LEADERSHIP ROLES IN ACADEMIC INFORMATION SERVICE ENTERPRISES: 
THE ATTITUDES OF LIBRARY STAFF TOWARDS A RE-ENGINEERED 
LEADERSHIP DRIVEN ENTERPRISE

by

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the degree of

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SUPERVISOR: DR F TERBLANCHE

NOVEMBER 2004
DEDICATION

This thesis is dedicated in loving memory of my late father, whose encouragement and guidance have enabled me to fulfill my potential.

JACOBUS JOHANNES JANSEN VAN RENSBURG
(1914 - 1990)
DECLARATION

“I declare that Leadership Roles in Academic Information Service Enterprises: the Attitudes of Library Staff Towards A Re-engineered Leadership Driven Enterprise 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                                                                             DATE
(MRS J RAUBENHEIMER)
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SUMMARY

The academic information service enterprise should continuously react to the rapidly changing environment in which it functions.

The theoretical research pertaining to the study has shown that such enterprises which embark on re-engineering because radical change is required, should be knowledgeable in terms of what the change entails, why it is important to change and how the change takes place through re-engineering, organisational design and an innovative leadership framework. In order to ensure efficiency within its operations while focusing on its own sustainability, the enterprise should establish leadership roles which involve all staff in leadership on a daily basis.

The empirical research focused on the attitudes of staff towards such a leadership driven enterprise. Results revealed that factors such as whether staff participated in re-engineering, their engagement with re-engineering proposals, their work experience and their language have a significant impact on the attitudes of staff towards an innovative leadership framework.
KEY TERMS: Academic libraries; academic information service enterprises; academic library development; academic library management; attitudes; change management; leadership driven enterprise; leadership framework; leadership roles; learning organisations; organisational design; re-engineering; secondary leadership roles; voluntary leadership.
CHAPTER 1

INTRODUCTION TO THE STUDY

1.1 BACKGROUND

Organisations of the 21st Century have to contend with rapidly increasing pace changes. The last few years of the 20th Century were the most volatile years in economic history. Two major revolutions transformed world markets as well as the world economy, i.e. the opening of global markets and information technology. The combination of open global markets and technology created vast de-regulated markets, wired together by a converging information highway and dominated by new and transformed organisations that are writing the rules of business. The computer and telecommunications industry have provided the platform for eCommerce. This resulted in a profound impact on the world economy (Grulke 2000:7). Grulke (2000:3) warns that there was again a revolution taking place - the Revolution of the Empowered Individual, resulting in ordinary people capable of changing the world of a 24x7x365 economy. This would impact greatly on the 21st Century and organisations would have to react to this or face probable extinction.

Worldwide enterprises must operate within a context that is changing continuously as a result of the changing world around them. This also applies to the academic information service enterprise. Key drivers of change are technology, the changing customer needs of the academic information service enterprise and the society for which it functions. This statement calls for a brief discussion, as follows:

Technology drives changes throughout the information industry, as remote access and remote delivery have become possible through the Internet. Customers have new service requirements based on their needs and preferences. This impacts greatly on service quality, immediacy, convenience and customisation of services. Societal drivers of change which impact on the academic information service enterprise flow from the new conditions in the information industry, from new forms of tertiary education and in the case of South Africa, from the substantial budget cuts owing to the adverse economic climate and the unfavourable exchange rate of South African currency. All these matters force the enterprise to do business in a different way.

The question can be raised: what will happen if these underlying change drivers are simply
ignored? Should they be ignored, the academic information service enterprise is very likely to lose its customers and its sustainability. Crego and Schriffin (1995:23) warn that the 21st century will be a brave, new world that will belong to the customer and to businesses that are flexible, quick, and courageous enough to re-engineer themselves around the customer. In order to adapt to this, academic information service enterprises must move towards a customer centred approach by means of which all processes, rules and regulations are focussed on the needs and preferences of their customers. The enterprise which is not prepared to do this may not survive, as the customer has an almost endless variety of options to choose from.

Because of the adverse economic climate in South Africa, the future sustainability of South African academic information service enterprises is questioned. The financial support received from the tertiary institution should therefore be supplemented by donor support and income from the sale of commercial services to commercial customers. A shift towards an academic information service enterprise which manages itself on sound business principles, is consequently required.

It is, however, important to note that an enterprise managed on business principles with a customer centred approach with regard to technology driven services, rules and regulations, will not be efficient without the total commitment of its staff. In order for staff to be committed and to focus all their activities and attitudes on the needs and preferences of the customer, they should take ownership of their business and derive their satisfaction from skills development and the meaningful contribution they make to the enterprise. This means, for example, that staff should acquire the relevant knowledge and skills that were previously restricted to management. Staff should not only feel empowered and accountable, but also feel that they work in an environment which provides opportunities for them to make contributions that are meaningful.

Furthermore, staff also have new expectations as they now work in a democratic society where cultural diversity is acknowledged. They want to be treated equally as responsible, adult human beings.

This situation leads to a new approach to leadership and a resulting new approach to organisational structure. Such an approach to leadership supports the views of Hammer (2001:144-145), who states that the traditional managerial role linked to the authority and power the position represent, is obsolete. He argues that only if the manager is a forceful
representative for his or her constituency as well as an effective team player, will both the manager and the company succeed. Van Heerden (1999:7) supports this by pointing out that South African enterprises are moving away from bureaucratic management models and place much emphasis on teams.

Hammer (2001:144) further states that the new organisation must be extraordinarily flexible in terms of its structure in order to be responsive to evolving needs. Such an organisation needs a dynamic and strong leader at the top, who supplies through force of personality and vision the cohesion that was formerly provided by structure. This leader projects a compelling vision of the enterprise which focuses every member on the enterprise’s larger objectives. Hammer accentuates the fact that specifically in the customer economy this kind of business leadership is a new requirement (Hammer 2001:145).

Innovative leadership models thus reflect a shift from the management of tasks to the leadership of people and the entrenchment of a leadership culture within the organisation. These models differ from the bureaucratic, hierarchical management model as they minimise leadership layers, placing much emphasis on self managed teams and individual accountability (Chang 1996:11).

The staffing structures of many academic information service enterprises reflect the typical hierarchical model of the twentieth century, with leadership limited to top management levels and a culture of command and control. Such structures make it very difficult to keep professional, qualified staff motivated.

In the “new world of work”, leadership structures should reinforce a leadership culture, resulting in a leadership entrenched organisation. Frost (1999:11) states that there are certain common characteristics amongst all leaders. Some can be learnt and some are much easier to carry out than others, but most of the characteristics can be developed to enhance leadership in people. The emphasis, however, should not only be on creating leaders but also on creating a culture of leadership where everyone is taught leadership skills. The capacity building resulting from such an approach is more beneficial for the enterprise than just focussing on a few individuals who possess these as inherent skills and abilities. Followers who understand the elements and underlying principles of leadership become much better team players than those who have never had any leadership training.
An innovative leadership framework represents the role of leadership and leadership roles, which replaces the previous role of management and management roles. These leadership roles include primary leadership roles, to which a staff member is permanently appointed, as well as secondary leadership roles, which are voluntary. Secondary leadership roles usually operate outside the organisation's business processes and can therefore be termed "meta roles" (Strategic Information Services 2001b:4). In the light of this background, an appropriate leadership framework needs to be developed for the academic information service enterprise.

It was the adoption of such a new leadership framework (which included primary and secondary leadership roles) for a re-engineered academic information service enterprise, that led to the need for this research. It seemed viable to investigate the attitudes and perceptions of staff towards the value of this framework for both the enterprise and its staff, as no information in this regard could be retrieved. Searches were conducted on the following 13 academic databases, which included national and international databases:

- ABI Inform
- Academic Search Premier
- Ebsco Business Source
- Science Direct
- Emerald
- JSTOR
- General Business File
- Proquest Digital Dissertations
- OCLC Frist Search
- Magnet Current and Completed Research
- Magnet Union Catalogue of Theses and Dissertations
- Magnet Index to South African periodicals
- SAePublications
- OASIS.

This study will increase a person's knowledge of leadership development and the required leadership roles in academic information service enterprises. It will also provide insights into the attitudes of library management, librarians and administrative library staff towards this component of organisational design for the "new" enterprise, taking into consideration
the fears of managers regarding the unknown and their uncertainties and concerns about abdicating certain roles previously performed by them, as well as resistance to change by all staff that may be a result of individual opinions, perceptions or attitudes. The study will also provide a valuable guideline for establishing radical change.

1.2 STATEMENT OF THE PROBLEM

As changes in the internal and external environment continue to affect higher education, as well as the nature of academic information enterprise services, there is a corresponding need for leaders with vision and energy to foster the development of new paradigms of service and leadership (Albritton 1998:66). This requires an understanding of what organisational change entails and of how to deal with it in order to achieve buy-in from staff. Radical change results in academic information service enterprises implementing new organisational and service models, and in their shifting from traditional leadership models, which mainly focussed on managerial functions, to innovative leadership models which can accommodate all leadership roles on a daily basis. Such a model separates the primary leadership roles focussed on operational management of the enterprise from the secondary leadership roles such as counselling and mentoring and involve all staff of the enterprise in its leadership.

The successful implementation of such an innovative leadership model is dependent on the positive attitude of staff towards re-engineering, organisational design and leadership roles.

Against this background, the problem to be investigated can be stated as follows:

Can a leadership framework which divides primary and secondary leadership roles be meaningfully applied to a re-engineered academic information service enterprise, and what are the attitudes of staff towards such a leadership driven enterprise?
In order to investigate the attitudes of staff towards leadership in an enterprise as a result of re-engineering, it is necessary to firstly examine why enterprises should change; the critical success factors for change; how this change takes place in the form of re-engineering; organisational design and leadership roles. The problem will thus be investigated in terms of the following more specific questions:

- Why is it necessary for the academic information service enterprise to change?
- What are the critical success factors for change?
- How does the change take place in the form of
  - re-engineering
  - organisational design
  - leadership
- Does a leadership framework which divides primary and secondary leadership roles contribute to the effective functioning of the enterprise?
- Does a leadership framework, which provides secondary leadership roles to be performed voluntarily, satisfy staff?
- What determinants impact on the attitudes of staff towards a re-engineered leadership driven enterprise?

1.3 DELIMITATION OF THE STUDY

The study is limited to examining the theories of change, re-engineering, organisational design and leadership and to identifying the value of secondary roles for the leadership of the enterprise, whether it satisfies staff to perform them, as well as to considering the determinants which impact on the attitudes of the staff towards a re-engineered leadership driven enterprise.

The unit of analysis is restricted to the staff of a re-engineered academic information service enterprise, as on 22 September 2004. The study includes managerial staff, professional staff and administrative staff employed at different post levels by a large re-engineered academic information service enterprise, which consists of five post levels:

- Executive director
- Directors (division managers)
Sub-division managers
Section managers
Team members (professional and administrative staff as well as contract and student workers).

The survey technique used in the empirical research is the questionnaire.

The study includes a discussion of universal business trends resulting in the re-engineering of libraries and the associated need for different leadership roles.

1.4 BASIC TERMINOLOGY

The following core concepts relevant to the study are defined to ensure that they are understood in the context of the study. These will be explained in more detail in later chapters.

1.4.1 Attitudes

According to More (1999:18) attitudes are basic beliefs or opinions which people have about situations. She states that an attitude is never static. It is dynamic and changes consistently.

Middlebrook (1980:157) considers that one way of understanding the term attitude is to think of it as an overall, learned core disposition that guides a person’s thoughts, feelings and actions towards specific aspects or people. Attitudes reflect how an individual feels about something.

1.4.2 Leader

A strong leader supplies, through force of personality and vision, the cohesion that would otherwise be provided through formal structure. Such a leader projects a compelling vision of the enterprise, which focusses every member on the enterprise’s larger objectives (Hammer 2001:145).
1.4.3 Leadership

Leadership is the capacity to translate vision into reality (Bennis cited in Encyclopedia of Leadership 2004:947).

1.4.4 Leadership framework

A leadership framework represents the role of leadership and leadership roles in an organisation and replaces the role of management and management roles, which are the more traditional means of "governing" organisations. The leadership framework also determines the leadership structure, i.e. the number of "levels" within an organisation (Strategic Information Services 2001b:4).

1.4.5 Leadership roles

Represent the formal and explicit mechanisms through which leadership is demonstrated and reinforced (Strategic Information Services 2001b:4). These are generally secondary roles, not the roles for which an employee is recruited. These roles supplement the primary process roles for which an employee is recruited.

1.4.6 Organisational design

According to Galbraith (1977:5) organisational design is a decision process to bring about coherence between the goals or purposes for which the organisation exists, the pattern of division of labour and inter-unit coordination, and the people who will do the work.
1.4.7 Re-engineering

Re-engineering involves the fundamental re-thinking and radical redesign of business processes for dramatic improvements in performance (Hammer & Stanton 1996:3).

1.5 RESEARCH METHOD

The research method included a study of the literature and empirical research.

1.5.1 Study of the literature

A review of the literature was conducted to investigate research concerning organisational innovation through re-engineering, including a shift from management to leadership in academic libraries.

Chapters 2-5 represent the conceptual analysis of the construct organisational change as reflected in the literature.

1.5.2 Empirical research

Chapters 6-7 are concerned with the operationalisation of this study, which involves the development of research procedures to measure the value of a changed leadership framework for the enterprise and for its staff respectively.

The research design which is used in the empirical investigation is explained in chapter 6. Data was gathered through a survey instrument in the form of a questionnaire.

The questionnaires were distributed to all staff of a re-engineered academic service enterprise in order to ensure a representative sample in assessing the attitudes of staff, employed on different job levels, towards a new leadership framework and leadership roles.

Chapter 7 provides the statistical analysis and interpretations of the data collected.

Chapter 8 furnishes a summary, findings and recommendations.
1.6 RESEARCH PROFILE

In this research the chapters will focus on the following:

Chapter 1: Introduction

The purpose of chapter 1 is to introduce the reader to the aim of and motivation for the study, the research problem and the area of the study, i.e. the need to change, resulting in a new leadership framework and new leadership roles for a re-engineered academic information service enterprise, and the attitudes of library staff towards such a leadership driven enterprise.

Chapter 2: Change in the academic information service enterprise

Factors which have impacted on the evolution of academic libraries are discussed. The chapter explains why the academic library can be considered to be a business and information service enterprise. It further explains, in accordance with the systems theory, how it should take note of the change drivers in the environment and react accordingly in order to sustain itself.

Chapter 3: Re-engineering in the academic information service enterprise

A clear understanding of the nature of re-engineering is provided, as this is required before an academic information enterprise considers fundamental redesign rather than mere process improvement. The concepts underlying re-engineering and the re-engineering project approach, including the management of change, are explained. Since re-engineering is a relatively new strategic option, its value and any criticism of re-engineering should be assessed in order to identify the critical success factors for re-engineering, to avoid pitfalls identified by organisations which have made good use of re-engineering and to identify aspects that may impact on the attitudes of staff towards a re-engineered enterprise.
Chapter 4: Redesigning the academic information service enterprise

This chapter explains what organisation and organisational design entail. It further discusses the phases within organisational design which focus on the setting of the strategic context of the enterprise; process redesign; the establishment roles flowing from both the operational processes and leadership processes; and finally the integration of all organisational design components into a structure for the enterprise.

Chapter 5: Leadership in the academic information service enterprise

This chapter provides an overview of effective leadership. It further describes leadership in the contemporary academic information service enterprise.

Models in support of a leadership driven enterprise are discussed. Such models separate primary and secondary leadership roles. The organisational forms to support the leadership roles are explained, and the advantages/disadvantages of such a structure examined.

Chapter 6: Research design

This chapter constitutes the empirical research component of the study. A questionnaire to be completed by Unisa Library staff members is explained and the results examined, with a comment on how these could affect the academic information service enterprise and the success of the re-engineering project.

Chapter 7: Statistical analysis and interpretations

This chapter furnishes the statistical analysis and interpretations of the data collected.

Chapter 8: Summary, findings and recommendations

The final chapter furnishes a summary, findings and recommendations for future research.
1.7 SUMMARY

From the preceding synoptic overview of the study, it appears that academic service enterprises worldwide are changing, as the environments in which they operate constantly change. An understanding of the relevant concepts and theory which underlie change is important for any change initiative and may influence the attitudes of staff towards a re-engineered leadership driven enterprise. This chapter provides background information and the motivation for the study as well as the problem statement of the research. The value of the research and its delimitation are explained. Lastly, the outline of the study is described.

A theoretically based discussion of change in the academic information service enterprise will be presented in chapter 2.
CHAPTER 2

CHANGE IN THE ACADEMIC INFORMATION SERVICE ENTERPRISE

2.1 INTRODUCTION

As academic libraries develop into businesses, it is important to investigate factors which have impacted on the evolution of academic libraries through the years. Clarity is necessary as to what a business is and as to why the academic library can be considered to be an academic information service enterprise. The first part of this chapter deals with these matters. The second part of this chapter investigates the factors that ensure the sustainability of the enterprise, as reflected by the systems theory. In order for the staff of the academic information service enterprise to accept change, they should understand the need for change. Background on the evolution of the academic library and an understanding of the change drivers in the environment should contribute to their attitudes towards future change. This chapter serves as background to chapter 3, which discusses the re-engineering of the academic information service enterprise.

2.2 CHANGE IN ACADEMIC LIBRARIES

For many years, academic libraries have been an integral part of higher education. Lynch (1998:3) reports in this regard on the historical development of American academic libraries as far back as 1636. The development of the academic library in a leading country is also reflected in the development of this library type in other countries, such as South Africa.

An investigation into the development of the academic library against the background of Lynch reveals changes due to pressures in the library’s environment as follows.

2.2.1 Changes in the academic library due to internal pressures

Since their foundation, academic libraries have developed considerably in terms of growth and functioning, mainly as a result of changes in their values, vision, mission and policies when those of the institutions they serve changed. Changes in the vision, mission and
tuition policies of higher education institutions impacted on increases in student numbers and faculties. For example, Holley (1999:79) reports on an increase of student enrolments in America from 2 million in 1955 to 5 million in 1965 and 9 million in 1975. Haffajee (2000:61) too reports on increases in specifically African student numbers in South Africa, from as little as a few hundred in 1956 to thousands in 1999 as the trends and policies changed within the higher education sector as a result of transition and transformation. Academic libraries had to respond to these pressures as institutions changed their strategies and, in particular, their tuition policies.

The response to customer needs impacted particularly on the approach of academic libraries to membership. The composition of library membership often changed, as institutions changed their views about their responsibilities towards their customers. Libraries were not always important to the life of students, in particular at the time when the method of instruction was the transferring of information and not participation by students, i.e. interactive lecturing. Libraries were more important to the life of tutors, emerging faculties and the development of the university’s curriculum. In their early history, library services were often provided only to a religious community, and only later were academic library services provided to paying students (Lynch 1998:4).

With regard to size, academic libraries have grown greatly in terms of volumes when they were granted a library budget from the relevant academic institution. The growth in volumes noted in academic libraries, was a result of changes in the curriculum of universities (Lynch 1998:5). Holley (1999:79) states that academic libraries not only benefited from increased government support but also from private donors. As customer needs changed, academic libraries collected most of the materials of interest to their customers.

The contemporary academic library is the knowledge hub for the higher education institution it serves. A focus on student centred learning is noted especially in the developing countries of the world, as institutions focus on an increased throughput of students.

Towards the new millennium, academic libraries had to develop new methods of providing support to customers who do not use libraries and were compelled to adapt the digital technologies to the development of new resources and services. New information services needed to be unfettered by time and space (Lynch 1998:19). Increased research activities at university level, the massive amount of publications and the increased costs
of serials and electronic databases resulted in libraries forming partnerships with other institutions. As South Africa became a democratic country in 1994, a working group on libraries and information technology of the National Commission on Higher Education made 57 recommendations which all impacted to an extent on academic libraries, but the most noteworthy impact resulted from the recommendation which stated that institutions had to co-operate at regional, national and international levels. This resulted in the formation of academic library consortia (Haffajee 2000:68). The Gauteng and environs library consortium, for example, is a consortium that develops, grows and designs itself around customer’s needs and creates value through linking consumers, providers and stakeholders. It offers services, such as training services, and facilitates the use and maintenance of a common library system (Gaelic 2004:4).

2.2.2 Changes in the academic library as a result of the external environment

The external environment often impacted on the academic library. An indication of this is the effect of significant events in history such as the American Civil War, the Industrial Revolution, World War II, and the Information Age; or of significant changes in the higher education environment of a specific country, the library and information environment, and the management environment. The influence of some major external factors calls for a brief discussion.

During the period 1860-1890, the American Civil War and industrialisation, for example, transformed society and its demands upon higher education. The new curriculum no longer bowed to the preparation of the clergy but prepared graduates for places in an industrial society. The academic library had to act as a support in this regard (Lynch 1998:9). As higher education expanded after World War II, academic libraries also expanded. Some growth in library budgets, collections, and the size of library staff are noted. As higher education transformed itself from a college with a limited curriculum, a small faculty, precarious finances and modest facilities to the complex system it has become, the research university developed and strong academic libraries containing collections useful to the scholarship of the faculties emerged (Lynch 1998:10).

Approximately fifty years later, close to the new millennium, academic libraries again were compelled to respond to new changes in higher education. These changes were noted in
student demographics, the nature of public support for higher education, the costs of higher education, new scholarly disciplines that would lead to changes in teaching and research, scholarly communication and also changes in student expectations about higher education. As they had always done, campus administrators and faculties relied strongly on librarians for service support of the academic enterprise.

Brulls (2004:1) summarises changes during this period within the academic library, as a result of pressures in its environment, as follows:

“What makes it more complicated is the fact that libraries in higher education are facing all these changes at the same time: the world of learning is changing rapidly; the demands from researchers are becoming more critical; technology offers possibilities but at the same time developments in this area are dazzling; many libraries face budget cuts.”

In reality this means that the world of learning impacts on the method of education and the customer profile of the academic information service enterprise. As the global world moves towards a knowledge economy and life long learning becomes a way of living, academic libraries change their functions and policies to accommodate the needs of the different types of customers they serve. Furthermore, the demand of researchers is for better, faster and cheaper services at a time when the enterprise is likely to face budget cuts. Enhanced services in terms of information packaging and delivery are possible through the application of technology. However, developments in this field are rapid, resulting in additional pressure on academic librarians as they have to stay abreast and must continuously improve their skills.

Brulls (2004:1) has accentuated the fact that in light of the size and complexity of the shift, strategies to address these changes are necessary for organisations to survive.

A series of developments followed in the latter half of the 20th Century, which impacted on the development of the library profession in general and specifically that of the academic library. Fonfa (1998:22) reports in this regard significant developments in the history of librarianship as from the late 1950’s and the 1960’s:

- The publication of the American Library Association’s Standards for College Libraries in 1959. College libraries therefore started to improve, as the standards specified
that the library’s budget should be in proportion (minimum 5%) to the total budget of the college.

- Advances in bibliographic control led to improved access to materials, the provision of specialised reference services to support research activities and the design of a library instruction programme for students.
- The shift from faculty to librarian control of selection of materials for acquisition in university research libraries was particularly significant.
- Library staff not only became an important partner of academics in collection development, but also became information partners of academic staff in the development of courses and course delivery, as the academic library became integrated with the design of tuition and information delivery mechanisms, as well as with the design of course material for training students in information literacy (Lynch 1998:19; Unisa Library 1999c:1).
- Selling services to the community of commercial customers and the generation of income to supplement the University’s funding, in order to maintain standards (Unisa Library 1999c:2).

The role of the librarian thus changed as the functions of the academic library changed. It changed from that of a keeper of books to one of shouldering broad responsibilities for sophisticated information services, as needed by its customers. Academic librarians had to ensure that their knowledge, skills and abilities were upgraded simultaneously with the retooling of their libraries (Lynch 1998:19).

2.2.2.1 The impact of developments in the management environment on the academic library

*Management principles* (2002:64) states that in the fifties, a new approach to management impacted on all organisations. The academic library changed a great deal in terms of its approach to management as the external management environment impacted on it. The influence of this environment on the successful management of the organisation became apparent, partly as a result of the systems approach to management. This approach contends that the enterprise is closely entwined with its environment and that environmental scanning is necessary to determine environmental influences and change. This is important for the organisation so that it can adjust its products and services and not become extinct in the rapidly changing world. Libraries as service organisations
adopted this policy to monitor organisational influences and in this regard acknowledged the importance of environmental scanning.

This shift towards a focus on the environment and responding to it, influenced the academic library’s approach to leadership as an important component of the management of staff. Academic libraries started to acknowledge the fact that organisations operating in a period of rapid change need structures which empower staff to act creatively and autonomously (Unisa Library 1999c:1). Library staff therefore had to learn and to practise new skills and develop new attitudes towards leadership. They had to embody the values and expectations of the transformed society in their actions.

As part of their approach to management, academic libraries transformed their way of viewing their customers and services. In line with enterprises worldwide, the academic library shifted its focus from internal library processes to the satisfaction of customers and their preferences and placed this at the centre of product design and delivery. Organisational structures were established in support of this goal.

2.2.2.2 The new era: Technological imperatives

Lynch (1998:17) points out that the Information age impacted particularly on the methods of operation of the academic library. As collections continued to grow, librarians turned to computing in order to manage the collections. During the 1980’s academic libraries in large parts of the world implemented automated circulation systems and shared cataloguing on a national basis, resulting in improvements in library efficiencies and cost savings. On-line catalogues and electronic access to databases through on-line services further improved the quality of academic library services. As the core functions of librarianship were automated, librarians started to focus on performance measures of libraries beyond the historical input measures of size of collection, staff and budget. Greater attention was given to the information services, which included packaging of information, provided by reference units and to methods of instruction in the use of academic libraries.

Academic librarians were expected to address the issue of the value the library added to the educational mission of higher education.
In the light of the continuous internal and external pressures experienced by the academic library, it has to reconsider its purpose and services continuously. It has grown greatly in terms of its budget, collections and staff and has changed much in terms of its functioning, management, the positioning of itself within the academic community, its response to customers’ needs and their expectations of services.

The question is often asked whether the academic library has grown to be a business or enterprise.

2.3 THE ACADEMIC LIBRARY AS A BUSINESS AND ACADEMIC INFORMATION SERVICE ENTERPRISE

In order to determine whether the academic library has grown to be a business enterprise, an explanation of both the concepts business and enterprise are required. It also needs to be determined whether the characteristics pertaining to a business also apply to the academic information service enterprise.

2.3.1 Definition of a business

*Readers Digest Dictionary* (1994: 726) defines a business as a trade, profession or enterprise.

Orenstein (2002:83) defines a small business as having one to twenty plus employees, and a budget of approximately two million dollars. A larger business exceeds this number of employees and budget size.

Katzenbach (1997:16) states that a business which performs well is both a social and economic institution and must be led as such, through tough standards of financial performance as well as customer value and workforce rewards: a set of democratic principles that tap the creative power inherent in every person; and through self-governance by means of which both leaders and constituents are jointly accountable for creating new opportunities.

2.3.2 Definition of an enterprise
Roget’s new thesaurus (1988:348) defines an enterprise as something requiring extensive planning and work.

As far back as 1969, Beckhard (1969:v), stated that enterprise managers should be concerned with mobilising the energy of the organisation’s human resources toward achievement of the organisation’s performance objectives while at the same time organising the work in such a way that the work environment, the communications systems, and the relationships with people which individuals need for self worth, growth and satisfaction are significantly met at work.

From this definition it can be deduced that an enterprise has more than one goal and objective. It may include more than one business venture.

The definitions pertaining to a business and the definition of an enterprise are closely linked and both involve strong leadership, management and professionalism on the operational and strategic level. Both definitions refer to an organisation much involved with extensive planning.

Since they are so closely linked, the term business and the term enterprise may be considered to be the same as defined by the Readers Digest dictionary.

Orenstein (2002:83) states that most libraries in the United States fall within the category stipulated in the definition of a small business above. In South Africa also, academic libraries fall within this category but some exceed the figures stipulated in the definition by far; e.g., the Library of the University of South Africa, which serves the students of one of the mega universities in the world, has a post structure with approximately 300 posts and a total budget which exceeds the amount proposed by Orenstein (2002:83), by far.

With regard to the fact that an enterprise requires extensive planning, academic libraries meet this criterion. In general they are no longer only cultural or intellectual institutions. They have changed considerably in terms of the nature of the library service, library work, and library leadership, as this involves new information technologies and the World Wide Web.

Academic libraries are now information service enterprises concerned with throughput and customer satisfaction, which indicates that the institution a library serves depends a great
deal on it for sustainability. In order to meet this goal, the library had to change its approach to staff management. It implemented a flattened organisational structure with empowered cross-functional teams and reinvented work processes focussed on customised services. It puts a strong focus on knowledge management in order to support the knowledge economy. In the digital age, it still often has to provide services involving both printed material and electronic material, as some customers do not have the necessary infrastructure to use electronic services.

In the light of their complexity, most academic libraries in the new millennium meet the criteria pertaining to the definitions of a business and enterprise above.

2.3.3 Characteristics of a business applicable to the academic library

In analysing the typical characteristics of a business as reflected in the literature, it becomes clear that there are other reasons as to why the academic library should be considered to be a business rather than a function of the society in which it operates:

2.3.3.1 Business model and financial impact

The use of a business model by libraries has increased in general. Concerns for the customer, service orientation, high quality product and cost benefit analysis are concepts that have come to the library field directly from business and have been accepted as central to its model (Hayes & Brown 1994:413).

In the case of the academic library specifically, financial issues and decisions seem to dominate the academic librarian’s life today. Financial health, activities and related issues have become important functions of the library. In mapping the academic library’s internal and external financial relationships and in examining the energy that goes into these relationships, it becomes clear that the library plays an important role in financial decision making. For example, it is represented on financial committees considering the budget of the institution. It has become a business and will continue to be one in the future (Hayes & Brown 1994:405-406).

Academic libraries have control over considerable resources in the academic organisation, as all other libraries have control over vast resources within the organisation they serve.
In this regard, Orenstein (2002:83) states that all American libraries, including academic libraries, have grown into businesses. He explains that in 1997, American libraries bought more than 96 million books, the equivalent of 10 percent of total book sales to individuals by retailers. During this time libraries spent approximately two million dollars on new print acquisitions. This figure does not include subscriptions to electronic databases, which are mainly purchased by academic libraries.

More than 37,600 libraries in the United States have an annual budget for collections of approximately one and a half million dollars. In South Africa too, similarly impressive figures and data reflect the financial situation of academic libraries.

For many years libraries have introduced charges for some services in order to supplement the budget. This is done in accordance with business principles. Hayes and Brown (1994:413) explain in this regard that areas are set up in the library as a profit centre rather than a cost centre. For example, an area where a colour photocopying service is provided as a profit centre can be set up in the library. In order to furnish such a service, financial technologies requiring, for example, patron credit cards for photocopying are introduced.

However, most libraries are nonprofit organisations or cost centres and the financial part of the equation exists in how the library is funded by the parent institution rather than in how the customer pays the library directly for its service. Librarians responsible for libraries operating as cost centres also consider their libraries from a business perspective, not so much as a profit business but as a business that assigns value to accessing its resources, a value to its services, to the products it provides; and a business which markets all these (Reu 1997:3). A library operates by the principle that a service which is valued, respected and considered important by its users cannot be taken away. The sustainability of the library is therefore ensured.

2.3.3.2 Close emotional ties to the community

Whether a person runs a business or a library, the more closely linked the person is to the community, the more he or she cares about the community’s success. Orenstein (2002:83) states that one area where library managers and business owners share the same demographic concern is that many library employees and small business owners
work and live relatively close to their employment. Academic librarians, like all business owners, often attend the same community events as their customers, have the same circle of friends and share the same infrastructures. This is very likely in the campus environment of the respective academic institutions in South Africa.

2.3.3.3 Strong personal ties to the business

Business owners identify extremely closely with the overall vision of their businesses. As builders of service organisations, academic librarians too take ownership of their work, feeling that the library’s success is dependent on them (Orenstein 2002:84).

2.3.3.4 Competition with competitors

Academic libraries, like businesses, face increasing competition locally from the private sector and globally with competitors who offer low-priced products of high quality and excellent service. For decades libraries were the only choice when students needed to do research. The academic library is now finding itself in the Information Age and in the most competitive market for information ever in history. Orenstein (2002:83) states that it must compete with the large number of information providers who claim that they can offer information services cheaper, faster and with greater access than libraries. Typical competitors are publishers, booksellers, the Internet booksellers open 24 hours per day and the Internet itself. The academic library cannot compete with each of these and be successful. It therefore needs to establish what its business is and do it well; it should be innovative in services and embrace tools such as technology to improve services and standards.

2.3.3.5 Marketing of products/services

A business has to market itself by promoting its products (Orenstein 2002:83). Management principles (2002:119) refers to the fact that requirements for success in an organisation’s product-market relationship change over time. Management must therefore monitor the product’s life cycle (consisting of the introduction phase, the growth phase, the maturity phase and the decline phase) and identify strengths and weaknesses in the environment that may impact on the product as an ongoing exercise. During the introductory phase of the product’s life cycle, however, the key success factor would
revolve around the marketing capabilities of the organisation.

The product of the academic library is information. Any business or library needs to market its services. Many libraries are consequently shifting their focus to marketing (Campbell 2003:10). Library associations sometimes market libraries and it is often noted that the academic library introduces its own marketing strategy. Marketing tools are introduced, for example, brochures, logos, stationery to improve the corporate image of the library and to advertise the library.

2.3.3.6 Environmental scanning

Orenstein (2002:83) views this as another area where library managers and business owners share the same concerns. Both are often challenged by the political, economic, social and demographic environment and the changes facing their community because of the altering marketplace. Library services, collections and programming must therefore always mirror the needs of its community of users. In analysing the history of the academic library, it is noted that it sustained itself as a result of its response to internal and external pressures in its environment.

2.3.3.7 Management

The business enterprise requires excellent management in order to create wealth or value. Management can be depicted as a scientific process, according to which an enterprise deploys its resources and focuses on the market in such a way that it attains its objectives as productively as possible. The management functions of planning, organising, leading and controlling are continuously performed in changing conditions. This characteristic of a business also applies to an academic library.

2.3.3.8 Service orientation

Hammer (2001:12) states that businesses operate in a customer economy and that they should be run for the customer. The following principles provided by Hammer (2001:15-35) pertain to customer focus and are applied by academic libraries. From the customer’s standpoint, the academic library should be easy to do business with:
It should present a single face to the customer, regardless of the fact that it is a multi-division business or offers many products

It should work in different ways for different classes of customers

The customer should have a seamless experience across all interactions with the business

Customers’ needs should be anticipated

Customers must be taught to do more for themselves

Only those things customers really care about should be measured.

He also states that the customer should be provided with more value-added services, which can only be established by a **process enterprise** (Hammer 2001:12, 38, 78). Both businesses and academic libraries nowadays are obsessed about the end-to-end processes that create value for customers. Management must ensure that all staff understand processes and their role in them and should appoint senior process owners to measure, manage and improve the processes. A process-friendly company is created by aligning facilities, compensation and structure around processes. Furthermore, a culture of teamwork is developed and managing is done in process terms in order to make the business better. The process has become a way of life (Hammer 2001:78). This applies to both the business and the library.

Academic librarians are in a service profession and since their libraries are funded by government, their patrons as taxpayers pay for services rendered. As is the case with a business, the librarian also endeavours to be innovative in service provision and policies, so as to enhance user convenience. The library evaluates what can be done to emulate competitors, to lead the way and to distinguish itself through excellence in patron service. Libraries often enter into partnerships in order to improve services and to ensure excellent services. Just as local proprietors cannot afford to lose customers, academic libraries cannot afford to lose their customers. Good customer service is critical to the success of the library (Orenstein 2002:84).

Technology is often applied by businesses, and specifically by academic libraries, to improve services. Campbell (2003:2) warns that this is much more than rearranging the furniture to accept technology. Academic libraries have to embrace technology in order to achieve maximum service benefit. Examples of technological applications are computerised access services, lending services and training services.
Based on the size of the typical academic library’s staff, its salary and operational budget and the comprehensive plan which is required to make the business work, the academic library may be referred to as an **enterprise**. Based on the facts that academic librarians are in a service profession, that the academic library is being run for the customer with a view to create a process driven enterprise with end-to-end processes offering value for customers, that it works in different ways for different classes of customers, that customer needs are being anticipated and customer services being measured, the academic library may be referred to as a **service enterprise**. Based on the facts that the customer of the academic library is related to the academic environment and that the product of the academic library is information, the academic library is considered to be an **academic information service enterprise**.

### 2.4 MANAGING THE ACADEMIC INFORMATION SERVICE ENTERPRISE IN A CHANGING ENVIRONMENT

It is important to manage the academic information service enterprise successfully as a business in a changing environment in order for it to sustain itself. This is only possible if management understands the relationship between the academic information service enterprise and its environment. The environment of the academic information service enterprise includes the environment of the system in which it operates as well as the broad environmental system.

### 2.4.1 Systems approach in management

By way of introducing the relationship between the academic information service enterprise and its environment, the systems theory needs a brief discussion. *Management principles* (2002:61-63) provides a clear overview of this theory. Table 2.1 explains the systems theory and indicates how the academic information service enterprise relates to the systems approach in management.

| TABLE 2.1 |
The Systems Theory Applied to the Academic Information Service Enterprise

<table>
<thead>
<tr>
<th>Concepts of the systems theory</th>
<th>Systems theory applied to academic information service enterprise</th>
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<tbody>
<tr>
<td>1 A system is a set of interrelated elements functioning as a whole; a business organisation is a system operating in a specific environment; the organisation and environment depend on each other for sustainability.</td>
<td>The academic information service enterprise operates in the academic environment which it serves; it is dependent on the academic environment, in which it operates, for sustainability and vice versa.</td>
</tr>
<tr>
<td>2 An organisation as a system comprises three basic elements, i.e. inputs, transformation processes and outputs.</td>
<td>The academic information service enterprise obtains inputs from the environment through labour, physical resources, financial resources and academic knowledge. It transforms inputs from the environment by means of manufacturing systems and management processes into outputs, in the form of information products and services for the academic environment which it serves.</td>
</tr>
<tr>
<td>3 A closed system is self supporting; an open system depends on the environment in which it operates and there is a specific interaction between the open system and the environment.</td>
<td>The academic information service enterprise and the community it serves are not self-supporting closed entities but depend on and interact with each other. This is therefore an open system.</td>
</tr>
<tr>
<td>4 A subsystem is a system within a system. A change in a subsystem affects others, as they are interdependent.</td>
<td>Although the academic information service enterprise is a system, it is also a subsystem. It will affect the academic institution it serves should it be inefficient. The systems approach in management offers a framework in which the various subsystems can be studied separately or in terms of the academic institution as a whole.</td>
</tr>
</tbody>
</table>
5 Synergy refers to the synchronisation of individual subsystems in such a way that the result of their simultaneous application is greater than the sum of their individual efforts. This applies to the subsystems of the institution it serves and the subsystems within the academic information service enterprise. The results of all subsystems should be more productive than in their individual functioning.

6 Entropy refers to the process of a system’s disintegration, which is the opposite of synergy. Entropy will occur should the academic information service enterprise not make the necessary adjustments within its subsystems in order to ensure effective results.

In order to ensure the sustainability of the academic information service enterprise and the institution it serves, it must be managed as both an open system and a subsystem. There should be synergy amongst the individual subsystems so that the result of their simultaneous application is greater than the sum of their individual efforts.

2.4.2 Environmental variables that influence the environment of the academic information service enterprise

The environmental variables that influence the environment can be classified into three different environments, i.e. the micro-environment, the market environment and the macro-environment.

2.4.2.1 Micro-environment

The micro-environment contains the enterprise itself and constitutes that environment over which management has complete control. Variables that influence this environment (Management principles 2002:64) or significant drivers of change in this environment are:

- The vision, mission, aims and objectives of the enterprise

Riggs (1998:56-57) states that leaders who achieve results are those with a vision - a vision deals with the future and energises staff to move into the future by acquiring skills and resources to make it happen. Because of the staff’s action, the academic information service enterprise evolves and makes progress into a strategic direction.
For visionary leadership to succeed, it needs form and function, process and purpose. All these begin with a clear vision of the future.

- Management functions

The management functions, including the marketing function, which impact on the products and services of the academic information service enterprise, are important. The academic information service enterprise needs to consider its products/services and operations in a holistic fashion. Should services and processes be adapted and altered continuously, they may become fragmented, there may be duplication of processes in different divisions and rules and procedures may become contradictory or obsolete. Adapted processes may need to be re-designed and not further patched (Unisa Library 2002:2), driving the academic information service enterprise to radical change.

Management functions also include financial management. The management of the academic information service enterprise may not be satisfied with its overall levels of efficiency and cost effectiveness, despite the fact that staff are willing to work hard and are committed to their work (Unisa Library 2002:2). This may be a strong driver to change all the processes and structures because they are inappropriate in a transformed society. Because they are inappropriate, they do not encourage professionalism, innovation in services and cost effectiveness.

- The resources of the academic information service enterprise

These include the capital and human resources of the academic information service enterprise. The enterprise should continuously seek ways to become more efficient and productive (Chan & Peel 1998:46). Should there be an imbalance in staffing levels, a thorough re-design of jobs, based on processes and roles performed, may become a pressing need and significant driver of change. Staffing levels per operational unit need to be considered, based on well-designed processes and roles within the unit (Unisa Library 2002:1). Should there be service levels which have been sliding for some time, the problem could be ascribed to problems on the process and role level, rather than to problems in terms of performance (Unisa Library 2002:2). Sliding service levels are therefore an important driver of change.

Chan and Peel (1998:46) warn that the inability to manage costs has driven many organisations out of business. As global competition becomes more intensive, cost control becomes more critical for the academic information service enterprise.
Visionary leadership focussed on results can be considered to be the most important driver of change in the micro-environment. Management decisions flowing from the micro-environment influence the market environment through the strategy that the enterprise applies to protect, maintain and extend its share of the market (Management principles 2002:65; Chan & Peel 1998:46).

2.4.2.2 Market environment

The market environment surrounds the enterprise. Key variables in this environment, determining the nature and strength of competition in an industry relevant to all enterprises, are the following (Management principles 2002:64):

- Customers whose purchasing power determines the number of entrants to the market
- Established, new and potential competitors
- Intermediaries in competition with each other to handle the enterprise’s products or products of competitors
- Suppliers who supply products, raw materials, services and finance to the organisation
- Labour unions dealing with labour supply.

Management has no control over these variables although its strategy can influence them.

Sweeney (1994:81-82) too acknowledges these key variables and states that the most important change driver, within the academic information service enterprise, is the customer. Academic information service enterprises should firstly be concerned with throughput and customer satisfaction in order to ensure sustainability.

Their second concern should be their competition, i.e. the fact that the rest of the world is now also in the information business. In this regard, Sweeney refers specifically to publishers and information intermediaries which bring about significant competition.

2.4.2.3 Macro-environment

This environment exists outside the enterprise and market environment and comprises the
The technological environment, responsible for the pace of innovation and change

An economic environment which influences, for example, inflation, exchange rates and the monetary and fiscal policy of the enterprise

The social environment responsible for the shaping of people’s life styles, habits and values, resulting in certain demands made on the organisation

The physical environment which comprises natural resources such as flora and fauna, improvements in roads and bridges and mineral resources

The institutional environment with government and political involvement as the primary components


Sweeney (1994:80) accentuates the importance of information technology as a driver of change within the academic information service enterprise, as all its core functions lend themselves to automation. He, however, advocates the fact that such technology cannot be used to automate what now exists. “The entire library needs to be re-engineered and the only solution to satisfying users demands lies in re-engineering the entire library, focussing on customer satisfaction” (Sweeney 1994:78). This implies that electronic and other technologies need to be integrated into the processes and services of the academic information service enterprise so that it forms a coherent design (Unisa Library 2002:1).

From the above discussion, it is evident that the academic information service enterprise should have an internal, market and external environmental focus. Traditionally there has often been an internal focus within the academic information service enterprise. Evident of this fact is that its regulations and services reflected the pre-occupations of the academic information service enterprise and not necessarily the needs and preferences of the customers (Unisa Library 2002:2).

The information management system of the academic information service enterprise should make adequate provision for environmental scanning. This furnishes a process of measuring, the making of projections and evaluating change in the environment. Du Toit (1991:186) states that the objective of environmental scanning is to identify the strengths and weaknesses which influence the enterprise’s activities. Adequate information will enable members of management to consider the larger pattern of relationships in which
they work and enable them to formulate a strategic response (*Management principles 2002*:83). This may result in the rethinking and redesigning of the business processes connecting organisational members with customers and suppliers outside the organisation, in order to benefit from speed, quality of service and lower overhead costs.

Figure 2.1 illustrates the composition of the business environment of the academic information service enterprise and a practical conceptualisation of the interaction between the enterprise and its environment, in the format usually found in the literature (*Management principles 2002*:65). This figure, however, also indicates the importance of tools to be used to determine changes in the environment and the main change drivers in each sub-environment which drive the enterprise to change, in the interests of the customer.
FIGURE 2.1
ENVIRONMENTAL VARIABLES TO INFLUENCE CUSTOMERS OF THE ACADEMIC INFORMATION SERVICE

Micro-environment:
The micro-environment influences the market environment through strategy
- Visionary leadership: Mission and objectives of the academic information service enterprise
- The academic information service enterprise and its management
- Resources of the academic information service enterprise: staff efficiency and cost effectiveness
- Organisational culture

Market environment:
- The market (Customer needs)
- Suppliers
- Competitors (Interested in taking over the customers)
- Opportunities/Threats

Macro-environment:
- Technological (Processes supporting customer services aligned with technology to improve service level and cost effectiveness)
- Economic
- Social
- Institutional/Political
- International
- Ecological

Direct effect
Indirect effect
Negligible effect

Environmental scanning
Interpretation of Management Information
Activities and business in the interests of the customer
Source: Adapted from *Introduction to business management* (1996:50).

2.5 SUMMARY

In this chapter the determinants of change were pointed out, as greater knowledge in this regard should impact on the attitudes of staff towards change. In discussing the developments in academic libraries it became evident that as a result of driving factors in the micro-environment, market environment and macro-environment, the academic library has developed a great deal since it started. It has grown considerably in terms of its size and functioning and now meets the criteria relating to a business enterprise.

In accordance with the systems theory, the academic information service enterprise is an open system dependent on its environment. It should therefore be managed by taking into consideration information provided by an appropriate information management system which makes adequate provision for environmental scanning of its entire environment. The information system will provide management with the necessary information to indicate change drivers.

The extent of the environmental change and the subsequent level of complexity involved in the change, should determine whether it is necessary to revisit the business processes of the academic information service enterprise holistically, resulting in the re-engineering of the enterprise.
CHAPTER 3

RE-ENGINEERING IN THE ACADEMIC INFORMATION SERVICE ENTERPRISE

3.1 INTRODUCTION

Academic information service enterprises aiming to solve their business problems by redesigning processes and information systems, i.e. by a complete business redesign, referred to as re-engineering, should gain clarity as to what re-engineering is, what distinguishes it from the continuous process improvement of an organisation, and what the critical success factors for re-engineering are, as these aspects may impact on the attitudes of staff towards a re-engineered academic information service enterprise and implementation of the re-engineered enterprise model. Aspects dealing with “what” re-engineering entails are discussed in the first part of the chapter. The second part of this chapter deals with “how” the change resulting from re-engineering can be established through appropriate change management. This chapter serves as the background to chapter 4, which introduces organisational design.

3.2 THE NATURE OF RE-ENGINEERING

3.2.1 Explanation of the concept

The definition provided by the leaders of re-engineering, i.e. Hammer and Champy (1993:35), and those provided by Andrews and Stalick (1994:219) and by Management principles (2002:52), acknowledge process redesign as a key issue of re-engineering and place business process re-engineering at the heart of re-engineering.

Hammer and Stanton (1996:3) define business re-engineering as fundamental rethinking, resulting in a radical change in business processes, for the purposes of a dramatic improvement in business performance.

Hammer (2001:52) explains that the dictionary meaning of the word radical is applied, i.e. “fundamental, far reaching, going to the root”. At first he thought that “radical” was the key word in the definition, but soon realised that the core of the definition belongs to the word
“process”, since process is the core of business ideas. It is the way in which the abstract goal of putting customers first is turned into its practical consequences. Processes create the results delivered to the customer. Re-engineering therefore focuses on the key organisational processes that take various inputs and deliver outputs of value to customers.

Cross, Feather and Lynch (1994:4) refer to Hammer’s definition (1993:5) as encompassing the fundamental rethinking and radical redesign of business processes in order to achieve dramatic improvements in critical, contemporary measures of performance such as cost, quality service, and speed. Andrews and Stalick (1994:1) state that the radical redesign of processes can be explained as ripping the guts out of an organisation and reassembling them in the context of today’s changing business world. During a fundamental investigation, each and every assumption and practice is thus questioned.

Management principles (2002:52) states that re-engineering involves a significant reassessment of what a particular organisation is all about. It defines re-engineering as starting with a clean piece of paper, which could mean a quantum leap in reinventing the organisation and not only incremental steps in doing so. During re-engineering organisations must not only focus on their immediate environment but should also consider the larger patterns of relationships in which they work and influence the lives of others.

Other authors such as Treacy and Wiersema (1995:xiv), Cross, Feather and Lynch (1994:20), Katzenbach (1997:7) and Drucker (1992:8) add other focuses to re-engineering as follows:

Treacy and Wiersema (1995:xiv) identify two key issues in re-engineering a business and warn that no organisation can succeed today by trying to be all things to all people. It must find the unique value that it alone can provide to a chosen market. They state that why and how this is done, are the two key issues in re-engineering a business.

Cross, Feather and Lynch (1994:20) accentuate the importance of product modelling as a key issue in re-engineering and acknowledge that re-engineering includes the engineering of new products. They further accentuate the fact that long before re-engineering, revolutionary management consultants propagated the need for continuous improvement and innovation in products and processes. Cross, Feather and Lynch (1994:20) therefore emphasises that re-engineering should also encompass the “engineering of something new”.


Katzenbach (1997:7) associates major change, i.e. re-engineering, with improved skills in leadership and behaviours. He defines major change as comprising those situations in which corporate performance requires most people throughout the organisation to learn new leadership behaviours and skills. These new skills offer the organisation a competitive advantage, which allows it to produce better performance in shorter time frames. He states that real change leaders care about both the people to perform the operations and the performance objectives as these aspects are required by today’s business environments.

Drucker (1992:8) also regards the rediscovery of leadership as an important element in major change.

Based on an analysis of the above definitions, the following definition embraces all the key issues in the re-engineering of an academic information service enterprise:

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Re-engineering is about “clean sheet” redesigning of the entire enterprise and the rediscovery of leadership for the enterprise. It entails the modelling of the enterprise’s products and services in terms of its unique value and by putting the customer first; the fundamental redesign of operational and leadership processes and structures; the determining of roles and required skills for service delivery; and the integration of people, processes, technology and infrastructure with a view to providing value for money to customers.
```

### 3.2.2 Value, and criticism, of re-engineering

Since re-engineering is a relatively new strategic option, its value is often questioned. The literature, however, reflects many cases of organisations that have benefited from re-engineering (Mumford & Hendricks (1996:22); Attaran and Wood (1999:753); Davenport (1995:28); Chan and Peel (1998:53)).

Chan and Peel (1998:53) question the views of writers who attempt to cast re-engineering as either a success or a failure. They encourage a more realistic approach by means of which the re-engineering effort is measured against the objective which was originally set to be achieved. In this regard they report on a study of 37 organisations spanning 17
different industries in the private and public sectors, that have re-engineered in the manner contemplated by Hammer and Champy. The sample contained national and international companies, both large and small. The compilation of data is reported in a table providing a summary not only of the reasons why the companies embarked on re-engineering but also the results of this re-engineering for all the companies studied. This provides empirical evidence in terms of the impact of re-engineering and its subsequent success rate (Chan & Peel 1998:47).

Although Harrington (1998:71) argues that many factors have contributed to the rise and fall of process re-engineering, he too admits that even with all its problems, process re-engineering is still an important approach that all organisations should be using. Attaran and Wood (1999:752) wrote that re-engineering is more popular than ever and that within the next few years, 75% of all American companies will embark on re-engineering. They report that a survey of 180 United States and 100 European companies, which was conducted in 1995, revealed that three-quarters of these companies had already engaged in re-engineering in the last three years and that in 80% the results had met or exceeded their expectations. Successfully implemented re-engineering projects benefited from higher productivity, greater cost efficiency in delivery of services, reduced business cycles and overall improved profits.

Attaran (2000:800) states that many companies have embraced re-engineering as the most effective tool to improve efficiency, productivity and quality of product or service. He emphasises that the success of process re-engineering lies not only in executing well defined changes, but also in motivating the organisation to implement the changes. He warns that re-engineering is not continuous change. It should be done once and should be done right.

Petrozzo and Stepper (1994:5) state that re-engineering and the principles of its successful implementation can be applied to companies of all sizes. They confirm that whether working in a local retail store or a large multinational organisation, managers all over the world can apply the same approach to problem identification and resolution. Clayton (1997.ix) writes that this applies to libraries too and that librarians should consider the way libraries, especially academic and research libraries, are moving, i.e. to an information-based society in which service organisations play an important role. Libraries are also facing the challenges of automation of their basic routines. These impact greatly on the process and compel them no longer to look at innovation as an option, but rather as a necessity leading to business process re-engineering.
Due to the popularity of the re-engineering concept in the 1990's, and the fact that so many organisations embarked on re-engineering, criticism of the validity and success rate of this approach was inevitable. Criticism of re-engineering has come from many authors, including the advocates of re-engineering, i.e. Hammer and Champy, who conclude that two-thirds of all re-engineering attempts are clear failures. With regard to such failures, Moreno (1999:361) reports that failures are mostly ascribed to unrealistic expectations envisaged to achieve objectives which are not measurable, and to the fact that employees leave the company as they fear job losses or the downgrading of remaining positions. Attaran (2000:796) also acknowledges failure to cope with people resistance as an important barrier to the successful implementation of re-engineering. He accentuates the fact that the difference between success and failure of re-engineering did not depend on company size or resources, but on appropriate planning and avoidance of pitfalls (Attaran 2000:795).

**3.3 DEFINITION OF CONTINUOUS PROCESS IMPROVEMENT (CPI)**

Hammer (1990:104) defines CPI as the act of paving cow paths. Problem areas are patched continuously in order to achieve the organisation’s objectives. He explains (Hammer 2001:119) that this can be done by recording significant measures on a scorecard and allowing team leaders to influence those associated with the team’s work. Target performance levels for each of the measures are established. These include overarching goals relating to customer satisfaction as well as to controllable operational activities, i.e. the speed and accuracy with which a service is delivered. Mechanisms are in place to calculate the value of each of these measures on a regular basis and the measures are then compared with the established target. All is well if measures are achieving targets but if not, managers need to address the root causes of the inadequate performance in order to meet overall business goals. This can be done through management and improvement resulting in training of the responsible staff member, or the provision of adequate tools. Once the problem is identified the remedy is applied. Should the staff member then turn around applications quickly enough but the organisation as a whole does not, it becomes clear that the fault lies with the larger process of which the
staff member is but a part, and that the larger process needs to be addressed.

No matter how hard staff may work, it is not possible to overcome a problematic or limited process design. Should the gap between the required and actual process performance be substantial, management should not only tinker with the process by applying CPI but need to discard it and create a new one through business process re-engineering (Hammer 2001:120).

Chang (1996:5) defines CPI as the fixing up of certain activities rather than scrapping the process. It is applied in the case where a certain process in the organisation requires minor redesign.

CPI can be linked with the concept of total quality management (TQM). The introduction of TQM was noted in the late 1970's; it continued in the 1980's and gained even more momentum in the early 1990's. It was specifically applied in the mid 1980's by nonprofit organisations, like academic information service enterprises. Riggs (1993:76) writes that CPI is at the core of TQM. The installation of TQM in libraries did not imply that staff were not engaged in CPI. On the contrary, in addition TQM provides a systematic formalised process for focussing on improvements. It is a process that manages by facts, uses tools for analysing and measuring work and evaluates progress on a regular basis (Riggs 1993:73). TQM programmes started with quality circles where a group of employees were placed on teams to identify and solve problems leading to poor quality. Based on TQM's strong emphasis on user satisfaction, it is an excellent tool for management of libraries, as libraries are essentially service orientated (Riggs 1993:73). It must, however, be considered within the context described above in order to solve problems of poor quality.

Based on an analysis of the above, CPI can be defined as the redesign of certain activities rather than the entire process, when measurement indicates achievement of the business performance but a slight gap exists between actual and desired process performance.

3.3.1 A comparison of CPI with re-engineering

Chang (1996:8-9) states that both CPI and re-engineering are important in today's organisation. It should be considered by the change leader whether a certain process within the organisation requires minor (continuous process improvement) or major
(process re-engineering) redesign. In comparing re-engineering with CPI, the most significant difference lies within the fact that re-engineering is much more than a superimposition of a patchwork of continuous improvement activities onto current operations; in fact, it starts with a clean "slate" or "canvas". Both are important in order to attain significant advances in organisational performance.

Key considerations in deciding which approach to use include aspects such as whether total change is necessary due to the complexity of the matter; the urgency of market place changes; change due to competitiveness in the environment; available skills and manpower to manage a new state while continuing with the ongoing operations at peak efficiency; geographic spread; customer involvement; cost and staffing allocation (Kanter, Stein & Jick 1992:515). After examining the industry, market, technology trends and customer needs, a clear vision and perspective on meeting these needs in the marketplace by new processes should be formulated (Cross, Feather & Lynch 1994:3).

Kanter, Stein and Jick (1992:514) state that the change manager should then consider the relationship between a set of options, i.e. re-engineering and CPI, and the specific character of the situation within which the choices should be made. Chang (1996:6-7) describes significant typical differences between the two approaches which are highlighted in Table 3.1.

### TABLE 3.1
DIFFERENCES BETWEEN CPI AND PROCESS RE-ENGINEERING

<table>
<thead>
<tr>
<th>Activity</th>
<th>CPI</th>
<th>Process re-engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management involvement</td>
<td>Involves employees at all levels and focuses on incremental improvement of work processes</td>
<td>Involves managers since it leads to changing organisational structure and redesigning jobs</td>
</tr>
<tr>
<td>Team member involvement</td>
<td>Team members are involved as needed over an extended time frame</td>
<td>Intense team member involvement on a full time basis over a condensed time frame</td>
</tr>
<tr>
<td>Improvement goals</td>
<td>Achievement of successive incremental improvements over a period of time</td>
<td>Periodic, with a focus on the achievement of dramatic improvement</td>
</tr>
<tr>
<td>Implementation approach</td>
<td>Incremental improvements that add up to significant improvements</td>
<td>Single improvement based on outcome</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Magnitude of organisational change</td>
<td>Limited disruption to existing jobs, management systems and organisational structures</td>
<td>Radical process changes resulting in changes in job design, management systems, training and retraining, organisational structure and information technology</td>
</tr>
<tr>
<td>Extent of focus</td>
<td>Focus on narrowly defined processes</td>
<td>Focus on broad based, cross functional processes of the entire organisational system</td>
</tr>
</tbody>
</table>

Source: Adapted from Chang (1996:6-7).

### 3.4 CRITICAL SUCCESS FACTORS FOR RE-ENGINEERING

In order to ensure successful implementation of re-engineering proposals, the following critical success factors should be noted.

#### 3.4.1 Proper strategy and leadership

Re-engineering is about operations. Therefore a clear strategy should indicate which operations matter (Attaran & Wood, 1999:756). Egan (1988:24) explains that leadership goes beyond mere management to innovation and change and can be found on all levels, i.e. executive, managerial, supervisory, technical and operational. It involves developing visions, turning them into agendas, communicating these agendas, creating an environment of problem solving and making sure that everyone cooperates until the agendas are accomplished.

#### 3.4.2 Managerial support in change

Holland and Kumar (1995:86) emphasise that executive support is critical to the success of re-engineering. It not only provides a vision of the future and the perspective so as to identify the processes to be altered in order to meet future needs, but also ensures that adequate time and the organisation’s best resources are allocated to the project.

Kiely (1995:15) points out important reasons ascribed to the failure rate of re-engineering as: the resistance of middle managers in particular to change; inadequate leadership by senior management during re-engineering implementations; the wrong manager (too low
in the management ranks or about to retire or change jobs) to sponsor the re-engineering project; or the job being delegated to consultants (experts in the field of business process re-engineering) by the management who then do not take the hard decisions.

Re-engineering changes all aspects of a business, including jobs, skills requirements, organisational structure and management philosophy and style (Attaran 2000:795). Re-engineering may result in a more flexible, flattened organisational structure and a totally new management style with fewer managers. Management may fear job losses and therefore be reluctant to embark on re-engineering or to support it fully. Re-engineering will not succeed if management is not willing to support the change.

### 3.4.3 Insight into the re-engineering concept

Attaran and Wood (1999:754) warn that re-engineering should not be used as a term applied to any organisational change, e.g. automation. It forces a new way of thinking, as pointed out in the definition of re-engineering stated under 3.2.1. It is not a cheap, quick fix programme, but a challenging process which requires much hard work. Harrington (1998:69) also noted this factor, stating that the methodology is often misused and that this is a barrier, and in 2000 Attaran (2000:797) confirmed this fact again in a follow up article. Kiely (1995:15) warns against unrealistic expectations about the speed, scope or benefits of re-engineering. Chan and Peel (1998:44) argue that re-engineering as a strategic option can be successfully implemented should the concept be properly understood. The businessman who wants to embark on re-engineering must, therefore, understand the re-engineering concept and the factors that give rise to re-engineering; the benefits of re-engineering; how the process can be accomplished; and its pitfalls.

### 3.4.4 Project approach for re-engineering

In order for the re-engineering project to be successful, certain steps need to be performed as part of the project life cycle (Cross, Feather & Lynch (1994:25), Andrews and Stalick (1994:15), Chang (1996:17), Attaran (2000:797)). Kiely (1995:15) reports on a study which concluded that the high failure rate of re-engineering usually results from organisational deficiencies or from poor structuring of the project. The re-engineering methodology can be viewed as a management framework for implementation. Attaran (2000:798) provides a typical six stage re-engineering guide as presented in Figure 3.1.
Stage 1: Preparation
- Determine if there is potential for re-engineering
- Establish goals
- Identify the process’ customer-driven objectives
- Identify obstacles to re-engineering efforts
- Identify organisational barriers

Stage 2: Assessment
- Gain a detailed understanding of the current process
- Measure the results in terms of cost, quality and time
- Select the right process
- Clearly define the scope and boundaries of the process

Stage 3: Solution
- Examine process linkages
- Consolidate information
- Redefine alternatives
- Define skills and staffing needs
- Define jobs
- Build cross functional teams
- Take ownership of re-engineering proposal

Stage 4: Benchmarking
- Determine performance drivers
- Benchmark performance
- Find radically different approaches to perform a process

Stage 5: Development
- Integrate the development of people, processes and technology
- Maintain clear direction for implementation
- Rank sequence of implementation
- Set well defined milestones for deliverables
- Set performance standards
- Set clearly defined tests

Stage 6: Transformation
- Drive the implementation toward the performance target
- Pilot test the new approach
- Monitor the results
- Provide training of employees

FIGURE 3.1
PRACTICAL GUIDE TO RE-ENGINEERING

Source: Adapted from Attaran (2000:798).
Details contained in the six stage methodology of Attaran also appear in the project life cycle described by other authors, although the breakdown of the phases may differ.

- Roberts (1994:70) divides the definite beginning and end of the project into four distinct phases (concept phase, development phase, implementation phase and termination phase).
- Chang (1996:17) identifies three phases, i.e. the plan, design and implement phase, each with steps contained in the detailed stages above identified by Attaran.
3.4.5 Testing the new processes

Every aspect of every process should be tested (Attaran 2000:797). The "trial run" determines whether it is viable to proceed with the re-engineered effort. Cross, Feather and Lynch (1994:237-238) state that the physical layout of the new processes, the defining of measures, milestones and reporting, and a communication plan should be included in the test phase.

3.4.6 Proper training

Employees at all levels will require new skills, and training is imperative if re-engineering is to succeed (Attaran 2000:796). Cross, Feather and Lynch (1994:237-238) advise that a pilot team should be set up to test the re-engineered proposals. They write that a successful pilot test must have careful preparation, including the training of the team for two weeks, which is typical, prior to start up. He stipulates the following elements to be included:

- Business training (the need for changing the business)
- Process training (the new process design to be explained by the design team)
- Change management (the way in which the pilot team should handle change)
- Technical training (new technologies to be learned)
- Team building (training to be provided by a human resource specialist regarding how members should work together as a team)
- Continuous improvement training (the tools and methods to be applied to problem solving)
- Pilot kick off (the next steps, ground rules and protocols to be followed).

The academic information service enterprise needs to carry out a skills assessment. Petrozzo and Stepper (1994:266) advise that this is important in order to establish current capacity and to find out what competencies should be required for the new organisation to be successful.

3.4.7 Recognising the importance of people

During re-engineering, the improvement of existing processes and the application of information technology in order to facilitate the new processes are often the main focus of
practitioners, and the human factor is neglected. Hammer and Stanton (1996:33,117) state that a major reason for failure of re-engineering projects is the failure of managers to properly address the human aspects ("soft side") of re-engineering or the widespread fear of change amongst staff.

Attaran and Wood (1999:755-756) write that as a result of the enormous change in the academic information service enterprise, re-engineering causes organisational anxiety. Marjanovic (2000:43) is more specific in pointing out the cause for anxiety, i.e. retrenchments as a result of downsizing. He explains that organisational restructuring, one of the core elements of re-engineering, almost always results in downsizing, even though it is not a direct objective of re-engineering. Also, Hammer and Champy (1993:48) mention that because re-engineering is about doing more with less, it is often interpreted as downsizing the organisation. Van Schoor (2003:3) states that staff resist the transition phase of any change because it means a loss of identity, a loss of belonging, a loss of meaning or a loss of mastery. Harrington (1998:71) warns that should the negative impact of re-engineering on the institution not be recognised and action plans dealing with this issue not be considered in the implementation stage, this barrier will destroy the change project. The main challenge of re-engineering should be the organisational and human barriers (Marjanovic 2000:44).

Any academic information service enterprise embarking on re-engineering should, therefore, manage change through an accepted change programme with a view to accelerating change.

3.5 MANAGEMENT OF CHANGE

Successful change in the academic information service enterprise is becoming everyone’s problem as the executives are held accountable for it, customers require it, stakeholder performance demands it and continued growth depends on it. For many this is a battle as workers are fighting for their jobs, while change leaders struggle to change the enterprise with a view to improving its performance.

Change leaders of such an enterprise can make a difference if they possess the required
change management skills and can therefore apply approaches for changing the behaviours of people that generate better results. Developing this skill starts at the core of the change management concept, through an understanding of the difference between change, transition and transformation. Then follows knowledge of the different roles required in the change process, the steps to be followed in order to accelerate change and knowledge of how to deal with resistance to change.

3.5.1 Definitions of change management

In defining change, Bridges cited in Cross, Feather and Lynch (1994:271), states: "Something new starts or stops, takes place at a particular point in time and is external to the person".

Transition, according to Bridges, is the psychological process people go through in order to come to terms with the new situation.

Cross, Feather and Lynch (1994:271) state that transformation refers to complete change in outer form or appearance, which may include a change in character and function. They explain that change is the difference between here and there, transition is the process of getting from here to there and transformation is the process required to establish the changes so that they become stable.

Change experts such as Kanter, Stein and Jick (1992:508), Kotter (1995:61) and Implementation Management Associates (1996:8) also acknowledge the difference between these concepts, i.e. change, transition and transformation, and the steps to be taken within each cycle. In order to accelerate change and to stabilise change during implementation, certain roles need to be established and certain steps taken as part of the change cycle. Accelerating change is therefore a structured process to manage the human elements which are critical in order to achieve strategic business objectives (Implementation Management Associates 1996:3).

3.5.2 Typical roles in the change management process

Typical roles to be performed in change management are the role of sponsor, champion and change agent. Implementation of these roles is a critical success factor for change.
3.5.2.1 The sponsors: authorising sponsors and reinforcing sponsors

All sponsors play a vital role in the re-engineering project as they initiate change for the improvement of the organisation, steer and drive the change process and maintain its momentum through the motivation and commitment of staff. A role description for each sponsor should be developed as early as possible (Unisa Library 1999a:1).

Authorising sponsors of the academic information service enterprise authorise the re-engineering project and are responsible for strategic direction, the acquiring of resources for the re-engineering project and the approval of the use of these resources.

The following typical tasks are included:

- the establishment of appropriate project structures and allocation of resources, assisting these structures to carry out the project and ensuring that they function as intended
- participation in all aspects of the project in the sponsorship role, with a focus on direction and encouragement
- provision of strategic direction to ensure the redesign of the organisation
- communication of the business context and rationale
- maintaining the commitment of staff to the process
- monitoring of the progress
- redeployment of existing staff and employment of new staff within the policies of the organisation
- the aligning of the reward and recognition systems.

As the entity responsible to the academic information service enterprise, the sponsor works closely with the authorities to account for the use of resources through budgetary and financial controls (Unisa Library 1999a:1).

The respective supervisors of the academic information service enterprise are the reinforcing sponsors. Reinforcing sponsors cascade information, received from the authorising sponsors, down to their staff. This is done through continuous communication and visible commitment to the change, in support of the authorising sponsor (Unisa Library 1999a:1).
3.5.2.2 The role of champions

Linked to sponsorship is championship. **Champions** are individuals who are strongly in favour of the change and who will attempt to obtain commitment and resources for it, but who lack sponsorship. They cannot operate in isolation and must therefore ensure that a satisfactory level of sponsor commitment is obtained.

Sponsors should build a critical mass of champions. Petrozzo and Stepper (1994:39) state that each champion will be selected by the re-engineering leader or will emerge on the scene by himself or herself. A recruitment procedure may be required for this position, i.e. advertising the championship role and stating the specific requirements relating to the role of champion.

Champions put themselves forward on the basis of being willing and able to assist with the change, as they believe in the cause. Subsequently they lobby those with power and authority. Champions create widespread understanding and acceptance of the cause by informing and explaining the proposals for change to staff. They also monitor documents flowing from management and steering committees for proposals and decisions that may affect their area of work, and they network with others in their area of work (Unisa Library 2001c:1).

3.5.2.3 The role of change agents

The role of **change agents** in the re-engineering project is crucial. As indicated, sponsors are responsible for providing solutions to problems involving resources, scheduling, employment and redeployment within the context of the policies of the academic information service enterprise. The role of change agents is to assess and advise the sponsors regarding the impact of the changes envisaged by the re-engineering project; they also plan communication events, coordinate the communication strategy of the project and facilitate meetings and discussions (Unisa Library 1999a:1). Egan (1988:129) adds to the brief of the change agent the design of the implementation plan and execution of the implementation architecture, to move the organisation from the current to the preferred scenario.

Typical tasks to be carried out by change agents are:
- to identify the likely human impacts of proposed changes by monitoring the work of
  the re-engineering project team
- to create awareness of such impacts by discussing them with the authorising
  sponsor. Change agents may need to conduct surveys to determine, for example,
  the stress levels of staff and make recommendations to sponsors on how to reduce
  stress
- to create awareness of the need to communicate sensitively, fully and timeously and
  to ensure that the facts are communicated to all parties. The sponsors are
  responsible for communicating the information about the change and project,
  whereas the change agents advise the sponsors in this regard and take
  responsibility for an appropriate communications strategy, and for planning and
  facilitating the communication
- to pick up rumours and misconceptions, draw the attention of sponsors to these and
  make recommendations for dealing with them (Unisa Library 1999b:1).

3.5.3 Accelerating change

The change cycle provided by Implementation Management Associates (1996:2),
presented in figure 3.2, reflects the steps to be followed in order to manage or accelerate
change. These steps outline the processes included in the change flow chart, which relate
to the “people” aspect of re-engineering.

FIGURE 3.2
FLOW CHART OF PROCESSES TO ACCELERATE CHANGE
3.5.4 Output for each step in the change process

The first step focuses on the change itself, when the need to change to something new is announced. In this step the change is defined.

Thereafter follow the steps relating to the transition process. These deal with the psychological process of change, i.e. assessing the climate for change, identifying the change approach, generating sponsorship, the identification of targets (staff affected by the change) in order for them to accept the change, the creation of a new culture, and the establishment of agents to monitor the impact of change on the affected human resources. These include motivation planning (motivators) and communication planning (communication vehicles) to promote and reinforce the envisaged change.
Finally, during the last step in the change cycle, transformation takes place when the plans relating to the change are integrated, the change is implemented and it becomes stable. The change cycle serves as a roadmap for managing and accelerating change during the change process.

The outputs for each stage in the change process are as follows:

3.5.4.1 Define the change

This includes a change definition, the development of strategies for achieving the visions and the time frame in which the milestones should be achieved (Kotter 1995:60-61). Andrews and Stalick (1994:99-103) explain that the change definition should reflect the picture of what the operation wants to become (values, vision and goals statement) and the design of the new way of doing business that is in alignment with the vision, values and goals. These should be taken up in a Re-engineering Blueprint which must be discussed with and validated by staff.

3.5.4.2 Assess the climate

Kanter, Stein and Jick (1992:508) refer to this as one of the critical first steps in the transition phase. They advise that the views of and support from two groups should be sought, i.e. the power sources and the stakeholders. The power sources are the holders of supplies which will assist in making the change work, such as information (expertise or data), resources (money) and support (legitimacy, political backing). Stakeholders include everyone who stands to gain or lose from the change.

The climate should be assessed by using appropriate tests, e.g. an organisational change stress test, and/or an implementation history assessment test. The test results should be studied in order to develop target readiness. Strategies should be formulated to remove historical barriers, e.g. a perception that the leadership is not committed to change. In this regard a successful strategy should be a candid acknowledgement of past implementation difficulties and a visible demonstration of how this attempt will be different (Implementation Management Associates 1996:3).
3.5.4.3 Identify the change approach

Kanter, Stein and Jick (1992:514) state that there is no one best way to approach the change. The change manager should consider the relationship between a set of options and the particular character of the situation within which the choices should be made. The following critical choices serve as guidelines to be considered by the change manager:

- Total change versus pilot sites
  General factors to consider are the degree of support for the change, the extent to which change and its implications are understood, the complexity of the change, the organisation’s experience with managing change, the urgency of change and the competitiveness of the environment (Kanter, Stein & Jick 1992:514).

- Fast change versus slow change
  The importance of moving quickly by devoting greater resources to change should be considered. General factors to take into account are cost, available skills, urgency, how fast competition will copy the strategy, the degree of support for change and the complexity of the change (Kanter, Stein & Jick 1992:515).

- Working through existing structures and roles versus the creation of new roles
  General factors to consider are whether current people in current roles can manage the new state, the amount of time required for change as well as for the transition tasks, and the degree to which ongoing operations need to run at peak efficiency while the change is being implemented (Kanter, Stein & Jick 1992:515).

- Change to be mandatory versus voluntary
  General factors to consider are the power of the leaders to compel compliance, the degree of support, the norms and culture, the urgency of the matter, and the risks of inefficiencies (Kanter, Stein & Jick 1992:515).

Change which is fast and mandatory is known as the hammer approach. The psychological impact on staff in using the hammer approach versus the transition management approach should be considered. The hammer approach results in short-term pressure on staff. Short-term pressures, however, do not provide time for people to assimilate change, and change projects which utilise this approach are likely to fail (Implementation Management Associates, 1996:6). The academic information service enterprise which acknowledges the psychological impact of the change and ensures that transition management is an important aspect in the process of change, will take longer to reach the desired state of change. However, should the change be made fast, i.e. using
the hammer approach, the desired state is achieved much quicker but the academic information service enterprise is very likely to pay later in dealing with the psychological impact of change (Implementation Management Associates 1996:8).

3.5.4.4 The transition management plan

According to Crego and Schiffrin (1995:71) the design of the transition management plan needs to ensure:

- appropriate organisational alignment; this is important to ensure that the redesign of the academic information service’s formal structure, systems and methods is concurrent with the proposed change;
- adequate individual involvement so that all affected employees become part of the change process (Crego & Schiffrin 1995:71). This includes the emotional factors to be incorporated into the transition management plan (Chang 1996:75). This phase leads to the transformation phase during which the change will be established;
- effective leadership - all involved should understand their roles.

3.5.4.5 Generate sponsorship

A map of all sponsors should be developed. As indicated in paragraph 3.5.2.1, the main sponsor of the change in a re-engineering project is the authorising sponsor, i.e. the head of the academic information service enterprise. Sponsorship arises from the authority conferred by the academic institution with regard to authorisation and the allocation of resources. This sponsorship cannot be delegated as it will result in the delegation of relevant powers. This person is accountable to the academic institution and therefore approves the change (Unisa Library, 1999a:1). The person has to display strong leadership specifically in defining the change, drawing up the transition management plan, changing the culture, reinforcing the change and implementing it.

The supervisors on each level of the organisational structure, level by level, are the reinforcing sponsors, all the way down to the immediate supervisor of each staff member. Kanter, Stein and Jick (1992:510) advise that clarity about who is guiding the change (authorising sponsor) and the responsibilities of other sponsors needs to be established in order to avoid confusion and chaos.
The commitment level of each sponsor should be assessed and a strategy to increase commitment for each sponsor developed. These strategies should include education, reinforcement management, and the creation of common goals for the sponsors. Should there be no changes in sponsor commitment, the effectiveness of the strategy used should be evaluated.

3.5.4.6  Develop target readiness

The affected staff members of the academic information service enterprise are labelled the targets. They are likely to resist the change as change implies loss, which is an emotional experience associated with stress and anxiety. Resistance to change needs to be managed through a change process in order to achieve an ultimate win-win situation.

According to Marjanovic (2000:45), the following strategies should be implemented in order to develop target readiness:

- assess the target’s reasons for resistance and develop tactics to address the source of resistance, e.g. in the case of a lack of knowledge, more communication is necessary to convince the target; in the case of adjustment problems as a result of fear of failure, accessibility of staff to change agents and/or sponsors should be increased. This can be determined by using a target readiness tool (Implementation Management Associates 1996:37);
- ensure that employees understand the need for change;
- ensure employee participation in the re-engineering process - the targets that will be affected by the change, should be identified and involved from the beginning in order to minimise uncertainty;
- improve communications at all levels of the academic information service enterprise.

3.5.4.7  Changing the culture

The corporate culture of the academic information service enterprise is the collective pattern of behaviours (observable actions), values (collective set of beliefs) and rules ("the way we do things around here") of the enterprise, developed over time. It therefore reflects the attitudes and behaviour patterns that characterise the members of such an enterprise. It is similar to the personality of an individual (Woods 1997:48).
A culture assessment tool can be used to enable sponsors and change agents to assess the change in the existing culture along several organisational dimensions. The results are used to determine which dimension must be modified in order to increase the probability of successful implementation. The tool can also be used to provide an initial assessment of the potential of culture resistance. Changing the culture should be done through developing an infrastructure of reinforcing sponsorship.

For managers to successfully direct the academic information service enterprise’s systems, there must be a clearly understood culture in place. Strong leaders at the top of the organisation who understand and believe the implications of the systems view, for example, the necessity of serving customers in order to succeed, will result in a culture that naturally emphasises continuous improvement of processes, leading to a healthy workplace and satisfied customers. Since behaviour is the direct result of a person’s values and assumptions, it is important for the members of the enterprise to know what its cultural values are so that they know how to behave (Woods 1997:49).

### 3.5.4.8 Building of agent capacity

A development plan for change agents should be implemented following the identification and appointment of such agents. It is imperative that they be selected by skills and motivation rather than availability. The quality of the agents determines the success of implementation. A change agent assessment tool should therefore be used to profile the individuals who can assist in implementation of change. An effective change agent has credibility with the sponsors and the trust of the key targets (Implementation Management Associates 1997:66). Rewards for agents regarding successful implementation should be identified and communicated. Change agents should continuously be provided with opportunities for informal sponsor contact (Implementation Management Associates 1996:42). Should the change management programme be unsuccessful, a change agent assessment test together with a sponsor assessment test should be carried out in order to establish why change management has failed.

### 3.5.4.9 Motivation planning

A reinforcement plan reflecting rewards for targets should be drawn up. These include both formal and informal motivators, to ensure the reinforcement of the change into the desired state. Tangible benefits should be explained, for example that there will be
improved salary increases and performance bonuses or that there will be new roles assigned to staff, which will bring about relief from repetitive duties, resulting in more satisfaction and rewards for people (Kanter 1990:356). Another motivator for change is staff development (access to training and professional recognition).

Reinforcement management is done formally and informally on a daily basis between the manager and the person reporting to him or her (Implementation Management Associates 1996:43). It is important to create an atmosphere where it is safe to express resistance.

Supporters of the change should be rewarded and those who resist change, should be motivated (Implementation Management Associates 1996:44).

3.5.4.10 Organisational communication

Frost (1999:26) writes that real communication can only occur in an effective way if the communicator really cares - the person must care about the outcome of the communication, the individual involved with the communication, the understanding of the communication and the consequences and impact of the communication itself. As this is a very responsible task, communicating the change should be the responsibility of the authorising sponsor.

It is of vital importance that an effective and comprehensive communication plan is in place during re-engineering (Attaran 2000:796; Crego & Schiffrin 1995:50). This includes communicating the purpose of the change project, for example that the academic information service enterprise will become a world class leader and have the best trained people in the industry. Continuous communications regarding progress made with the re-engineering project must be sent to both the staff and customers of the enterprise. For this purpose, the academic information service enterprise needs to consider communication vehicles as part of its change management function.

Kotter (1995:64) identifies different communication vehicles, each with its own characteristics in terms of cost, type of information best communicated by the vehicle, contribution towards trust, commitment and durability. Examples of communication vehicles are the organisation's newsletter, e-mail, town hall sessions, small group sessions, video tapes, web pages and the electronic billboard. Another communication vehicle comprises executives “walking the talk” in order to show that they are serious and
consistent about the change. Nothing undermines change more than behaviour by individuals that is inconsistent with their words.

A communication campaign should be developed. Credible and comprehensive communications in language easily understood by the target should be sent out regularly and communications should be evaluated regularly in order to determine whether the goals of the communication are being achieved (Implementation Management Associates 1996:46). Face to face communications by sponsors are of utmost importance. A survey investigating the staff’s views on preferred communication should provide useful information (Implementation Management Associates 1996:87).

3.5.4.11 Integrate the planning

Integrated planning should lead to implementing changes in the academic information service enterprise. All staff should be involved in the development of the implementation plans. The role of both sponsor and change agent is important during this step. The final proposal, which includes the process design and role design produced by the design team, should be studied by all affected staff. All staff must be afforded the opportunity to comment on the proposal.

Once broad acceptance by staff is obtained, it needs further approval by other stakeholders of the academic information service enterprise (Unisa Library 2001a:1).

3.5.5 Resistance to change

Crego and Schiffrin (1995:58) warn that any person’s natural tendency is to strive to achieve a state of homeostasis - a stable state of equilibrium in her or his personal and professional lives. Should a state of change occur, it is natural to resist such change by attempting to restore order. Change is particularly threatening if it may result in loss of status, jobs, security, structure, in social disruption or group transformation. Other specific factors contributing to resistance to change are self interest, the perceived impact of the change on the professional enterprise, the tendency to be caught up in the web of tradition, destabilisation of staff as new people may be appointed in the enterprise, or culture incompatibility, resulting in for example a clash between an academic and a business orientated culture (Trader-Leigh 2002:146).
These threats may result in resistance to change - on both the conscious and unconscious level. Crego and Schiffrin (1995:60) explain that the unconscious barriers to change exist in three areas, i.e. individual, team and organisational. A strong chain-linked fence is formed to reject the change once these three areas overlap.

Crego and Schiffrin (1995:70) advise management to adhere to the following laws of organisational change, in order to break down barriers to change:

- recognise that without individual change, organisational change is not possible
- understand that resistance to change is natural
- identify where the primary resistance to change originates
- develop a transition management plan for confronting the resistance and converting it into power to move the organisation's re-engineering project forward.

### 3.5.5.1 The typical pattern of reaction to change

In developing target readiness and dealing with resistance to change, sponsors should familiarise themselves with how people resist change and with the typical emotional pattern of reaction to change. The reaction pattern, theorised by Kubler-Ross (1986:34-99), reflects the following stages of the target’s emotional response:

- **Immobilisation**
  The person resists the change and strives to maintain the status quo at all costs by withholding information (cognitive impairment). A sense of the inevitability of implementation should be created by change leaders in the first stage of the change cycle, by illustrating to all staff the cost of not changing. Kotter (1995:60) views this as a difficult step. Most companies that fail with regard to implementing change, fail in this stage, as executives underestimate how hard it is to drive people out of their comfort zones.

- **Denial**
  The target believes that the change will not affect him/her or that it will not really happen.

- **Anger**
  The person responds in anger to the change and engages in subversive background conversations and actions.
- **Bargaining**
  The target believes that a winning situation could be obtained through bargaining with the sponsors.
- **Depression**
  The target realises that there is no easy way out of the change, and falls into deep depression.
- **Exploration**
  The target starts exploring the benefits of the change, as well as new options, and commits to them
- **Acceptance**
  The person buys in and accepts the change.

The above sequence shows that resistance is a process orientated phenomenon. Also Bovey and Hede (2001:534) and Van Schoor (2002:3) acknowledge this sequence as a typical emotional pattern of reaction to change. It is not something to be resolved quickly, once off, as a problem. Neither top down nor bottom up change intervention is appropriate in the modern organisational environment. The only way to deal with it is to do so systematically (Tosey & Robinson 2002:103).

Van Schoor (2002:6) states that in order to overcome resistance to change, certain actions should be taken on both the environmental level and the personal level. On the environmental level, a culture, and structures, supportive of the transformation processes should be created. On the personal level, the perceptions of staff should be changed through actions such as increasing their employability. The ultimate goal in helping staff to deal with transformation is to allow them to experience a sense of control over themselves and their environments (Van Schoor 2002:7). This can be done through the development of a person’s transformational intelligence.

### 3.5.5.2 The role of transformational intelligence in change

Van Schoor (2003:5) accentuates the importance of the role of transformation intelligence (TQ) in order to overcome resistance to change. TQ develops at an individual level and proceeds up into the group and organisational levels. The model of TQ consists of the following elements, which prepare people to understand, accept and participate in the processes of transformation (Van Schoor 2002:8-14):
Motivational intelligence (MQ):
Through MQ staff will develop an understanding of the relationship between values, thinking, feeling and behaviour; the identification and description of their own values and life goals; acceptance of their own values as part of their developmental histories; and the identification of common organisational/human values to be accepted and shared.

Personal and Interpersonal intelligence (PIQ):
PIQ reflects a person’s self-awareness - an understanding of one’s emotional, intellectual, spiritual and physical states and their effect on others; the person should understand his/her own behavioural style and its effect on others; he or she should possess self regulation (ability to control disruptive moods and impulses); empathy (understanding of other people’s emotional states); and social skills (ability to manage relationships and interpersonal networks).

Process intelligence (PQ):
PQ reflects on the theoretical or subject knowledge achieved through study and certification; the practical knowledge which comes through experience; systems knowledge; process knowledge; and project management skills.

Creative intelligence (CQ):
CQ reflects on the ability to find innovative ways to keep on reinventing the self and organisations; the ability to find creative and innovative solutions to problems that result from transformation; the confidence to engage in innovative acts.

A fifth element of TQ is career management (Phillips & Rollin 1997:154). This is necessary for employees in a change situation as change usually affects careers.

Van Schoor (2003:7-8) argues that TQ assists in overcoming resistance to change. Resistance to change manifests primarily on the attitudinal level as a response to the experience of loss. This can be attributed to negative mental models that need to be changed through the MQ dimension of TQ. He states that a reassessment of one’s individual vision and goals, assists a person to reclaim control and counteract the sense of helplessness. As the person develops a sound relation with her or his inner being, sound external relationships can be built through PIQ.

At the secondary level change is resisted because staff do not know how to deal with the changing environment due to a lack of knowledge and skills. Meaningful engagement is then achieved through creative responses (CQ) that are rationally constructed and managed (PQ).
Today's change leaders in the academic information service enterprise should be skilled in change management. Through the acknowledgement of critical roles to manage change, the systematic implementation of the steps reflected in the change cycle, and the application of their knowledge regarding how to deal with resistance to change, change leaders inspire others around them and subsequently accelerate the implementation of major change.

3.6 SUMMARY

It is essential to consider and understand the concept of re-engineering and the principles of its successful implementation in order to decide whether this strategic option is viable to address the organisation's business problems. Understanding of both the concept of re-engineering and the management of change is a critical factor for successful re-engineering and the creation of positive attitudes of staff towards a re-engineered academic information service enterprise. Such an understanding provides information about the questions as to what re-engineering entails and regarding how to move the enterprise from where it is to the desired state. It is the forerunner to the redesign of the organisation, its processes and structures in support of processes and leadership.
CHAPTER 4

DESIGNING THE ACADEMIC INFORMATION SERVICE ENTERPRISE

4.1 INTRODUCTION

In chapter 3 it was pointed out that academic information service enterprises should embark on re-engineering when fundamental rethinking is required in order to achieve dramatic improvements. This results in complete business redesign, with a focus on efficient, effective, comparable, measurable processes as well as on process structures and leadership structures. This chapter provides an overview of the organisational design of the contemporary academic information service enterprise and explains the aims, objectives, principles and process of organisational design. Since the strategic context of the enterprise forms the basis for boundary formation and the adding of value to the business, a strong focus is placed on the discussion of this part of organisational design. Boundary formation implies the adherence to core business objectives and identities.

This approach is followed since an understanding of the components influencing organisational design in order to promote best practice should encourage staff to internalise their obligations and contribute positively towards a shared purpose. These components include an understanding of “what” the academic information service enterprise would like to be (organisational context and conceptual organisation model), of “who” the organisation would like to be in terms of its organisational properties, organisational personality and leadership and of “how” it would work in order to conduct its business (process structures and leadership structures) Knowledge of the rationale behind the design of the academic information service enterprise should impact on the attitudes of staff towards the acceptance of the re-engineered enterprise.

4.2 THE IMPORTANCE OF ORGANISATIONAL DESIGN

Galbraith (1977:3) states that the organisation of work emerges naturally as a result of a shared set of beliefs about something to be achieved that requires the efforts of more than a few people. The relationships among the people involved become patterned. The behaviour patterns derive from a division of labour among the people and there is a need to coordinate the divided work. The aim of organisational structure is to coordinate the
tasks which result from the division of labour.

Since the organisation of work emerges naturally, the question can be raised whether it is indeed necessary to apply organisational design. Galbraith (1977:4) argues in favour of it, stating that the designed organisation will be evaluated in terms of performance as effective and efficient, opposed to the synthetic organisation’s effective performance. In terms of economic criteria the synthetic organisation is inefficient because it requires more resources to accomplish the task than the designed organisation would. It is thus important to apply organisational design in order to achieve efficiency through maximum output of staff working in formal and informal structures, supported by coordination mechanisms which integrate the activities of individuals and departments.

4.3 DEFINITION OF ORGANISATIONAL DESIGN

As far back as 1969, Beckhard (1969:9) defined organisational design as an effort, planned organisation-wide and managed from the top, to increase an organisation’s effectiveness and health through planned interventions in the organisation’s processes, using behavioural science knowledge. This definition still applies thirty plus years later.

Galbraith (1996:156) states that it is, however, necessary to design the organisation in such a way that it not only becomes an operating organisation but also an innovating organisation. In 1977 Galbraith (1977:31) acknowledged the components of organisational design as structure, processes, rewards and people. In 1996 he confirmed this (1996:156) and then accentuated the fact that these components must be combined in such a way that the combination creates both an operating organisation and an innovating organisation. Table 4.1 explains the typical focuses of the two kinds of organisations.
# COMPARISON OF COMPONENTS OF OPERATING AND INNOVATING ORGANISATIONS

<table>
<thead>
<tr>
<th>Component</th>
<th>Operating organisations</th>
<th>Innovating organisations</th>
</tr>
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<tbody>
<tr>
<td>Structure</td>
<td>Division of labour</td>
<td>Roles acknowledged as</td>
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<tr>
<td></td>
<td>Departmentalisation</td>
<td>important e.g. role of</td>
</tr>
<tr>
<td></td>
<td>Span of control</td>
<td>sponsor, idea generator</td>
</tr>
<tr>
<td></td>
<td>Distribution of power</td>
<td>(champion)</td>
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<td></td>
<td></td>
<td>Differentiation</td>
</tr>
<tr>
<td>Processes</td>
<td>Provide information and</td>
<td>Planning</td>
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<td></td>
<td>communication</td>
<td>Funding</td>
</tr>
<tr>
<td></td>
<td>Planning and budgeting</td>
<td>Getting ideas</td>
</tr>
<tr>
<td></td>
<td>Measuring performance</td>
<td>Blending ideas</td>
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<tr>
<td></td>
<td>Linking departments</td>
<td>Transitioning</td>
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<td></td>
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<td>Managing programmes</td>
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<td>Reward systems</td>
<td>Compensation</td>
<td>Opportunities/autonomy</td>
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<td></td>
<td>Promotion</td>
<td>Recognition</td>
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<tr>
<td>People</td>
<td>Selection/recruitment</td>
<td>Selection/self-selection</td>
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<td></td>
<td>Promotion</td>
<td>Training/development</td>
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<td></td>
<td>Transfer</td>
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<td></td>
<td>Training/development</td>
<td></td>
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</tbody>
</table>

Source: Adapted from Galbraith (1996:161)

The operating organisation is important as it focuses on operational output; the innovating organisation is important for its sustainability.

Strategic Information Services (2002:1) supports the definitions of Beckhard and Galbraith by defining organisational design as the process of shaping people, processes and structure as well as technology, which interact in the production of organisational behaviour.

Strategic Information Services (2001a:2) further states that the objective of organisational design is “to design organisational structures which closely align a business with environmental trends and organisational goals; which represent the most effective blend
of business processes, roles and organisational forms; in order to manage internal complexity; whilst creating a compelling place to work”.

4.3.1 Organisational design fundamentals

The following organisational design fundamentals flow from the above definitions:

4.3.1.1 Organisational design involves the total system

The system to be changed is a total, autonomous organisation which can determine its own plans and future within the constraints of the environment. Typical design outputs are process outputs, role outputs and competencies, work profiles, a career model, a developmental model, a remuneration model, organisational structures, organisational forms and charters.

4.3.1.2 Organisational design is a planned change effort based on strategic choice

It involves systematic diagnosis of the organisation, the development of a strategic plan and the mobilisation of resources to carry out the effort (Beckhard 1969:9). Galbraith (1977: 5) writes that it is mainly about strategic choice; there are choices of goals and purposes, organising modes, processes for integrating each person into the organisation and a choice as to whether goals, the nature of the enterprise, and/or individuals should be changed in order to adapt to changes in the environment. With regard to the individuals, Workfutures (1999:5) adds to these factors an examination of the organisation’s norms and values and alternative ways of rewarding staff. The coherence of these intertwined choices over time is maintained through organisational design (Galbraith 1977:5).

4.3.1.3 Organisational design acknowledges the interdependence between strategy and structure

Most researchers into the contemporary organisation (Nikolenko & Kleiner 1996:23) emphasise this fundamental. Strategy is the realisation of the mission and objectives, the strengths and weaknesses of the organisation, and management’s perception of the environment. The structure is the tool to carry out the strategy and plans.

Organisational design results in process based structures and leadership structures
(Strategic Information Services 2001b:16). With regard to the former, structure should, for example, be designed to entrench ownership. With regard to leadership structures, it should be compatible with the enterprise’s culture, it should shape the leadership of the organisation beyond that of one or two individual styles and broaden the base of leadership. It should also create opportunities for extended exposure and personal development beyond the process responsibilities (Strategic Information Services 2000:3).

4.3.1.4 Organisational design is managed from the top but requires input from all staff

The top management has a personal investment in the programme and its outcomes, and therefore its members participate actively in the management of the effort. All staff should, however, be involved in some or other way as they possess knowledge of the processes and the relevant activities.

4.3.1.5 The design of a service organisation is organised around the needs of customers, delivery channels, suppliers and stakeholders

An important focus of the academic institution is on student throughput and it therefore depends greatly on the services of the academic information service enterprise as a support department.

The design of a business like the academic information service enterprise, serving an academic institution, is therefore driven by customer needs. For efficient service delivery it depends on its suppliers and channels for delivery and it is directed by its stakeholders. The designing of the services of the academic information service enterprise, together with the processes and structures, should therefore be organised around the needs of the customer, supplier, channels for delivery and stakeholders. The customer and supplier require an organisational design which keeps service delivery simple (Galbraith 2000:xiv). Stakeholders such as the staff of the enterprise require leadership structures which create a compelling place to work (Strategic Information Services 2001b:3).
Organising the academic information service enterprise through applying a process of organisational design involves the total system, commitment and clear strategy from management and operational input from staff. It results in organisational structures and processes which closely align the academic information service enterprise with organisational goals and environmental trends. Organisational design is a decision process which brings about a coherence between the business context (the goals or purpose for which the academic information service enterprise exists), the patterns of division of labour and inter-unit coordination (business processes, process outcomes and process roles), the staff responsible for doing the job (operating within the physical organisational structures related to role profiles, competencies, job profiles) and the nature of the academic information service enterprise in terms of its properties, personality and culture.

4.4 ORGANISATIONAL DESIGN PROCESS

According to the Galbraith star model for organisational design (Galbraith 1995:11), the process of organisational design has four phases. These are:

- setting the context - this includes products and services to be offered; market segments and customers to be served; business model; competitive strategies to be adopted; value propositions to be adopted; strategies for human resources and technology to be adopted; number of layers in the new organisation; defining the organisational forms; approach to rewards and remuneration.
- the review and redesign of existing processes and the design of additional required processes - the review of the process outcomes, defining roles.
- the identification of required competencies associated with roles (knowledge, skills and attitudes); the design of meaningful and acceptable work profiles; and the design of the remuneration/reward system.
- integrating design - integration of all components into a structural model. This design category focuses on policies affecting people as they influence the employees’ mindset and skills (Galbraith 1995:11).

This model of Galbraith provides a theoretical guideline for organisational design and will be used to facilitate the discussion on organisational design in this study. Fig. 4.1 reflects the phases and focuses within each phase of organisational design as explained by Galbraith (1995:11) and depicted by Implementation Management Associates (1999:4).
FIGURE 4.1
ORGANISATIONAL DESIGN PROCESS: STAR MODEL OF GALBRAITH

As the academic information service enterprise is an open system, an important design concept involves its strategic context, which is influenced by its general and task environment. The four forces to be shaped by organisational design, i.e. people, structure, processes and technology must reflect and reinforce the strategic context in which they operate (Galbraith 1995:11). The strategic context of the academic information service enterprise thus provides important information to obtain a good fit between enterprise and environment and to accomplish a well-defined structure when designing the academic information service enterprise (Gerloff 1985:45).

4.5 STRATEGIC CONTEXT OF ORGANISATIONAL DESIGN

The first phase in the star model of Galbraith (1995:11) focuses on setting the context.

Crego and Schiffrin (1995:107) states that strategy is the link between vision and action. The academic information service enterprise should therefore consider what to do so as to attain the vision. The choice of strategy consists firstly of “what” the enterprise’s distinctive competence or domain will be, i.e. a desired uniqueness. Domain is determined by choices of products (something tangible, like information contained in a book or journal article containing the requested information) and choices of services (something intangible, by means of which the product is delivered, e.g. a subject librarian service).

Domain further includes the market (customers to be served), the technology to be utilised and the location where work should be performed. The following explains the domain applicable to the academic information service enterprise:

Product: Information
Services: Subject librarian service, reference service, lending service, photocopying service, training service
Market: Students and staff of the academic institution it serves; bona fide researchers in the country
Technology: Computer system for automation of all core functions of the academic information service enterprise
Location: Main Campus library on the Main Campus of the institution; branch libraries at satellite campuses of the institution.

This forms the business context of the academic information service enterprise.

In analysing this business context and the business concepts of the academic information
service enterprise further in order to establish its boundaries, questions are raised with regard to the business basis of the competition, the value added proposition and value model, and its strategies for marketing, operations, human resources as well as its values, i.e. the set of uniquely chosen moral principles that will apply as the academic information service enterprise conducts its business. All these arise from the strategic goals and objectives of the academic information service enterprise.

Other typical items which need clarification during the context phase of organisational design as they impact on the organisation’s boundaries are the organisational shape (number of layers), distribution of power (decentralisation/centralisation), departmentalisation (function, product, process, customer), leadership context (strategist, team member), working environment (teams, multi-tasking, knowledge worker environment), employment regime (individual negotiation versus personalised contracts), governance principles, customer relationships, and the reward approach (Workfutures 1999:6).

The components which determine “who” the organisation should be, include the properties of the academic information service enterprise, its personality, culture, leadership framework and organisational forms (Strategic Information Services 2001a:5-6). As all these impact considerably on the boundaries of the academic information service enterprise and its structure, they warrant a brief discussion:

- The organisational properties reflect that set of traits that constitutes the image of the academic information service enterprise to the external world. It serves as the “face” to its customers, its unique presence to the outside world. A typical set of traits relating to the academic information service enterprise in South Africa includes the trait that it is African, service orientated, capable in terms of knowledge and skills, accessible regardless of the person’s location or the time of day. Contrary to the organisational properties, the personality of the academic information service enterprise reflects how the business sees itself, behaves and interacts internally among its staff.

- The personality of the academic information service enterprise reflects aspects like the dominant gender of the organisation, how the majority of staff members style their hair, the type of clothes mostly worn, the general physical appearance, interests, type of cars mostly driven, preferred holidays, language, qualifications, religion and age.

- The culture of the academic information service enterprise reflects the value system of the business, which may be implicit or explicit. Aspects like employer/employee
relationships, rewards, benefits, performance and core competencies are part of the typical framework of the organisational culture.

- The leadership framework of the academic information service enterprise reflects leadership styles, types of leadership structures and leadership roles.
- Organisational forms are established after considering whether the academic information service enterprise should comprise a hierarchy, matrix, lateral teams, or a network (Strategic Information Services 2001b:5-6, 12).

Collectively, all these aspects relating to domain form the boundaries of the organisation (Galbraith 1977:5).

The boundaries of the academic information service enterprise will thus be formed not only by its business context and business basis for competition in terms of what the academic information service enterprise as a business intends to offer, but also by its properties, personality, culture and framework, i.e. what the academic information service enterprise as a business is - how its image is reflected to the external world.

The academic information service enterprise, however, has to ensure that its product and services relate to what its customers value. The cost of excelling in all aspects of value is too high and the underlying structures, competencies and technologies that support different customer value needs are too different (Strategic Information Services 2002:2). In order to survive, it should therefore have to determine what value it should offer.

4.5.1 Important components of strategy to influence the model of the academic information service enterprise

The three important components of strategy, pertaining to value, which influence the process model of the academic information service enterprise are the value proposition, the value model and the position of the academic information service enterprise in the product/service continuum.

This should lead the way in terms of “how” the work will be done, i.e. the respective processes, the outcomes and the process roles required to perform the tasks.

4.5.1.1 Determining the value proposition of the academic information service enterprise


Walters and Lancaster (2000:160) accentuates the importance of the value proposition since it establishes the focus of the enterprise, as it cannot be all things to all people (Treacy & Wiersema 1995:xiv). Webster (as cited by Walters & Lancaster 2000:160), suggests that the value proposition should be the organisation’s single most important principle. It shapes the organisation’s plans and decisions and it allows competitive differentiation, which is crucial for the enterprise to survive in the long term. Table 4.2 reflects on value propositions which differentiate enterprises, as stated by Treacy and Wiersema (1995:31-41).

**TABLE 4.2**

**VALUE PROPOSITIONS THAT DIFFERENTIATE ENTERPRISES**

<table>
<thead>
<tr>
<th>Value proposition</th>
<th>Value added</th>
<th>Applicable to the academic information service enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Excellence</td>
<td>A combination of quality, price and ease of purchase is delivered that cannot be matched.</td>
<td>Since the enterprise has a non-profit and customer focus, its value proposition is guaranteed low price and problem free services.</td>
</tr>
<tr>
<td>Product leadership</td>
<td>Products are improved on a daily basis. This involves much creativity; a focus on the core processes of invention.</td>
<td>Not applicable to library services as they do not focus on continuous product improvement on a daily basis.</td>
</tr>
<tr>
<td>Customer intimacy</td>
<td>Obsession with the core processes of solutions development regarding customer needs, management of results and relationship with the customer.</td>
<td>Customer intimacy to this extent does not apply to library services.</td>
</tr>
</tbody>
</table>

In analysing the above three value propositions, the value proposition to shape the academic information enterprise is likely to be operational excellence, in light of its operating model which reflects a problem free, uninterrupted service by means of which the correct information is delivered fast at a low price. The enterprise thus raises customer expectations in this one component of value that it chooses to highlight, i.e. operational excellence.

4.5.1.2 **Determining the value model for the academic information service enterprise**
The value model is a second important component of strategy which impacts on the organisational design of the academic information service enterprise. The activities performed by the academic information service enterprise in order to design, produce, market, deliver and support its products and services are represented in a value model. Value activities within the value model are divided into two categories, i.e. primary activities (direct and indirect contact with customers) and support activities (support the primary activities and other support activities).

The competitive advantage of the academic information service enterprise is achieved through innovative design, linkage and performance of both the primary and support activities within the academic information service enterprise (Strategic Information Services 2002:5).

Table 4.3 explains examples of value models, i.e. the Value Chain of Michael Porter (Walters & Lancaster 2000:162); the Value Network of Stabell and Fjeldstad (1998:427), and the Value Shop (Stabell & Fjeldstadt 1998:420) and their application to the academic information service enterprise.

**TABLE 4.3**
**VALUE MODELS TO BE CONSIDERED DURING ORGANISATIONAL DESIGN**

<table>
<thead>
<tr>
<th>VALUE MODEL</th>
<th>Characteristics</th>
<th>Applicable to the academic information service enterprise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value chain of Michael Porter</td>
<td>It identifies competitive opportunities for adding value and business linkages; dependencies and relationships; as well as the boundaries of business processes.</td>
<td>Important starting point for organisational design but less suitable to the analysis of activities in service industries, like that of a bank or a library, as the underlying value creation logic in the value chain cannot deal explicitly with both lenders and borrowers.</td>
</tr>
<tr>
<td><strong>Value Network of Stabell and Fjeldstad</strong></td>
<td>It models organisations that create value by facilitating a network relationship between their customers. It offers members of the network the chance to network with one another, and to play multiple roles of consumer of products and services, provider of products and services, channel for the delivery of products and services and partner.</td>
<td>Important in modelling the enterprise as the librarian can perform the role of provider of the information service and also be a consumer of the service. The same applies to its suppliers and partners.</td>
</tr>
<tr>
<td><strong>Value shop</strong></td>
<td>It models organisations where value is created by mobilising resources and activities to resolve a particular customer problem resulting in high costs.</td>
<td>Value Shop is achieved through the value proposition of customer intimacy, which does not apply to the academic information service enterprise but rather to consultancy services.</td>
</tr>
</tbody>
</table>

It is viable to use the Value Network of Stabell and Fjeldstad as a model to design the academic information service enterprise, as all providers of its services, customers for its services, people responsible for delivery of its services and its partners are continuously networking in order to ensure service delivery and service excellence whilst also receiving service excellence; the academic information service enterprise as a Value Network will be as good or bad as the network infrastructure in which it operates.

### 4.5.1.3 Determining the position of the academic information service enterprise along the product or service continuum

The third component of strategy to influence organisational design is the position of the academic information service enterprise along the service or product continuum (Strategic Information Services 2002:8).

It needs to be considered whether the academic information service enterprise will be essentially a product organisation which is high in search qualities, i.e. in the attributes which a customer can determine prior to purchase; or essentially a service organisation which is high in credence qualities, i.e. those characteristics that the customers find impossible to evaluate as they do not have the knowledge to evaluate the service; or a product-service hybrid which is high in experience qualities, i.e. attributes which can only
be determined after purchasing the service or product.

The academic information service enterprise differentiates itself from organisations which are high in search qualities and credence qualities because its customers can only determine its attributes after having experienced the use of its service. The academic information service enterprise is thus typically a product-service hybrid. Essentially, product-service organisations have physical structures which reflect the chosen value proposition of operational excellence and the value network as the value model, and this applies to the academic information service enterprise.

4.6 DESIGNING THE PROCESSES AND ROLES REQUIRED BY THE ACADEMIC INFORMATION SERVICE ENTERPRISE

The next phases in the star model of Galbraith (1995:11) deal with designing the components relating to processes and finding/training people to perform the processes. This is the field of business process re-engineering, where existing processes are redesigned or new processes are designed to deliver the product of the academic information service enterprise, i.e. information, to its customer (Galbraith 1995:145), and when the required roles and competencies pertaining to the roles are determined.

4.6.1 Process design roadmap

During process design a structured technique for designing processes should be applied in order to ensure that all aspects of process design are covered. For this purpose a process design roadmap is suggested (Strategic Information Services 2001c:1). It includes four steps during which the following matters are considered:

- **The setting of the process:**  
  During this step the objective of the process is considered. This includes the rationale behind it, the scope and the success criteria for the process. Then follows the identification of the critical success factors, sources of competitive differentiation as discussed earlier in the value proposition, the value chain position, the business context and best practice, valued behaviours and required core competencies relevant to the process.

- **The process design:**  
  This step focuses firstly on analytical process design, with a focus on the process
inputs and outputs, systems for monitoring and control, technology, as well as the activities for each process. Activities refer to what should be done, where, when, how and by whom and constitute the sequence of tasks carried out by employees in a specific process in order to achieve a process outcome. Thereafter follows a synthetic phase during which alternative solutions are considered in order to ensure that the correct set of activities are found for the process.

Once the activities within each process are identified, the principles pertaining to the value proposition’s operational excellence, i.e. problem free, from beginning to end product supply, and the features pertaining to the value network as a value model for the academic information service enterprise should be applied. In this regard the value activities are divided into primary activities and support activities. This division is necessary in order to separate the activities that focus on the physical creation of the product or service, i.e. those activities that involve both direct and indirect contact with customers, from the support activities which support the primary activities and other support activities. Through this step, the urgent activities are separated from the important activities. In other words, the customer facing activities which are relationship intensive and therefore should be urgently attended to, are separated from the production activities which are extremely important for the sustainability of the enterprise but often neglected, as the enterprise tends to focus on the urgent activities.

Examples of typical customer facing processes in support of the customer, and support processes in support of the sustainability of the academic information service enterprise, as presented by Strategic Information Services (2001a:31), are in Table 4.4.

TABLE 4.4
PROCESSES IN SUPPORT OF THE CUSTOMER, VERSUS
During the third step of process design, audit considerations are identified. All processes which carry a risk for the enterprise, i.e. processes performed to generate income, are identified and control activities are established for audit purposes.

The final step of process design deals with key process measures, and appropriate management control systems are identified. Measurements are the quantitative and qualitative measures used to monitor and control processes.

4.6.2 Determining roles and competencies relating to processes of the academic information service enterprise

Knowledge of the outputs of the required processes leads to the identification of responsibilities. Coupled with this is the identification of the required technical competencies to perform the activities within each process of the academic information service enterprise (Galbraith 1995:145; Unisa Library 2002:4). The roles required by the enterprise for the performance of the processes linked to the competencies to perform the processes (Unisa Library 2000:2) are subsequently designed. These include roles to be performed by teams (the grouping of employees which are assigned to carry out the activities within a process), individuals within the teams, management roles and leadership roles.

Roles can be mapped on a Responsibility Chart (Galbraith 1995:146). Galbraith (1995:147) advises that the required roles should be discussed with relevant staff and that consensus should be reached. After the design of the role profiles, the job profiles are designed for the purpose of grading, rewards and recruitment.

Following the identification of roles comes the creation of physical structures for the academic information service enterprise.
4.7 INTEGRATING ALL COMPONENTS INTO A STRUCTURAL MODEL FOR THE ACADEMIC INFORMATION SERVICE ENTERPRISE

In the final phase of the star model of Galbraith (1995:11) all components are integrated within the structure.

Day (1999:33) states that structure plays a powerful role in creating a market-driven organisation. Careful consideration of both the process structures and the leadership structures of the academic information service enterprise is therefore important. Organisational design is effective only when it achieves a strategic fit. A strategic fit occurs once all the policies relating to the respective components in the star model of Galbraith (1995:11) are aligned with the strategy. Congruence among the policies sends a consistent signal to the staff of the academic information service enterprise and guides their behaviour. Further contributing to effectiveness is the commitment of staff to implementing the design (Galbraith 1995:148).

Against the background of “what” the academic information service enterprise would like to be, and of its processes and subsequently process roles, an appropriate shape or structure is chosen for the academic information service enterprise. This should be considered in terms of the enterprise as an entity (depicting how the enterprise should interact as a whole with stakeholders and partners), the major compartments within the enterprise (depicting how the components of the enterprise should interact) and the arrangement of substructures within each of these compartments (depicting how the substructures should interact). By matching strategy with what needs to be done by structures, a decision is taken whether a functional structure, product structure, market structure, geographical structure or process structure is required. The last-mentioned applies to an academic information service enterprise focussed on operational excellence for its customer, as it examines work flows across functions and aims at continuously improving processes (Galbraith 1995:45).

Within a process structure, the processes which are logically related are defined and grouped into clusters in order to ensure internal coherence and the customer focus of the academic information service enterprise. This is also referred to as compartmentalisation. It is important that the process design then tests whether each cluster meets the underlying principles and objectives relating to the cluster. Thereafter the services to be delivered by the cluster are identified; the cluster boundaries are checked for additional
Within the respective clusters, specialisation within certain activities is identified. The degree of specialisation should also be shaped by strategic needs and not by historical industry norms. The academic information service enterprise should also consider job rotation in order to broaden its competency base (Galbraith 1995:13).

4.7.1 Distribution of power within the structure of the enterprise

This refers to both the vertical and horizontal distribution of power (Galbraith 1995:24) within the academic information service enterprise. Nikolenko and Kleiner (1996:24) state that the functional hierarchy of a vertically constructed company is geared towards control, as opposed to the cross functional teams of a horizontal company which have less control because their work is aligned with customer needs and controlled by a judgement of the final output.

Staff with delivery responsibilities are empowered, or power is delegated to the area with mission critical issues (Galbraith 1995:24). This results in only a few layers in the organisation, contrary to the hierarchical structures of the past. The operational processes of a large size academic information service enterprise, for example, should require primary process leadership roles for no more than a four layer distribution of power, as follows (Strategic Information Services 2002:15):

- Level 1: Organisational leader (Head/Director of the academic information service enterprise)
- Level 2: Leadership layer consisting of Unit leaders responsible for the processes within the unit/cluster
- Level 3: Team leaders responsible for processes relating to the team’s work
- Level 4: Team members. Each team member leads the activities allocated to the person and becomes an important link in the process chain.

Primary leadership roles flow from the layers distributing power within each cluster. These leadership roles are permanent leadership roles and are occupied through advertisements for permanent appointment to the relevant leadership position. These primary leadership
roles are focussed on managing the various operations as a matter of urgency, as the value proposition is operational excellence.

In light of the fact that businesses, including academic information service enterprises, are breaking away from the traditional hierarchical structure to a flatter structure with less managers, leadership functions should be accommodated in a different manner. Staff of a large academic information service enterprise can participate in leadership through the establishment of leadership structures that contribute to the development of leadership skills and the empowerment of staff. Leadership structures should accommodate both the leadership tasks which involve managerial tasks as well as those that are often neglected, as they are not directly related to product output. Should the academic information service enterprise have a culture that is service orientated with maximum deployment, and leaders who are creative and knowledgeable in the field of leadership, the enterprise will become leadership entrenched.

A leadership entrenched academic information service enterprise envisages making a leader out of each and every staff member. It therefore makes provision for voluntary roles relating to facilitative non-operational activities, i.e. counselling, mentoring and coaching (Galbraith 1995:14). Voluntary leadership roles are as important as the permanent process leadership roles. They are important for the sustainability and success of the academic information service enterprise. Just as the primary activities are divided from the support activities within the process structures, primary leadership roles linked to operational activities should also be separated from secondary leadership roles in the leadership structure. This will ensure that both the urgent and the important leadership tasks are attended to. Secondary leadership roles should be filled as required by the academic information service enterprise. They are not permanent and can be performed by all able staff interested in performing such roles. By introducing such a leadership structure, staff will take the lead not only in the formal leadership layers where primary process leadership roles are performed due to a permanent appointment, but each staff member in the enterprise will also be afforded an opportunity to be a leader in his or her own right.

4.8 SUMMARY

This chapter indicates that it is beneficial for the academic information service enterprise to organise its labour and to re-engineer its business processes according to an organisational design process. The design of the organisation will ultimately reflect the strategic context in which it operates.
It is important that staff understand the design process based on the academic information enterprise’s strategic context in terms of “what” the academic information service enterprise endeavours to be, “who” it endeavours to be and “how” it intends working, as these aspects impact on the process structure and the leadership framework of the re-engineered academic information service enterprise. An understanding of the determinants of organisational design should impact on the attitudes of staff towards the redesign and its structures and leadership framework.

In Chapter 5 the formal and informal structures of leadership and leadership roles within the leadership structure flowing from a re-engineered academic information service enterprise will be discussed in more detail, and this chapter will serve as a forerunner to the empirical research to be followed in this specific field.
CHAPTER 5

LEADERSHIP IN THE ACADEMIC INFORMATION SERVICE ENTERPRISE

5.1 INTRODUCTION

As the academic information service enterprise re-engineers its business processes, it establishes the required process structures, process roles and associated competences, as well as a leadership framework which reflects leadership styles, leadership structures, leadership roles and the associated competences. The previous chapter discussed major aspects which could influence the process structures of the academic information service enterprise, resulting in a flattened organisation known as the contemporary academic information service enterprise. The purpose of such a structured enterprise is to increase user satisfaction (the value proposition is operational excellence) by reduced resources (flat structure) and greater staff empowerment (a leadership entrenched enterprise). The leadership framework supports the process structures.

This chapter aims to seek clarity about what the leadership framework of the contemporary academic information service enterprise should reflect. It defines leadership and investigates leadership styles, and considers what an effective leader should be like. The first part of the chapter deals with these matters. As the leader in the contemporary enterprise possesses special leadership skills and knowledge, the second part of the chapter investigates how leadership can be developed and utilised in the post-hierarchical academic information service enterprise, which has fewer layers. It considers how leadership can be entrenched throughout the enterprise with the support of leadership structures and also how such a leadership driven enterprise differs from an enterprise with traditional management structures. Knowledge of the determinants of organisational design which led to the creation of the leadership framework, should make staff aware of the rationale behind the framework. This may impact on their attitudes towards the framework.

5.2 WHAT IS LEADERSHIP?

During the 1930's and 1940's, many studies focussed on leadership as a trait – an inborn quality that makes a person a leader. This theory restricted leadership to only those who believe they possess these characteristics.
Later research, however, suggests that from a management perspective, leadership is a process of influencing individuals towards goal attainment (Yukl 1989:12). This research acknowledges that leadership can be assigned, based on the position the person is appointed to, or it can be emergent leadership, resulting from what one does and how one acquires support from followers. Leadership as a process of influencing individuals applies therefore to individuals in both assigned and emergent roles. Riggs (2001:6) accentuates the fact that the head librarian is not the only leader in the library. He states that leaders are to be found throughout the library, and this fact needs to be remembered when the enterprise considers staff development. This should be addressed during leadership development programmes.

The most appropriate definition on leadership, also identified by Riggs (2001:6), is that by MacGregor Burns (1978:1), published almost thirty years ago:

| Leadership over human beings is exercised when persons with certain motives and purposes mobilize, in competition or conflict with others, institutional, political, psychological, and other resources to arouse, engage and satisfy the motives of followers. |

Related to leadership is the concept of power.

### 5.2.1 Power

Yukl (1989:14) defines power as a person’s capacity to influence a target person. He states that many authors have acknowledged this definition but in different ways (Dahl 1957, Grimes 1978, House 1988, Kotter 1985). For example, power sometimes means the person’s ability to influence another person’s behaviour. Then again, it may also mean influence over the other person’s attitudes and behaviour; influence over a single person or a group of people. Some people even define power as the amount of influence actually exercised by the agent/person influencing others. Yukl (1989:14) therefore suggests the most appropriate definition of power as follows:

An agent’s influence over the attitudes and behaviour of one or more designated target persons.
This definition focuses on influence over people and control over things. The question can now be raised as to what source of power will influence or control people.

The three sources of power identified by Yukl (1989:14) flowing from the definition are position power (derived from formal authority and control), personal power (derived from expertise, friendship or charisma) and political power (derived from control over the decision process, coalitions, institutionalisation). *Management principles* (2002:280) supports this view and adds to power three other components that emerge from leadership: the components of delegation, responsibility and accountability, as these aspects are closely tied to authority.

5.3 AN OVERVIEW OF MAJOR RESEARCH APPROACHES TO LEADERSHIP

An analysis of the theories of leadership provides insight into this complex component of management, rather than indicating the best leadership style to be applied in a specific situation.

According to Yukl (1989:7-8) nearly all leadership styles fall into one of the following four approaches:

5.3.1 Power influence approach

Research with regard to this approach explains leadership effectiveness in terms of the amount of power possessed by the leader, the types of power and how the power is exercised. A person’s power depends to a considerable extent on how the person is perceived by others.

5.3.2 Behaviour approach

This approach refers to what leaders and managers do on the job. Research has sought to identify differences in behaviour patterns between effective and ineffective leaders. It reveals a correlation between leadership behaviour and measures of subordinates’ satisfaction and performance.

5.3.3 Trait approach

This approach emphasises the personal attributes of leaders. Research conducted in the
first half of the previous century, revealed that leaders’ success can be attributed to abilities such as energy, intuition, foresight and persuasive powers. This research effort, however, failed to find traits that would guarantee leadership success.

Recent research has focussed on managerial motivation and special skills rather than on personal traits and general intelligence, and tends to relate traits to specific role requirements for different positions.

5.3.4 Situational approach

This approach emphasises the importance of situational factors such as the leader’s authority and discretion, the nature of the work performed by the leader’s unit, subordinates’ ability and motivation, the nature of the external environment, and the role requirements imposed by subordinates, peers, superiors and outsiders. One line of research in this regard seeks to discover how the situation influences behaviour and another attempts to identify aspects of the situation that moderate the relationship of leader traits or behaviour to leadership effectiveness. The assumption is that the same behaviour pattern is not optimal in all situations. This approach is also known as the contingency approach, as the effects of leader behaviour are contingent on the situation.

Management principles (2002:289-291) draws attention to the many leadership models which were developed based on the situational approach to leadership. The most prominent ones in this regard are the following:

- **Fiedler’s contingency model**: According to this theory successful leadership depends on the match between the leader, the subordinate and the situation. The leader’s effectiveness is determined by how well his or her style fits the situation.

- **Hersey and Blanchard’s leadership cycle model**: According to this theory the most effective style for a specific situation is determined by the maturity of the subordinates. The maturity of the subordinate is defined as the person’s need for achievement, willingness to accept responsibility and task related experience.

- **Vroom-Yetton-Jago model**: According to this model, leader behaviour must adjust to reflect the task structure. The basis of this theory is that task structures have varying demands for routine and
non-routine activities, and it therefore provides a set of rules to be followed in
determining the form and amount of participation in decision making in different types
of situations.

- **Path-goal theory.**
The essence of this theory is that it is the leader’s job to assist his or her follower in
attaining their goals and to provide the necessary direction and support to ensure that
their goals are compatible with the overall goals of the organisation. Leaders clarify
the path so that their followers can make the journey on a path with reduced
barriers. Such a leader will be directive. This means he or she will tell staff precisely
what is expected, ensure that the necessary training is received by all staff and will
give clear guidance on how to accomplish tasks.

*Management principles (2002:292-296)* points out other perspectives on leadership which
include new leadership models such as

- **Transactional leadership**
This leadership is characteristic of stable, ongoing situations and lasts only as long
as the needs of both leader and follower are satisfied. These leaders do typically
what managers do, i.e. they clarify the roles of staff, initiate structures and provide
awards.

- **Transformational leadership**
These leaders are known for the ability to bring about innovation through strategic
change. This leadership is most appropriate in a situation like the South African
environment.

- **Female leadership**
The female leadership style is very effective in today’s turbulent corporate
environment. This leadership is interactive, and concerned with consensus building,
caring, open and inclusive. Anyone can develop these qualities which are very
important as they are in line with the trend towards participation and empowerment.

- **Dynamic engagement**
This leadership is linked to leaders who get extraordinary things done. These
leaders would challenge the process, inspire a shared vision, enable others to act,
model the way, recognise/celebrate individual contributions. Researchers argue that
these practices can be learnt by most leaders.

- **Attribution theory**
This theory postulates that leaders establish why subordinates behave in a certain
way and then modify their behaviour to guide their followers.
It is important to note the difference between the approach in early leadership models and contemporary leadership models:

This latest research identifies internal factors that influence both the job satisfaction and the performance of the subordinates, without these being derived from their leaders. These factors are referred to as a substitute for leadership. Theories prior to these assumed that the subordinates’ behaviour, job satisfaction and performance are directly linked to the behaviour of leaders. Subordinates’ achievements therefore depend almost completely on the motivation, support and reward of leaders.

5.4 EFFECTIVE LEADERSHIP: LEADERSHIP THAT ACHIEVES RESULTS

Goleman (2000:78) states that research conducted by the firm Hay and McBer on a random sample of 3871 executives, selected from a database of 20000 executives worldwide, revealed that leaders will achieve results by applying six distinct leadership styles. The research offers an understanding of how different leadership styles affect performance and results; it also offers clear guidance on when a manager should switch between them and it accentuates the fact that leaders with the best results do not rely on only one leadership style. The following leadership styles as presented in Table 5.1 are identified by Goleman (2000:82-83).

TABLE 5.1
LEADERSHIP STYLES AND THEIR APPLICATIONS

<table>
<thead>
<tr>
<th>Style</th>
<th>Characteristics</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coercive leaders</td>
<td>Demand immediate compliance</td>
<td>The enterprise is threatened, for example, due to low service levels. Staff need to react to an immediate instruction, i.e. “do it immediately”</td>
</tr>
<tr>
<td>Authoritative leaders</td>
<td>Mobilise people toward a vision</td>
<td>The leader of the enterprise derives his/her power from the authority allocated to him/her and uses it to move staff in order to attain the vision. The overall impact on the climate is positive</td>
</tr>
<tr>
<td>Affiliative leaders</td>
<td>Create emotional bonds and harmony</td>
<td>Applied in a project where desired outcome requires much team work. Positive overall impact</td>
</tr>
</tbody>
</table>
Democratic leaders | Build consensus through participation | When radical change is expected, i.e. through a re-engineering project, and buy-in from the entire staff is required. The question “what do you think?” is often asked. Positive overall impact on the environment

Pacesetting leaders | Expect excellence and self-direction | Leading through setting of standards which were not set together with staff, e.g. performance standards for the provision of inter-library loans. Negative overall impact on the environment

Coaching leaders | Develop people for the future | Leader is focussed on opportunities to involve staff in projects with a view to developing them for the future. Positive overall impact on the environment

Source: Adapted from Goleman (2000:82-83).

All six of these styles are used by executives, but of the six, only four consistently have a positive effect on climate and results, i.e. the authoritative, democratic, affiliative and coaching styles. The coercive style works best in a crisis situation when the leader needs to demand immediate compliance without any further consultation, negotiation with staff or input from staff, but it has a damaging effect, in particular with regard to the leader’s top-down decision making. Like the coercive style, the pacesetting style has its place in the leader’s repertory. The leader sets high performance standards and exemplifies them him- or herself. Poor performers are pinpointed and even replaced. Although improved results are expected through taking such a radical step, this style rather destroys the climate.

The business environment is changing continuously and the leader must respond accordingly. Leaders should develop their emotional intelligence and use distinct leadership styles at just the right time and in the right measure hour to hour, day to day, week to week (Goleman 2000:90), - in order to be effective.

5.5 MANAGER VERSUS LEADER

Although leadership and management are related, they are not the same. Managers focus on non behavioural aspects of management such as the systematic selection of goals and
objectives, the development of strategies to achieve the goals, the design of the organisation and the control of the activities to attain the goals. This is in contrast with leaders who focus on behavioural aspects of management, aim at energising people to change what needs to be changed and steer the enterprise into a particular direction (Management principles 2002:283-284). However, both management and leadership are required by the effective enterprise. Managers should therefore acknowledge the importance of the leadership component of their work and be developed to become leaders who achieve results.

In order to understand the difference between management and leadership in the academic information service enterprise, it is necessary to further distinguish the ways in which management and leadership are different (Riggs 2001:6).

Managers tend to work within defined bounds of known quantities, using well established techniques to accomplish pre-determined ends; the manager tends to stress means and neglect ends.

The leader of the academic information service enterprise, on the other hand, should have the task of holding some vision of what its mission is and how it can be reached effectively.

As far back as 1989, Bennis (1989:45) pointed out that leaders “master the context” rather than to surrender to it and made the following distinction between managers and leaders:

**TABLE 5.2**

**MANAGER VERSUS LEADER**

<table>
<thead>
<tr>
<th>Manager</th>
<th>Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administers</td>
<td>Motivates people</td>
</tr>
<tr>
<td>Focuses on systems and structures</td>
<td>Focuses on people</td>
</tr>
<tr>
<td>Relies on control</td>
<td>Relies on trust</td>
</tr>
<tr>
<td>Has a short range view</td>
<td>Has a long range perspective</td>
</tr>
<tr>
<td>Asks how and when</td>
<td>Asks what and why</td>
</tr>
<tr>
<td>Imitates old ideas</td>
<td>Originates new ideas</td>
</tr>
<tr>
<td>Does things right</td>
<td>Does the right thing</td>
</tr>
<tr>
<td>Is a copy of other practices</td>
<td>Is original in creating the business</td>
</tr>
<tr>
<td>Accepts the status quo</td>
<td>Challenges the status quo</td>
</tr>
</tbody>
</table>

Source: Adapted from Bennis (1989:45).

Riggs (2001:7) too acknowledges the above distinction and accentuates the fact that it does not imply that a person cannot be both a good manager and a fine leader. Competent managers are extremely important to the academic information service enterprise but the fact is that the enterprise may not be under-led. The academic information service enterprise must therefore ensure that its leadership structures allow for both the managerial roles relating to operational output as well as the leadership roles relating to the sustainability of the enterprise.

The above characteristics of a leader, as presented in table 5.2, all point to the motivating of staff towards sharing in a vision in a work environment supporting this.

5.6 THE ENVIRONMENT OF THE CONTEMPORARY ACADEMIC INFORMATION SERVICE ENTERPRISE

The contemporary academic information service enterprise needs staff with not only technical skills, but also leadership skills, people skills and maturity for personal progress.

In particular, there are unique managerial challenges inherent in the features relating to the flatter, leaner and more flexible structures. Staff working in such an environment must not only be flexible and proactive in improving their own performance, but must also be innovative, balance work and voluntary workplace activities, maintain a sense of responsibility for their own career and must accept that employment continuity means continuous development and renewal of knowledge (Management principles 2002:476). Traditional career ladders leading to the level of management no longer exist for staff at lower levels to climb to the slot “above” until the desired managerial level is reached. Kanter (1990:9) states that this has caused an entrepreneurial revolution, which applies entrepreneurial principles to the traditional enterprise. With fewer employees and levels of management, as well as an emphasis on required quality standards, employees throughout the enterprise should realise that they, together with the enterprise, should adopt an entrepreneurial mindset. Kanter (1990:116) accentuates the fact that people should pull together to pursue new opportunities. This implies that staff should be afforded, and use, opportunities to do what they are good at, in order to build the enterprise whilst doing what they like doing, and at the same time to acquire new skills for career
As far back as 1988, Drucker (1988:47) stated that staff in the leaner, flatter enterprise should work together as in an orchestra. The corporate leaders should create opportunities that may be useful for someone else. Leaders therefore need to understand the business in order to identify areas for joint action and mutual enhancement, resulting in staff functioning in many roles.

As the contemporary academic information service enterprise moves into the global environment, top executives often point out how much remains to be done even though they may be proud of the enterprise's performance. Kanter (1990:42-43) warns that an organisation with many opportunities to contribute may result in senior staff devoting more time to work. In order to avoid this, staff on lower levels should also be drawn into such opportunities to develop their skills, through participation in groups and forums which contribute to the development of technical skills as well as leadership skills.

*Management principles* (2002:475-476) points out that one of the most important challenges faced by the academic information service enterprise in South Africa is workforce diversity. This means that the enterprise is becoming more heterogeneous in terms of gender, race and ethnicity and that it includes full-time contract workers or consultants, offers part time work and in some instances even home-based telework. Furthermore, the Employment Equity Act gives legal weight to the requirements of workforce diversity. Managers will need to shift their philosophy from treating everyone alike, to recognising differences in ways that will ensure employee retention and greater productivity. They will have to create environments that utilise the potential of all sources of difference in the workforce. It could be valuable if staff are counselled, mentored, by a person of the same age, culture and gender if so preferred. Knowledge of the different perspectives could result in managers rethinking their approaches to tasks and markets and thereby gaining a competitive advantage. As the enterprise moves into the global world, in order to be successful managers will even have to understand cultural differences around the world (*Management principles* 2002:476-477).
The contemporary academic information service enterprise is challenged by a flatter, flexible organisation which has to operate in the global environment whilst responding to the needs of a diverse workforce. The innovative leader acknowledges the importance of continuous learning and establishes a learning environment which reflects a culture of learning and collaboration embedded in both the process structures and leadership structures. This results in staff performing different roles from those for which they were appointed and other voluntary leadership workplace activities; and ultimately taking responsibility for their careers.

5.6.1 Skills required by the contemporary academic information service enterprise

Since managers do not only focus on managerial functions, responsibilities and accountability, they should be developed to become leaders that can make a difference in the contemporary academic information service enterprise. The following leadership strategies pertaining to the academic information service enterprise, adopted by Sweeney (1994:89-91), are examples of typical leadership strategies that have been followed by academic information service enterprises during the past ten years:

- constant examination of the mindset of the leader
- reinvent, communicate and sell the library mission
- change the concept of a library professional
- build a powerful technology infrastructure
- build a knowledge sharing infrastructure
- build and empower cross-functional teams
- reward initiative and performance
- make quality satisfaction a number one goal
- flatten the hierarchy - more service people and fewer support people
- reinforce traditional library values: service to individuals, intellectual freedom, access and knowledge.

Added to these leadership strategies are strategies pertaining to learning and the mobilising of people to change (Franklin:1999:22; Davis 1999:95). Davis (1999:95) states that in the words of John F. Kennedy, “leadership and learning are indispensable to each other”. Franklin (1999:23) too accentuates the importance of learning by all staff, as the complex world of library and information services requires real time decisions in an increasingly
electronic and information-driven academic and research environment, and adds to this the fact that a shared leadership model needs to be established.

All these leadership strategies place an emphasis on greater leadership skills for business unit leaders and team leaders, unlike that of the manager who focussed on operational management. The team leader is thus an effective manager, a superb leader and also a full team member. The team leader must understand at a fundamental level the abilities, knowledge, skills, needs and motivations of team members in order to effectively coordinate the activities of the team. Furthermore, the team leader should empower staff, and encourage them to learn more skills and competencies while performing additional roles, as leadership roles are distributed throughout the enterprise (Franklin 1999:23).

Team members will not only need technical skills but also complementary competencies such as interpersonal skills and any other skills required for the functioning of the specific team (Management principles 2002:335).

Traditional leaders and their staff also need to learn about group process and facilitating skills, and role-playing, including coaching and mentoring (Franklin 1999:22). Each staff member has certain leadership qualities that will be needed by the organisation at some time, as we need to respect diversity in all its forms (Franklin 1999:23). The enterprise with distinct cultural diversity should benefit by leaders trained in diversity and who have also developed listening skills (Management principles 2002:477). These leaders can be allocated to the respective groups to communicate, for example, the mission, but also to act as coaches and mentors because they possess the required language and communication skills and know the background to the problems experienced by staff in their relevant groups.

Team members should therefore not only focus on their technical skills, but should also continuously develop leadership skills in order to be able to lead when required. The academic information service enterprise should therefore acknowledge leadership in each staff member, encourage learning and shift the locus of power from the traditional management hierarchy to those who can effectively influence others. This will lead to a leadership entrenched model in which the leadership responsibility of the enterprise is shared.
The contemporary academic information service enterprise no longer has place for the traditional manager with managerial skills only. Managers should be developed to know their business, acquire technical skills and to become true business leaders in a learning environment, in order to move the academic information service enterprise forward. Furthermore, all staff who do not occupy management positions should be afforded the opportunity of leadership development through a culture of learning as well as a culture of shared leadership.

5.7 THE ACADEMIC INFORMATION SERVICE ENTERPRISE AS A LEARNING ORGANISATION

Management principles (2002:465) states that the key factors of production have changed dramatically in the recent past; the intellectual capital of the enterprise has become its critical resource. Because many employees will work in knowledge organisations in future, management theorists stress the fact that contemporary organisations must develop, measure and manage their intellectual assets if they are to be successful. The term for this process is knowledge management.

Knowledge management is an integrated, systematic approach to identifying, managing and sharing an organisation’s information assets. These include databases, documents, policies and procedures as well as the unarticulated expertise and experience available to individual knowledge workers. In the successful learning organisation, individual learning must therefore become continuous. The organisational culture should support learning and employees should be encouraged to take risks with new ideas. Knowledge management and organisational learning will have an increasingly important impact on organisations in future because these enhance an organisation’s potential to increase productivity, quality and innovation by changing the way that work gets done (Management principles 2002:466).

This principle also applies to the academic information service enterprise. It should embrace knowledge management, as it endeavours to be a learning organisation.

5.7.1 A shared leadership model in a learning organisation

Franklin (1999:22) supports the views of Senge (1990:340), i.e. that the leaders of a learning organisation are responsible for building organisations where people can
continually expand their capabilities to understand complexity, clarify vision and improve shared mental models. Shared models typically demonstrate empowerment, accountability and decision making partnership in order to enhance the service delivery of the academic information service.

As is the case with managers, there are leaders throughout the academic information service enterprise. Mech (1996:352) states that the development of leaders, with a view to sharing leadership, is largely a matter of continued individual self-development, abetted by opportunities provided by the organisation and the individual. He states further that both individual motivation and organisational stimulation are involved. The leader of the academic information service enterprise should therefore be flexible in the face of shifting opportunities and conditions. Mech (1996:352) accentuates the fact that leadership skills can be learned and that while not everyone wants a formal leadership position or is comfortable being a leader, almost everyone enjoys challenges within the field of leadership. Deiss (1999:193) supports these views by emphasising the facts that leadership is a learning process and that leadership development is very important. She points out that a person should grow, learn, practise and gain insights into one’s capacity to lead others. At the heart of leadership development is self-leadership, a process of influencing ourselves to learn skills that will allow one to look for opportunities to contribute and influence others to contribute.

As leadership is developed and a shared leadership model established, leadership roles are distributed throughout the organisation.

In the learning organisation, staff will learn to work more productively as leadership roles are no longer restricted to senior levels only, but rather distributed throughout the academic information service enterprise. The academic information service enterprise will benefit from a shared leadership structure as it offers opportunities for staff to develop in terms of leadership and it establishes a leadership entrenched enterprise, while offering a means to lead staff from diverse groups.

5.8 LEADERSHIP STRUCTURES OF THE LEARNING ORGANISATION

The leadership structures of the contemporary academic information service enterprise should represent both the role of leadership and the leadership roles. The role of leadership is characterised by the label of leading people from the front. It replaces the
rigid role of management, focused on the management of tasks and pushing people from behind to ensure that tasks are completed. Leadership roles often operate outside the business processes and are therefore known as meta roles (Strategic Information Services 2001b:4)

5.8.1 Leadership based principles for the establishment of leadership structures

The leadership structures should be established with the following principles in mind:

- Management has two dimensions, i.e. task-orientated leadership and the human dimension (employee-orientated) leadership. Both these dimensions are necessary for success (Management principles 2002:302) and should be accommodated within the leadership structures of the academic information service enterprise.

- The building blocks of renewal for the business. Processes within the building blocks of renewal for the business will lead to the identification of leadership roles required to perform them, the forms (hierarchy, team, forum) that would shape them and the mechanisms and basis for appointment to these structures (Strategic Information Services 2001a:18).

- Leadership structures should meet the performance objectives relating to the organisational context, i.e. “who” the organisation would like to be, “what” the organisation would like to be and “how” it needs to conduct its business. These structures should be created to shape the leadership of the organisation beyond that of the personal styles of a few people, in support of future business imperatives. Such structures should also broaden the base of leadership beyond the traditional leadership structure which involved a small number of senior people, and it should populate the structures with staff both willing and able to perform the leadership roles.

- Aspects relating to the organisational context and organisational personality to influence the leadership structures include multi-skilled staff, learning leadership and performance related rewards.

- Against the background of a learning organisation, opportunities should be created for extended exposure and personal development beyond the responsibilities pertaining to the work for which the person has been appointed (Strategic Information Services 2001a:18).
5.8.2 Layers in the leadership structures and related roles

The leadership structure determines the number of layers in the enterprise. The leadership framework further determines the relationships between the leadership roles (flowing from the process design) and the forms.

In the discussion on redesigning the academic information service enterprise (chapter 4, par. 4.7.1) it was pointed out that the process design for a large size academic information service enterprise requires no more than a four layer distribution of power.

The following serves as justification for determining the number of layers in a typical large size academic information service enterprise:

A single business leadership layer populated by the organisational leader only, is not appropriate. A second leadership layer, i.e. a business leadership layer populated by Business Unit leaders responsible for the respective clusters, is important to lead the enterprise from a strategic perspective. It, however, needs two differentiated roles, i.e. that of contact with the outside world and that of the executive team to govern the academic information service enterprise.

A team working layer consisting of the team leaders as a formal point of contact, comprises the next leadership layer (Strategic Information Services 2001a:15).

The organisational leader, business unit leaders and team leaders within these three layers are formally appointed and the leadership roles performed by the appointees are acknowledged as primary leadership roles. Because the business units differ in terms of scope, the grading of leaders within the layers is not uniform. This decouples the leadership roles from status, seniority and reimbursement (Strategic Information Services 2001a:27). A fourth layer consists of the team members. For smaller business units with only a small team, the business unit leader could become the de facto team leader and the person’s responsibilities would therefore span two layers of the leadership model.

5.8.3 Other leadership roles in the learning organisation to be incorporated into the leadership structures

In the contemporary academic information service enterprise, only primary leadership roles should form the basis of recruitment, promotion or grading (Strategic Information Services
Leaders responsible for the business processes are appointed to these roles in a permanent capacity and are particularly concerned with task-orientated leadership functions which include direction, resource allocation and performance review - careful supervision and control to ensure that subordinates do their work satisfactorily. These leadership roles focus primarily on tasks relating to the required outputs.

The human dimension of management is as important as the task-orientated dimension of management. The leader applies less control and more motivation and participative management to get the job done (*Management principles* 2002:303). This dimension of management has a strong focus on people and their needs for progress. Although this dimension is very important, it is often neglected because the urgent operational work tends to prevail over the important tasks.

In order to ensure that both the important and the urgent leadership tasks are performed, primary leadership roles can be separated from secondary leadership roles. A leadership framework that accommodates leadership roles that fall outside the business processes, can be implemented with a view to establishing a learning organisation, offering opportunities to staff for development and demonstrating and reinforcing the employee-orientated dimension of leadership in an academic information service enterprise. As the academic information service enterprise adopts flat organisational structures, there are less line managers available to perform leadership roles. A leadership structure with secondary leadership roles, which focus on the employee dimension of leadership, complements the flat organisational structure. These roles are performed by staff as secondary leadership roles, populated on the basis that a staff member on any level within the enterprise is willing to perform it. This offers an opportunity for staff to develop leadership skills and to ultimately apply for leadership positions.

The leadership framework in the contemporary academic information service enterprise should consider the leadership based principles adopted for its leadership framework; it should also foster a shared leadership culture and contribute to the development of a learning organisation with developmental opportunities for all in the academic information service enterprise. This approach acknowledges the fact that important leadership tasks, such as mentoring and coaching, which are often pushed aside for the more urgent tasks relating to the product output, should receive the necessary attention. It also acknowledges leadership potential in all staff, welcomes creativity and uses it in order to promote the organisation's development.
5.8.4 **Leadership frameworks containing primary and secondary leadership roles**

It is important to note that primary and secondary roles are equally important to the enterprise and the individual. Secondary leadership roles tend to be less urgent for the organisation but they are certainly not less important for the individual. The reason why they were previously often neglected is that they were not formally entrenched in structures that reinforced them, and not included in individual performance management. It is therefore important to include secondary leadership roles in the leadership structures of the academic information service enterprise.

Best practice suggests that at the operational level of business, approximately 80% of available time should be devoted to primary role activities and up to 20% to one or more secondary roles; at a strategic level, 60% to primary role activities and up to 40% to secondary role activities. Secondary leadership roles are voluntary roles and can be occupied by any staff member who is willing and able to perform such roles (Strategic Information Services 2001:13).

A staff member might have acquired skills in his /her private time, which the person would like to apply at work. The person may view this as a contribution to the enterprise, as value is added through something that he/she is good at whilst building self-confidence and gaining respect from peers, resulting in greater job satisfaction. It may also happen that a person prefers to break the monotony of a routine task for which he/she was appointed by performing a secondary role for up to 20% of the work time, or to acquire skills in a function that interests him or her, all resulting in increased job satisfaction.

The relevant team of which the person who applies for a secondary leadership role is a member, should agree that their team member accepts such a role, as they have to support the person and take on the person’s responsibilities while the person performs the secondary leadership role. Staff who prefer not to perform secondary roles perform their primary role, for which they were appointed, 100% of the time.

Strategic Information Services (2001a:13) refers to two leadership frameworks, that represent different but representative qualities typical of requirements for leadership frameworks with both primary and secondary leadership roles. These are the leadership frameworks adopted in South Africa by Charter Life and propounded by the Democracy and Work Institute. Charter Life adopted a framework that may be discussed as an example of a leadership framework that separates its primary and voluntary roles within
groups. The framework of the Democracy and Work Institute includes primary and secondary leadership roles in all the layers. It is therefore limited, as it focusses on layers and then combines primary and secondary roles in a fixed manner per layer, resulting in not all staff being able to perform secondary leadership roles.

These frameworks complement the concept of an innovating organisation, as suggested by Galbraith (1996:161) and discussed in chapter 4, par. 4.3. The academic information service enterprise which is shifting its focus from an enterprise involved with operational output, to an enterprise which includes the urgent leadership roles pertaining to operational output as well as the important leadership roles which ensure the sustainability of the organisation, may consider these frameworks in order to gain insight into the responsibilities or outputs required by each leadership layer. This should be useful in developing a leadership framework that separates primary and secondary leadership roles.

5.8.4.1 The Charter Life framework

The framework comprises three leadership layers, as follows:

- **Strategy group**

  The Strategy group creates vision, monitors the internal and external environment, identifies opportunities for new products and ways of doing work, optimises use of resources, promotes learning, avoids involvement in operational issues, focuses on the future and not the present, and operates as a cohesive team with no operational line accountabilities.

- **Leadership group**

  This group comprises 15-20 staff members and operates as a cohesive team. It implements strategy, performs mentorship and training of designated teams, monitors quality of service delivered and adjusts mentoring and training accordingly.

- **Teams**

  Charter Life has a total workforce of approximately 280 staff members; it has 20 teams in South Africa
- Teams are multi-skilled and managed by 2-3 leaders
- Teams are segmented by the geographical location of their customers, comprise a small number of specialist teams and may comprise sub-teams. Teams are remunerated according to competency levels and performance (Strategic Information Services 2001:14).

5.8.4.2 The leadership framework of the Democracy and Work Institute, 1997

This framework consists of four distinct layers, as follows:

- **Executives:**
  The executives are expected to produce the following outputs:
  - Business unit results
  - Management systems and performance management
  - Shared vision, mission and strategy
  - Organisational structure, core competency
  - Leadership role models
  - Networks and image.

- **Front line coaches:**
  The following outputs are expected:
  - Performance units results
  - Cross unit linkages
  - High performance, capable workforce
  - Individual team support.

- **Coordinating leaders:**
  The following outputs are expected:
  - Performance units plans and results:
  - Improved processes
  - Networks and image.
• Associates:
The following outputs are expected:

- Self management process
- Input to innovation
- Individual/team outputs.

5.8.4.3 Leadership framework that separates primary leadership roles from secondary leadership roles

The following typical examples of leadership roles within a framework that separates primary and secondary roles constitute the framework adopted by the Unisa Library (Unisa Library 2001b:10-11).

The first three leadership roles presented in Table 5.3 are, typically, primary leadership roles to which staff are appointed:

**TABLE 5.3**
**PRIMARY LEADERSHIP ROLES**

<table>
<thead>
<tr>
<th>LEADERSHIP ROLE</th>
<th>RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business leader</td>
<td>The leader of the academic information service enterprise responsible for leading the enterprise, bottom line accountability and representing the enterprise to the outside world</td>
</tr>
<tr>
<td>Business unit leader</td>
<td>The leader of a business unit acts as executive team together with the leader of the enterprise</td>
</tr>
<tr>
<td>Team leader</td>
<td>Accountable for operational activities and performance of a team</td>
</tr>
</tbody>
</table>

The following are, typically, secondary leadership roles to be performed in order to sustain the enterprise. This framework addresses the problem of management having to attend to the many leadership roles to be performed in the workplace, with their diverse nature. It also contributes to the development of leadership potential in the academic information service enterprise.
<table>
<thead>
<tr>
<th>LEADERSHIP ROLE</th>
<th>RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategist</td>
<td>Accountable for business strategy and technical strategy respectively</td>
</tr>
<tr>
<td>Process owner</td>
<td>Ensures process integrity, process performance and best practice</td>
</tr>
<tr>
<td>Counsellor</td>
<td>Assists with non-technical staff problems</td>
</tr>
<tr>
<td>Coach</td>
<td>Responsible for technical development of staff</td>
</tr>
<tr>
<td>Mentor</td>
<td>Responsible for development of life skills of staff</td>
</tr>
<tr>
<td>External relationship manager</td>
<td>Responsible for relationships with external parties</td>
</tr>
<tr>
<td>Change agent</td>
<td>Responsible for communication with targets of change</td>
</tr>
<tr>
<td>Project leader</td>
<td>Responsible for success of projects approved by the business</td>
</tr>
<tr>
<td>Project participant</td>
<td>Responsible for specific tasks in a project</td>
</tr>
<tr>
<td>Knowledge leader</td>
<td>Responsible for sharing expert knowledge with staff</td>
</tr>
<tr>
<td>Critical thinker</td>
<td>Responsible for questioning practice, testing understanding</td>
</tr>
<tr>
<td>Cheerleader</td>
<td>Responsible for creating fun in the workplace</td>
</tr>
<tr>
<td>Champion</td>
<td>Responsible for ensuring change</td>
</tr>
<tr>
<td>Union representative</td>
<td>Represents the interests of the Unions</td>
</tr>
<tr>
<td>Skills development coordinator</td>
<td>Responsible for the activities associated with the implementation of the Skills Development Act</td>
</tr>
<tr>
<td>Quality assurance co-ordinator</td>
<td>Responsible for activities associated with performance measurement</td>
</tr>
<tr>
<td>Forum leader</td>
<td>Responsible for any established Forum in the enterprise</td>
</tr>
<tr>
<td>Forum representative</td>
<td>Responsible for representing the enterprise at a Forum</td>
</tr>
<tr>
<td>Employment Equity coordinator</td>
<td>Responsible for Employment Equity in the academic information service enterprise</td>
</tr>
</tbody>
</table>
Occupational health and safety management representative | Responsible for effective and efficient occupational health and safety management practices in accordance with the relevant legislation

Project tour guide | Responsible for accompanying visitors to the academic information service enterprise

Project trainer | Responsible for customer training in the academic information service enterprise

Project trainer helper | Responsible for assisting the trainer

Web page owner | Responsible for content to be placed on the academic information service enterprise’s web page.

The following secondary leadership roles pertain to the emergency management of the academic information service enterprise:

- Emergency access controller
- Emergency director
- Emergency evaluator
- Emergency fire fighter
- Emergency First Aid help
- Emergency second in command
- Emergency team leader

Source: Unisa Library (2002:10)

5.8.5 Organisational forms to support leadership structures in the academic information service enterprise

Typical forms employed in structures of the post-hierarchical academic information service enterprise include units, teams, forums and groups. These act as shapers of the process-based structures as well as of the leadership structures (Strategic Information Services 2001a:29).

A unit is a permanent business structure, a team and a forum are collaborative structures, and a group is an informal structure. Formal leadership roles (for which the staff member was appointed) are found in business units and some teams and forums. For example, the membership of the executive team consists of the organisational leader and business unit leaders. Other leadership roles within Forums, such as the Strategy Forum, Library Transformation Forum and the Change Agent Forum, should be filled as secondary leadership roles on the basis of people being willing and able to perform the roles. Groups are loosely formed entities and depend on a combination of situational leadership and
direction from other formal structures. Examples of groups in which secondary leadership roles can be performed are the coaching group, counselling group, mentoring group, critical thinker group and the cheerleader group. Each element in the leadership structure must have a unique purpose if it is to be established (Strategic Information Services 2001a:3).

5.8.6 Membership of leadership structures

Strategic Information Services (2000:10) advises on the details pertaining to the membership of leadership structures as follows:

Secondary leadership roles are only permitted to exist should they participate in a formal element of the leadership structure. Should there be a need for the performing of secondary roles, the roles should be advertised except in the case where groups are loosely formed.

The executive team is the only body responsible for appointing staff to secondary leadership roles that have been advertised. Appointment is on the basis of nomination and assessment, according to agreed criteria contained in profiles of leadership roles. The roles should be rotated, for example, annually, in order to afford other staff an opportunity to develop skills to perform the role. It should be communicated clearly that the role will be performed for a limited period only and that the person appointed to the role will have no claim to a permanent post, requiring these skills, which may become available. Each role has its own set of criteria. Important, however, is the fact that the roles should be filled on the basis of willingness and ability.

There are opportunities to grow ability. Should a candidate have suitable potential, this must be taken into consideration during the appointment. In such a case the necessary training will be provided.

Changes to secondary leadership roles should only be made in the case of poor performance and when staff physically leave the academic information service enterprise due to an unforeseen reason.

It is assumed that staff would like to perform secondary leadership roles, as they may already have gained the required skills in a personal capacity or at a previous employer. They may also view such roles as a developmental opportunity, an opportunity to develop self confidence and empower themselves. It is further assumed that staff are prepared to perform these roles without additional pay, as they will gain recognition through
performance appraisal and job satisfaction while performing additional tasks they are good at or interested in.

5.8.7 Leadership structure relationships

There are very specific relationships between the leadership structure elements and the leadership roles, which lead to a specific leadership structure. In designing the relationships which lead to leadership structures it is important to determine what elements should be combined, what should drive and what must be driven (Strategic Information Services 2000:11). Figure 5.1 depicts the relationships between the respective leadership structures adopted by an academic information service enterprise. Some structures encompass more than one role, e.g. the Project team encompasses the project leader, project researcher, project tour guide, project trainer and project trainer helper. The Funded development Forum encompasses the Employment Equity coordinator, Skills development coordinator and the Forum representative; the Occupational health and safety group encompasses the Emergency leadership roles and that of Occupational health and safety manager,
LEADERSHIP STRUCTURES FOR THE ACADEMIC INFORMATION SERVICE ENTERPRISE

Source: Strategic Information Services (2002:17)
5.8.8 Secondary leadership roles in support of contemporary leadership requirements

It became apparent throughout the study that academic information service enterprises should reconsider their leadership frameworks, since requirements relating to an innovative leadership structure for the contemporary academic information service enterprise emerged. A leadership framework with structures which include secondary roles, meets these requirements. The following serve as examples in support of the statement:

- A new approach to management is required: leadership structure should reinforce a leadership culture (see par. 1.1).
- The enterprise should establish structures which empower staff and meet the expectations of a transformed society, for example in South Africa (see par. 1.1).
- The enterprise should tap the creative power inherent in every person (see par. 2.3.1).
- Leadership are accountable for creating new opportunities for staff (see par. 2.3.1).
- The energy of the organisation’s human resources should be mobilised towards achievement of the organisation’s performance objectives (see par. 2.3.2).
- The work should be organised in such a way that the work environment and relationship of people reflect self worth, growth and satisfaction (see par. 2.3.2).
- Resources are deployed with a focus on the market in such a way that it attains its objectives as productively as possible (see par. 2.3.3.7).
- Re-engineering the enterprise should lead to improved skills in leadership/rediscovery of leadership (see par. 3.2.1).
- Corporate performance requires most people throughout the organisation to learn new skills (see par. 3.2.1).
- The components of organisational design must be combined in such a way that it becomes both an operating and innovating organisation (see par 4.3).
- The enterprise should be redesigned with a view to developing staff and be a compelling place to work (see par. 4.3).
- The contemporary enterprise need people with leadership skills and maturity for personal progress. It also acknowledges workplace diversity and teamwork (see par. 5.6).
- Work activities (for which the person was appointed) and voluntary work activities (for example mentoring) should be balanced (see par. 5.6).
- Staff should have a sense of responsibility for building their own career maturity for personal progress (see par. 5.6).
The innovative leader acknowledges the importance of continuous learning and established an environment which reflects a culture of learning and collaboration (see par 5.6).

From the above theoretical point of view, it can be deducted that a leadership framework, which includes secondary or voluntary leadership roles, can be applied meaningfully in order to meet the requirements for leadership in a new working environment in the contemporary enterprise.

However, would staff of the academic information service enterprise, who need to perform the roles on the basis of willingness and ability, honestly be prepared to perform these roles without monetary compensation? It needs to be investigated what the attitudes of staff are towards such a leadership structure in terms of its effectiveness as it addresses leadership problems in the enterprise, and whether staff of the academic information service enterprises find this structure satisfactory in terms of their personal development and interest.

With regard to the latter, it is important to gain an understanding of the notion of satisfaction:

Satisfaction is an attitude construct characterised by an evaluative orientation which can be measured (Dalton 1991:15). It is therefore important to gain a further understanding of attitude and related concepts and their relationship to the concept of satisfaction.

### 5.9 ATTITUDES AND RELATED CONCEPTS

As this research concerns the attitudes of staff towards a leadership driven enterprise, it is important to understand the concept of attitude as well as related concepts.

Attitudes, a form of psychological construct, reflect how a person feels about something. Middelbrook (as cited by More 1999:18) explains an attitude by stating that one should think of it as an overall, learned core disposition that guides a person’s thoughts, feelings and actions towards something specific or towards people. He accentuates the fact that an attitude is never static - it is dynamic and changes consistently.

Fishbein and Ajzen (1980:10) defines an attitude as an implicit, drive producing response, occurring within individuals in response to a variety of stimuli. A person can act for or
against a definite object because of his/her attitude, resulting from a complex of feelings, desires, fears, convictions or other tendencies that influence the person.

Dalton (1991:20) states that there is a range of definitions on the attitude concept which all reflect certain characteristics, i.e.

- attitudes are hypothetical constructs which are inferred from statements made by a person about an object or event
- attitudes are relatively enduring states rather than momentary responses
- a person’s past experiences influence his or her negative/positive response towards an object or event
- the affective component is the central aspect of an attitude leading to the positive/negative response
- attitudes have directive and dynamic properties.

The attitude concept is distinguished from related concepts such as opinion, belief and value. Whereas attitude is defined as the sum total of a person’s likes /dislikes the related concepts are viewed as elements of attitude.

McGuire (1969:22) states that an opinion is a belief measured by a single statement whereas an attitude is a construct measured by a series of belief statements, as in a survey questionnaire. Fishbein (1967:262) states that attitude is inferred by an expression of belief - belief is the position an individual ascribes to the statement. Value is an abstract ideal which pertains to a person’s concept of what is desirable or not. The person’s beliefs about a specific object are associated with positive or negative attributes, i.e. values.

Feagin (1984:11) defines a prejudice as an antipathy based upon a faulty generalisation. Prejudice results from processes within the bearer of an attitude rather than from reality, and is characterised by inaccurate beliefs and stereotyping. Stereotyping is a generalised labelling of certain individuals and groups and although not necessarily negative, it is faulty when the characteristics assigned to people are assumed to be negative or inferior (More 1999:19). A person with such an attitude is prejudiced.

Fishbein (1967:477) states that the attitude construct comprises three components:

- cognition (beliefs /expectations about an object);
- conation (behavioural intentions);
• affect (intensity of positive/negative feelings).

There has been much debate in research as to whether the formation of an attitude is dependent upon a unidimensional or multi component structure. The latter refers to an integrated relationship in attitude formation, which means that all three aspects need to be measured. The unidimensional structure is also known as the causal chain perspective; the causal chain reflects attitude (affect) as a function of cognitive beliefs held about an object (antecedent), as well as the strength of the belief, which leads to behavioural intentions (consequent) of the person. This structure is more receptive to measurement because only the affective dimension is evaluated (Dalton 1991:30).

Dalton (1991:48) states that satisfaction is an affective state which can be used as an indicator of a person’s overall attitude toward some object. She concludes that whereas attitude is interpreted as an enduring set of values, satisfaction is explained as a response that reinforces or changes the basic underlying attitude of a person.

5.10 SUMMARY

This chapter explains the nature of leadership and indicates that effective leaders should be aware of the theoretical approaches towards leadership and the distinctive leadership styles to be applied in order to be effective. It further focuses on the shift from management to leadership and on how leadership structures can be developed to establish a leadership driven enterprise.

The contemporary academic information service enterprise requires leadership structures that support more than its business processes. Leadership structures should also accommodate the leadership activities outside the business processes, such as for example mentoring and counselling, as they are equally important to those supporting the business processes. Such a structure not only accommodates all leadership activities but also supports the principles relating to a learning organisation and acknowledges diversity.

The attitudes of staff towards a leadership framework, which includes secondary leadership roles to be performed voluntarily on the basis of being willing and able, should however be investigated. It should be investigated whether staff find this a practical, viable solution to resolve the leadership of the enterprise and whether such a structure satisfies their personal developmental needs, resulting in the enterprise being a compelling place to work. The unidimensional perspective of attitude structure should be used for this measurement, as only the affective dimension is evaluated. Chapter 5 serves as
background to the empirical research of this study which deals with these issues, and concludes the theoretical part of the research. Chapter 6 focuses on the research methodology employed for the empirical research, which covers the second phase of the research process.
CHAPTER 6

RESEARCH METHODOLOGY FOR THE EMPIRICAL STUDY

6.1 INTRODUCTION

It is important to take note of the four stages within the research process, i.e. defining the research problem which include the research design, problem, literature review, theory questions; the stage when information is obtained; the stage when information is analysed and interpreted; the stage when information is communicated (Unisa 2000:12). The distinct stages that characterise the transition from the problem statement to the gathering of data are conceptualisation and operationalisation. Mouton and Marais (1992:32,193) state that a research design is a plan of the researcher to execute the research problems through planning, structuring and executing the problem in such a way that the validity of the findings is maximised. Babbie (1992:90) identifies the components of the research in terms of what or who needs to be researched, known as the purpose of the research or the unit of analysis and the time dimension. Mouton and Marais (1994:33) support this in explaining the conceptualization of the research, i.e. planning and structuring how to do the research, the execution of the research, i.e. to operationalise or do the research, and the collection of the data and subsequent analysis and interpretation thereof. In the final stage the research results are reported.

The conceptualisation is reflected in the theoretical framework based on a literature study and the operationalisation is embedded in the empirical research that follows. The data gained during the empirical research is in support of the theoretical study. The previous chapters two to five which were based on a literature study provided the theoretical foundation of the study and covered the first phase in the research process. The purpose of the literature study was explained in chapter 1.

This chapter focuses on empirical research which covers the second phase of the research process. It includes discussions on the research design, the data collection technique and data collection. It also explains the method used for data analysis.

The data analysis, interpretation and presentation of the data based on responses received will be discussed in chapter 7.
6.2 RESEARCH DESIGN

The nature of the research impacts on the research design and the determination of the methodology to be applied. The aim of this study falls within the field of the social sciences as it focuses on research in library and information science.

Most studies in the social sciences are done with a view to explore, explain and describe human behaviour, situations and events (Babbie 1992:90). These are the most common purposes of social science research. However, an exploratory study is mostly undertaken when some unfamiliar topic is researched for the first time, whereas the purpose of a descriptive study is to report what has been observed without necessarily explaining the relationship between variables. Explanatory studies focus on why something occurs and is usually based on exploratory and/or descriptive research (Unisa 2000:93-95).

The aim of this empirical component of the research is to explore a new phenomenon within the topic of leadership, and to describe the attitudes of staff towards a re-engineered leadership driven academic information service enterprise. Findings will be described and used as a measure to determine how staff feel about changing or correcting the rigid leadership framework of the past.

6.2.1 The unit of analysis

There are four main categories of analysis. These are individuals, groups, organisations and social artefacts. The latter refer to products of human behaviour (Babbie 1992:92-94; Mouton & Marais 1994:38-41).

In this empirical research, individual members of the staff of a re-engineered academic information service enterprise form the unit of analysis. The members of staff are categorised in chapter 1 as either permanent full-time staff, permanent part-time staff or contract staff. The first two categories are employed on three respective layers, i.e. senior management (business unit leaders), line management (team leaders) and team members. Within these levels, staff categories can be further sub-categorised as professional staff and administrative staff.

Contract staff which include student workers are also included in the survey. They are, however, appointed for a specific operational need for a specific period and at the time of the research did not perform additional roles for which they were not appointed. Insight in
their attitudes towards a re-engineered leadership framework can be useful in order to address shortcomings in terms of leadership in their work environment.

The staff are employed by the academic information enterprise of a tertiary institution known as the University of South Africa (Unisa), and the information enterprise is known as the Unisa Library.

6.2.1.1 The University of South Africa (Unisa) at present

The (new) University of South Africa was reconstituted on 1 January 2004 out of the merger of the University of South Africa, the Technikon South Africa and the incorporation of the Vista University Distance Education Campus (Vudec). This formed part of the South African National Plan for Higher Education to create South Africa’s single dedicated distance education institution and the country’s pioneering comprehensive university (Unisa 2004:1).

At the opening of the first meeting of Senate on 26 May 2004 the Principal and Vice Chancellor of the University, Prof N Barney Pityana reflected on the challenges the University was facing in building a sustainable higher education institution. He stated that the University’s focus points, inter alia, are to cultivate a culture of intellectual engagement at Unisa, of curiosity to learn, to seek and search and to discover; and that staff need to change their attitude towards the institution by embracing it and recognising the fact that their lives and futures are tied up with it. In conclusion he drew attention to the fact that South Africa was celebrating ten years of democracy which also poses new challenges for the University; and to the preamble of the South African Constitution of 1996 which posed the challenge to all to “build a democratic and open society” and to improve the quality of life of all citizens and free the potential of each person (Unisa 2004:4-6;8-10).

This has implications for the Unisa Library which serves the Unisa staff and student community with regard to teaching, learning and research and plays a vital role in supporting the University. It also has implications for the Library with regard to its approach to involving and developing its staff. However, the Library’s initiative to re-engineer its operations and restructure its leadership framework by establishing secondary leadership roles with a view to encourage creativity and to develop staff, are in support of the view of its principal and the country’s constitution.

6.2.1.2 The Unisa Library at present
The Unisa Library may be unstable at the time of the research as it has had an Acting Director for a substantial period. Prior to the previous Director’s retirement a few years ago, it embarked on a re-engineering project which resulted in clean sheet organisational design. The Library has since implemented leadership support structures which include the implementation of secondary leadership roles and its reporting structures. This is in line with the proposals regarding the leadership framework of the reengineered library. In light of the pending merger of the three tertiary education institutions, the other proposals for a re-engineered library were referred to the University’s Merger Workgroups for final recommendation. The implementation of the total redesigned Library was therefore put on hold. This decision impacted negatively on the morale of staff who have participated in the re-engineering project on almost a daily basis over a few years and on the effective functioning of the Library. Furthermore, the radical change resulting from the merger as well as the pending implementation of the re-engineering project, is quite threatening to staff and inevitably impact on their morale and attitudes.

As the empirical research is about the attitudes of staff towards a leadership driven enterprise where each and every staff member can contribute towards leadership, it is viable to conduct the research in the environment of this academic information service enterprise although the circumstances under which the evaluation takes place, may be unstable.

It must be noted that only staff of the “old” Unisa Library had an opportunity to perform secondary leadership roles. This fact coupled with the long delay in implementing the Library’s Re-engineering project and the recent merger of the three tertiary education institutions may impact on the attitudes of staff towards a new leadership framework.

6.2.2 The time dimension

It needs to be considered over what period the research is to be conducted, i.e. over a long or short period. This decision will be determined by the fact whether the researcher could do a cross sectional study by studying a phenomenon at a given time or whether a longitudinal study is required over an extended period (Babbie 1992:99).

This study is a cross-sectional study, at a given period of time within the academic information service enterprise. The study was conducted shortly after the completion of a redesign of the academic information service and approximately two years after most secondary leadership roles within the leadership framework were implemented. The empirical part of the study was done during September 2004 and the analysis of the data
shortly thereafter. Cross-sectional research can be exploratory, descriptive or explanatory but descriptive research yields the best results (Neuman 1997:28). This research will mainly describe the attitudes of staff towards a re-engineered leadership driven enterprise with a leadership framework that involve all staff in performing secondary leadership roles.

6.2.3 Choice of research methodology

Research undertaken in library and information science, which by virtue of its multi disciplinary character is closely associated with the social and behavioural sciences (Busha & Harter 1980:14), requires a methodology used in social sciences. Also, a methodology used in social sciences is appropriate for a study of attitudes, which lies within the field of social psychology.

6.2.3.1 Qualitative and Quantitative research methods

It is important to gain a clear understanding of the difference between the qualitative approach and the quantitative approach on which social scientific research is based in order to establish which sampling methods, data collection methods and techniques for reaching conclusions, pertaining to each of the approaches, are most suitable for the relevant study.

In examining the characteristics of the two respective research approaches, it is noted that the quantitative approach, defined by Mouton and Marais (1994:155), is the approach used by researchers in the social sciences that is more formalised in nature as well as explicitly controlled, with specific scope. The quantitative approach is used to examine the generally accepted explanations of the phenomena. This approach is more structured and therefore controlled in nature. The scope of this approach is larger, more universal in nature and can be defined accurately. For more valid research, preference is given to the conceptualisation of concepts that can be operationalised through measuring instruments, data-collection techniques such as the questionnaire and data analysis techniques which vary from cross tabulation of the data to complex analysis techniques (Neser, Joubert & Sonnekus 1995:53).

The qualitative approach according to the definition of Mouton and Marais (1994:155), is the approach in which the procedures are formalised and explicated in a not so strict manner, in which the scope is less defined in nature and in which the researcher does the investigation in a more philosophical manner. In this investigation, according to Neser,
Joubert and Sonnekus (1995:53-54), preference is given to methods and techniques that capture the meaning of the experience, action or interaction; unstructured questionnaires and interviews; participant observation; recording of life histories, use of autobibliographies or diaries; analysis of collected data by means of nonquantitative frameworks and category systems.

Interviews are likely to be used in field research which involves observing people and events in their natural settings. Interviews have the advantage that the chances of misinterpreting the questions are less. The response rate of this method is normally higher. However, it is labour intensive and time consuming and its success is largely dependent on the social and interviewing skills of the interviewer. Interviews are done face to face or telephonically. It can be structured by applying a questionnaire or unstructured depending on the purpose of the interview, the researcher’s familiarity with the topic, the nature and sensitivity of the topic, the setting and the relationship between the interviewer and interviewee. Interviews can be in-depth or focus group interviews (Unisa 2000:180). This study does not involve field research.

The following serves as a summarised comparison of the two approaches. The difference lies mainly with regard to collecting data (Mouton & Marais 1994:159):

Quantitative researchers use a system as point of departure for research opposes to that of the qualitative researcher’s point of departure stating that the phenomenon should be self-evident. Quantitative researchers look at the phenomenon from a distance and can therefore include more subjects resulting in them reaching a larger population oppose to qualitative researchers who are more involved in and with the phenomenon.

This study adopted the quantitative approach, since it will use a system as point of departure for research. The study deals with the attitudes of staff which requires a formalised approach to be explicitly controlled. In this study the researcher functions independently of the subjects with little intervention. A research design working with quantitative data results in either a true experimental design, or a pre- experimental design, or a quasi-experimental design or in non experimental research involving quantitative data. A method relating to the latter, which is often used to obtain information on social and behavioural variables and the relationships between these variables, is survey research. In this study, the method of survey design research was adopted.

6.2.3.2 Survey design research
There are various research designs. This study warranted a survey design type as research approach. The nature of a study probing areas of personal behaviour such as attitudes, is very sensitive. In the light of this fact, the survey design method is very suitable. Furthermore, surveys are applicable to studies where people form the units of analysis (Babbie 1992:315). In this study, the survey design as a method to research attitudes of people is therefore appropriate since the respondents are observed without intervention.

Line (1982:9) observes that the real beginning of library surveys is noted as far back as 1930. The purpose of survey design research is to evaluate the effectiveness of, for example, services or practices, determination of the extent to which needs are satisfied and identification of the ways in which it can be supported (Lancaster 1977:300).

The principle survey design methods for quantitative empirical research are questionnaires and informative interviews.

- **Survey design research method: questionnaires**

A questionnaire is a printed document that contains instructions, questions and statements which was put together with a view to obtain answers from respondents. It differs from the interview as respondents complete the questionnaires without any input from the researcher (Unisa 2000:183). They are usually distributed by mail or it can be distributed by computer disks which mean that the self-administered questionnaire is filled in on the personal computer. Disk by mail surveys are popular (Wimmer & Dominick 1994:130).

In following the quantitative approach, the survey design research method can be used to collect data. The researcher selects a sample of people and asks questions pertaining to a certain issue. The answers to the questions are regarded as describing the opinions or attitudes of the whole population from which the sample was drawn. The results are generalised to the whole population. It should be stressed that a representative sample is vital in order to generalise the findings.

Many researchers are in favour of this research method to test attitudes (Leedy & Lemon 1973:55) by means of collecting information from staff about their feelings, beliefs, opinion and attitudes. Leedy (1997:191) writes that “a questionnaire is one of the best tools to probe data beyond the physical reach of the observer. It is a totally impersonal probe, which is often self-administered and completed relatively anonymously and privately. It is able to provide data which lies buried deep within the minds, attitudes, feelings or reactions
of respondents”. This is only possible should no leading questions be included. More (1999:47) supports this view in conducting a study using the survey method to establish the attitudes of academic librarians in South Africa towards affirmative action as a measure to correct the inequalities of the past. She too advises that in her experience this method was viable as respondents tended to be more open and honest since they responded anonymously.

This contributes positively towards valid, reliable results.

- Pitfalls regarding wording of statements and questions

The following pitfalls should be avoided (Unisa 2000:184):

- Statement or questions that are double-barrelled should be avoided by not using the word or, and, therefore, either, both.

- Loaded language which conveys a position for or against the statement or question which leads the question or statement should be avoided. Specifically the word “also” should be avoided in this regard as well as statements like do you prefer/agree/support the view.

- Questions to which only one logical answer, i.e. yes or no is possible.

- Negative items may result in the respondent misreading and thus misinterpreting the item.

- Incomplete questions must be avoided as the respondent then gives an opinion on an undefined statement.

- Ambiguous questions and statements should be avoided as they may refer to different matters.

- Other pitfalls to be avoided are lengthy questions and statements as they are too complex, unwarranted assumptions as they may annoy respondents; and abbreviations as respondents may not know what they mean.

- Important considerations in designing the questionnaire

With regard to the types of questions to be included, open and closed ended questions may be included in questionnaires.

For the questionnaire data collection method per se, the closed-ended question is important. The simplest type of question with two options (yes/no) could be improved
in terms of quality by formulating a paired comparison question. This question or statement forces the respondent to consider options and compare meanings. These questions should be guided by facts flowing from the theoretical study.

Contingency questions that apply to some respondents only, function as a filter question and must be followed and guided by an instruction question.

Ranking questions are aimed at obtaining preference and respondents are therefore required to rank the options from least to most.

Inventory questions limit respondents to one option only and are included to ensure that all possible options applying to each respondent are included. Respondents are then further invited to add ‘other’ options, should the list not be complete.

Multiple choice questions can be worded in different ways. The aim is that the respondent should select one of the options only (Unisa 2000:186-190).

6.3 CONSTRUCTION AND LAYOUT OF QUESTIONNAIRE FOR THIS STUDY

The following construction and layout are applicable to the questionnaire used in this research.

6.3.1 Type of questionnaire

Because the attitudes of staff towards a re-engineered leadership driven enterprise need to be determined, the survey instrument used in this study is the questionnaire.

The questionnaire (Appendix 4) for this study was structured and comprised of all the type of questions explained in par. 6.2.3.2 above, with the exception of multiple choice questions.

The format used was a printed A4 questionnaire which consisted of 9 pages. The questionnaire was also available electronically for staff to download.

Survey design research has either a descriptive or analytical approach (Lancaster 1977:300). It may also have a combination of the two approaches. According to the
descriptive approach, data are presented in tabular or narrative form. Analytical surveys correlate data to probe beneath the facts for underlying relationships and use scales to reflect numerical values about the variables.

This study is based on survey design research, using the questionnaire as a data collection method and both the descriptive and analytical approaches, in order to describe observations and to ascertain underlying patterns and relationships which may impact on the attitudes of staff towards a re-engineered leadership driven enterprise.

6.3.2 Lay out of questionnaire

The questionnaire (Appendix 4) consisted of 4 categories, i.e. categories A-D. A total of 44 questions, with 9 variables for analysis, was included in the respective categories. The questions used in the survey instrument were categorised into general and specific categories. Since all subjects might not have performed secondary roles, the questions were split into three sections within the 4 categories as follows:

- Questions 1-40 to be answered by staff who have performed secondary leadership roles
- Questions 1-27; 41-43 to be answered by staff who have not performed secondary roles but would like to be afforded an opportunity
- Questions 1-27; 41 and 44 to be answered by staff who have not performed secondary roles and would not like to be afforded an opportunity.

In the first category (category A) of this survey, the questionnaire collected general items regarding biographical information about the sample (Questions 1-9).

Questions 1-3 deal with the demographic profile of the sample population. Question 4 captured the educational background of the subject and questions 5-9 captured data on the subject’s career.

Categories B, C, and D contained specific factual questions. Questions on similar topics were kept together within these categories as it was important for the analysis of data at a later stage:

- Category B measured attitudes towards the effectiveness of a leadership structure which includes secondary leadership roles as a tool to compliment leadership in the
- Category C (Questions 18-26) contained specific factual questions that measured attitudes towards satisfaction that staff gain when performing secondary leadership roles.
- Category D (Questions 31-39) contained specific questions that measured attitudes of staff towards the value of secondary leadership roles as experienced by staff who have performed them.

Questions 15-16 were included in order to establish whether there was a relationship/correlation between an understanding of re-engineering and acceptance of proposals flowing from it and the attitudes of staff towards a re-engineered enterprise with a newly adopted leadership framework which aim to establish a leadership driven enterprise.

Questions 27, 28 and 41, 42 are similar in nature as it gathers information on leadership roles performed/leadership roles to be performed in future. These questions are also important for the data analysis at a later stage as it offers a relationship between the attitudes of staff towards the value of leadership driven enterprise and experience in performing leadership roles/not performing leadership roles.

Question 29 was included in order to investigate whether the mechanisms in place to inform staff about the availability of leadership opportunities in the enterprise, is adequate.

Unstructured open ended questions were included in order to elicit, on a voluntary basis, in-depth opinions and comments about leadership roles (Questions 17, 30, 40, 43, and 44).

Apart from the fact that the researcher considered the pitfalls with regard to wording discussed above, a serious effort was made to ensure that terminology concerning the concepts academic information service enterprise, leadership and leadership roles were explained. This was presented in bold typography. Instructions were also made clear in bold typography. The questionnaire was introduced by placing an example to explain the method to reply to the scaled responses.

The research facts about the topic were gathered in a systematic way for statistical analysis and testing.

Prior to the pre-testing or a pilot study of the questionnaire, a draft copy of the questionnaire was submitted to both the consultant of the enterprise’s re-engineering project and the
head of the enterprise’s Research section for comment. Valuable proposals were received and changes were made to the questionnaire before it was distributed for pre-testing. This ensured the validity of the questionnaire.

6.3.3 Validating the questionnaire in survey design research: interviews

In order to test the appropriateness of the questionnaire items and questions included in the questionnaire, interviews can be conducted with selected staff prior to finalising the questionnaire. This study used this technique in order to establish credibility, validity and reliability of the questionnaire. Interviews was conducted with the staff member responsible for surveys at the Unisa Library to discuss the content and technical lay out of the questionnaire and with the consultant who introduced the Library to a leadership framework which include secondary leadership roles.

6.3.4 Pilot study: questionnaire items

As the survey was a self-administered instrument, it was important to ensure that the instructions were clear. The researcher used the pre-test phase to test whether instructions were clear, the format and questionnaire as a whole. The pretest questionnaire was sent to 21 staff members of the Unisa Library. These persons represented staff within the strata. However, in order to ensure the validity of the content, the project sponsor of the enterprise’s re-engineering project and a number of champions who were very involved in the design of the re-engineered Unisa Library were included in the pre-test.

Participants had to report on how long it took to complete the questionnaire, questions to be added, superfluous questions to be omitted, ambiguous questions; they were invited to pass criticism and to give comments or suggestions, with regard to both content and format. The cover letter to the first draft of the questionnaire, sent out to the subjects, is available in Appendix 1.

The response received totalled 17. The pre-test or pilot study indicated that it takes approximately 15 minutes to complete. No subjects indicated that it was too long/too short. Positive feedback was received with regard to the format and questions asked. Additional questions were suggested by four subjects and accepted by the researcher. An improved definition of leadership roles was proposed by one subject and accepted by the researcher.

6.4 CHOICE OF MEASUREMENT AND SCALES
Measurement is a part of analysing survey questionnaires, testing the problem, subproblem or hypotheses and theoretical assumptions and summarising data obtained. Measurement refers to the recording of the value of a particular variable; this enables us to describe the variable. Measurements should give us objective evaluations which can be verified by other researchers and therefore the measures and scales must be valid and reliable.

In determining the method of collecting data, it is important to note the four levels of measurement distinguished in the social sciences, i.e. nominal, ordinal, interval and ratio levels of measurement (Unisa 2000:169-171):

**6.4.1 Nominal level of measurement**

With regard to level, a category is discrete when it is distinct from other categories; mutually exclusive when something is measured which is not measured by another category; and exhaustive if they make provision for all possible responses, variables or attributes. Numerals are normally assigned to each category for the purpose of classification, but have no quantification values, e.g. a ‘yes’ answer can be classified as a 1 and a no answer a 2. This is used to identify the qualitative attributes where ‘yes’ refers to helpful, and ‘no’ to not helpful, when entering the data into a computer.

**6.4.2 Ordinal level of measurement**

Ordinal level of measurement is used when the researcher arranges his or her observations or data in a certain order of importance. The categories used in ordinal scales must allow data to be ranked, e.g. from strongly agree/agree/neutral/disagree/strongly disagree. This enables the researcher to rank preference (from least to most), or extent (from always to never).

Ordinal scales are frequently used to measure behaviour, attitudes, opinions and preferences.

Examples of ordinal scales are Likert scales and semantic differential scales.

**6.4.3 Interval level of measurement**

Interval level of measurement has characteristics which correspond with those used in
nominal or ordinal scales, but the interval scale can measure the interval or distance between two points on a quantitative instrument, for example a thermometer. The distances on the scales are numerically equal. An example of the interval level of measurement is intelligence tests used in schools which were standardised after being tested on thousands of children. A score is based on a precise calculation with known intervals between them. This scale has no zero point of measurement.

6.4.4 Ratio level of measurement

Ratio level of measurement is regarded the highest level of measurement. It has all the characteristics of the other measurements but has, in addition a zero point. This measurement is not usually used to measure people’s attitudes or perceptions but rather to measure for example variables such as weight or time. It is difficult to find a zero point of human qualities.

6.4.5 Attitude measurement and scales

The most commonly used scale in behavioural research is the ordinal level of measurement used in the five point Likert scale. This enables the respondent to agree or disagree to a set of items in a questionnaire. A value of 1, equals disagreement with a positive statement or strong agreement with a negative statement - unfavourable attitude. A value of 5, indicates strong agreement with a positive statement, or strong disagreement with a negative statement - favourable attitude (Dalton1991:135; Delwiche & Slaughter 1998:130).

The Likert scale as choice of measurement scale for library surveys was recommended by Line as far back as 1982 (Line 1982:63). Van Heerden (1999:70) also used this scale as the choice of measurement scale in researching the attitudes of staff towards the application of Belbin’s team role theory in information service enterprises. She quoted Kerlinger (1986:453-454) in this regard who stated that “Likert’s scale is a summated rating scale where a set of attitude items, all of which are considered of approximately equal attitude value, and to which subjects respond with degrees of agreement or disagreement (intensity). The scores of the items of such a scale are summed or summed and averaged, to yield an individual’s attitude score ...(the purpose being)... to place an individual somewhere on an agreement continuum of the attitude in question.”

In this study the ordinal level of measurement using the Likert scale was mainly applied, but it was combined with nominal measurement using dichotomous scales in order to lead questions from one item to another or for the purpose of clarity regarding the person’s
background (experience in the performance of secondary leadership roles). Multi-item scales were used to capture data gained from five items.

6.5 POPULATION

The population needs to be determined as an important step in survey design research. Population is the entire group of persons or set of objects and events the research want to study. A population contains all the variables the researcher would like to study (Unisa 2000:147). In this study, the population involved is the entire staff of the Unisa Library. All members of the population are related to the same parent institution, i.e. the University of South Africa. Through the method of survey design research, data of the population is collected and interpreted with a view to determine relationships between variables that are being measured.

*Research at grass roots* (1998:190) points out that a population is sometimes referred to as a “target population” or a “universe”.

A population element refers to a single member of the population and is that unit about which information is gained. Elements is the term used for single members of the population during sampling whereas the term unit of analysis is used during the data analysis stage (Babbie 1992:142). Each staff member employed by the academic information service is an element of the population in this research study.

6.5.1 Sampling

Since it is not possible to study a whole population (an entire group of persons), researchers have to draw a sample (a subset of the population) using various sampling techniques (Babbie 1992:107). It is important that the researcher draw up a sampling frame (comprehensive; list of all the units/elements in the target population), from which the sample is drawn and to decide on a representative sample that will represent the population in as many ways possible and that allows the researcher to accurately generalise the results (Polit & Hungler 1993:173;181). In this study, all staff from all academic information enterprises in South Africa are not included. The Unisa Library and its staff is the target population and each staff member employed by this academic information service enterprise represents a population element.

A sample is seldom completely representative of a population. Sampling errors can therefore occur. It is however more likely to occur in a sample size which is relatively
small. Errors are due to chance factors or the fact that the researcher was biassed in selection. A biassed sample is caused when the researcher fails to consider the relevant population criteria when selecting the sample. For example, staff may be excluded because they were not present at the time the data were collected. Biassed sampling results in an over representation or under representation of a segment of the population which could impact on the research results (Polit & Hungler 1993:176).

Defining the population and method of sampling are very important steps in research.

In order to ensure a sample that is representative, researchers should consider how similar/homogeneous or dissimilar/heterogeneous the population is. It is therefore vital to examine the population. Should any of the characteristics (gender, ages, posts level, geographical area) change, the group becomes more heterogeneous. The other factor impacting on the representation of the population, is the degree of precision with which the population is specified. It is therefore important to define the population carefully in establishing the sampling frame (Unisa 2000:153).

### 6.5.2 Sample size

The sample size refers to the number of elements in a sample, and should be decided upon in terms of the research purpose, the design and the size of the population. Although there is no hard rule pertaining to the size of the population, the guideline applies, i.e. the greater the sample the more accurate the result. Should the sample be homogeneous, a smaller sample can be used than if the population is heterogeneous. In quantitative studies it is desired to have a large sample; in qualitative studies the sample may be small.

Ultimately, the type of data analysis planned for the study, how accurately the results have to be for the purpose of the study and the population characteristics will determine the sample size (Unisa 2000:162). Also practical implications need to be considered such as time constraints, willingness of population to complete the questionnaire and costs.

#### 6.5.2.1 Measurement errors

Measurement errors, as described in the next paragraph, also warrants serious consideration in terms of sample size, as an adequate sample size can compensate for random measurement errors.
There are two sources of measurement error, i.e. systematic and random errors. The former relates to the fact that people tend to give a favourable impression of themselves which bias their responses systematically and if it happens continuously the researcher may inevitably fail to measure what he or she intended to do. Random errors occur when measurements vary for example due to a lapse in concentration, when the respondent fell ill. These errors can be cancelled out should the researcher take enough measurements (Unisa 2000:172).

In this study the entire population belonging to one parent institution, i.e. the Unisa Library was targeted. It is however heterogenous in terms of age, gender, culture, location and therefore a large sample as possible size is required.

6.5.3 Sampling methods

The sampling approach to be considered can be drawn at random from the population or done purposively. In both instances a procedure is followed to ensure that each element/person has an equal chance to be chosen in the sample.

Probability sampling, as used in the quantitative approach, is a basic probability sampling procedure in which each member of the population has an equal and independent chance of being selected (Research at grass roots 1998:195). There are various random sampling techniques, i.e. the lottery technique whereby a number for each element in the population is written on identical pieces of paper and placed in a container, mixed and then one number is drawn at a time. The sample size determined by the researcher is equal to the number of papers drawn.

A table of randomly generated numbers can also be utilised to select sample items to be included in a randomized sample. These random number tables are included in textbooks of statistical tables.

Random numbers to select sample units can also be generated by various statistical computer packages (Wilson 1993:174).

Other sampling techniques to be considered are systematic sampling, stratified random sampling, and cluster sampling (Unisa 2000:153-157).

- Systematic sampling involves drawing every \( f \)th element from a population with a random starting point.
• Stratified random sampling is a method that works best when individuals within the population are divided into groups or subgroups/strata so that each element of the population belongs to one stratum. People within a stratum are highly similar to one another and different from individuals in other strata. Random sampling is then done within each stratum using either simple random sampling or systematic sampling. The various characteristics of a population that require stratified sampling include aspects such as ethnic background, age, sex, or educational level.

• Cluster sampling is used when a complete list of elements -the sampling frame -is not available and the population therefore need to be divided into clusters.

Purposive sampling is a technique used in nonprobability sampling when they may or may not be accurately represented. It is often used in conducting qualitative research (Borg and Gall 1989:386). Purposive sample is composed of subjects selected on purpose by the researcher as these people are likely to meet the needs of the study. Nonprobability sampling techniques include convenience/accidental sampling, quota sampling, snowball sampling (Unisa 2000:158-160).

In this study questionnaires were distributed to the entire population as this was practical. The responses received from a population employed by a certain re-engineered academic information service enterprise; these workers are employed at various ranks within the enterprise. The principles of stratified sampling could thus be considered. The researcher required each rank to be represented in the sample and therefore the workers were divided into strata according to ranks within functional divisions of the academic information service enterprise. Through this method the sample is thus stratified and the level of posts forms the stratification variable. The researcher wanted to ensure that all levels of staff were included as they would meet the needs of the study and therefore distributed a questionnaire to each staff member. The sample size to be analysed was the total number of respondents to the questionnaire, i.e. 65% of the entire population.

6.6 DATA COLLECTION AND ADMINISTERING OF THE QUESTIONNAIRE

A cover letter in English (Appendix 2) was written and signed by the supervisor of the researcher as part of the University’s stipulations pertaining to the research. It explains the purpose of the research. The deadline return date was emphasised. The letter ensures the anonymity of the subject. In order to ensure anonymity further, subjects were requested to send their responses to the Library’s Research section.

Each subject received a questionnaire with cover letter and self-addressed envelope
through the Library’s internal mail. A total of 277 questionnaires were sent out with return date two weeks later.

Monitoring the response rate was an important activity in the data collection phase. According to Line (1982:71) a response rate of 60% is a good return. When only 42% of the questionnaires were returned on the due date, an e-mail was sent to staff with the request that questionnaires should be returned. It was decided to postpone the due date by four more days. Out of the 277 units representing the sample, 179 returned the questionnaire by the second due date. This constituted a response of 65%.

6.7 DATA ANALYSIS

Data analysis refers to the categorizing, ordering, manipulating and summarizing of data to obtain answers to research questions. Boshoff (1988:4) states that the researcher should decide whether to use the service of a professional statistician or a formalised computer program to do the analysis of data instead of doing it himself/herself. For the analysis in this study it was decided to use the services of a statistician who applied a formalised computer program.

6.7.1 Terminology

Important statistical terms to be noted before entering the phase of data analysis are the following:

Construct
Concepts which acquire meaning within a conceptual framework are referred to as constructs (Mouton & Marais 1994:60).

Variable
The characteristics of the research object that is being investigated are referred to as variables, e.g. gender, educational background (Mouton & Marais 1994:129).

Dependent variable
This refers to the consequent phenomenon- these variables cannot be experimentally manipulated (Mouton & Marais 1994:130).

Independent variable
This refers to the antecedent phenomenon: in an experimental situation the researcher is
able to control the independent variable (Mouton & Marais 1994:130).

Frequency distribution
This refers to the number of times that each response score was noted for the different levels of the variable under consideration (Dalton 1991:147).

Central tendency
A number which describes the sample as a whole with regard to central tendency. The mean which is symbolised as $\bar{X}$ is the most common central tendency statistic (Dalton 1991:147).

Correlation coefficient
The correlation coefficient reflects an index which measures the relationship or association of two variables with each other (Dalton 1991:147).

Coefficient alpha
A general formula for scale reliability based on internal consistency (Hatcher & Stepanski 1994:308).

6.7.2 Reliability and validity of scales

The measurement validity and reliability of the measurement is reported in chapter 7. Measurement reliability refers to the degree to which a scale yields consistent results, i.e. the accuracy of the measuring instrument. Examples of empirical methods to be applied to test reliability are the test-retest method, split-half method and equivalent forms (Unisa 2000:191-193). Item analysis, as discussed in 6.7.3.2 is an example of reliability evaluation and was applied in this research.

Measurement validity refers to the degree to which a scale measures what it is supposed to measure. This is done through the methods of predictive validity, concurrent validity, content validity and construct validity (Unisa 2000: 191-193). This study applied construct as well as content validity.

Content validity is used as a means to determine the validity of the measurement. This is a basic kind of validity to assess the representativeness of the content of an item in the
questionnaire. As advised by Wimmer and Dominick (1983:30) the researcher requested experts to judge the relevance of the questions independently in order to minimise subjectivity. Information gained in this regard was through a pilot study. Based on the replies received, the questions were reformulated and modified to increase validity.

6.7.3 Description of statistical analyses undertaken

SAS version 8.2 statistical package were used to conduct all data manipulation operations.

The following statistical analyses were conducted:

- Exploratory analysis by means of one-way frequency tables.
- Item analysis. Construct reliability and Cronbach-alpha.
- Analysis of variance and pair-wise comparison of means.
- Two way contingency tables and Chi-square tests: questions 10 and 13 pertaining to statements that senior management should take sole responsibility for leadership in the enterprise; senior management have adequate time to attend to all the leadership functions.

6.7.3.1 Exploratory analysis by means of frequency tables

One-way frequency tables were calculated for each of the biographical variables included in the questionnaire.

Since the biographical variables can be regarded as classification variables, each frequency table was arranged according to the levels of the specific variable. (e.g. gender).

Frequency, associated percentage and accumulated frequencies are indicated in the tables for each category of each biographical variable.

These frequencies could then be utilized to describe the sample-population studied.

At the same time one-way frequencies were also calculated on all the questionnaire-items testing leadership-issues. This could be done since responses on these questions had to be indicated on a 1-5 agree-disagree rating scale.

These frequencies were calculated as a first step in exploring respondents’ attitudes regarding leadership issues.
Although insight and a general ‘feeling’ of the views of the respondents on each aspect questioned by the researcher could be gained in this first exploratory stage, no significant conclusions could be reached regarding respondents’ attitudes towards leadership issues. The multi-dimensionality of the preliminary results was overwhelming in terms of all the detailed information:

Five questionnaire items dealing with the values of leadership structure; nine with satisfaction experienced while performing secondary leadership roles and another nine on the value of secondary roles as experienced by staff. Twenty three responses in total for each respondent.

6.7.3.2 Item-analysis and construct reliability: Cronbach-alpha

Hatcher (1994:129-140) reports on Item analysis and Cronbach-alpha as follows:

Item-analysis as a method of **reducing the dimensionality** in the study was investigated as the next step in the analysis process.

The rationale behind this was to determine whether selected items in the questionnaire could, reliably, be grouped together in **describing a leadership construct** underlying the questionnaire.

If sets of items describing the underlying constructs could be found, and reliability could be established for these groups, then a single construct-score describing a specific leadership construct could be derived from the specific set of questionnaire items involved. The construct-scores can then be seen as a **valid and reliable representative** of the attitudes of the respondents regarding the specific leadership construct – thus reducing dimensionality from twenty three to an envisioned three.

The construct scores – instead of the twenty three item scores - can then be further analyzed to **determine significant general attitude** regarding the leadership constructs as well as **biographical factors** which could possibly influence respondents’ attitudes.

The **statistical technique, item analysis**, was used to test the above mentioned approach. (The proc corr-procedure in the SAS statistical package was utilized.)

A coefficient, **called Cronbach-alpha**, is calculated by the procedure. The alpha-value obtained, gives an indication as to whether items **group together reliably** in describing
Cronbach-alpha values close to or greater than 0.7, are regarded reliable.

Three underlying leadership-constructs, with possible items for inclusion were investigated:

1. Value of leadership roles to compliment the leadership of the enterprise. (questions 10-14).
2. Satisfaction gained through secondary leadership roles (questions 18-26).
3. Value of secondary roles as experienced by staff members (questions 31-39).

Reliable and valid leadership constructs-scores is further discussed in chapter 7.

6.7.3.2.1 Items (construct 1) indicated for exclusion in item analysis

The alpha-coefficient for Construct 1 proved to be unsatisfactory when all items were included (questions 10-13).

On the item-analysis output, indications are given as to how coefficient alpha improves/deteriorates when items are removed from the analysis.

Items 10 and 13 were removed with a substantial improvement in the alpha-coefficient.

In the analyses that follow, construct 1 is thus explained in terms of questions 11, 12, and 14.

Construct scores composed of three items are usually regarded as sparse (usually at least four items are included), but since the study is regarded as exploratory, and results will not be used to forecast any trends but rather consist of future recommendations, the construct was never the less included in further analyses.

The two excluded items were separately analyzed using chi-square tests as described in section 4 below.

How do these scores reflect the attitudes of the respondents? Analysis of variance was conducted to answer this question.

6.7.3.3 Analysis of variance and multiple comparison of means
The three construct scores reflect the attitudes of respondents on the three leadership-issues.

**Analysis of variance provides** (Delwiche & Slaughter 1998:2002:182) a means of reporting these views, and was implemented as the next step in analysing the data. In the SAS statistical package, proc glm was used in stead of proc anova, since proc glm makes provision for unbalanced data.

Analysis of variance determines whether **biographical variables** or factors have a **significant effect on these attitude-scores**.

In essence the null-hypothesis being tested is: certain biographical variables included in the model do not have a significant effect on the attitude of respondents regarding a specific construct or leadership issue. As opposed to the alternative hypothesis that certain biographical variables have a significant effect on the attitude of respondents regarding biographical variables included in the model. Please also refer to an alternative way of stating the null- and alternative-hypothesis a little further down.

In the anova-analyses these effects are thus included - along with a construct score - in the anova-model and tested.

The **F-test statistic, and associated F-probability** is used to test each biographical variable for significance.

The relevant statistic and probability are indicated in the resultant anova-table in the output.

Depending on the level of significance decided upon, a biographical variable is regarded as having a significant effect if:

- F-prob < 0.001  (0.1% level of significance)
- F-prob < 0.05   (5% level of significance)
- F-prob < 0.1   (10% level of significance)].

When a biographical variable is found to have a **significant effect** on a specific construct-score, it implies in reality that **some of the means** for the construct under investigation differ from one another with respect to that biographical variable - as an example, language was found to be significant for construct 3 – the value of secondary leadership roles
experienced by respondents. This implies that the different language groups experienced the value of secondary roles in a different manner.

The null-hypothesis mentioned above and being tested could thus also be formulated as follows: mean-construct scores with regard to a specific biographical variable do not differ significantly from one another; as opposed to the alternative hypothesis, mean-construct score with regard to the biographical variable differ significantly.

Once significance has been established, the question of which means differ from one another can be addressed through pair-wise comparison of means-test using Bonferroni method. This was done as part of the analyses of variance. Means that differ from one another are indicated with different letters in the tables of means in chapter 7.

6.7.3.4 Two way contingency tables and Chi-square tests: question 10 and question 13; Senior management

To obtain the information still contained in these two questions, (which were excluded from construct 1), two-way-contingency tables between each of question 10 and question 13-question-scores and the biographical variables in turn, were constructed. Proc freq in the SAS statistical package was used.

Chi-square tests were performed on these contingency tables to test the null-hypothesis of no dependence between respondents attitude regarding senior management and biographical variables in turn. Questions that can be addressed by these analyses are, for example; that do the fact that a respondent had performed a secondary leadership role in the past influence the way he/she regards the statement: “Leadership is the sole responsibility of senior management”.

Results are discussed in chapter 7.

Note that chi-square tests - although non-parametric and more lenient - require a minimum of 5 frequencies per cell in each cell in the body of the contingency table to yield valid test-results. To comply with this, categories for both the questionnaire items and/or the biographical variables classes were - in some instances combined to comply with this condition.

6.8 DATA INTERPRETATION, DISPLAY AND REPORTING
Following the tasks of organisation and description, the researcher moves on to the interpretation of the data which includes the consideration of causes, consequences and relationships. The meaning of this is well explained by Patton (1990:390), i.e. that the researcher goes beyond the descriptive data by attaching significance to the findings, offering explanations, drawing conclusions, extrapolating lessons, masking inferences, building linkages, attaching meanings, imposing order, dealing with rival explanations, disconfirming cases and considering data irregularities as part of testing the viability of an interpretation. The final interpretation is that of the researcher. It should be honest, based on the data only.

Data display is in the form of text, diagrams, graphs and or tables.

The last step in data analysis is to write the research report. In order to report the research findings, the researcher should have a clear understanding of the most important statistical terms which are used throughout the discussion.

### 6.9 SUMMARY

This chapter explains the empirical study carried out to assess the attitudes of staff towards re-engineered leadership driven academic information service enterprise. It explains the research design which involves survey design research, using a questionnaire. Important aspects relating to survey research were discussed, i.e. the unit of analysis, time dimension, research methodology, population (including sampling), data collection (including data collection techniques) and data analysis. It also explains the method used for data analysis and provides useful terminology. This chapter forms the basis on which the statistical findings and interpretations of the captured data will be done in chapter 7.
CHAPTER 7

ANALYSIS OF THE DATA AND INTERPRETATION

7.1 INTRODUCTION

Since the purpose of the study is to determine the attitudes of staff towards a re-engineered leadership driven enterprise, this chapter, pertaining to the empirical research, is concerned with the research data collected by means of questionnaires which were completed by 179 respondents. The analytical results, their interpretation and implication to the research area will be presented in this chapter.

7.2 GENERAL APPROACH TO THE STATISTICAL ANALYSIS OF THE DATA CAPTURED IN THE QUESTIONNAIRE

In order to present the findings in a meaningful way, the chapter is divided into broad sections as follows:

- It firstly contains a description of the biographical information pertaining to a total of 179 respondents in order to reflect on the background characteristics of the sample population.
- Coupled with the information reflected in the first section, is a description of the respondents with regard to managerial positions occupied by them and their participation in the re-engineering project of the relevant academic information service enterprise and their agreement to re-engineering proposals flowing from the project. It further provides details on the percentage secondary roles performed by the sample population and the preferential roles/availability of roles to be performed.
- A description of the willingness of the respondents, who have never performed secondary leadership roles, to accept the new leadership framework and subsequently a leadership entrenched academic information service enterprise.
- Their preferences in terms of roles they still wish to perform are reported on as well.
- The reliability of the construct scores which were created and tested to represent the categories of the questionnaire, i.e. value of leadership roles for the leadership of the academic information service enterprise, job satisfaction acquired through secondary leadership roles and the value of secondary leadership roles experienced by staff who have performed them.
- The precision and accuracy of the data collection technique is tested in order to
determine the reliability of the research. The measurement of validity item analysis of the survey instrument is also discussed.

- An investigation of the importance of biographical and other factors on the opinion of respondents represented by the categories or constructs of leadership as outlined above. (Analysis of variance (ANOVA) technique).
- A description of the statistical significance and implications of the research results.

### 7.3 SECTION A OF THE QUESTIONNAIRE: BIOGRAPHICAL INFORMATION

The profile of the sample of respondents in terms of independent biographical variables recorded in Questions 1-7 of the survey instrument is presented in Table 7.1 below. It should be noted that as some of the respondents did not supply all information, the total number of respondents in the last column does not always add up to a sample of 179 respondents.
## SAMPLE RESULTS: BIOGRAPHICAL INFORMATION (QUESTION 1-7)

<table>
<thead>
<tr>
<th>Item</th>
<th>Scaled responses</th>
<th>Number</th>
<th>%</th>
<th>Total number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
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<td></td>
<td>29%</td>
<td>177</td>
</tr>
<tr>
<td>Female</td>
<td>126</td>
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</tr>
<tr>
<td>Age</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>13</td>
<td></td>
<td>7%</td>
<td>176</td>
</tr>
<tr>
<td>30-39</td>
<td>63</td>
<td></td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>40-49</td>
<td>49</td>
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<td></td>
<td>1%</td>
<td></td>
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<td>Home language</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African language</td>
<td>61</td>
<td></td>
<td>35%</td>
<td>176</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>80</td>
<td></td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>28</td>
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<td>16%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td></td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Educational characteristics</td>
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</tr>
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<tr>
<td>Undergraduate</td>
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<td></td>
<td>36%</td>
<td>179</td>
</tr>
<tr>
<td>B-degree</td>
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<td></td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>BInf, BBibl</td>
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<td></td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Post-graduate</td>
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<td>32%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
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<td></td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 years</td>
<td>12</td>
<td></td>
<td>7%</td>
<td>176</td>
</tr>
<tr>
<td>4-6 years</td>
<td>4</td>
<td></td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>7-9 years</td>
<td>13</td>
<td></td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>10-12 years</td>
<td>27</td>
<td></td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>13+ years</td>
<td>32</td>
<td></td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perm full-day</td>
<td>153</td>
<td></td>
<td>87%</td>
<td>175</td>
</tr>
<tr>
<td>Perm half-day</td>
<td>17</td>
<td></td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Contractual</td>
<td>5</td>
<td></td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Branch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cape Town</td>
<td>2</td>
<td></td>
<td>1%</td>
<td>169</td>
</tr>
<tr>
<td>Durban</td>
<td>4</td>
<td></td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>East London</td>
<td>2</td>
<td></td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Johannesburg</td>
<td>4</td>
<td></td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Florida</td>
<td>27</td>
<td></td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Muckleneuk</td>
<td>130</td>
<td></td>
<td>77%</td>
<td></td>
</tr>
<tr>
<td>Polokwane</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to Table 7.1, the sample was fully representative of staff with regard to gender, age, home languages, educational background, experience, conditions of employment and location.
7.4 DESCRIPTION OF MANAGERIAL POSITIONS OCCUPIED BY THE SAMPLE POPULATION, THEIR PARTICIPATION IN THE RE-ENGINEERING PROJECT AND PERFORMANCE OF SECONDARY ROLES

7.4.1 Managerial positions occupied:
(Question 8)

Out of a total of 179 population respondents, 77% (136) do not occupy managerial positions. The other 23% (41) respondents are in management positions. Management was thus well represented in the sample population.

**DIAGRAM 7.1**

**MANAGERIAL POSITIONS OCCUPIED BY POPULATION RESPONDENTS**

The profile of the sample of respondents occupying managerial positions is represented in diagram 7.1. This indicates the input of management in the survey.
7.4.2 Participation in re-engineering
(Question 15)

A total of 65% of the sample population indicated that they had participated in the re-engineering discussions whilst 35% did not participate. Out of the respondents who took part (111), 78% agreed with the re-engineering proposals and 22% disagreed.

DIAGRAM 7.2
STAFF AGREEMENT / DISAGREEMENT: RE-ENGINEERING PROPOSALS

7.4.3 Participation in secondary roles

Question 28 provides data on secondary roles performed by the sample population. This is meaningful in establishing which roles are most often performed in terms of availability, need for the role, importance of the roles and popularity of the role in terms of numbers of staff willing to perform the relevant roles (staff have participated in more than one role over time). The roles most often performed are:

- Project participant
- Mentor
- Coach
- Project trainer
- Project leader

This is reflected by the frequencies for each role in the following table:

**TABLE 7.2**
SECONDARY LEADERSHIP ROLES PERFORMED BY STAFF

<table>
<thead>
<tr>
<th>Leadership Role</th>
<th>Frequency indicated</th>
<th>Ranking priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project participant</td>
<td>52</td>
<td>1</td>
</tr>
<tr>
<td>Mentor</td>
<td>31</td>
<td>2</td>
</tr>
<tr>
<td>Coach</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>Trainer</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Project leader</td>
<td>23</td>
<td>5</td>
</tr>
<tr>
<td>Forum representative</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Emergency evacuator</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Project trainer helper</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Strategist</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Emergency first aid helper</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Champion</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Critical thinker</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Knowledge leader</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Change agent</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Union representative</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Skills development</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Emergency team leader</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Emergency fire fighter</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Counsellor</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Occupational Health and Safety Management Representative</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Process owner</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Web page owner</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>External relationship manager</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Project tour guide</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>Role</td>
<td>Count</td>
<td>Year</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>Forum leader</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Cheer leader</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Project researcher</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Emergency Access controller</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Emergency Second in Command</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Employment Equity Coordinator</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Non research project coordinator</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>Quality assurance coordinator</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>Emergency Director</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>Data owner</td>
<td>1</td>
<td>24</td>
</tr>
</tbody>
</table>

7.4.3.1 Communication vehicle to inform staff of secondary leadership roles

Question 29 reflect on communication vehicles used to inform staff of the availability of secondary roles to be performed. It indicates that staff were mostly informed about the availability during discussion groups or by the relevant supervisor. Diagram 7.3 reports on this as follows:
This diagram indicates that information about secondary leadership roles is communicated by a variety of communication vehicles and that management is actively involved in the communication.

7.5 DESCRIPTION OF THE ATTITUDES OF STAFF WHO HAVE NOT YET PERFORMED A SECONDARY LEADERSHIP ROLE

Question 41 gathered data on the attitudes of staff who have not yet performed a
secondary leadership role in terms of their willingness to perform these roles. Their willingness can be summarized as follows:

- 69% of the respondents indicated that they would like to perform secondary leadership roles.
- 31% of the respondents indicated that they had no interest in performing secondary leadership roles.

### 7.5.1 Preferred roles to be performed by staff who have not yet performed secondary leadership roles

Question 42 provided information on the preferences of staff in terms of secondary leadership roles to be performed by them, should the opportunity arise.

Table 7.3 indicates preferred secondary leadership roles in priority order. The most preferred roles are the following:

- Mentor
- Project participant
- Project leader
- Coach
- Skills development coordinator
- Strategist
- Critical thinker
- Counsellor
- Knowledge leader
- Project researcher
- External relationship manager
- Project trainer helper
- Change agent

<table>
<thead>
<tr>
<th>LEADERSHIP ROLE</th>
<th>FREQUENCY INDICATED</th>
<th>RANKING PRIORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentor</td>
<td>34</td>
<td>1</td>
</tr>
<tr>
<td>Project participant</td>
<td>33</td>
<td>2</td>
</tr>
</tbody>
</table>

**Table 7.3**

PREFERRED SECONDARY LEADERSHIP ROLES
<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project leader</td>
<td>28</td>
<td>3</td>
</tr>
<tr>
<td>Coach</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td>Skills development coordinator</td>
<td>27</td>
<td>5</td>
</tr>
<tr>
<td>Strategist</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td>Critical thinker</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>Counsellor</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>Knowledge leader</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td>Project researcher</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>External relationship manager</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>Project trainer helper</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Change agent</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Emergency first aid helper</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Project trainer</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Occupational Health and Safety Management Representative</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Champion</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Union representative</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Quality assurance coordinator</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Project tour guide</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Web page owner</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Forum leader</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Cheer leader</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Forum representative</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Employment equity coordinator</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Process Owner</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Non Research Project coordinator</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Emergency evacuator</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Emergency Fire fighter</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Emergency Director</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Emergency team leader</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Data Owner</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td>Emergency second in Command</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Emergency Access Controller</td>
<td>1</td>
<td>21</td>
</tr>
</tbody>
</table>

The above indicate that a substantial number of staff, who have not yet performed
secondary leadership roles, are willing to carry the responsibility of a secondary leadership role, to share their knowledge and expertise with others and to develop their leadership skills. This indicates a positive attitude towards the newly adopted leadership model. It also clearly indicates the distribution of priorities.

7.6 SECTION B, C AND D OF THE QUESTIONNAIRE: MEASUREMENT OF CONSTRUCT RELIABILITY

In order to summarise the attitudes of staff with regard to the three broad constructs or categories of questions comprising the questionnaire, the questionnaire items per category were tested for construct reliability and then combined per construct, to calculate a single score for each construct (or category), for each respondent. As mentioned in the previous chapter, construct reliability was tested, using item analysis.

The constructs defined and tested for reliability are:

Construct 1: Value of leadership roles for the enterprise (Question 11-14)
Construct 2: Satisfaction gained through the performance of leadership roles (Question 18-26)
Construct 3: Value of secondary roles experienced by staff (Question 31-39).

The reliability of the sets of questionnaire items comprising the constructs, are measured in terms of the value of the Cronbach alpha coefficient as indicated in Table 7.4 below. As mentioned earlier the rationale of defining the constructs and calculating the associated construct scores (three for each respondent), is to summarise and reflect the attitudes of the respondents on the constructs or categories in a compact and easily digestible format. (The analyses thus reflect on three sets of scores for each respondent as opposed to 21 questionnaire responses).

The constructs tested, items included in each construct as well as Cronbach-alpha coefficients are included in the body of the table.

TABLE 7.4
ITEM ANALYSIS TO TEST CONSTRUCT RELIABILITY
The Cronbach-alpha value for constructs two and three is greater than the generally acceptable Cronbach-alpha criterium of 0.7 which indicates significant reliability. In the case of the first section, the alpha-coefficient of 0.65 is very close to 0.7. The calculated construct scores can therefore be used as a representative of the attitudes of staff concerning each of the three aspects. These alpha values thus verify that the three construct-scores are reliable and can be used in further analyses to represent respondent’s attitudes on the three aspects of questions.

The construct scores thus calculated, reflect the respondents’ attitudes towards the three construct-aspects as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
</tr>
<tr>
<td>3</td>
<td>Moderately agree</td>
</tr>
<tr>
<td>4</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

Tables of means of these three scores with regard to the biographical variables were noted. Indications of possible tendencies, re positive attitudes and negative attitudes can be observed from these scores. For example, the attitude of staff between the age of 20-29 is more positive with regard to the value of secondary leadership roles as an enhancement of the leadership in the academic information service enterprise than that of the age group 60+. Also, in all instances the mean attitude of all staff pertaining to the
three constructs was very high on average (3+), which is exceptionally high.

7.7 STATISTICAL SIGNIFICANCE ATTACHED TO THE RESEARCH RESULTS

In order to attach statistical significance to the tendencies mentioned in the previous section, a statistical technique, i.e. analysis of variance (anova), was applied to each of the construct scores.

7.7.1 Analysis of variance (Anova)

The analysis of variance technique (anova) determines whether any of the biographical factors included in the anova-model have a significant effect on the relevant score. For example, it will be investigated whether language and/or gender has a significant effect on the satisfaction construct.

In essence analysis of variance tests whether the construct-score means, with respect to a biographical class-variable, (for a specific construct score) differ significantly. For example, whether the satisfaction- mean-scores for language groups differ significantly from each other (see Table 7.7 in this regard).

The results of the anova performed on the three constructs separately, along with the biographical variables investigated in the models, are represented in Table 7.5.

Significance attached to the analyses of variance (and associated F-probabilities), and the significant variables identified, along with their associated significance are presented in the body of the table.

Means of the significant effects, along with an indication of differences are reported in table 7.6.

<table>
<thead>
<tr>
<th>Construct [see legend below]</th>
<th>Significance of Anova [F probability]</th>
<th>Biographical effects investigated</th>
</tr>
</thead>
</table>
Table 7.5 reports on statistical significance of each anova in general; and once this has been established, on the significance of the following biographical effects:

- language
- whether the staff would like to perform secondary leadership roles
- agreement with re-engineering proposals
- whether they participated in the re-engineering project
- work experience

The significant biographical factors were identified as those with a significant effect on the relevant score. For example language had a significant effect on construct 3. This implies that the different language groups had significantly different opinions on the value of secondary leadership roles as experienced by them. The way in which the above identified

<table>
<thead>
<tr>
<th>Construct¹</th>
<th>language</th>
<th>would like to perform roles</th>
<th>agreed with re-engineering proposals</th>
<th>partook in re-engineering discussions</th>
<th>Work experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construct³</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Legend on significance:

- ****: F-prob < 0.05; 5% level of significance
- *****: F-prob < 0.001; 0.1% level of significance
- ***: F-prob < 0.10; 10% level of significance.

2. Legend on constructs:

- **Construct¹**: Value of leadership roles for the leadership of the enterprise
- **Construct²**: Satisfaction gained due to the performance of secondary leadership roles
- **Construct³**: Value experienced by staff who have performed secondary leadership roles
significant variables affect the three constructs, are illustrated in table 7.7 in the next section.

Table 7.6 indicates the means for some of the biographical variables for the three respective constructs.

### 7.7.2 Means for biographical variable for different constructs

**TABLE 7.6**

**TABLE OF MEANS FOR BIOGRAPHICAL VARIABLE FOR DIFFERENT CONSTRUCTS**

<table>
<thead>
<tr>
<th>Construct [see legend below]</th>
<th>Language* [see legend below]</th>
<th>Participation in re-engineering</th>
<th>Would like to perform secondary role</th>
<th>Agreed with re-engineering proposals</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>C = 3.78 a (0,89)</td>
<td>Yes</td>
<td>3.55 a</td>
<td>No</td>
<td>3.72 a</td>
<td>no significance</td>
</tr>
<tr>
<td>A = 3.39 ab (0,5)</td>
<td>No</td>
<td>2.83 b</td>
<td>Yes</td>
<td>3.42 b</td>
<td>no significance</td>
</tr>
<tr>
<td>O = 3.33 ab (0,24)</td>
<td>no significance</td>
<td></td>
<td>no significance</td>
<td></td>
<td>no significance</td>
</tr>
<tr>
<td>E = 3.27 b (0,72)</td>
<td>no significance</td>
<td></td>
<td></td>
<td></td>
<td>no significance</td>
</tr>
</tbody>
</table>

*Construct² no significance

Yes 3.58 a

No 3.24 b

Yes 3.63 a

No 3.11 b

no significance
The following bargraphs illustrate how language groups evaluate construct 1 (leadership enhancement through secondary roles) and construct 3 value experienced by performing secondary roles differently. Language was identified as a significant variable.

The African speaking group has the most positive attitude of all language groups towards the value of secondary leadership roles for the enterprise and the value of the roles experienced by them when performing secondary leadership roles.

### DIAGRAM 7.4

**ATTITUDES OF STAFF FROM DIFFERENT LANGUAGE GROUPS TOWARDS THE VALUE OF SECONDARY LEADERSHIP ROLES**

**Value of secondary leadership for the enterprise**

**Construct 1**
Value of secondary leadership as experienced by staff

Construct 3

7.7.3 Interpretation of research results with a
significant effect

Statistical significance is attached to the following results pertaining to the three constructs.

**Construct 1: Value of leadership roles for enterprise**

African language speaking respondents had the most favourable attitude towards the value of secondary roles as a way to enhance the leadership of the enterprise. Opposed to significantly less favourable attitude of English speaking respondents (means of 3.78 and 3.27).

Further more respondents who participated in the process had a significantly more positive attitude than those who did not (3.55 as opposed to 2.83).

The attitude of those respondents who did not wish to perform future secondary roles held a significantly more positive opinion towards leadership roles as those that indicated that they wanted to perform roles in future (3.72 as apposed to 3.42).

This first finding points at an energetic group who realise the value of staff involvement in leadership roles as an enhancement of the leadership of the enterprise. It also supports the theoretical discussion on the environment of the contemporary information service enterprise in par. 5.6. *Management principles* (2002:476-477) points out that an important challenge faced by organisations is the issue of workforce diversity. In future, managers will have to recognise differences in order to ensure employee retention and improved productivity as staff are counselled, mentored or trained by a person of the same group. Should leadership roles be performed by staff of different language groups, staff within those groups could be trained in a language of their choice.

This second finding in this construct also relates to the theoretical discussion on staff participation in the re-engineering of the enterprise in chapter 3, how change takes place through organisational design (chapter 4) and leadership (chapter 5). Staff with a positive attitude towards change, i.e. a new leadership framework, were involved in realising the change and understand the rationale behind the change. They therefore find a new leadership approach valuable.
**Construct 2: Satisfaction gained via Secondary roles**

Respondents in agreement with re-engineering decisions gained significantly more satisfaction in performing secondary roles than those who were not in agreement (3.63 as opposed to 3.11).

Satisfaction experienced by those respondents who indicated that they would in future again perform secondary roles were significantly higher than those who would not like to perform future secondary roles (3.58 opposed to 3.24).

The first finding relates to theoretical discussions in chapter 3 where the fact was accentuated that staff should understand the change and their buy-in should be obtained.

This second finding could identify an energetic group of staff to perform secondary leadership roles in future as they feel convinced that they would gain satisfaction through participation in secondary leadership roles. The finding also supports theoretical discussions relating to the fact that buy-in for the change was obtained as part of the change management programme (par. 3.5.5.1) when staff started to explore other options which could benefit them or through the application of transformational intelligence (par. 3.5.5.2).

**Construct 3: Experienced value of secondary roles**

Respondents who speak an African language, and those who have 7-9 years work experience had the most favourable attitude towards the value of secondary leadership roles as experienced by them.

The negative attitude (significantly lower) of respondents with 0-6 years of experience is a concern and should be further explored.

In accordance with the Anova results illustrating significant effects of variables on each construct, the following results had no significant effect (unless differently indicated). It could, however, be used as a record of variables tested, the respective means and relevant deviations in brackets. It is also useful to note how the identified significant variables affect the three constructs.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Construct 1</th>
<th>Construct 2</th>
<th>Construct 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>female</td>
<td>3.5 (0.71)</td>
<td>3.4 (0.53)</td>
<td>3.19 (0.6)</td>
</tr>
<tr>
<td>male</td>
<td>3.6 (0.7)</td>
<td>3.51 (0.67)</td>
<td></td>
</tr>
<tr>
<td><strong>Level of experience in years</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-6</td>
<td>3.42 (1.07)</td>
<td>3.11 (1.16)</td>
<td>significant</td>
</tr>
<tr>
<td>10-12</td>
<td>3.54 (0.47)</td>
<td>3.41 (0.66)</td>
<td></td>
</tr>
<tr>
<td>13+</td>
<td>3.48 (0.69)</td>
<td>3.50 (0.47)</td>
<td></td>
</tr>
<tr>
<td>7-9</td>
<td>3.58 (1.06)</td>
<td>3.68 (0.63)</td>
<td></td>
</tr>
<tr>
<td><strong>Level of agree with re-engineering</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>3.32 (0.6)</td>
<td>significant effect</td>
<td>2.87 (0.82)</td>
</tr>
<tr>
<td>yes</td>
<td>3.58 (0.73)</td>
<td></td>
<td>3.25 (0.63)</td>
</tr>
<tr>
<td><strong>Level of age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>3.67 (0.47)</td>
<td>3.26 (1.05)</td>
<td>2.93 (1.39)</td>
</tr>
<tr>
<td>30-39</td>
<td>3.65 (0.83)</td>
<td>3.58 (0.65)</td>
<td>3.26 (0.68)</td>
</tr>
<tr>
<td>40-49</td>
<td>3.36 (0.73)</td>
<td>3.4 (0.52)</td>
<td>3.19 (0.67)</td>
</tr>
<tr>
<td>50+</td>
<td>3.41 (0.46)</td>
<td>3.47 (0.46)</td>
<td>3.1 (0.6)</td>
</tr>
<tr>
<td><strong>Level of leader</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>3.45 (0.72)</td>
<td>3.43 (0.62)</td>
<td>3.15 (0.74)</td>
</tr>
<tr>
<td>yes</td>
<td>3.67 (0.66)</td>
<td>3.62 (0.47)</td>
<td>3.2 (0.6)</td>
</tr>
<tr>
<td><strong>Secondary role performed</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>3.5 (0.75)</td>
<td>3.45 (0.65)</td>
<td>3.0 (0.65)</td>
</tr>
<tr>
<td>yes</td>
<td>3.5 (0.66)</td>
<td>3.5 (0.53)</td>
<td>3.22 (0.7)</td>
</tr>
<tr>
<td><strong>Level of language</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afrikaans</td>
<td>significant</td>
<td>3.38 (0.62)</td>
<td>significant</td>
</tr>
<tr>
<td>African</td>
<td></td>
<td>3.63 (0.65)</td>
<td></td>
</tr>
<tr>
<td>Enlish</td>
<td></td>
<td>3.33 (0.38)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>3.65 (0.32)</td>
<td></td>
</tr>
<tr>
<td><strong>Partake in re-engineering</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>significant</td>
<td>2.78 (0.65)</td>
<td>yes 3.2 (0.68)</td>
</tr>
<tr>
<td>yes</td>
<td></td>
<td>3.52 (0.56)</td>
<td></td>
</tr>
<tr>
<td><strong>Like to perform secondary roles</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>significant</td>
<td>3.24 (0.64)</td>
<td>2.84 (0.8)</td>
</tr>
<tr>
<td>yes</td>
<td></td>
<td>3.58 (0.54)</td>
<td>3.3 (0.59)</td>
</tr>
</tbody>
</table>
7.7.4 Questions pertaining to senior management excluded from construct 1

As indicated in Table 7.4, item analysis, Question 10 and Question 13 were not included in questions which formed construct 1. They were excluded because the item analysis indicated that they do not contribute towards explaining construct 1. These questions deal with the attitudes of staff towards the viability of implementing secondary leadership roles as opposed to

- senior leadership should be responsible for all leadership activities and that
- senior management have enough time to attend to all leadership roles, including staff development.

In order to consider the validity of these questions, chi-square tests were conducted on these two questions.

The following observations can be made from the attached frequency tables and chi-square tests conducted on these two questions in terms of biographical variables.

7.7.4.1 Leadership responsibility of senior management only?

The following biographical variable had a significant effect on the attitudes of respondents in terms of the statement in question 10:

Have you ever performed a secondary role?
**FREQUENCY TABLE AND CHI-SQUARE PROBABILITY: SECONDARY ROLES PERFORMED/LEADERSHIP SOLE RESPONSIBILITY OF SENIOR MANAGEMENT**

<table>
<thead>
<tr>
<th>have you ever performed a secondary leadership role:</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>moderately agree</th>
<th>strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>39 0.3074 22.54</td>
<td>48 0.4401 27.75</td>
<td>8 0.9785 4.62</td>
<td>3 2.5863 1.73</td>
<td>98 56.65</td>
</tr>
<tr>
<td>no</td>
<td>24 0.4017 29 0.5751</td>
<td>12 1.2785 6.9</td>
<td>10 3.3794 5.78</td>
<td>75 43.35</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>63 36.42</strong></td>
<td><strong>77 44.51</strong></td>
<td><strong>20 11.56</strong></td>
<td><strong>13 7.51</strong></td>
<td><strong>173</strong></td>
</tr>
</tbody>
</table>

100.00 Frequency missing = 6

Statistic for Table of secondary roles:

* Refer to 6.7.3.4: the categories ‘agree’ and ‘moderately agree’, were combined.

<table>
<thead>
<tr>
<th>Statistic</th>
<th>DF</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi- square</td>
<td>3</td>
<td>9.947</td>
<td>0.019</td>
</tr>
</tbody>
</table>

In accordance with the test conducted, the attitudes of staff who have performed secondary leadership roles differ from those who have not yet performed secondary leadership roles in terms of whether senior management only should be responsible for leadership activities or not. This implies that there is a dependency between whether a person has performed a secondary role and the person’s attitude towards senior management’s responsibility for leadership.

The relevant results reflected in the frequency tables revealed the following differences in attitudes:

The probability of 0.02 attached to the chi-square test statistic of 9.947, is significant on the 5% level of significance.
Respondents who have answered “yes” to the question “have you ever performed a secondary leadership role” in relation to those who have answered “no”, disagreed more strongly with the statement that leadership should be restricted to senior management only.

7.7.4.2 Senior management attend to all leadership activities and the professional development of staff?

There is a dependancy between the attitudes of respondents with regard to this statement and the facts

- whether they have partaken in the re-engineering discussions
- their work experience in the academic information service enterprise
- whether they have agreed with re-engineering proposals.

• Staff participation in re-engineering discussions?

| TABLE 7.9 |

FREQUENCY TABLE AND CHI-SQUARE PROBABILITY: LEADERSHIP SOLE RESPONSIBILITY OF SENIOR MANAGEMENT /STAFF PARTICIPATION IN RE-ENGINEERING

<table>
<thead>
<tr>
<th>Frequency cell chi-square percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>staff participation in re-engineering:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>yes</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>no</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Frequency missing :11
Statistics for table of staff participation in re-engineering:

<table>
<thead>
<tr>
<th>Statistic</th>
<th>DF</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>4</td>
<td>17.4312</td>
<td>0.0016</td>
</tr>
</tbody>
</table>

In relation with “yes” to “no”, those staff that partook in re-engineering discussions, had a stronger degree of disagreement to the statement that only senior management should attend to leadership activities.

- **Years experience in the academic service enterprise**:

**TABLE 7.10**

FREQUENCY TABLE AND CHI-SQUARE PROBABILITY: LEADERSHIP SOLE RESPONSIBILITY OF SENIOR MANAGEMENT/YEARS OF EXPERIENCE

<table>
<thead>
<tr>
<th>Frequency cell chi-square percent</th>
<th>Strongly disagree</th>
<th>disagree</th>
<th>moderately agree</th>
<th>strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6 years experience</td>
<td>5</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>4.6253</td>
<td>0.0005</td>
<td>3.5765</td>
<td>0.1105</td>
<td>9.41</td>
</tr>
<tr>
<td></td>
<td>2.94</td>
<td>4.12</td>
<td>0.00</td>
<td>2.35</td>
<td></td>
</tr>
<tr>
<td>7-9 years experience</td>
<td>6</td>
<td>10</td>
<td>4</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>2.1289</td>
<td>0.3068</td>
<td>0.6864</td>
<td>0.2876</td>
<td>15.88</td>
</tr>
<tr>
<td></td>
<td>3.53</td>
<td>5.88</td>
<td>2.35</td>
<td>4.12</td>
<td></td>
</tr>
<tr>
<td>10-12 years experience</td>
<td>2</td>
<td>14</td>
<td>10</td>
<td>6</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>0.9648</td>
<td>0.001</td>
<td>1.1332</td>
<td>0.089</td>
<td>18.82</td>
</tr>
<tr>
<td></td>
<td>1.18</td>
<td>8.24</td>
<td>5.88</td>
<td>3.53</td>
<td></td>
</tr>
<tr>
<td>13+ years experience</td>
<td>8</td>
<td>44</td>
<td>24</td>
<td>19</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>1.1889</td>
<td>0.104</td>
<td>0.3599</td>
<td>0.0621</td>
<td>55.88</td>
</tr>
<tr>
<td></td>
<td>4.71</td>
<td>25.88</td>
<td>14.12</td>
<td>11.18</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>21</td>
<td>75</td>
<td>38</td>
<td>36</td>
<td>170</td>
</tr>
<tr>
<td></td>
<td>12.35</td>
<td>44.12</td>
<td>22.35</td>
<td>21.18</td>
<td>100.00</td>
</tr>
</tbody>
</table>

* Refer to 6.7.3.4: the categories ‘agree’ and ‘moderately agree’, were combined.
Statistics for table of experience:

<table>
<thead>
<tr>
<th>Statistic</th>
<th>DF</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>9</td>
<td>15.6255</td>
<td>0.0751</td>
</tr>
</tbody>
</table>

Respondents with thirteen years and more experience in the academic information service enterprise have a more positive attitude towards the statement that senior management should attend to all leadership activities.

Respondents with seven to nine years experience have a more negative attitude towards the statement in relation to other groups relating to experience.

- Respondents that agreed with the re-engineering proposals:

**TABLE 7.11**

**FREQUENCY TABLE AND CHI-SQUARE PROBABILITY: LEADERSHIP SOLE RESPONSIBILITY OF SENIOR MANAGEMENT/AGREED WITH RE-ENGINEERING PROPOSALS**

<table>
<thead>
<tr>
<th>Agreed with re-engineering proposals:</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>moderately agree</th>
<th>strongly agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>10</td>
<td>46</td>
<td>13</td>
<td>14</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>0.0681</td>
<td>0.5811</td>
<td>0.0026</td>
<td>0.827</td>
<td>77.57</td>
</tr>
<tr>
<td></td>
<td>9.35</td>
<td>42.99</td>
<td>12.15</td>
<td>13.08</td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>0.2354</td>
<td>2.0097</td>
<td>0.0092</td>
<td>2.86</td>
<td>22.43</td>
</tr>
<tr>
<td></td>
<td>3.74</td>
<td>6.54</td>
<td>3.74</td>
<td>8.41</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>53</td>
<td>17</td>
<td>23</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>13.08</td>
<td>49.53</td>
<td>15.89</td>
<td>21.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Frequency missing: 72

* Refer to 6.7.3.4: the categories ‘agree’ and ‘moderately agree’, were combined.
Statistics for table of staff agree with re-engineering proposals:

<table>
<thead>
<tr>
<th>Statistic</th>
<th>DF</th>
<th>Value</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>3</td>
<td>6.5931</td>
<td>0.0861</td>
</tr>
</tbody>
</table>

Respondents that agreed with the re-engineering proposals, were in relation with those who did not, more dissatisfied with the statement that senior management should attend to all leadership activities.

The findings on these two questions which were excluded from construct 1, support the findings on the positive attitudes of staff towards the value of secondary leadership roles for the enterprise (construct 1), satisfaction gained through the performance of secondary leadership roles (construct 2) if they participated in re-engineering and agreed with re-engineering proposals. This finding also supports the theoretical findings as discussed in chapters 3-5. The findings also support the finding that African speaking staff with 7-9 years experience have a positive attitude towards the value of secondary leadership roles as experienced by them. This group also had a negative attitude towards the statement that senior staff only should attend to leadership functions of the enterprise.

7.8 SUMMARY

This chapter dealt with the research data collected by the questionnaires which were completed by the respondents. It presented the analytical results, the interpretation and their implications for the research problem. This chapter leads into the final chapter of this study which will provide a summary of the research, discuss the findings and present recommendations.
CHAPTER 8

SUMMARY, FINDINGS AND RECOMMENDATIONS

8.1 INTRODUCTION

The primary purpose of this study was, as part of the leadership function of the academic information service enterprise, to investigate the attitudes of staff towards a re-engineered leadership driven enterprise. Such an enterprise involves all staff voluntarily in leadership roles on the basis of their being willing and able to perform these roles.

This final chapter of the thesis furnishes a summary of the research, findings and recommendations.

8.2 SUMMARY OF THE RESEARCH

In order to support the premise that all enterprises must operate within a context that is changing all the time, it is argued that the academic information service enterprise also has to reconsider its world of work and more specifically its leadership framework. Factors that have led to the need for this research were identified.

It was explained why the academic library has changed to such an extent that it can now be considered to be an enterprise. In order to support the premise that the academic library has grown to be a business, the study considers how such a library can sustain itself in the 21st Century. This point is investigated against the background of the systems theory.

The study examined what should be done if the change drivers in the environment of the academic information service enterprise indicate that the only solution for survival is embedded in radical change. It explains the concept of business process re-engineering as an option for changing the business as opposed to mere process improvement. In support of the premise that the enterprise needs to embark on re-engineering, much attention was given to critical success factors for re-engineering and to the role players which could make the change occur. Since resistance to change, with a view to restoring the previous order, is natural, this study investigated how one deals with the matter. It became apparent that organisational change is not restricted to changing the products of the enterprise and the ways it conducts its business, but should also change the people
affected by the new situation, by means of a change programme. The role of transformational intelligence and how it can be developed in order to assist staff to overcome resistance to change, was investigated and is discussed.

Organisational design is also considered, with a view to identifying the components influencing it. In order to support the premise that re-engineering entails clean sheet organisational design, the discussion focuses on the phases in organisational design which need to be acknowledged by the academic information service enterprise when it designs its business. It further explains how the organisational context, its properties, personality and leadership, as well as the way it conducts its business, will be reflected in the organisational design.

Since the focus of this research falls on the attitudes of staff towards a re-engineered leadership driven academic information service enterprise, chapters 2-4 lead into the final chapter pertaining to the theoretical study. In support of the premise that the academic information service enterprise needs to reconsider its leadership, chapter 5 firstly examines the nature of leadership, the difference between leadership approaches and leadership styles and their applications in the academic information service enterprise. It also investigates the difference between leadership and management, and considers how leadership should be applied in the environment of the contemporary academic information service enterprise. This includes an investigation into contemporary leadership frameworks and the framework adopted by a large South African academic information service enterprise, and discusses how it should benefit from a re-designed leadership framework.

Since the attitudes of staff towards a leadership driven enterprise need to be established in terms of the value that such a contemporary leadership framework adds to the leadership of the enterprise and the satisfaction that staff gain as a result of their involvement in leadership roles, this chapter investigates the construct of attitude and how it relates to satisfaction.

The theoretical study was supported by an empirical study.

The choice of research methodology for the latter was investigated and a methodology appropriate for the measurement of attitudes was adopted. This included consideration of an appropriate data collection technique, i.e. the questionnaire.

8.3 FINDINGS REGARDING THE PROBLEM STATEMENT
The problem to be investigated was:

*Can a leadership framework which divides primary and secondary leadership roles be meaningfully applied to a re-engineered academic information service enterprise, and what are the attitudes of staff towards such a leadership driven enterprise?*

The problem needed to be investigated in terms of specific questions. The first set of questions led to a theoretical study to examine:

- why enterprises should change;
- the critical success factors for change;
- how this change takes place in the form of re-engineering;
- how this change takes place in the form of organisational design;
- how this change takes place in the form of leadership.

The theoretical research revealed that it has been necessary for enterprises through the years to change in order to sustain themselves. They should therefore carry out environmental scanning and react to change drivers. Should radical change be required, it must take place through a re-engineering process which results in an organisational design with new process structures and leadership structures. The contemporary academic information service enterprise derives its leadership roles from the leadership processes. It establishes primary leadership roles for which a person is appointed, and secondary leadership roles to be performed voluntarily in order for the enterprise to sustain itself. **This results in leadership roles which are not limited to the head and business unit leaders of the academic information service enterprise. All human resource potential within the enterprise is utilised for this purpose, in order to establish a leadership driven enterprise.**

This theoretical study was considered viable with a view to take note of how the change takes place in the form of re-engineering, organisational design and its leadership, since this may impact on the attitudes of staff towards the change.

The last three specific questions of the problem statement were investigated as part of the empirical research:

- Does a leadership framework which divides primary and secondary leadership roles
The average attitude of staff indicates that this framework does add value to the leadership of the academic information service enterprise. The fact that a large percentage of staff indicated that they would like to perform secondary leadership roles in future, supports this observation and indicates a positive attitude towards the value of secondary leadership roles for the enterprise. It was revealed that

- more specifically, African speaking staff and those who participated in re-engineering had the most favourable attitude towards the value of secondary roles in contributing to the successful functioning of the enterprise.
- staff who did not wish to perform secondary leadership roles in future, held a significantly positive attitude toward such a framework. Since such a framework contributes to the effective functioning of the enterprise, respondents who have performed a secondary leadership role disagreed more strongly with the statement that leadership should be restricted to senior management only.
- experienced staff (7-9 years experience) who participated positively in re-engineering had a stronger degree of disagreement with the statement that senior management are able to attend to all leadership activities.
- A leadership framework which involves all staff benefits the enterprise.

- Does a leadership framework which provides secondary leadership roles to be
The average attitude of staff indicates that staff gain satisfaction when performing secondary leadership roles. This was observed from the scores presented in the table of means of construct 2 pertaining to satisfaction gained when staff perform secondary leadership roles. The fact that such a large percentage of staff would like to participate in secondary leadership roles in future supports this and indicates a positive attitude towards the fact that they should gain satisfaction when performing secondary leadership roles.

In particular, staff who were in agreement with re-engineering decisions exhibited a positive attitude in this regard, as they indicated that they gained significantly more satisfaction than those who did not agree. Staff who were prepared to perform secondary leadership roles in future demonstrated a more positive attitude towards the statement, as they indicated experiencing significantly higher satisfaction than those who would not like to perform such roles.

- What determinants impact on the attitudes of staff towards a re-engineered leadership driven enterprise?

Flowing from the above, the very apparent determinants identified are the staff’s participation in the re-engineering project and their agreement with the re-engineering proposals. Other important determinants are their number of years work experience and their language groups. Staff with only a few years work experience and staff with many years work experience hold a negative attitude towards a leadership driven enterprise as opposed to those with 7-9 years work experience.

Furthermore, it is indicated that management has bought-in regarding the value of secondary leadership roles. Members of management constituted a significant percentage of the research population and they were significantly responsible for communicating the availability of secondary leadership roles. Their participation in cascading information about a newly adopted leadership framework, which in a way removed them from roles previously performed by them, is positive and can be regarded as a determinant which impacted on the attitudes of staff.

8.4 RECOMMENDATIONS
Flowing from this study, five recommendations should be considered by the academic information service enterprise:

- The research revealed that there is a similarity between the list of secondary leadership roles performed in the past and the list of secondary leadership roles which staff prefer to perform in future. This may be an indication of the popularity or the most common availability of the roles. However, this may also be an indication that staff are not equally familiar with the role profiles of all secondary leadership roles, or that all roles have not been implemented totally. Since all roles are equally important for the sustainability of the enterprise, this assumption needs to be investigated and addressed should it be correct.

- The negative attitude of respondents with 0-6 years experience towards the value of secondary roles as experienced by them is a major concern. It was measured as significantly lower than that of the other work experience groups. The assumptions can be made that the value of secondary leadership roles was not communicated effectively to this group or that appropriate training was not provided, as a strong focus is still placed on the primary role for which they were appointed. However, the reasons leading to their negative attitude require investigation and problems in this regard need to be addressed, because the enterprise will rely on their input as its future leaders.

- Research revealed that staff who did not wish to perform secondary leadership roles exhibited a significantly more positive attitude towards the value of leadership roles for the enterprise than those who indicated that they wanted to perform secondary leadership roles in future. The assumption can be made that they are satisfied with the “way things are”, i.e. that the staff members who have come forward to perform secondary leadership roles are adequate and competent to do so; or it can be assumed that this group is very focussed on their primary roles for which they were appointed - although they are willing to participate in secondary leadership roles as they believe that this adds value to the leadership of the enterprise, they are just not able to participate. It, however, needs to be investigated as to why they would not like to perform leadership roles although they believe that these roles add value to the leadership of the enterprise.

- Flowing from the previous finding, it should be viable for the enterprise to consider a mechanism to establish the potential for leadership amongst those staff members who have not yet performed secondary leadership roles, and to invest in these members by providing the required training as part of the enterprise’s skills development programme.

- In conclusion, the aim of this study was to investigate whether a leadership
framework which divides primary and secondary leadership roles can be meaningfully applied. The outcome of this investigation is based on the attitudes of staff towards such a framework in terms of the value that it offers for both the enterprise and its staff. Although the results were acceptable, the enterprise should endeavour to encourage and create an even more positive attitude towards such an enterprise in order to ensure that all potentials are fully utilised. In the light of the fact that the research was conducted during a time of transformation at the academic institution which the academic information enterprise serves, as well as during a time of instability at the enterprise itself, because it did not have a permanent organisational leader for a considerable time and the re-engineering project had not yet been implemented (with the exception of its secondary leadership roles), it is recommended that the attitudes of staff towards a leadership driven enterprise should be re-investigated in a stable environment.

8.5 FUTURE RESEARCH

- The viability of establishing leadership driven enterprises in the environment of other library types, e.g. the National Library of South Africa, should be investigated.
- Within the context of leadership roles, a model should be developed so as to be applied in support of workplace diversity in academic libraries.

8.6 CONCLUDING COMMENT

As academic information service enterprises realise the need to respond instantly to the “I want it and I want it now” culture of customers, they shift their focus to both process structures and leadership structures that can support the services of the enterprise, in order to meet their customer’s needs and expectations and ultimately sustain itself. The leadership structures of the contemporary academic information service enterprise involve all staff in its leadership. This study regarding the attitudes of staff towards such a leadership driven enterprise revealed positive results and a promising future, which can be viewed as a positive step in support of the customer services and sustainability of the enterprise, as well as the establishment of a compelling place to work.
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16 August 2004

To:.....................

Jenny Raubenheimer
Unisa Library
SP5-03

Dear Colleague

Pre-testing of questionnaire

I am currently registered for an M Inf Science degree under the supervision of Dr F Terblanche. The research includes a questionnaire to survey the attitudes of Unisa Library staff towards secondary leadership roles which the Library adopted as part of the proposals flowing from the Library’s Re-engineering project.

In order to pre-test the questionnaire, it would be much appreciated if you would complete the attached survey form as well as the following six questions on the content and format of the questionnaire. Kindly return it to my office as soon as possible but no later than 25 August 2004. You are invited to feel free to write comments or advice for improvement on the survey form itself.

1. How long did it take to complete the questionnaire?

2. Are there important questions to be added to the questionnaire? If yes, please state:

3. Are there superfluous questions to be omitted? If yes, please list the number of the questions:

4. Are there any ambiguous questions? If yes, please explain:

5. Do you have any criticisms, comments or suggestions regarding the format? Please advise:

6. Do you have any criticisms, comments or suggestions in general about the questionnaire?
....................................................................................................................................
....................................................................................................................................
....................................................................................................................................
....................................................................................................................................
....................................................................................................................................

Thank you very much for your participation in this pilot study.
Sincerely
..............................................................................................................................
Appendix 2

10 September 2004

Dear Colleague

Ms Jenny Rubenheimer is at present doing research for a Masters qualification on "Leadership roles in academic information service enterprises: the attitudes of staff towards a re-engineered leadership driven enterprise."

It would be appreciated if you could complete the enclosed questionnaire which will be treated in a highly confidential manner. A self-addressed envelope is enclosed.

In order to expedite the statistical analysis of the information, it would be appreciated if staff of the Muckleneuk Campus could return the completed questionnaire to Samuel Pauw Building, Room 5-10 on or before 22 September 2004. Staff from all other branches are kindly requested to courier the completed questionnaire via the Unisa Courier to the Muckleneuk Branch Library so that it reaches the Library on 22 September 2004.

Thank you very much for participating in this survey.

Dr F Terblanche
Supervisor
Department of Information Science
Unisa
QUESTIONNAIRE: FOLLOW-UP E-MAIL

Mail From: C L Mokoena

From: C L Mokoena
To: Van Schalkwyk, C A
Subject: URGENT REQUEST

Message:

Dear Colleagues

It is with great appreciation that I would like to share with you the fact that I have now received a 51% response rate on the questionnaire pertaining to Secondary leadership roles. I am most grateful and cannot wait to see the results.

I would, however, like to obtain an even higher response rate to ensure its reliability. Since so many of our colleagues have been on leave during the past week, I have no choice, but to extend the return date until I receive a better response of 60% or higher.

Should you have not completed the questionnaire yet, it will be very much appreciated if you can do so without delay and forward it to me or Cecile van Schalkwyk. If you require a copy please contact us at X3257 or x3412 so that we can forward it to you.

The results will also be of benefit to the Library, as they will provide important management information to the Library. This will be most useful when establishing Secondary leadership roles.

Kind regards

Jenny

Date: 11/22/04 11:03AM
## Leadership Roles in the Academic Information Service Enterprise
(Unisa Library, TSA Library and Vudec Library)

Please answer the following questions by marking the appropriate box with a tick.

### A. BIOGRAPHICAL INFORMATION

Please select only ONE option unless specified differently.

1. **Gender**
   - | Male | Female |
     | 1    | 2      |

2. **Age group**
   - | Under 20 | 20-29 | 30-39 | 40-49 | 50-59 | Older than 59 |
     | 1        | 2      | 3      | 4      | 5      | 6             |

3. **Home language**
   - African language | 1
   - Afrikaans | 2
   - English | 3
   - Other, please specify: ................................................................. | 4

4. **What is/are your qualification(s)?** Please mark all applicable options
   - Matric | 1
   - Undergraduate in progress | 2
   - A B-degree (excluding BBibl) | 3
   - Blnf, BBibl or any other library qualification (please specify): ........................................... | 4
   - Post graduate qualification | 5
   - Other, please specify: ................................................................. | 6

Example:

What is your gender? Male [✓] Female

<table>
<thead>
<tr>
<th>OFFICE USE ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 3</td>
</tr>
</tbody>
</table>
5. How many years have you been working in the academic information service enterprise?

<table>
<thead>
<tr>
<th></th>
<th>0-3</th>
<th>4-6</th>
<th>7-9</th>
<th>10-12</th>
<th>13+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

6. How are you employed?

<table>
<thead>
<tr>
<th></th>
<th>Permanent full day</th>
<th>Permanent half day</th>
<th>Contractual</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

7. At which branch are you employed?

<table>
<thead>
<tr>
<th>Branch</th>
<th>Cape Town</th>
<th>Durban</th>
<th>East London</th>
<th>Johannesburg</th>
<th>Florida</th>
<th>Muckleneuk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

8. Are you currently appointed in a leadership position?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. If YES, please indicate

<table>
<thead>
<tr>
<th>Position</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior management of the Library</td>
<td>1</td>
</tr>
<tr>
<td>Line management (report to senior management)</td>
<td>2</td>
</tr>
<tr>
<td>Section manager/team leader (primary leadership role)</td>
<td>3</td>
</tr>
</tbody>
</table>

B. LEADERSHIP

The Academic Information Service Enterprise has primary leadership roles which are performed by division managers/section managers/team leaders appointed to manage the operations. The purpose of secondary leadership roles is to ensure sustainability of the academic information service enterprise. Secondary leadership roles include for example mentoring/training. These roles are voluntarily performed by staff members who are willing and able to perform them for a limited period. Any staff member can apply for these roles when internally advertised.

Please indicate your agreement/disagreement with the following statements about the roles of leadership as part of the leadership framework of the academic information service enterprise.

10. Only the senior management of the academic information service enterprise should be responsible for leadership

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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<td>5</td>
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</tbody>
</table>

11. Through secondary leadership roles, the academic information service enterprise offers enough opportunities for staff to develop leadership skills

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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</table>

Please turn over
12. In an empowered academic information service enterprise, there is flat organisational structure but many more people can utilize their leadership skills on a day to day basis

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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</thead>
<tbody>
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<td>1</td>
<td>2</td>
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<td>5</td>
</tr>
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</table>

13. Senior management attend to all leadership activities as well as professional development of staff

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

14. Staff benefit more if counselled, mentored or trained by a staff member of their own group, eg language group/gender group

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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<tbody>
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<td>5</td>
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</tbody>
</table>

15. Did you participate in the discussions during reengineering?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
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</table>

16. If **YES**, did you agree with the reengineering proposals on the leadership framework?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
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</table>

17. If **NO**, why did you not agree with the proposals on the leadership framework?

............................................................................................................................

............................................................................................................................

C. **SATISFACTION**

18. Job satisfaction in a secondary leadership role is experienced when knowledge and skills previously acquired in another capacity can be applied to perform the role

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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<td>5</td>
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</table>

**please turn over**
19. Training in secondary leadership is beneficial for professional development

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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<td>1</td>
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</table>

20. Self confidence is developed by performing secondary leadership roles

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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</table>

21. A staff member is content to accept secondary leadership roles without additional pay

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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<td>1</td>
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</table>

22. When colleagues accept a person to perform a secondary leadership role, job satisfaction is experienced

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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</table>

23. The experience gained through secondary leadership roles may contribute towards obtaining a permanent primary leadership position

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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24. Staff not yet appointed in a primary leadership position are able to successfully perform secondary leadership roles

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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</table>

25. Secondary leadership roles are a form of empowerment in career development

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
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<td>1</td>
<td>2</td>
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<td>5</td>
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</tbody>
</table>
26. Recognition is given to secondary leadership role performance through performance appraisals

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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<td>5</td>
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</tbody>
</table>

27. Have you ever performed a secondary leadership role?

Yes  No
1  2

If YES, please proceed to question 28.
If NO, please proceed to question 41.

28. Please tick ALL applicable roles you have performed:

<table>
<thead>
<tr>
<th>Role</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategist</td>
<td>1</td>
</tr>
<tr>
<td>Councillor</td>
<td>2</td>
</tr>
<tr>
<td>Coach</td>
<td>3</td>
</tr>
<tr>
<td>Mentor</td>
<td>4</td>
</tr>
<tr>
<td>External relationship manager</td>
<td>5</td>
</tr>
<tr>
<td>Change agent</td>
<td>6</td>
</tr>
<tr>
<td>Project leader</td>
<td>7</td>
</tr>
<tr>
<td>Project participant</td>
<td>8</td>
</tr>
<tr>
<td>Knowledge leader</td>
<td>9</td>
</tr>
<tr>
<td>Critical thinker</td>
<td>10</td>
</tr>
<tr>
<td>Cheer leader</td>
<td>11</td>
</tr>
<tr>
<td>Champion</td>
<td>12</td>
</tr>
<tr>
<td>Union representative</td>
<td>13</td>
</tr>
<tr>
<td>Skills development coordinator</td>
<td>14</td>
</tr>
<tr>
<td>Quality assurance coordinator</td>
<td>15</td>
</tr>
<tr>
<td>Forum leader</td>
<td>16</td>
</tr>
<tr>
<td>Forum representative</td>
<td>17</td>
</tr>
<tr>
<td>Data Owner</td>
<td>18</td>
</tr>
<tr>
<td>Emergency Access Controller</td>
<td>19</td>
</tr>
<tr>
<td>Emergency Director</td>
<td>20</td>
</tr>
<tr>
<td>Emergency Evacuator</td>
<td>21</td>
</tr>
<tr>
<td>Emergency Fire Fighter</td>
<td>22</td>
</tr>
<tr>
<td>Emergency First Aid Helper</td>
<td>23</td>
</tr>
<tr>
<td>Emergency Second in Command</td>
<td>24</td>
</tr>
<tr>
<td>Emergency Team Leader</td>
<td>25</td>
</tr>
<tr>
<td>Employment Equity Coordinator</td>
<td>26</td>
</tr>
<tr>
<td>Non Research Projects Coordinator</td>
<td>27</td>
</tr>
</tbody>
</table>
29. Please indicate how you found out about the secondary leadership roles in the Library

<table>
<thead>
<tr>
<th>Method</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertisement</td>
<td>1</td>
</tr>
<tr>
<td>Reengineering discussion group</td>
<td>2</td>
</tr>
<tr>
<td>Supervisor</td>
<td>3</td>
</tr>
<tr>
<td>Team members</td>
<td>4</td>
</tr>
<tr>
<td>Other, please specify:</td>
<td>5</td>
</tr>
</tbody>
</table>

30. Why did you perform secondary leadership roles?

..................................................................................................................................................
..................................................................................................................................................
..................................................................................................................................................

D. VALUE OF LEADERSHIP ROLES EXPERIENCED BY STAFF

Please indicate your agreement/disagreement with the following statements about the value of secondary leadership roles as part of the leadership framework of the academic information service enterprise as experienced by you.

31. Staff are afforded equal opportunities to perform secondary roles

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

32. I accepted the secondary leadership role on the basis of being willing to perform the role

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
33. My secondary leadership role contributed to my job satisfaction

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>2</td>
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</table>

34. I am afforded time off to perform secondary leadership roles (up to 20% on an average day)

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

35. Colleagues assist with my workload when I perform a secondary leadership role

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

36. Secondary leadership roles are just as valuable as primary leadership roles

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

37. Secondary roles create unrealistic expectations from staff in the workplace (i.e., a primary leadership position will be an outcome of performing a secondary leadership role)

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

38. The skills acquired through performing a secondary leadership role contribute towards my own professional development

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Moderately agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

39. Compared to your expectations, how would you describe your overall impression of secondary leadership roles as part of the leadership framework of the academic information service enterprise?

<table>
<thead>
<tr>
<th>Much less than expected</th>
<th>Less than expected</th>
<th>About what I expected</th>
<th>More than I expected</th>
<th>Much more than I expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
40. Any further comments about the secondary leadership roles at the Unisa Library?

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

Please proceed to INSTRUCTION after question 44.

41. Would you like to perform a secondary leadership role?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

If YES, please proceed to question 42.
If NO, please proceed to question 44.

42. Please tick **ALL** applicable roles you would like to perform:

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategist</td>
<td>1</td>
</tr>
<tr>
<td>Councillor</td>
<td>2</td>
</tr>
<tr>
<td>Coach</td>
<td>3</td>
</tr>
<tr>
<td>Mentor</td>
<td>4</td>
</tr>
<tr>
<td>External relationship manager</td>
<td>5</td>
</tr>
<tr>
<td>Change agent</td>
<td>6</td>
</tr>
<tr>
<td>Project leader</td>
<td>7</td>
</tr>
<tr>
<td>Project participant</td>
<td>8</td>
</tr>
<tr>
<td>Knowledge leader</td>
<td>9</td>
</tr>
<tr>
<td>Critical thinker</td>
<td>10</td>
</tr>
<tr>
<td>Cheer leader</td>
<td>11</td>
</tr>
<tr>
<td>Champion</td>
<td>12</td>
</tr>
<tr>
<td>Union representative</td>
<td>13</td>
</tr>
<tr>
<td>Skills development coordinator</td>
<td>14</td>
</tr>
<tr>
<td>Quality assurance coordinator</td>
<td>15</td>
</tr>
<tr>
<td>Forum leader</td>
<td>16</td>
</tr>
<tr>
<td>Forum representative</td>
<td>17</td>
</tr>
</tbody>
</table>
43. Why have you not yet performed a secondary leadership role?
................................................................................................................................................
................................................................................................................................................
................................................................................................................................................

Please proceed to INSTRUCTION after question 44.

44. Why are you not prepared to perform a secondary leadership role?
................................................................................................................................................
................................................................................................................................................
................................................................................................................................................
................................................................................................................................................

E. INSTRUCTION:
Thank you for your participation.
Please return the completed questionnaire in the enclosed self addressed envelope by 22 September 2004

Thank you

Jenny Raubenheimer
(012) 429-3257
CONFIRMATION OF ROLE AS OVER-SEER OF BIBLIOGRAPHY

This is to confirm that I checked the bibliography for Ms. Janette Rubanheimer’s dissertation ‘Leadership roles in academic information service enterprises: the attitudes of library staff towards a re-engineered leadership driven enterprise’.

This study was submitted in fulfilment of the requirements for the degree of Master in Information Science at the University of South Africa, in November 2004.

Marlene Burger (Mrs)
Department of Information Science
University of South Africa

9 February 2006
DEPARTMENT OF ENGLISH STUDIES

CONFIRMATION OF ROLE AS EDITOR

This is to confirm that I undertook the English language editing for Ms Janette Raubenheimer's dissertation "Leadership roles in academic information service enterprises: the attitudes of library staff towards a re-engineered leadership driven enterprise".

This study was submitted in fulfilment of the requirements for the degree of Master in Information Science at the University of South Africa, in November 2004.

David Levey (Mr)
Senior Lecturer
University of South Africa

9 February 2005