of excellence (COEs) that will develop the capability required for the organisation to compete with competitors such as Accenture, Deloitte Consulting and Bentley West. Figure 6.2 illustrates an approximate positioning of arivia.kom's closest competitors, in relation to profit margins and the positioning of their services to Eskom. The dotted arrow indicates the direction in which arivia.kom should proceed if it is to match its competitors. By focusing on the development of higher quality and greater value-added service offerings, arivia.kom will be able to move towards generating higher margins on those offerings.

Figure 6.2: Positioning of arivia.kom



This recommendation is closely intertwined with the development of intelligence capability (see sec 6.4.4 below), as much can be learnt from the approaches, processes and strategies already adopted by arivia.kom's main competitors. Arivia.kom's competitors are known to devote much time and effort to researching their customer's industry and business environment prior and

continually updating their knowledge of changing circumstances, to ensure that their recommended solutions are based on the latest available information. In so doing, arivia.kom's competitors are able to generate a perception of a professional, top-quality service provider and hence able to generate higher profit margins from their service offerings.

A discussion the development of intelligence capability follows in the next section.

6.4.4 Recommendations for developing intelligence capability

The development of intelligence capability is a strategic imperative that must fit into a broader framework of environmental scanning to aid continual reevaluation and revision of arivia.kom's corporate strategy. Understanding the changing needs of customers and the forces that drive their business is of utmost importance to arivia.kom. Such information must be shared on a regular basis and in a manner that involves arivia.kom employees in a team effort that reflects the culture and business-oriented approach adopted by the organisation.

Competitor intelligence gathering is also vital to the organisation. The IT industry is characterised by rapid evolution and fierce competition. Hence competitor strategies and innovations and capabilities must be continually monitored for the sake of formulating retaliatory actions in order to protect and grow market share in specific target markets. It is recommended that intelligence capability be centralised in knowledge databases that are easily accessible to all employees of the organisation. Regular forums should be held to disseminate important information about customers and competitors, with special forums to highlight any significant changes or occurrences that could be of use to arivia.kom employees as a whole.

6.5 AREAS FOR FUTURE RESEARCH

One of the objectives of this study was to identify areas of further study and to provide information on problems experienced not already covered in this study.

The area of leadership at arivia.com and its role in assisting the organisation to change strategically needs to be defined. Whilst arivia.com's leaders cannot be criticised or entirely blamed for the problems at hand, they nevertheless do have a critical role to play in assisting the organisation to transform in order to meet the challenges that have been identified in this study.

A second area meriting further study is that of the role that the EA has played in influencing arivia.com and Eskom to approach each other as they have done in the past. The EA guarantees arivia.com revenue streams that have not been awarded to its competitors, which is understandable in the light of the rationale behind its formation by the state. However, such guaranteed revenue and access to Eskom could conceivably breed complacency in the organisation. If this is the case, then an investigation could be made into the feasibility of an altered business model that emphasises a performance-oriented approach that will negate the tendency towards complacency through financial penalties and rewards for nonperformance and attainment of performance targets respectively.

Another area of further study is that of establishing the extent to which arivia.com intends formulating a strategic marketing plan that will result in less reliance on Eskom, Transnet and Denel for most of its revenues. In effect, Eskom and Transnet account for approximately 75% of arivia.com's revenue. These two organisations, whilst relatively stable financially, are slated for restructuring as the state moves ahead with privatisation initiatives. Such environmental changes could therefore significantly impact on arivia.com's revenue base unless it plans strategically to reduce such risk exposure.

6.6 CONCLUSION

This study has shed light on a difficult subject in a complex business environment. A market analysis was conducted of arivia.com, but was limited to two components, namely customer analysis and competitor analysis. An in-depth market analysis could have been conducted involving all variables that

would ordinarily comprise a market analysis. However, a market analysis and competitor analysis were deemed appropriate for the purposes of this study.

Given the relative age of arivia.com, its performance to date could reasonably have been expected. However, certain themes have recurred with alarming consistency, implying that the organisation will require strategic structural adjustment in order to address the serious concerns raised. The lack of customer and competitor analysis and a climate nurturing business apathy are not conducive to productive business operations in the long run.

The conclusions drawn and recommendations made in this study can conceivably be applied to planning and design for other parastatal organisations that the state may contemplate privatisating in the future. It is to be accepted that errors of judgement are a natural part of the planning, design and operation of previously state-owned organisations, and that mishaps will invariably occur. However, one of the suggestions made in this study is the need for a proper focus on customer needs and the adoption of a competitive intelligence capability in organisational design and strategic planning, to enable such organisations to avoid the pitfalls that arivia.com is currently experiencing. Such shortcomings have the capacity to alienate customers and afford competitors opportunities to win market share in business environments in which this would ordinarily have not been possible. It is hoped that this study sufficiently highlights the need for customer centricity and competitor analysis capability to be built into organisational strategy and design so that the problems experienced by arivia.com can be urgently addressed. In addition, it is hoped that such problems will not recur in arivia.com itself, and in any other organisations likely to follow the same route.

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Annexure A: Glossary of Terms

The following terms have been used in the proposal:

Term	Meaning and/or description
arivia.kom	Organisation to be studied. Is a b2b organisation formed through the merger of the IT organisations that previously existed within Eskom, Transnet and Denel. Except at the beginning of a sentence, arivia.kom shall be written in lower case in accordance with brand stipulation.
B2B	Business to Business relationship. This is understood to be one business entity providing services to another in exchange for a consideration agreed to between both entities.
Customer base	Understood to be the Eskom Customer environment for the purposes of this study.
Enabling Agreement (EA)	An agreement entered into between Eskom, Transnet and Denel ensuring arivia.kom 'first right of refusal' on all IT work.
Exclusivity Contracts	Arivia.kom has been granted exclusivity of business by Eskom for a period of three (3) years commenced March 2001. Thereafter, Eskom and its various subsidiaries are at liberty to use other service providers if it so chooses.
IT	information technology
LOB	Lines of Business - These are the main business areas that arivia.kom focuses in.
NEC	New Engineering Contract. Used by all Eskom business units to contract with internal and external suppliers.
Service Level Agreements (SLAs)	Used by Eskom customers to transact with arivia.kom - are contracts used to state all services to be provided, service description, and the pricing per service offered.
SITA	State Information Technology Agency

Annexure B: Questionnaire

Please turn over for the questionnaire.