The Use of Project Management Principles to Facilitate Strategic Change within the Gauteng Department of Environment and Associated Merits

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Short Dissertation

Submitted in partial fulfillment of the requirements for the degree

MAGISTER

in

BUSINESS ADMINISTRATION

FACULTY OF MANAGEMENT SCIENCES

at the

UNIVERSITY OF JOHANNESBURG

Johannesburg   **Study Leader:**
October 2006   **Prof. H.E.C. de Bruyn**

Acknowledgements

I would like to thank Professor W.M. Conradie and Professor H.E.C. du Bruyn for all the help and guidance they both provided during this undertaking. To my parents Kandhiben and Gookela Nair, thank you for not giving up on me. To my friends and family, thank you for believing.

DECLARATION

I declare that this research report is my own, unaided work. It is submitted in partial fulfillment of the requirements of the degree of Magister in Business Administration at the University of Johannesburg. It has not been submitted before for any degree or examination in any other university.

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CHAPTER 1

INTRODUCTION, PROBLEM STATEMENT AND OBJECTIVES OF THE STUDY

1.1 Background

South Africa has been experiencing dramatic change, particularly since the implementation of the 1993 Constitution and subsequent legislation. Provincial authorities, as the basis of effective government, have especially been affected, continually experiencing change in function, structural and legislative areas. These changes require deliberate and proactive management actions to transform an authority from its current (experienced as unsatisfactory) state to a required state that is supposed to be satisfactory.

Mitiku and Wallace (1999:51) pointed out that, in a changing environment, an authority should undergo continual strategic repositioning in order to be able to carry out its particular mandate. Safavi (1981:320) claims that transforming an authority with a significant personnel component and limited resources within a given policy framework without jeopardising service is an extremely complex process. Transformation is usually associated with resistance, instability and uncertainty and therefore does not simply involve change in services, management hierarchy or methods and processes. People remain the means whereby change must take place. Without adequate support from personnel and the skills of management to act as transformation leaders, shortcomings may be anticipated in the process. Dey (2000:607) indicates that project management can be a mechanism for the implementation of institutional transformation.

In considering previous research on this topic, Loo (1999:8) mentions that project management can improve strategic change within an organisation. According to Loo (1999:9) the "participant found the techniques to be very useful for project planning and control". However, strategic change was not effectively handled and staff did not greatly benefit because "senior management has a tendency to change priorities frequently." Czuchry and Yasin (2003:40) identify a positive link between strategic change and project management, which allows for identifying problems and implementing timely corrective action to improve a project's success. According to Bryde

(2002:224) one of the criteria that needs to be considered to ensure effective project management is strategic management. He furthermore states that project management and strategic change include project-management staff, as well as strategy and resources that will ultimately benefit both the organisation and staff. Cowie (2003:256) states that project management can "positively impact" strategic change. He also mentions that the organisation, in addition to the staff, can benefit from such a process.

Section 44(1)(a)(ii) of the South African Constitution, allows the national legislative authority vested in Parliament the power to "pass legislation with regard to any matter, including a matter within a functional area". The Transvaal Provincial Administration gave way to the Gauteng Provincial Government. Section 44(1)(a)(ii) also provides the mechanisms with which the Department of Agriculture, Conservation and Environment (GDACE) within the Gauteng Provincial Government was set up. This change involved new components, line functions, linkages and political mandate. In 2003, the Department underwent further strategic change. This process of change within the Department of Environment is the focus of this study.

1.2 Problem Statement

The political changes since the advent of democracy in South Africa have had serious implications for management within government. This has resulted in significant strategic shifts within government in order to enable government to meet its mandate. Strategic change within government must be implemented successfully for government to be able to achieve what has been set out to achieve through the implementation of strategic change. The primary aim of this dissertation is to establish whether the strategic change within a government department, namely the Department of Environment, was successfully implemented through project management. The secondary aim of this research is to establish whether the staff carrying out the mandate of the government department experienced any positive change through the said strategic change.

1.3 Purpose of the Research

This study seeks to establish whether project-management principles facilitated the strategic change within the Department of Environment. Such strategic change is necessary to manage the relationship between an organisation and its environment. The goal is to achieve alignment or synergy so that an optimal flow of resources to the institution is achieved. Project management can be defined as a system or a process by means of which the objectives of a proposed project is received.

The stated project in this instance is the evolution of the Department of Environment from one state, the initial operating structure, to the next state, an entirely new operating structure. Similarly, it seeks to establish whether staff within the Department benefited from this strategic change. In posing this question, it seeks to establish whether the environment within which the operational staff worked improved to such an extent that it allowed them to perform their duties in an efficient manner.

1.4 Research Design and Methodology

The study will consist of a literature study attempting to define the concepts of "management of change" and its application, and "project management" and the process. It will then analyse the application of project management for strategic change within an organisation. The study will explore the application of strategic management within public institutes. In doing so, strategic management and its relevance within the public sector will be defined.

The outcome of this literature review will identify the shortcomings and benefits of the application of strategic management in the public sector. Using this as a point of departure, one needs to note the differences between public and private institutions in order to understand strategic management in the public sector. The factors considered must range from institutional context, market exposure, legal and formal restrictions and political influence to public expectations, bureaucracy, missions, aims and objectives, and performance evaluation. From this, a review of the strategic management process must be considered in order to implement it effectively in the public sector.

Secondly, the study will include a literature review of project management. This will involve an explanation of project management in the effective management of an institution, including the study of functional structures and the inclusion of project management structures within the functional aspect. The advantages and disadvantages of such management structures will be explained from the theory expounded. The study will then consider a comprehensive explanation of the phases of project management, namely the preparation phase, the implementation phase and the evaluation phase. Each phase consists of specific actions that will be explained in detail.

The application of project management principles in order to achieve strategic change as the desired outcome will be investigated. The project management principles will be reviewed from an internal and an external perspective. Strategic management in relation to project management and change will be discussed briefly, with a more detailed description of what management of strategic change entails.

In order to facilitate strategic change through project management, project management practices must be integrated. The unique circumstance of the institute and the type of change that needs to be implemented largely dictates the process.

1.5   Limitations of the Study

This study is subjected to a number of limitations. The first of these is the small sample size. The entire Department comprises 54 individuals. In order to overcome the issue of this small sample size, the survey questionnaires will include those individuals who are no longer in the Department, but have experienced the Department in both the pre-change and post-change scenario. The second restriction is the delivery of the surveys via electronic mail. This poses the risk of recipients not answering the questionnaire and thereby endangering the survey. Due to the small sample group it is critical that the highest possible number of responses is returned. This will be monitored by regular phone calls and, in the extreme, a visit to the individuals to assist them with the questionnaire. The third restriction that may be encountered is the correlation of the answers. Due to the small sample size and the fact that the questionnaires are being delivered electronically, recipients may collaborate in order to answer the questionnaire.

1.6 Structure of the Study

The application of strategic management in public institutes will be discussed in Chapter 2. The importance of this type of management will be explored, as well as the impacts of applying it in government bodies.

Chapter 3 explored strategic management as a process and how it is undertaken from a theoretical perspective.

The project management process has been defined in Chapter 4. This included an explanation of project management in the effective management of an institution, including the study of functional structures and the inclusion of project management structures within the functional aspect.

Chapter 5 described how data will be collected, presented and interpreted with the ultimate aim of indicating the correlation between project management and strategic change.

Chapter 6 focused on the presentation and interpretation of the primary data obtained from the questionnaires.

Chapter 7 presented the conclusions of the study and the recommendations.

CHAPTER 2

STRATEGIC MANAGEMENT IN GOVERNMENTAL BODIES

2.1 Introduction

In order to clearly understand strategic management, one first needs to understand what strategy is. In addition, the relationship between strategic management, strategic planning and long-term planning needs to be investigated. This will give a succinct overview of the process of what needs to be investigated when considering strategic management.

Figure 1: Dimensions of strategy
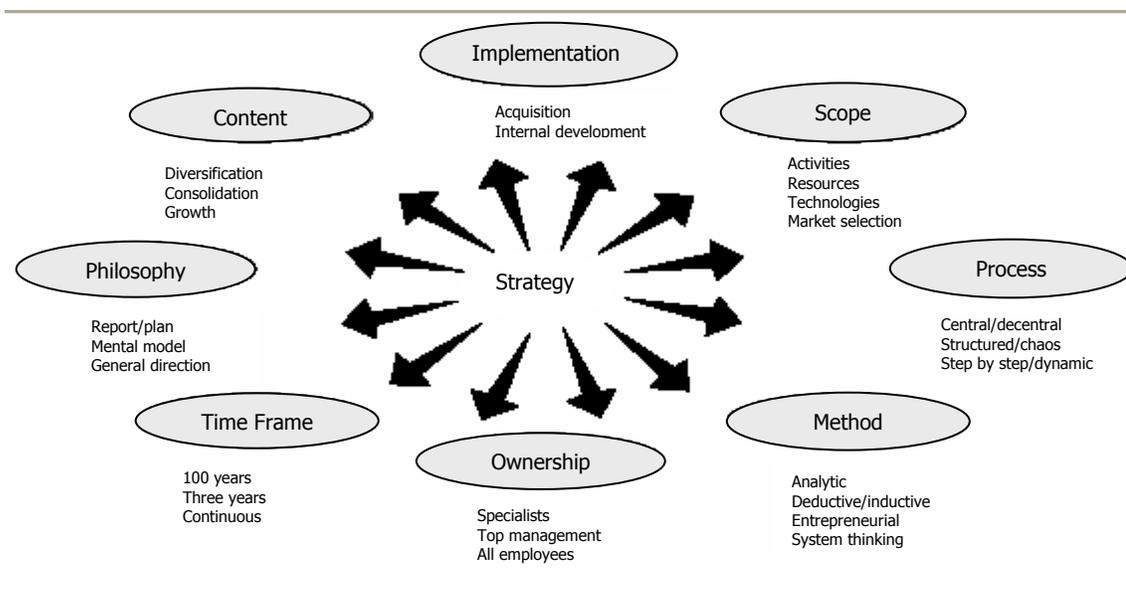
Source: Feurer and Chaharbaghi (1997:58).

2.2 Definition of Strategy

In the context of business management the concept of strategy indicates an agreed-upon course of action and direction to help manage the relationship between an organisation and its environment. The goal is to achieve alignment or synergy so that an optimal flow of resources to the institution is achieved (Irving:361). According to Stevenson (1996:47) the strategy of

an organisation has a long-term impact on the nature and characteristics of the organisation. Strategies affect in large measure the ability of the organisation to compete or, in the case of a government organisation, the ability to serve its intended purpose.

Van der Walt and Knipe (2001:5) state that strategies may be considered from two approaches. The first approach involves the perspective that strategy is a *broad programme* for defining and achieving an institution's objectives and implementing the mission. According to the second approach, strategy is the pattern of the institution's *reaction to the environment* in a specific period.

It is clear from these definitions that strategy is a pivot around which all organisational activities revolve.

2.3 Definition of Strategic Management

According to Weeks and Lessing (1993:3) strategic management as a concept has been described by many definitions that differ in scope and content. Johnson (1987:59) confirms this by saying that there is no simple explanatory model of strategic management: the level of complexity that is being considered cannot be reduced to one model. According to Nandain (2006:3) states that there is no single universally accepted definition of strategy. Ruocco (1994:24) attempts a comprehensive explanation when defining strategy as "the pattern or plan that integrates an organisation's major goals, policies and action sequences into a cohesive whole." Koteen (1989:17) further refines this definition: "It [strategic management] entails active leadership that can direct organisation-wide systems of strategic management and be capable of mastering the events and consequences of rapid environmental change." Sanches and Heene (2004:4) state that strategic management refers to management processes primarily concerned with two tasks. The first is "defining the organisation's goals for value creation and distribution", and the second is "designing the way the organisation will be composed, structured and coordinated in pursuing its goals for value creation and distribution".

These definitions highlight the need for implementing an environmental scanning process within an organisation. It also has to define its desired state. This requires organisational

analysis with the aim of formulating and implementing strategies. It also requires developing a concept of the organisation and forming a vision of where it needs to be.

In amplifying these concepts, David (1998:5) indicates that the strategic management process consists of three stages namely: strategy formulation, strategy implementation and strategy evaluation. Strategy formulation according to Bryson (1999:3) would include the organisation's mandate, mission and product or support level in respect of a public service organisation.

2.4 Relationship between Strategic Management, Strategic Planning and Long-Term Planning

According to Tulloch (1993:6) strategic management is the total management of an organisation. The implication is that strategic planning is merely a facilitator or a phase of strategic management. Definitions of strategic planning include terms such as strategic thrust, corporate focus or strategic intent (Mintzberg, 1993; McDonald, 1996; Chaharbaghi and Willis, 1998). The common aspect of the definition according to McDonald (1996:6) captures the long-term direction of the organisation, defining the business the organisation should engage in and matching the activities of the business to the resources available. The changing environment also made it necessary for strategic planning to change continuously in order to ensure a continuous improvement. Proctor (1997:147) conclude that strategic planning is required in order to enable organisations to anticipate and respond to the dynamic environment in which they operate.

O'Regan and Ghobadian (2002:418) indicate that strategic planning can be viewed from a content or a process viewpoint. The strategic elements of the strategic plan, which may differ from organisation to organisation, relate to the content. The process relates to the mechanisms of development and the subsequent deployment of a strategic plan.

2.5   Relevance of Strategic Management in the Public Sector

The years since 1994 have been years of fast change for government; the old certainties were left in ruins without a new set having replaced them. In spite of the claims of some and the fears of others, the decade was not simply marked by the successful implementation of the proposed policy; it was a transitional period, even if the change of direction sometimes remained uncertain.

The reasons for developing strategic plans appear to be straightforward. It can, however, be quite complex. The more commonly cited reason for developing strategy according to Hahn and Powers (1999:19) is to improve organisational performance. Van Zyl (1991:15) makes a pointed observation government in particular does not have a strategic vision.

In the South African context, government has undergone considerable management reform aimed at creating economic savings, improving service delivery, more efficient government operations and effective policies. The Public Finance Management Act (PFMA), 1999 (Act 1 of 1999) (as amended by Act 29 of 1999) broadly define these objectives. This effectively entrenched management techniques such as strategic management.

According to Anderson and Anderson (2001:1) management techniques that have their origins in the private sector and are introduced into the public sector have presented public sector managers with a number of challenges. The first of these is the difficulty in obtaining the long-term policy consistency required for the planning and implementation of organisational changes, which are often triggered by the introduction of new management techniques. Alford (2002:1) claims that the political need often driven by short-term considerations runs contrary to the requirement for consistency. The second is accountability where directors in the private sector are responsible to a board for strategy formulation (including the setting of organisational priorities and goals) and the execution of the strategy. The dynamics of the public sector, however, makes accountability more complex. Typically, strategy formulation is driven by political leadership, while strategy implementation is overseen by executive leadership.

The benefits of strategic management for a public sector organisation, however, overlap those for a private sector organisation, and there are number of them. The first of these according to Schraeder (2002:12) is that the decision-making about future opportunities and threats facing the organisation can be improved by means of a SWOT analysis (an analysis of organisational strengths, weaknesses, opportunities and threats). Schraeder (2002:13) further indicates that staff involvement leads to a creation of employees who are champions or advocates of any proposed or developed strategy. This additional involvement promotes communication and improves co-ordination. Also important, according to Schraeder (2002:14), is that this stimulates participation of stakeholders in the organisations. Saloner *et al*. (2001:10) refer to the facilitation of strong motivation through clearly defined aims, objectives and incentive systems as a benefit to the organisation. Strategic management according to Wisniewski (2001:540) allows an organisation to act in a proactive manner, thereby enabling it to influence its environment. He adds that this in turn creates an objective basis for management decision-making. Informed decision-making allows for greater efficiency in the achievement of the objective, the distribution and utilisation of resources and organisational motivation.

2.6   Differences and Similarities between Public and Private Institutions

Various authors have acknowledged the uniqueness of the public management environment. It is argued that the public sector has not had less exposure to the rapidly changing demands of the external environment compared to that of the private sector. The expectations of a broader community should be met through service delivery.

2.6.1   Institutional context

An important point of departure is the institutional context of the public sector – a sector in South Africa. According to the Constitution of the Republic of South Africa, 1996 (Act 108 of 1996), the public service constitutes national, provincial and local spheres of government that are distinctive, interdependent and interrelated. There are nine provincial governments and local authorities of various categories with differing legislative and executive powers. It continues to say that all spheres of government and all organs of state within each sphere

must co-operate with one another in mutual trust and good faith. This interaction between the different spheres of government can take place in varying forms, and it may vary from the simple exchange of information to the creation of complex formal and informal networks. The strategic issues expected to arise from such a government structure will be varied.

2.6.2   Market exposure

The environment in which the public service functions has less market exposure than in the case of private sector organisations. Funding for public service organisations are obtained from providing services and products from budget grants recovered from a community by legislation. Decreased market exposure may, however, have certain consequences. According to Van der Walt and Knipe (2001:9) these include fewer incentives for cutting costs and ensuring operational efficiencies. The market indicators, such as profit and prices, are reduced. It is the intention of a public service organisation to carry out its mandate, which determines allocation of funds, rather than its interest in efficiencies. Some public institutions ignore their 'clients' who in fact pay for products and services through taxes.

Private intuitions on the other hand generate an income by selling products and services to clients. The quantity of profit on the sale of products or services is the measure of a private organisation's effectiveness and efficiency. Private organisations have a more defined link between their clients and products or services. Without clients who are prepared to pay for services or products, a private organisation will not survive.

2.6.3   Legal and formal restrictions

According to Fox *et al*. (1992:14) public institutions operate in an environment that has more legal, judicial and formal restrictions than organisations in the private sector. These restrictions are imposed by the legislator, namely the courts and the executive and administrative hierarchy. In such an environment the autonomy of managerial decision-making is compromised. There is an increase in formal specification and control, and there are more external sources of formal influence. Such influences eventually become fragmented.

2.6.4   Political influence

Political influence affects both private and public sector organisations. However, public sector organisations are more affected by political dynamics. They have a direct influence on the activities and decisions of such organisations. Political influence increases the stakeholder base, thereby ensuring that external influence has an important effect on the organisation. This scenario in turn requires a greater need for external support by relevant stakeholders, such as political groups, as well as client groups and their formal institutions.

2.6.5   Public investigation and interest

Public institutes and the workings of their managers are subject to intense public scrutiny. Section 32 of the 1996 Constitution is unambiguous with regard to government information about, and input in public activities. The activities of public organisations and their personnel are monitored and evaluated. The public can make use of political institutions to raise objections if they are not satisfied with the activities of public organisations.

Since common interests must be addressed, public matters may influence government policy. Therefore, issues placed on the public agenda will become involved in the policy-making process. While such policy will be collective, it is unrealistic to assume that all the interests of the public will be promoted.

2.6.6   Public expectations

System adaptations and restructuring have been forced upon government organisations by a changing environment. Government in South Africa has been focused on reforming public services. The reasons that are driving this reform are not particular to South Africa – according to Donnelly (1999:48) they apply internationally to public organisations which were created in the early to mid-twentieth century. Thomson (2003) argues that many of the old solutions based on "one size fits all" do not work; especially in a world that has moved on since the collapse of apartheid. Not only has the component of authority in South Africa

undergone change, but the make-up of the community as a client, and the type of service and expectations have changed as well.

It is no longer acceptable for the state to corral services within the ghetto of safety net services for those who are unable to afford the high quality service alternatives available in the private market. The standard of living has risen and consumer choice has broadened in the last decade. So, while experiencing public services that fail to meet expectations, public expectations of public services have risen to expect (or exceed) the same level of services provided in the private sector. This advance in public expectations has been reinforced by the rapid power of communications that allows people to be informed of what's happening in other parts of the country or the world. From mass production to mass customisation, this shift has finally caught up with the public sector.

Public service delivery had, of course, changed and adapted to the changing circumstances in the past. Simelane (2000) argues that society now generally faces more complex situations that people expect governments to solve – rising crime, worsening health, advancing educational standards, demands for social justice, environmental degradation, etc. The public service is now placed under increased pressure to provide solutions to these problems that did not exist when the initial services were designed or that evolutionary changes have not been able to address. In addition to this, technological advances have led people to believe that solutions to these complex problems are easily achievable. This pressure has furthermore been reinforced by advances in communication technology that allow people, individually and collectively, to articulate and combine effectively to influence government thinking (Simelane; 2000). Government at the same time is limited by the amount of resources it can commit to these emergent issues.

Owing to the constitutional reform of South Africa and demographic trends in the social field, public expectations have essentially shaped policy. Van der Walt and Knipe (2001:14) highlight the following changes:

- changes reflected in the ideological and value systems of communities;
- changes in ethical standards;
- communication and the increasing importance of the media;

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- involvement with international stakeholders;
- the changing perceptions and attitudes of the communities regarding authority;
- interest groups' increasing involvement and intervention;
- trade unions' increasing involvement; and
- private sector involvement.

2.6.7 Less responsive bureaucracy

Private organisations are known for the manner in which they motivate their personnel with financial remuneration and other incentives. Decisions are made quickly and financial and human resources are deployed to where they are required with great efficiency. Public institutions by contrast are more rigid and hierarchical. This reduces operations' flexibility and delays decision-making. Public organisations tend to focus on maintaining a status quo in ensuring thorough and uniform procedures at the expense of achieving results.

Public sector organisations also have the added burden of a high staff turnover, which is an indication of low commitment of personnel to the organisation. This refers to the attitudinal approach to organisational commitment. Mowday *et al*. (1982) define this type of organisational commitment as the "relative strength of an individual's identification with, and involvement in, a particular organisation". Organisational commitment can therefore be seen as the extent to which employees identify with their organisation and managerial goals, and can show a willingness to invest effort, participate in decision-making and internalise managerial values (O'Reilly and Chatman, 1986). Managerial dimensions, broadly described as management style and organisation climate, affect organisational commitment.

There appears to be some evidence that years in a position and years of experience are positively associated with commitment. Previous studies have indicated that position tenure (Gregersen and Black, 1992; Mottaz, 1988) and organisational tenure (Mathieu and Hamel, 1989; Mathieu and Zajac, 1990) have small but positive effects on commitment. This can be explained as a result of the organisation's socialisation process. The length of service in an organisation is positively related to the level of internalisation of organisational values, which results in greater commitment from the individual (Allen and Meyer, 1990; Hellriegel *et al*., 1995; O'Reilly, 1991).

However, some studies, for instance those of Lok and Crawford (1999) and Brewer (1996), have not found evidence of this relationship. Although there is evidence indicated by Mathieu and Zajac, (1990:171) that commitment increases with age, the work of Brooks (2002:572) and Lu (1999:63) indicate that tenure is a more valid antecedent of commitment than age.

A less responsive bureaucracy can therefore be attributed to the rigid structure which promotes adherence to norms and standards at the expense of achieving results and a low commitment from staff members to organisational goals.

2.6.8   Time limits

Artificial time limits are set within the public sector. Time limits between elections is of particular importance. This becomes a strategic issue that forces the public sector to provide tangible proof of their abilities within these time frames.

2.6.9   Missions, aims and objectives

It is in the private sector's goals that the fundamental differences between private and public sector organisations are highlighted. In dealing with the private sector, Dwyer (2004:68) finds that the primary objective of these sectors is to satisfy the stakeholders with an economic investment in the organisation. Morrison (2001:786) states that entrepreneurs are people who set up private sector organisations noted for their flexibility. Therefore, private sector organisations' missions, aims and objectives can easily be amended to suit the external environment. This allows these organizations to maximise whatever competitive advantage they may have.

The *raison d'être* of government is vastly different from that of business. According to Donnelly (1999:47) most public sector services were originally created due to the failure of the private sector to ensure proper quality of service in key areas for the well-being of society as a whole:
-    the demand for water of a high quality and for an acceptable, universal health service;

- the provision of adequate housing for communities contributes to the creation of communities and the eradication of informal settlements;
- the availability of universal education for children, which helps underpin the creation and continuous development of a society; and
- public sector intervention allows for the protection of the environment from the bi-products of modern industry and society.

This indicates that the formulation of missions, aims and objectives can be considerably more complex than that of a private sector organisation. This complexity stems from a requirement that all groups or stakeholders must be heard, which makes their influence incisive. Since public sector organisations are created by Parliament, a higher body of authority, their aims and mission are similarly defined by this body of authority. They are usually inflexible and can only be amended with permission from the higher body of authority.

The aims of public sector organisations are often qualitative and conflicting. This leads to different interpretations. Through the process of shifting priorities over time conflicting aims can be avoided. Public sector organisations furthermore tend to pursue one aim, until pressure from either external or internal forces change their aim. There is no attempt to resolve conflicting aims. This can also occur when there is a shift in politics, whereby voters and pressure groups enforce a change in policy. According to Van der Walt and Knipe (2002:12) this results in public sector managers often "believing that their aims are not tangible which hinders the formulation of concrete and measurable objectives". They claim that the political process is in fact at the core of the problem of formulating objectives.

2.6.10   Performance evaluation

Pollanen (2005:4) states that performance evaluation in the public sector is concerned with the assessment of performance of organisations, organisational units and programmes. The primary function of performance evaluation is to monitor the promotion and realisation of organisational and managerial objectives and it therefore serves as an important planning, control, and decision-making device. Surrogate measures of varying degrees of sophistication have to be employed, however, as direct measures of well-being do not exist.

Christensen (2000:613) argues that it is useful to examine the tricky issue of efficiency. One parameter of efficiency, albeit a one-dimensional view, is the number of people employed in public administration. In the Gauteng Department of Agriculture, Conservation and Environment the number of employees has increased since 1998, while the government share of gross national product has risen. In very simplistic terms this indicates that the public sector is doing more as the proportion of taxes spent on administering the system of government increases.

Christensen (2000:614) further argues that effectiveness is even more difficult to assess than efficiency, and the assessment here is "unashamedly subjective and unquantified". This observation presents two opposing views: first, that the public sector is effective because it is closely associated with societal forces and second, that it is ineffective because it is overly competitive internally and it has been "captured" by special interests, hence losing its accountability to society as a whole. The increased multiplicity, diversity and uncertainty in the public sector and its inclination to be involved in conflicting interests, require that concessions be made.

The lack of clear aims and objectives can make measurement of performance difficult. If the aims and objectives are clear, but their outcomes are not measurable, the measurement of the performance of the institution is hindered. If there is no objective way of determining the performance of the particular institution, it may result in a weak authority structure.

While Fox *et al*. (1992:231) indicate that "it is difficult if not almost impossible for the managers of public institutes to articulate a clear mission with aims and objectives of their organisation because they are not measurable like increase profit", Van der Walt and Knipe (2000:13) argue that such problems can be overcome by measuring one aspect of the task that is tangible.

Otley *et al.* (2001:244) proposes using financial criteria based on cost sensitivity in the absence of quantifiable objectives. The intention is to be more effective and efficient with a smaller budget. This system of performance evaluation similarly has shortcomings. The ability to deliver the same output with less funds or personnel may endanger the continued

existence of the organisation. Those who allocate funds may perceive the institute to be less important because of the reduced need for resources.

Wilson (2005:22) claims that profit provides the "means, motive and measure" of the success of an organisation and gives managers a management control mechanism. This is a much more effective mechanism than that used in the public sector. Wilson (2005:21) further claims that managers in the private sector can make decisions based on their measure of success. The consequent performance in terms of profit increases or decreases is the measure that allows managers to adapt.

The private and public sectors have clearly defined differences. Each of these sectors requires a unique strategic management process. The strategic management process should be adapted to the specific needs of the public sector in order for it to be successful.

2.7 Conclusion

In order to move an organisation from one state to another, strategic management has been identified as a critical aspect to be applied by any organisation. Although strategic management may appear to be straightforward, the reality is that it can actually be quite complex.

Moreover, several references have been made to previous studies and research that have reviewed the application of strategic management to achieve the goals that these organisations have set for themselves. These have offered various explanations as to what constitutes effective strategic management development within a public sector context. The most common factors related to the mechanisms of development are -
- strategic planning;
- the relevance of strategic management in the public sector; and
- understanding the differences between public and private institutions.

The strategic management process will therefore be discussed in the next chapter.

CHAPTER 3

STRATEGIC MANAGEMENT PROCESS

3.1 Introduction

From the above discussion it is clear that, because of the distinctiveness of the public sector, changes are required to ensure that the strategic management process can work within government. According to Van der Walt and Knipe (2001:15) it can be illustrated as follows:

Figure 2: The strategic management process
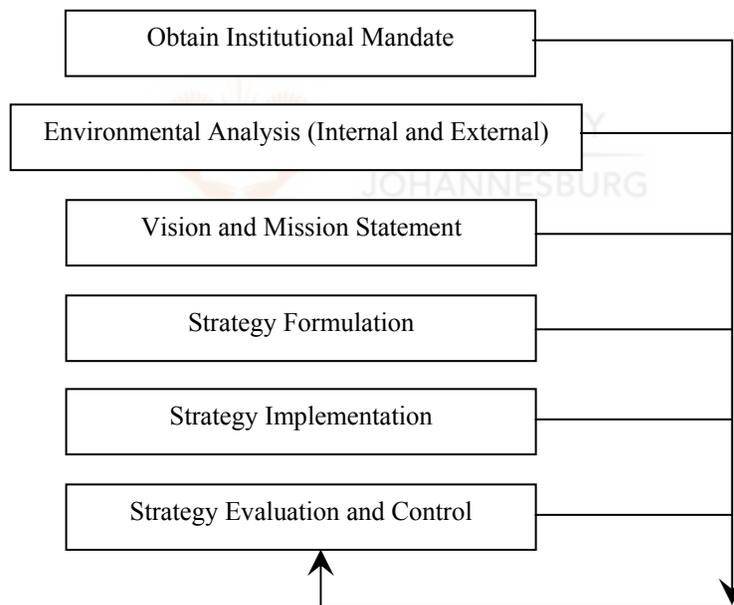
Source: Van der Walt and Knipe (2001:15).

According to Jreisat (1997) and Owen (2003), with the demise of apartheid and rapid globalization, public sector organisations faced the internal and external changes that challenged the traditional management approach. Owen (2003) states that transformation of the management of the public sector is not a minor change in management style, but a fundamental shift that touches the role of government and its relationship with the citizens. Leaders are beginning to realise that the survival of their institutions often depends on

understanding change drivers operating in their internal and external contexts, and adopting new methods for managing change (Jreisat, 1997). In this light, concepts like strategic management (Owen, 2003) and knowledge management according to Wiig, (2002:224) have been eagerly absorbed.

The very nature of public organisations reflects on the management and leadership of such organisations. Curry (1999:180) describes three broad sets of factors that have been identified in comparing public and private organisations, namely environmental factors, the nature of the organisation and the internal and external factors that govern such organisations. The environmental factors relate to the degree of market exposure that may include legal and political constraints. The nature of public service, according to Curry and Herbert (1998: 340), with respect to many activities, such as control and regulatory functions, has characteristics that are not exactly applicable to the activities of a business organisation. Curry and Herbert (1998:340) continue to say that in executing public policy, public organisations have a broad and significant impact on society. In addition, the nature of public service has an influence on the expectations of civil servants. Citizens demand that goods and services produced by the public sector maintain a certain quality and that they are not priced according to market mechanisms. The last factor relates to internal structures and processes. Public organisations have bigger multiplicity and diversity, their objectives are less certain and their goals are more likely to be in conflict. Furthermore, managers have less authority and less flexibility in decision-making than their peers in the private sector.

3.2 Clarity on Institutional Mandate

Political and administrative policies and regulations are increasingly imposed on public institutions. There are various formal and informal mandates that set requirements for particular public sector organisations. Halinger (1998:178) argues that in implementing a meaningful and successful strategic management process in the public sector, the organisation must be clear on what its mandate is. This is to ensure that the strategic change enhances its mandate rather than diluting it by causing it to change its focus. The various legislation, policies, guidelines and contracts that inform the organisation must be familiar to the personnel within the organisation.

Hearn and Rooney (2003:23) argue that clarity should be obtained about the role of the institution within the socio-political transformation process before the strategic management process can be initiated. They further argue that within the South African context, provincial governments promote a socio-political transformation process and they play a strategic role in this process. Any strategic management process that influences this transformation process may have consequences for a greater strategic transformation process. Intuitional mandates inform key decision-makers about the intentions of the organisation. This is critical for the success of public programmes that involve various stakeholders.

3.3 Environmental Scanning: Identification of Strategic Issues

According to Elenkov (1997:111) "environmental scanning is the process which seeks information about events and relationships in an organisation's internal and external environment, the knowledge of which would assist top management in its task of charting the company's future course of action". Saloner *et al*. (2001:65) argue that it constitutes the first link in the chain of perceptions and actions that permit an organisation to adapt to its environment.

Environmental scanning, according to Campbell (2000:75), requires a study and interpretation of social, political, ecological and technological events. This develops the ability to spot trends and circumstances that could develop into driving forces. Voronov and Yorks (2005:10) further explains that environmental scanning is about raising the consciousness of managers about potential developments that could have an important impact on industry conditions and could pose new opportunities or threats.

Elenkov (1997:112) states "that the environmental scanning researchers have indicated that organisations are operating in more complex environments than ever before". He continues to say that "the explosion of available information, and the increasing complexity and dynamism of the current environment force organisations which want to use information as a competitive tool to adopt more systematic and structured methods in order to perform their scanning task." It then becomes important for environmental scanning in the public sector to

be undertaken with the most valid and reliable understanding of the public sector's environment.

3.3.1 Organisational analysis (internal analysis)

Strategists in the public sector must observe mission goals, strategic policies and current and forecast information about their environments. They then have to determine current and future organisational strengths, weaknesses, opportunities and threats (SWOT). This must be done in order to ascertain where they are, where they wish to be and how they plan to get there, which is the essence of the strategy. SWOT must be known if the organisation wishes to be successful in carrying out its mandate.

Strengths, according to Narain *et al.* (2000:205), are positive internal abilities and situations of sufficient magnitude that allow the organisation to gain a strategic advantage in its efforts to achieve its objectives. At business level, the strengths are defined in terms of how the organisation can carry out its mandate. Other strengths can be defined as the manner in which the units within an organisation reinforce each other in pursuit of the objectives. Weaknesses are defined as the failure of an organisation to reach its objectives through an inability, a lack of some resource (skills, expertise or intellectual capital) or a situation that has arisen.. These resources can also be regarded as intangible assets or competitive capabilities in competitive areas. Narain *et al*. defines an internal weakness as "shortcomings in a company's complement of resources." Such shortcomings will make an organisation vulnerable in that it will not be able to fulfill its mandate.

Once the strengths and weaknesses are identified, they must be evaluated for their strategy-making implications. There may be some strengths and competencies that are strategically more important than others, because they add greater competitive advantage or differentiation. Similarly, some weaknesses can be catastrophic if not remedied immediately. Some weaknesses are inconsequential and can be offset by the organisation's strengths (Thomson, 2003:119).

Opportunities are factors and situations that will substantially assist or help to exceed the objectives of the organisation as defined by Thomson (2003:121). However, in evaluating

opportunities, managers need to guard against treating every opportunity as one that will further the organisation's objectives. Some organisations are simply more adept at taking advantage of certain opportunities than others. Strategists must pay particular attention when an organisation's resource base is specifically adapted to contend for a greater section of the market or, in the case of public sector organisations, to contend for a greater amount of resources.

Threats are defined as factors that may result or have already resulted in an organisation's failure to reach its objectives. Threats can include unions, communities and other stakeholders.

Such an analysis should always consider the organisation's fiduciary responsibility, as well as the bureaucratic controls that typify the organisation. Allowances must be made for the particularities of an organisation and as such there must be compensation in the identification of strengths and weaknesses. It must always be borne in mind that the community is the client and that all internal measures must be instituted to ensure that this is accepted as a culture.

3.3.2 Analysis of External Environment (external analysis)

In today's world which is often marked by uncertainty, it is of the utmost importance that an organisation stays abreast of external changes that may affect its future. However, it is quite difficult for any organisation to be knowledgeable about all occurrences that may affect an institution, and it often requires special expertise to realise how an event or trend might affect an institution in the future. An institution must tailor specific sources of external information, devise a method to collect the information and use the information effectively in the planning process and in building the future.

According to Costa (1995:5) such an analysis has a number of objectives:

- it does not predict the future, but rather anticipates any problems that may arise and prepares the organisation adequately to deal with them when they do arise;

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- it must institutionalise a pro-active approach to dealing with the external environment; and

- the managers' attention must now simultaneously focus on the external environment so that that they may create an organisation that reacts to its environment and similarly learns from it.

The elements that are most often associated with external scanning are political, environmental, social and technological factors, otherwise known as PEST. The manner in which information about any one of these areas is gathered can be tailored to an organisation's needs. They can be periodical, with an increasing or decreasing level of complexity. It should be noted that irregular periods are considered to promote a reactive nature of planning, while regular periods are considered to be more desirable. According to Costa (1995:5) attention is not only directed towards problem-solving, but also towards opportunity gathering.

The synthesis of this information can result in a situation that will necessitate a change in various areas of the public sector organisations. The resultant political conflict, divergence of aims and the legal restraints all need to be considered. Strategies in the public service must be considered with a view to achieving the objective of providing the highest quality of service with the most efficient utilisation of scarce resources. All strategic options mooted must be in harmony within the particular context and function within the public sector. Furthermore, the incremental nature of public sector decision-making must be taken into account.

3.4 Formulation of a Vision

According to Hodgkinson (2002:89) the strategic vision provides long-term direction. It creates a method of allowing the organisation to evolve into what it wishes to become and to "infuse the organisation with a sense of purposeful action." He furthermore argues that this should include management's ideas on what the organisation's long-term direction should be, the technological-product-customer focus it intends to follow and the future business scope, all of which will form part of a strategic vision.

This strategic vision articulates management's long-term aspirations for the organisation and its business. This will provide an overview of where the organisation is being led and give specifics regarding its future business plans. This strategic vision will indicate long-term business objectives and mould a business identity.

The development of such a vision must be done with a coherent internal logic; the manager needs to understand where an organisation is directing itself. According to Weymes (2004:338) the manager must similarly be able to understand the direction the external environment is heading in. This must include technological trajectories, and evolving societal needs and political needs. Assumptions will have to be made about some of these elementals, since they are not definitively described. Such forecasting will require foresight because the current situation offers little or no clues as to how future events will develop, and how the organisation's role will influence such events. Having a vision therefore contributes towards creating a good strategy and motivating the organisation to achieve it.

Buckler (1996:35) advocates that senior management must aggressively promote a vision in the world that is continuously changing. . In an organisation that changes its strategic direction, a clear way forward must be articulated in order to ensure that current personnel understand the vision and are able to carry it out. Furthermore, it is important that the organisation is able to attract and motivate staff in order to ensure the vision is implemented.

It should, however, be noted that having a vision is not necessarily sufficient or, in some cases, required. In environments where very slow changes take place over a long period of time, complex strategies are unnecessary. Conversely, however, an exceptional vision will not succeed without a supporting strategy. It should be clearly noted that a vision can only guide the formulation of a strategy - it cannot substitute for it.

3.5 Mission

According to Forbes and Seena (2006:409) a mission statement is simply the organisation's mission; i.e. its purpose, its reason for being. A mission statement must indicate what the

organisation's primary focus of interest is. It will further explain "the scope of its intended actions, the basic market needs it intends to satisfy, and it primary values."

Analoui and Karami (2002:13) refine this definition further by saying that a mission statement translates an organisation's vision translated into written form. It solidifies the managers' idea of the direction and purpose of the organisation. For many managers it is critical to motivate employees and to give them a sense of priorities.

A mission statement, they argue, should be a brief and concise statement of the exact goals and priorities. These goals in turn are objectives that are specific, related to specific time periods and stated in terms of facts. The focal intention of any organisation is to increase stakeholder value. The most important stakeholders are those who own the business and employees who work for the business. Clients or customers who purchase products and/or services from the business are also important to the organisation.

Bart and Hupfer (2004:92) explain that such a mission statement in the public sector would articulate the political and social reasons for its creation. This means there must be a need for such an organisation. In the public sector it is particularly important to ensure that stakeholders are involved. Given the political nature of such a statement and the creation of such an organisation, the choice of stakeholders is also particular important.

Van der Walt and Knipe (2001:21) mention that the mission must align with the intentions set out in the legislative authority's policy. They concede that while this is a limitation, it does help overcome any challenges that may become apparent at a later stage in the political environment. It should be borne in mind that the drafting of any mission statement can be subject to intense political scrutiny and differences. Therefore, aligning the mission statement with the policy set out by the legislative authority can similarly create a basis for a common understanding in instances where there is conflict. It should be clear to the reader that such a mission statement cannot be rigid and unchangeable, since it will require compromises.

3.6 Strategy Formulation

No organisation has infinite resources; hence strategists must decide which of a number of alternative strategies would benefit it the most. Strategy formulation commits the organisation to specific resources, technologies, support levels and/or products. The strategy formulation decision inevitably cascades through the organisation, having impacts and long-term effects on every facet of the organisation.

3.7 Strategy Implementation

According to Bryson (1999:xvi) strategy implementation requires the organisation to establish annual objectives, devise policies, motivate employees and allocate resources so that formulated strategies can be executed. The implementation includes developing a strategy-supportive culture, creating an effective organisational structure, preparing budgets, developing and utilising information systems and linking employee compensation to organisational performance.

Feurer *et al.* (1995:7) refer to this stage of the process as the actionable phase and also the most difficult. This process relies on the skills of a manager who has to motivate employees, which Beeby and Simpson (1995:21) refer to as "more art than science." According to Kreitner and Kinicki (2001:485) interpersonal skills are critical in ensuring successful strategic implementation. In effecting changes through strategy implementation, the challenge is to stimulate managers and employees throughout the organisation in working towards the stated objectives.

Sterling (2003:32) has highlighted a number of approaches that can greatly enhance the effectiveness of strategy implementation, as well as improve the likelihood of success of the underlying strategies. The first of these approaches is that the strategy-development process should directly consider external reactions (public and political) to a strategy, as well as the organisation's response to it. Therefore, a basic intelligence capability should be maintained as a matter of day-to-day strategic management.

Dobni *et al*. (2001:404) conclude that involving people directly in the strategy development process shows dividends. Sterling (2003:32) supports this statement when he says: "Getting people involved in the creation of the plan is the best thing to be done – they buy-in and feel responsible for it."

Peng and Litteljohn (2001:362) advocate consistent and persistent communication. It is noted that many strategies fail for a lack of buy-in, understanding, or poor communication. It is prudent to ensure that resources are dedicated to continuing, persistent communication. The key benefit of this approach is that people always have a sense of what is going on. They can get the word back to rest of the organization through the functional groups.

Okumus (2001:330) mentions that the action planning and budgeting component and that this is among the oldest management tools and yet they remain effective for ensuring that implementation occurs and that tactics align with strategy. Planning the initiatives that needs to be undertaken and budgeting for implementation and capability development is an important element of ensuring successful implementation. The outcomes plan must include discussions of how the budget and related action plans tie back to the strategy.

Gorelick and Tantawy–Monsou (2006:129) claim that effective implementation requires continual monitoring and accountability – monitoring of progress in implementing the plan, of the competitive environment, of customers' satisfaction and of the financial returns generated by the strategy. Monitoring is meaningless if it is not accompanied by accountability and change, when change is warranted.

The final requirement for ensuring the successful implementation of strategy is the alignment of information resources with the strategy. This is a critical process. Hallinger (1998:181) mentions that this includes applications of information technology as varied as enterprise systems, customer relationship management, Web-based technologies, and manufacturing technologies. Aligning information technology is a double-edged sword – organisations often cannot execute strategies in the new millennium without technology and they should not implement new technology without a strategy behind it.

3.8 Strategy Evaluation and Control

The final stage in strategic management is the strategy evaluation. Managers need to know when particular strategies are not working well, and strategy evaluation is the primary means of obtaining this information. All strategies are subject to future interventions to improve or strengthen the strategies because external and internal factors are continuously changing. According to David (1998:6) the three fundamental strategy evaluation activities are -

- reviewing external and internal factors that form a basis for current strategies;
- measuring performance; and
- taking corrective action.

The internal factors of strategy development can incorporate ways in which an organisation configures itself to achieve its strategic aims (Hutchinson, 2001:272). Barney (1991:99) states that in the business literature this particular aspect of competitiveness has gained increasing prominence with the resource-based view of the firm. In individual agencies the drive to become more "business-like" and to improve what Elcock (1991:65) calls the 3 e's, namely economy, efficiency and effectiveness, can shape how an individual organisation shapes its own strategies and those in the area in which it operates.

According to Hutchinson (2001:273), there are three types of strategy defined as a function of external factors. The first type is a "politically-driven" strategy that must be supportive of, in opposition to, or independent of central control. The second is the "unique authority" strategy that is a pro-active or reactive response to local circumstances. The final type is no strategy where an organisation is wholly reactive to external circumstances.

Measuring performance is perhaps the most powerful management tool for strategic deployment in both the public and private settings, according to Saad (2001:390). He continues to say that in the case of public organisations strategic performance arises from the fact that each service provided is quite distinct and the primary goal is not profit, it is mainly to provide the best possible service to the community and the public at large. In addition, each category has different interests and goals that are in conflict and each has many stakeholders. The expectations of these stakeholders can be different as well. It should also be noted that

the services provided result in both tangible and intangible outcomes, which may be hard to measure.

Current literature on studies about strategic evaluation systems can be divided into two main categories: descriptive and prescriptive studies. Descriptive studies involve research that emphasises either the "design" or the "implementation" aspects of strategic evaluation. In prescriptive studies analytical and normative models are used for evaluating strategic business performance.

Saad (2001:393) further states that, depending on the method used, the performance level achieved for a business unit depends on the criteria used in the evaluation process and the weight assigned to each criterion. He also shows that it is imperative to choose evaluation criteria that are appropriate and justifiable to all stakeholders, not only to one at the expense of the other. The criteria selected and their assigned weights, therefore have to be effective, efficient and equitable.

3.9 Conclusion

From the above discussion it becomes apparent that the distinctiveness of the public sector requires that the strategic management process is adapted in order for it to be effective. Various literature studies indicate how the process can best be adapted to make it effective within the public sector. The common elements identified are -

- clarity on institutional mandate;
- environmental scanning;
- formulation of a vision;
- mission;
- strategy formulation;
- strategy implementation; and
- strategy evaluation and control.

Leaders are beginning to realise that the survival of their institutions often depends on understanding change drivers operating in their internal and external contexts and adopting

new methods for managing change. In this light, concepts like strategic management and knowledge management have been eagerly absorbed.

CHAPTER 4

THE PROJECT MANAGEMENT PROCESS

4.1 Introduction

Government organisations do not generate an income from their operations by means of which to sustain their organisations. Therefore, such organisations have to rely on funding for their sustainability. It is in securing such funding, generally from national government, that certain conditions are extended. These usually involve explicit conditions that require the funds to be used in the most effective manner possible.

In order to ensure effective use of this funding, project management becomes important. It is the most workable tool for managing resources in order to generate the desired result. Frimpong (2000:1) claims that it is through project management that government organisations are able to manage work efficiently, adapt to change and respond to the dynamic of the environment in which it works.

4.2 Definition of Project Management

Project management can be defined as a system or a process by means of which the objectives from a stated project are received. Duncan (1996:6) defines project management as "the application of knowledge, skills, tools and techniques to project activities in order to meet or exceed stakeholders' expectations from a project. Meeting or exceeding stakeholder needs and expectations invariably involves balancing competing demands among 1) scope, time, cost and quality; 2) stakeholders with differing needs and expectations; 3) identified requirements (needs) and unidentified requirements (expectations)."

Frigenti and Comnionos (2002:38) identified the following nine acknowledged areas of knowledge in project management:

- **Project integration management** ensures that various elements or a project are properly coordinated. This includes proposal, planning and implementation.
- **Project scope management** ensures that only the work required for completion of the project is included. This covers proposal and planning.
- **Project time management** relates to the decisions and actions that will ensure that the project is completed within the allocated time.
- **Project cost management** is the process which ensures that the project is completed within the allocated budget. This encompasses resource planning, cost estimating, cost building and control.
- **Project quality management** ensures that the project meets the need that for which it was undertaken. It covers quality planning and control.
- **Project human resource management** ensures the most effective use of human resources. This involves organisational planning, staff acquisition and team development.
- **Project communication management** refers to the process that ensures timely and appropriate generation, collection, dissemination, storage and ultimate disposition of project information. This involves communication, planning, information distribution, performance reporting and administrative closure.
- **Project risk management** ensures proper identification, analysis and response to project risk. It includes risk identification, risk qualification, risk response development and risk response control.
- **Project procurement management** involves processes that cover the requirement for purchasing goods and services from outside the performing organisation. This includes procurement planning, solicitation planning, solicitation, source selection, contract administration and contract close-out.

The critical elements as indicated in Figure 3 are time, cost and quality. These elements interact continuously and it is important that a balance between them is established and maintained. If one element receives more attention than the others, it would mean that less attention is paid to the other two elements, which could cause imbalances in the project itself.

Figure 3: Critical elements of project management
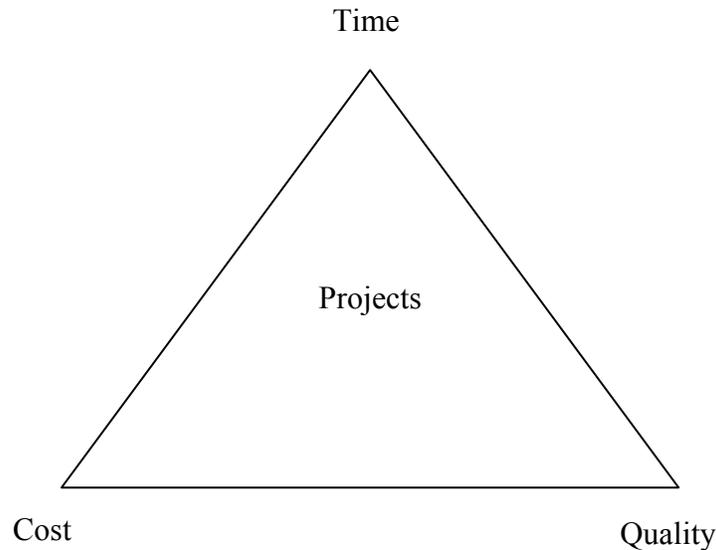
Source: Adapted from Govender (2004:3).

4.3   Organising For Project Management

In order for project management to interact seamlessly with the organisation, it is important to make organisational provision for it; incorporating it into the existing structure of the organisation. There must be a clear understanding of lines of authority and communication, and of the responsibilities of each project member.

4.3.1   Function or line structure

In the South African context there is an overwhelming occurrence of the existence of a function or line structure. This structure is hierarchical and there is a definite and clear distinction of responsibility between line and staff powers. The following is an example of a line structure employed in the Department of Environment:

Figure 4: Line Structure


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                    ┌─────────────────────────┐
                    │   Head of Department     │
                    └─────────────────────────┘
                                │
                                ▼
                    ┌─────────────────────────┐
                    │     Chief Director       │
                    └─────────────────────────┘
                                │
        ┌──────────────────────┼──────────────────────┐
        ▼                                              ▼
┌──────────────────┐                        ┌──────────────────────┐
│ Director: EPI&A  │◄──────────────────────►│ Director: Cleaner Tech.│
└──────────────────┘                        └──────────────────────┘
        │                      │                      │
        ▼                      ▼                      ▼
┌──────────────┐    ┌──────────────┐    ┌──────────────┐
│Deputy Director│◄──►│Deputy Director│◄──►│Deputy Director│
│  Region 1    │    │  Region 2    │    │  Region 3    │
└──────────────┘    └──────────────┘    └──────────────┘
```
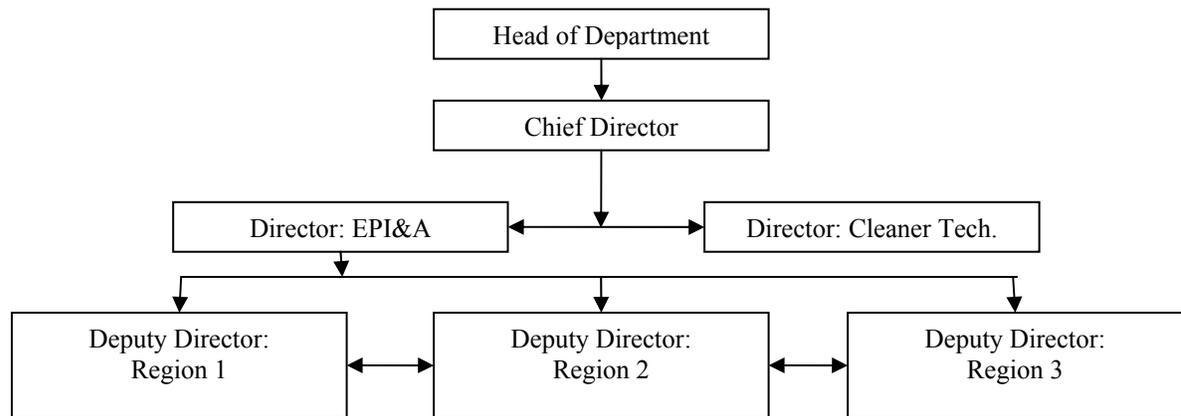
Source: Adapted from the Gauteng Department of Environment (2003).

Kezsbom and Edward (2001:147) identify both advantages and disadvantages of such structures. Some of these advantages are: accountability placed in the hands of a highly visible project manager, close coordination across project disciplines, maximum control over resources, commitment to project schedule, technical and cost goals, strong channels of communications, early identification of potential problems, rapid reaction times and a clearly defined focal point. The disadvantages are: lack of a company-wide orientation, increased organisational cost through duplication of function, limited technical communication and development across projects, and project personnel limited to a single project effort.

4.3.2 Determining priorities (time, quality and resources)

The dimensions of project management, if not carefully managed invariably compromise each other. If time is the determining factor, quality and cost may be compromised. It therefore becomes critical to prioritise within the project at the onset in order to have a well balanced project.

4.4   Project Development Cycle

One of the methods used to manage a project is the project-management life cycle. According to Van der Merwe (2000:79) adopting a four-stage life cycle is the most logical route since it breaks up the progress of activities for the progression of the project from start to finish. Van der Mewe furthermore indicates that such a process allows for a smooth transition from one process to the next. It allows for a great amount of flexibility in that it provides a break off point if any project team member needs to be changed at any stage.

Table 1: Life Cycle Stage

Proposal	Planning	Implementation	Close-out/Evaluation
- Feasibility - Conceptual - Germination	- Design - Startup - Growth	- Construction - Delivery - Maturity	- Close - End - Death

Source: Adapted from Van der Merwe (2000:79).

During the first two phases, the proposal phase and the planning phase, the need for the project is assessed and mechanisms are set in place to implement it. The implementation phase details the activities to be undertaken. During the close-out or the evaluation phase the project is assessed for success.

4.5   Identify the Need (Step 1) – Proposal Phase

The purpose of a project according to Van der Merwe (2000:76) is to deliver beneficial change. This is done by undertaking a unique scope of work. He explains that this change will have value if meets the time, cost and quality criteria. The reason for this is that a project involves risk. It is a risk that the change that is brought about can cost more than the potential damage caused by the initial situation. Van der Merwe (2000:77) concludes that "a project is therefore cost justified only if it provides a more effective solution to eliminate a problem than to live with it."

4.6   Choose the Project Team (Step 2) – Proposal Phase

The success of a project according to Frimpong (2000:198) depends largely on the individuals responsible for managing key aspects of the project. These individuals must have knowledge of the elements they will be dealing with. Care must be taken to ensure that the chosen individuals are able to contribute meaningfully. Such individuals are resources that must be secured. It is also important to ensure that individuals drawn into the team do not have agendas other than the improvement of the organisation. They are ultimately entrusted by the organisation to ensure that the project brings about changes within the organisation to improve on the status quo.

4.7   Define the Project (Step 3) – Proposal Phase

According to Webster (1999:242) in many instances projects are started without sufficient definition or direction, with project managers hoping that matters will be clarified as the project progresses. In many case this can result in a large amount of work being redone, which pushes the project beyond time and budget limits.

This is the process in which all members of the team are informed about the details of the project and what it entails. It is supposed to illuminate areas of uncertainty about the project. One of the methods of defining a project is to have a meeting involving the relevant stakeholders, namely the project team members, sponsors and any other role players that may be deemed necessary.

4.8   Plan the Project (Step 4) – Planning Phase

Frigenti (2002:186) indicates that planning the project progresses from the project definition phase where the project context (namely the "what", "why", "how" and "who") is considered in finer detail. Typically detailed investigations, designs analyses, specifications, cost and price estimates, contractual documentation and any other functional work required to fully develop the integrated project plan baseline and to specify the project deliverable are carried out in this phase.

- Careful consideration needs to be given to this aspect. Any incomplete or incorrect design, documentation, specifications and contract paperwork will have major

implications later on in the project. This phase of the project is concerned directly with planning and it is therefore important to detail these concepts in the context of the project.

- The cost analysis will indicate whether the proposed project can be implemented within the proposed budget. This can become an iterative exercise if the proposed project cannot be met by the proposed budget. Methods will have to be found to reduce costs, which could impact on time and resource estimates. At all times, the impact of any cost reduction on the parameters of time, quality, scope and other trade-offs needs to be considered.

4.9   Implementation Phase of the Project (Step 5)

At the end of the project-planning phase the final project plan is produced and agreed upon, and the go-ahead to proceed with implementing the project is given. During this phase and the following phase, namely the close-out phase, the planned project objectives must be achieved. This phase of the project involves monitoring, control and application of corrective measures as a response when required. This is done through continuous monitoring, reporting, control feedback and revision until the project is completed.

According to Czuchry (2003:40) a project must be implemented with the aim of achieving the projects objectives. This is done by:

- monitoring project progress and performance;
- comparing and evaluating against the planned objectives; and
- taking corrective action when required.

The following are the essential functions according to Frigenti (2002:212):

- **Monitoring,** which is the collection, recording and reporting of information concerning all aspects of project performance that the project manager, along with others, requires.
- **Evaluation** is where the quality and effectiveness of the project-management process is assessed.

- **Controlling** is when actual performance is brought in line with planned performance through the use of gathered information.

4.10 Close-Out Phase

The last major phase of a project life cycle is the close-out phase. A successful project is one that has met time, cost and performance expectations and satisfied the customer. Once close-out is ready to occur, certain primary steps need to be undertaken. These include planning the completion of the work, verification of deliverables, the review of performance criteria and the release of resources. The final contractual aspects need to be attended to, which includes the final accounting and completion of all documentation. A post implementation review should be undertaken and the final report written. After this is done, the project can be terminated and archived.

4.11 Conclusion

This chapter described how a project-management cycle for a project should ideally be undertaken as well as each component of the cycle. In the following chapter the research methodology will be discussed and an instrument will be developed by means of which the impact of the presence of the theory discussed in previous chapters will be investigated.

CHAPTER 5

RESEARCH DESIGN AND METHODOLOGY

5.1   Introduction

According to Leedy (1985:4) research is described as "… the manner in which we attempt to solve problems in a systematic effort to push back the frontiers of human ignorance or to confirm the validity of solutions to problems others have presumably solved."

This chapter will describe how the data was obtained, presented and interpreted with the ultimate objective of providing answers to the posed questions.

5.2   Primary research

Questionnaires were sent to 102 potential respondents within the Gauteng Department of Environment. A high number of responses were recorded, which provided valuable and much needed information.

5.3   Secondary research

Initially a comprehensive library search was conducted, which identified the most relevant empirical research studies from reputed Journals and Articles. The Internet provided some information and was used largely as introductory/ background reading.

5.4   Research methods

According to Emory and Cooper (1991) a questionnaire is defined as a "pre-formulated, written set of questions to which respondents record their answers, usually writing rather closely defined alternatives."

This research is a cross-sectional study and a field questionnaire was used to collect the data. . A questionnaire is probably the most common and inexpensive instrument that can be used to study the incidence of project management during a strategic change process and to gauge any improvements. The questionnaire was designed to obtain data ranging from subjective information about employees' feelings to organisational impact, as well as objective information such as implementation of project-management criteria during strategic change.

The questionnaire as a data collection method was chosen for the following reasons:

- The researcher knows precisely what information is needed.
- The associated costs and time involved are low in comparison to, for example, an interview method (Emory and Cooper, 1991).
- It offers the respondents anonymity and the convenience of answering the questionnaire when it best suits them (Emory and Cooper, 1991)

The following are disadvantages of using a questionnaire (Emory and Cooper, 1991):

- A poor response rate is associated with a questionnaire. One needs to achieve a minimum response of 30% for the data to be satisfactory.
- The nature of the questions one may ask is limited in that they have to be self-explanatory and unambiguous.
- One does not have the ability to expand on any given answer.
- The quality and volume of the information received is greatly determined by the willingness of the respondent to co-operate.

A pilot study (discussed in section 5.10) was conducted to overcome the issue of ambiguous questions by analysing irregularities obtained in responses. The potentially poor response rate was overcome by including an explanation of the study outlining its purpose to encourage respondents to participate.

5.5   Questionnaire development

The questionnaire was designed to enable the researcher to obtain data fairly easily from the questions. This primary data was obtained in such a manner that one could analyse it further through statistical analysis.

5.6   Types of questions

The types of questions used to properly meet the objectives of the questionnaire are the following:

- Checklist – offers a list of items, the respondents are asked to check the items that best apply to the situation.
- Closed-end questions – limited answers.
- Two-way questions – have alternative responses: yes/no, disagree/agree or other possibilities.
- Multiple choice questions –several choices from which the respondents choose the most applicable.
- Ranking scales – requires the respondents to rank a list of items.

5.7   Principles of wording

This section focuses on three aspects, namely content, wording and sequence of questions.

5.7.1   Content

The first survey questionnaire had questions focused on the proposed key factors of project management and strategic management as discussed in chapters two, three and four. The second questionnaire had questions focused on the key aspects of change management. The purpose of these questionnaires was to highlight the respondents' views on such factors in a reliable and effective way.

5.7.2 Wording

With the exception of the section relating to biographical data, clear, concise statements were made and respondents were asked to answer from a limited number of alternatives in the survey targeted at the operation staff. The purpose of the survey was to highlight information on change management and the benefits of change. The questions were predominantly closed-ended, but allowed the respondents to add or elaborate on the answers targeting the supervisory level, senior and middle management, of the organisation. This was to gain information on the process of project management within a strategic change process. Some questions were of a general nature, while others required respondents to be specific. At no point, however, were questions formulated in such a manner that they had the potential to violate the respondents' anonymity.

5.7.3 Sequence

The aim of sequencing is to keep the respondent interested and to ensure that questions are completed correctly. The questions targeted at the organisation's supervisory level, senior and middle management, were subdivided into sections. This aided the respondents in completing the questions in that it reinforced how they were to be answered despite looking different from previous questions. The "funnel approach", as suggested by Emory and Cooper (1991), was used. This refers to the approach of moving from general questions to more specific questions to help focus the respondents' frame of reference and obtain further information.

In line with this principle, Part I and II of the questionnaire, addressed to senior and middle management focused the respondents' attention on the aspects of project management and strategic change. Part III was more general and biographical.

The second questionnaire, targeted at the operational staff, focused on the possible factors of satisfaction or dissatisfaction relating to their respective experiences within the organisation.

5.8   Choice of the measurement tool

Emory and Cooper (1991:179) state: "There are three major considerations we should use in evaluating a measurement tool. They are validity, reliability and practicality."

According to Emory and Cooper (1991) the 5-point Likert Scale fits the criterion mentioned above and is relatively easy to develop in comparison to other scales. The Likert technique presents a set of attitude statements. Subjects are asked to express agreement or disagreement of a five-point scale. Each degree of agreement is given a numerical value from one to five. A total numerical value can therefore be calculated from all the responses.

5.9   General appearance of the questionnaire

The appearance of the questionnaire is important in that it is the first interaction with the subject. The questionnaire was therefore designed to look neat, professional and user friendly.

The questions also need to be organised logically and instructions should be given clearly. The questions were set out in a manner as to avoid any form of visual bias in responses.

An introductory explanation accompanied the questionnaire explaining to the respondents the purpose and aim of the study. The letter also aimed at encouraging respondents to reply and thanked them in advance for their responses.

5.10   Pre–test and validation of the questionnaire

A group of seven individuals working within the Department of Environment was used to pilot the study. The aim of this exercise was to determine whether the questionnaire was easily understood and to reveal any problems in its completion. The pilot group was encouraged to give the researcher feedback in this regard.

In addition, Statkon, a unit within the Statistics Department of the University of Johannesburg, was engaged to further review the questionnaires prior to their release for any inconsistencies and to ensure that they were meaningful in order to answer the questions raised in Chapter one.

5.11 Treatment of data

In this study descriptive statistics will be used to interpret the raw data. This form of statistical analysis is deemed appropriate as one is essentially trying to establish how individuals view certain factors in relation to project management on the one hand, and improvements to the organisation on the other.

Descriptive statistics is the most basic form of statistics. One important use of statistics is to summarise a collection of data in a clear and understandable way.

Before statistically analysing the data, the questionnaire will be collected and the data coded.

Each questionnaire will be numbered and entered into an Excel spreadsheet. The frequency of responses will be tallied to arrive at a cumulative percentage.

5.12 Conclusion

Now that the rationale behind the questionnaire design and the treatment of the subsequent data has been discussed, the following chapter will focus on the presentation and interpretation of the responses to the respective questions. This data will allow one to determine whether or not the questions have indeed been addressed.

CHAPTER 6

DISCUSSION OF EMPIRICAL STUDY FINDINGS

6.1 Introduction

This chapter will essentially focus on the presentation and interpretation of the primary data obtained from the questionnaires.

Of the 24 questionnaires specifically referring to project management, a total of 20 completed questionnaires were returned. This equates to an 83% response rate. The second questionnaire which was aimed at the operational staff had 80 copies distributed to the respondents. Of these 80 respondents only 69 individuals responded, which gave an 86% response rate. Forty five of these respondents were part of the organisation, while 24 no longer worked there. It was established that every one of the 24 people that were no longer part of the organisation were part of it until after the change was implemented.

The aim of the data interpretation is ultimately to answer the following questions raised in Chapter 1, section 3:

- Did project management facilitate strategic change?
- Did the operational members in the organisation benefit from the changes brought about?

Section A of Appendix A attempts to gain this information to answer the first of the above questions, while Section B of Appendix A attempts to answer the second question.

The presentation and interpretation of the data will therefore be discussed in a format relating to the questions and data. The data obtained from each section of each questionnaire will be discussed separately, as well in terms of the total number of respondents.

6.2 Questionnaire 1: Part 1 – Impact of Change Process on Performance

This part of the questionnaire considered the actual change process. The discussion in this section will refer back to the questions as detailed in Table 2.

Table 2: Questionnaire 1 - Impact of Change Process on Performance

Part 1 – Impact of Change Process on Performance		Disagree	Neutral	Agree	Total
Part 1: Question 1 – The change process was completed on schedule	Count	3	1	16	20
	%	15.0%	5.0%	80.0%	100.0%
Part 1: Question 2 – The change process exceeded the budget allocated to it.	Count	15	5		20
	%	75.0%	25.0%		100.0%
Part 1: Question 3 – The final product of this change process is what was planned for.	Count		6	14	20
	%		30.0%	70.0%	100.0%
Part 1: Question 4 – The final products lead to improved decision making for the end user.	Count	1	7	12	20
	%	5.0%	35.0%	60.0%	100.0%
Part 1: Question 5 – The final product has a positive impact on those who use it	Count		11	9	20
	%		55.0%	45.0%	100.0%
Part 1: Question 6 – The final product has lead to streamlining the decision making process.	Count	3	9	8	20
	%	15.0%	45.0%	40.0%	100.0%
Part 1: Question 7 – The final product has lead to improved productivity.	Count	1	5	14	20
	%	5.0%	25.0%	70.0%	100.0%
Part 1: Question 8 – The change process was the best solution for the problem at hand.	Count	2	15	3	20
	%	10.0%	75.0%	15.0%	100.0%
Part 1: Question 9 – The final product is used by its intended users.	Count		2	18	20
	%		10.0%	90.0%	100.0%
Part 1: Question 10 – The change process was a success.	Count	1	6	13	20
	%	5.0%	30.0%	65.0%	100.0%
Part 1: Question 11 – The change process was completed below the budget allocated to it.	Count		14	6	20
	%		70.0%	30.0%	100.0%

Table 2 indicates that for six of the eleven questions (viz. questions 1, 3, 4, 7, 9 and 10) large percentages of respondents were overwhelmingly in agreement with the questions raised. Two of

the eleven questions (viz. questions 5, 6 and 8) indicated a neutral status, while only one question viz. question 2, indicated an overwhelmingly negative response.

It is clear from table 2 that 80% of the responses to question 1 indicated that the change process was completed on schedule. Seventy five percent of the respondents indicated that the change-process project (question 2) did not exceed its budget and 70% agreed that the process in question 3 ended as planned.

In terms of improving decision-making, 60% of the respondents agreed that this process led to improved decision-making for the end-user (question 4). Thirty five percent of the respondents were undecided about this matter. There was indecision about whether the final product, in this case the change process indicated by question 5, had a positive impact on those who used it. Only 45% agreed, while 55% were undecided. Question 6 similarly had 45% of the respondents undecided about whether the product had in fact led to streamlined decision-making.

Question 8 had an overwhelmingly positive response - 70% of the respondents indicated that the change process did in fact improve productivity. Similarly, 90% responded positively to question 9, i.e. that the final product of the change process was in fact used by its intended users. 65% of the respondents indicated that the change process (question 10) was a success.

The data shows that the impact of the change process on performance was positive. The project was completed on time and within the budget. The outcomes of the change process were in fact what were planned for, namely improved decision-making for the end user and a higher level of productivity. It is interesting to note, though, that in spite of the higher productivity and better decision-making for the end user, there is indecision about whether the process did actually streamline decision-making and had a positive impact on the users.

With regard to the closed-ended question that requested reasons for the need for change, there was unanimous agreement that there was a need for change. These reasons include, amongst others, the following:
- better utilisation of the available skills;
- position the Department to handle the increasing workload better;
- set boundaries for allocation of work;

- use change to address the build-up in the backlog that had been occurring since 2001; and
- build capacity within the environmental field.

In addition to this, there was a general consensus that the change was a success. It was indicated that the slight dip in productivity picked up considerably and that the backlog was eliminated. This was largely due to the better allocation and use of the skills within the Department.

6.3 Questionnaire 1: Part 2A – Change-Management Process Presence Index: Change-Management Process Standards and Methods

Part 2 of the questionnaire investigated the use of project management techniques during the change-management process, in this instance management standards and methods. The discussion in this section will refer back to the questions described in Table 3 below.

Question 1 in Table 3 below indicates that 80% of the respondents indicated that assistance was during the proposal stage of the change process. This is an indication that the proposal stage of the project was dealt with effectively. Ninety percent of the respondents agreed overwhelmingly with the statement in question 2 that there were methods in place for implementing the change. In terms of having reviewed and understood the risk assessment, i.e. the risks the project faced, 75% of the respondents indicated that they felt comfortable that this was achieved. Only 60% of the respondents concurred that an impact analysis of the change was considered. Eighty five percent of the respondents indicated that progress reports were done, while 60% indicated that status reports were not done. There was no indication of the quality of the progress that had occurred.

With regard to time sheets, 75% indicated that no time sheets were required, 20% indicated that they didn't have any knowledge of time sheets, and 5% did not answer the question. The responses on quality policies and quality measures mirrored each other. Seventy five percent indicated that there were no quality policies or measures, while 20% had no knowledge of either of these components and 5% did not answer the question.

Table 3: Questionnaire 1 – Change-Management Presence Index

Were the following provided or used during the change process?		Yes	No	Do not know	Cannot remember	No Response	Total
Part 2A: Question 1 – Assistance during the proposal stage of the change process. (This includes assigning managers, selecting a writing team, establishment of development schedules and securing management approval for the change)	**Count**	16	1	3			20
	%	80.0%	5.0%	15.0%			100.0%
Part 2A: Question 2 – Methods for implementing changes during the implementation phase. (This includes how it was initiated, how it was to be routed and what method was used for approval)	**Count**	18		1		1	20
	%	90.0%		5.0%		5.0%	100.0%
Part 2A: Question 3 – Risk assessment.	**Count**	15		2	2	1	20
	%	75.0%		10.0%	10.0%	5.0%	100.0%
Part 2A: Question 4 - An impact analysis.	**Count**	3	12	4		1	20
	%	15.0%	60.0%	20.0%		5.0%	100.0%
Part 2A: Question 5 - Progress reports.	**Count**	17		2		1	20
	%	85.0%		10.0%		5.0%	100.0%
Part 2A: Question 6 - Status reports.	**Count**	6	12	1		1	20
	%	30.0%	60.0%	5.0%		5.0%	100.0%
Part 2A: Question 7 - Time sheets.	**Count**		15	4		1	20
	%		75.0%	20.0%		5.0%	100.0%
Part 2A: Question 8 - Quality policies.	**Count**	2	3	14		1	20
	%	10.0%	15.0%	70.0%		5.0%	100.0%
Part 2A: Question 9 - Quality measures.	**Count**	2	3	14		1	20
	%	10.0%	15.0%	70.0%		5.0%	100.0%

With regard to the closed-ended question that requested any additional thoughts on the use of standards and methods in an efficient manner, there was only some consideration of this process. One of the shortcomings, according to the sample group, was that there was an inability to properly access the skills of the operational staff to facilitate and make the change a success.

6.4 Questionnaire 1: Part 2B - Change-Management Process Presence Index: Change-Management Process: Historical Archives

This part of the questionnaire considered how or if indeed, historical archives were used during the change process. The discussion in this section will refer to the questions detailed in table 4 below.

Table 4: Questionnaire 1 – Change-Management Process – Historical Archives

Which of the following was available during this change process? Mark all applicable.		Unmarked	Marked	Total
Part 2b: Question 1 – Histories of prior change processes.	Count	2	18	20
	%	10.0%	90.0%	100.0%
Part 2B: Question 2 – Changes made to prior change processes	Count	3	17	20
	%	15.0%	85.0%	100.0%
Part 2B: Question 3 – Risk management documents	Count	19	1	20
	%	95.0%	5.0%	100.0%
Part 2B: Question 4 – Quality Management Documents	Count	20		20
	%	100.0%		100.0%

According to Question 1 in Table 4 above 90% of the respondents indicated that histories of prior change were available, while 85% indicated that changes were made to previous change processes. However, 95% of the respondents indicated that no risk documents from past change processes were available and 100% indicated that no quality documentation from previous change projects were made available to the team.

The open-ended question solicited opinions on whether the institutional memory was able to support this process. Again there was consensus that there was sufficient institutional memory to ensure a successful project management process in this regard. The only complaint was that there was not sufficient access to the individuals who had this knowledge.

6.5 Questionnaire 1: Part 2C - Change-Management Process Presence Index: Change-Management Process: Administrative Support

This question concerned itself with the availability of administrative support during the life of the change-management process.

According to question Part 2C in Table 5 below, 70% of the respondents indicated that administrative support was available during the life of this project. The open-ended question further confirmed that the administrative support was able to add value to the process.

Table 5: Questionnaire 1 - Administrative Support

Do you agree with the following statement?		Disagree	Neutral	Agree	Total
Part 2C – There was appropriate change process administrative support during the life of the change process.	Count	3	3	14	20
	%	15.0%	15.0%	70.0%	100.0%

6.6 Questionnaire 1: Part 2D - Change-Management Process Presence Index: Change-Management Process: Human Resources

This question dealt with the human resources component. It specifically referred to the project manager and whether an appropriate individual was identified; and whether the skills required managing such a change-management process was identified. The discussion in this section will refer to the questions detailed in table 6 below.

Table 6: Questionnaire 1 - Human Resources

Do you agree with the following statement?		Disagree	Neutral	Agree	No Response	Total
Part 2D: Question 1 – An appropriate project leader was identified.	Count	2		17	1	20
	%	10.0%		85.0%	5.0%	100.0%
Part 2D: Question 2 – The skills required to manage the project were identified.	Count	3	11	5	1	20
	%	15.0%	55.0%	25.0%	5.0%	100.0%

In question 1 Part 2D in table 6 above, the respondents agreed that an appropriate project manager was identified. However, 55% was neutral with regard to the question whether appropriate skills were identified to manage the project. Only 25% of the respondents agreed that the skills required were identified, all of which is indicated in Table 6 above as indicated by question 2 Part 2D. In addition to this, the responses to the open-ended question suggested that the Department did not allow for skills improvement during this process. The project management team did not have enough access to the skills that existed. It was also indicated that the operational staff had skills that were required, but not used, by the organisation.

6.7 Questionnaire 1: Part 2E - Change-Management Process Presence Index: Change-Management Process: Training

This question tried to ascertain whether the people involved in the project were trained to enable them to manage the change-management process.

Table 7: Questionnaire 1 – Training

To what extent do you agree with the following occur?		Disagree	Neutral	Agree	Total
Part 2E – Training was provided in order to manage the strategic change.	Count	4	15	1	20
	%	20.0%	75.0%	5.0%	100.0%

Question Part 2E as described in Table 7 above indicates that 75% of the respondents did not know whether training was provided or not. 20% disagreed; while only 5% of the respondents agreed that training was provided in order to assist individuals involved in the project to manage or better manage the project. According to the sample group as indicated by the open-ended question, training did not completely address the needs of individuals in the Department. It was suggested that in any future change process more knowledge should be made available to the organisation.

6.8 Questionnaire 1: Part 2F - Change-Management Process Presence Index: Change-Management Process: Instruction and Mentoring

This question referred to the mentoring and instruction that the change-process managers received in order to successfully manage the change-management process.

Question 2F as described in table 8 below indicates 70% of the total respondents agreed that there was sufficient mentoring and instruction to ensure proper management of a complex process, while 15% disagreed, 10% were neutral and 5% did not respond to the question. All of this is detailed in Table 8. This assessment was further amplified by the open-ended questions that indicated that mentoring was a key factor in helping people adapt to the changes that had transpired.

Table 8: Questionnaire 1 - Instruction and Mentoring

To what extent do you agree with the following?		Disagree	Neutral	Agree	No Response	Total
Part 2F – **The change process manager received adequate mentoring on necessary measures to successfully manage complex change processes.**	**Count**	3	2	14	1	20
	%	15.0%	10.0%	70.0%	5.0%	100.0%

6.9 Questionnaire 1: Part 3 - Change-Management Process Presence Index Change: Demographic Information

Demographic variables refer to "socially relevant variables such as age, sex, socio-economic status (i.e. income, education and occupation), race and religion" (Lewin, 1979:201).

Table 9 below shows that the department has a 55% female population and a 45% male population. Seventy five percent of these individuals have more than 4 years experience, but less than 10 years experience. Fifteen percentage of this population has less than 4 years experience. Ninety five percent of the respondents are assistant directors in the organisation and only 1 is a deputy director. The average rand value handled by the individuals ranges between R100 000,00 and R1 000 000,00 according to 95% of the respondents.

Table 9: Questionnaire 1 - Part Three

Part 3: Question 1 - **What is your gender?**				
		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Female	11	55.0	55.0	55.0
	Male	9	45.0	45.0	100.0
	Total	20	100.0	100.0	

Part 3: Question 2 – How many years of experience do you have with respect to your position within the Department of Environment?				
		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Less than two years	3	15.0	15.0	15.0
	At least two years but less than four years	2	10.0	10.0	25.0
	At least four years but less than 10 years	15	75.0	75.0	100.0
	Total	20	100.0	100.0	

. Part 3: Question 3 - What **is your current position?**				
		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Deputy Director	1	5.0	5.0	5.0
	Assistant Director	19	95.0	95.0	100.0
	Total	20	100.0	100.0	

. Part 3: Question 4 - **What is the average rand value of the change processes you currently manage?**				
		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	< R 100 000	1	5.0	5.3	5.3
	R100 000 - R1 000 000	18	90.0	94.7	100.0
	Total	19	95.0	100.0	
Missing	System	1	5.0		
Total		20	100.0		

Part 3: Question 5 - **What is your current position with respect to organizational level?**					
		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	**Middle Management**	3	15.0	15.0	15.0
	Supervisory	17	85.0	85.0	100.0
	Total	20	100.0	100.0	

6.10 Questionnaire 2 – Survey Targeted at the Operational Staff

This section deals with the survey whose sample group comprised of the operational staff. The discussion in this chapter will reference the questions and results detailed in table 10. Questionnaire 2 (as indicated in table 9 above) had a total of 35 questions that were answered by 69 respondents. Forty five of these respondents worked in the Department, while 24 of the respondents had recently resigned from the organisation. The discussion below will reference table 10 for the detailed questions and the results of the questionnaire results.

Question 1 as described in Table 10 below indicated that 73% of the respondents believed that the Department had done a good job communicating information about the change that would affect the employees. Fifty six percent of the respondents indicated that there was a defined corporate "culture", while 40.6% remained neutral with regard to question 2 (as described in Table 10 below). With regard to question 3, 73% of the sample group indicated that there were distinctive corporate values within the Department.

Responses to question 4 (as described in Table 10) indicated that 43.5% were neutral as to whether the Department was open to new ideas, while 38.4% disagreed. The respondents agreed that their responsibilities were clearly defined. This is reflected by the fact that 81.2% agreed with the statement in question 5. Similarly, 84.2% were quite clear about what the Department required of them as articulated in question 6.

When questioned about the training received in the Department to do their jobs (question 7) the statistics indicated that 40.6% were neutral on the subject. Similarly, 40.6% of the respondents indicated in question 8 that they were neutral as to whether the Department offered them opportunities to improve their skills.

Seventy one percent of the respondents indicated in question 9 that the Department provided them with the resources to do their jobs well. Of the sample group 50.7%, were neutral as to whether the Department supported them in their efforts (question 10). Responses to question 11 showed that 53.6% believed that the Department did not give them recognition for their efforts.

When the respondents were questioned as to whether the managers had a clear sense of direction, 34.8% were neutral, 21.7% disagreed and 27.7% strongly disagreed with the statement. When questioned about whether the Department made decisions timeously, 60.9% responded negatively to question 13. Similarly, 56.5% were of the view that they did not get to participate in how the work gets done (question 14). Of those who where asked whether they got the information to do their jobs (question 15) 68.1% replied in the affirmative.

On asked whether the Department allowed them to show initiative (question 16) 50.7% of the respondents were neutral. Question 17 indicated that 34.8% of the sample group felt that the Department gave them enough latitude to do their jobs, while 34.8% of the sample group disagreed with this statement. Question 18 indicated that 49.3% of the population was neutral as to whether the Department allowed them the freedom to improve the way the work is done, while 33.7% disagreed with this statement.

Question 19 asked whether they were held accountable for the work that was done and 53.6% of the sample group answered positively. When asked if their jobs in the Department were satisfying (question 20), 37.7% agreed, while 31.9% disagreed. Of the respondents polled 53.6% were neutral to question 21 where they were asked if they had input into the decisions that affected them. Question 22 had a 75.4% positive response from the respondents when asked if they had the materials and equipment to do their jobs. Of the respondents who answered question 23, 42% agreed that they understood their job responsibilities, while 36.2% were neutral.

Of the sample group 78.3% indicated that they did in fact participate in the performance management system (question 24). It was indicated that 47.8% of the respondents did not understand how their jobs contributed to the success of the Department, while 37.7% of the sample group was neutral with regard to this issue question 25).

Table 10: Questionnaire 2

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No Response	Total
Question 1 - The Department does a good job communicating information about changes or that may affect employees	Count	4	3	9	51	2		69
	%	5.8%	4.3%	13.0%	73.9%	2.9%		100.0%
Question 2 - The Department has a defined corporate "culture"	Count		1	28	39	1		69
	%		1.4%	40.6%	56.5%	1.4%		100.0%
Question 3 - The Department has distinctive corporate values	Count		1	17	51			69
	%		1.4%	24.6%	73.9%			100.0%
Question 4 - The Department is open to new ideas	Count	4	24	30	10	1		69
	%	5.8%	34.8%	43.5%	14.5%	1.4%		100.0%
Question 5 - My job responsibilities are clearly defined	Count		1	8	56	4		69
	%		1.4%	11.6%	81.2%	5.8%		100.0%
Question 6 - I know what is expected of me	Count		1	4	58	6		69
	%		1.4%	5.8%	84.1%	8.7%		100.0%
Question 7 - The training I receive at the Department equipment me to do my job	Count	8	12	28	13	8		69
	%	11.6%	17.4%	40.6%	18.8%	11.6%		100.0%
Question 8 - The Department offers opportunities to improve my skills	Count	12	17	28	4	8		69
	%	17.4%	24.6%	40.6%	5.8%	11.6%		100.0%
Question 9 - The Department provides me with the resources to do my job well	Count		1	3	49	16		69
	%		1.4%	4.3%	71.0%	23.2%		100.0%
Question 10 - The Department supports my efforts.	Count	4	16	35	12	2		69
	%	5.8%	23.2%	50.7%	17.4%	2.9%		100.0%
Question 11 - At the Department I am given recognition for my efforts	Count	10	37	14	8			69
	%	14.5%	53.6%	20.3%	11.6%			100.0%
Question 12 - At the Department, managers have a clear sense of direction	Count	19	15	24	11			69
	%	27.5%	21.7%	34.8%	15.9%			100.0%
Question 13 - Decisions in my Department are made timeously	Count	42	20	4	2		1	69
	%	60.9%	29.0%	5.8%	2.9%		1.4%	100.0%
Question 14 - Employees in my Department participate in deciding how the work gets down	Count	15	39	11	4			69
	%	21.7%	56.5%	15.9%	5.8%			100.0%
Question 15 - I am able to get the information I need to do my job	Count		1	12	47	9		69
	%		1.4%	17.4%	68.1%	13.0%		100.0%
Question 16 - I am encouraged to show initiative	Count	4	17	35	10	3		69
	%	5.8%	24.6%	50.7%	14.5%	4.3%		100.0%
Question 17 - I am given sufficient latitude to perform my duties	Count	3	24	10	24	7	1	69
	%	4.3%	34.8%	14.5%	34.8%	10.1%	1.4%	100.0%

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No Response	Total
Question 18 - I am given the freedom to improve the way work gets done	Count	5	23	34	6	1		69
	%	7.2%	33.3%	49.3%	8.7%	1.4%		100.0%
Question 19 - I am held accountable for the work that I do	Count	1	23	7	37	1		69
	%	1.4%	33.3%	10.1%	53.6%	1.4%		100.0%
Question 20 - My job is satisfying	Count	2	22	12	26	7		69
	%	2.9%	31.9%	17.4%	37.7%	10.1%		100.0%
Question 21 - I have input into decisions that affect me	Count	5	20	37	4	3		69
	%	7.2%	29.0%	53.6%	5.8%	4.3%		100.0%
Question 22 - I have the materials and equipment to do my job	Count			1	52	16		69
	%			1.4%	75.4%	23.2%		100.0%
Question 23 - I understand my job responsibilities	Count		1	25	29	14		69
	%		1.4%	36.2%	42.0%	20.3%		100.0%
Question 24 - I participate in the performance management system	Count		11	3	54	1		69
	%		15.9%	4.3%	78.3%	1.4%		100.0%
Question 25 - My job contributes to the success of the Department	Count	2	33	26	6	2		69
	%	2.9%	47.8%	37.7%	8.7%	2.9%		100.0%
Question 26 - I understand how my performance is evaluated	Count		8	7	54			69
	%		11.6%	10.1%	78.3%			100.0%
Question 27 - I understand the measures used to evaluate my performance	Count		7	9	52	1		69
	%		10.1%	13.0%	75.4%	1.4%		100.0%
Question 28 - My Department looks for ways to improve processes	Count	1	9	19	19	4	17	69
	%	1.4%	13.0%	27.5%	27.5%	5.8%	24.6%	100.0%
Question 29 - My Department looks for ways to improve productivity	Count	1	7	13	26	5	17	69
	%	1.4%	10.1%	18.8%	37.7%	7.2%	24.6%	100.0%
Question 30 - My supervisor sets performance goals for my job	Count	30	36	3				69
	%	43.5%	52.2%	4.3%				100.0%
Question 31 - My work allows me to be productive	Count	17	6	14	21	6	5	69
	%	24.6%	8.7%	20.3%	30.4%	8.7%	7.2%	100.0%
Question 32 - My work is challenging	Count	2	16	4	41	6		69
	%	2.9%	23.2%	5.8%	59.4%	8.7%		100.0%
Question 33 - My work is interesting	Count	2	10	4	44	9		69
	%	2.9%	14.5%	5.8%	63.8%	13.0%		100.0%
Question 34 - I can cope with my workload	Count		1	2	49	17		69
	%		1.4%	2.9%	71.0%	24.6%		100.0%
Question 35 - I am satisfied at the Department	Count	15	17	4	25	8		69
	%	21.7%	24.6%	5.8%	36.2%	11.6%		100.0%

An overwhelming 78.3% of the respondents indicated in question 26 that they understood how their performance was evaluated. In question 27 the respondents indicated that they understood the measures used to evaluate their performance (75.4%). Question 28 asked whether the Department looked for ways to improve processes. Of the respondents who replied, only 27.5% agreed and 27.5% were neutral. When asked whether the Department looked for ways to improve productivity (question 29), only 37.7% of the sample group agreed. 52.2% of the respondents disagreed when asked whether their manager set performance goals (question 30).

Question 31 made the statement that the work done by the respondents allowed them to be productive and 30.4% strongly agreed with this statement, while 24.6% strongly disagreed. Of the respondents who answered question 32, 59.4% agreed that their jobs were challenging. Of those respondents who answered question 33, 63.8% indicated that their jobs were interesting. Responses to question 34 indicated that 71% of the respondents could cope with their workload, while 36% of the sample group responded to question 35 indicating that they were satisfied in the Department. 24.6% disagreed with this statement.

6.11 Validity of Results

As indicated in Appendices C and D, the reliability of the data is fairly high. However, a number of incongruities should be pointed out. In analysing the data, it was a found that approximately 25% of the questionnaires forwarded by the respondents were duplications of others. Through further investigation it was found that seating arrangements within the Department consisted of four people per unit. Duplication of results correlated with these units. It appears that people that sat together within these units duplicated their questionnaires. This behaviour could be considered for further study.

In addition to this, between 1.4% and 24% of the respondents did not answer the questions. Question 4 of Part 2B of Questionnaire did not have any responses. Furthermore, 95% of the respondents did not answer question 3 of Part 2B of the questionnaire. For the remainder of the questionnaire on average 5% of the respondents did not take a position.

6.12 Conclusion

The factors that play a role in project management and strategic change, and the change-management aspects to enhance the strategic-management process have been identified. It can therefore be concluded that these factors need to be considered with regard to project management of any strategic change. Therefore, any project-management strategy with regard to strategic change, particularly in the public sector, should focus on the factors that influence successful strategic change that is coupled with a change-management strategy that positively affects the organisation's staff.

In this research the following emerged as factors that influenced the project-management component of the strategic change:

- bringing the project in on time, within budget and to specification;
- allowing for adequate mentoring and support during the process;
- ensuring quality control measures are implemented and are flexible during the life of the project; and
- ensuring that historical information about previous projects is available.

Similarly, there were a number of factors that gave an indication of the success of the change-management strategy. In the following chapter a discussion will ensue as to how these findings relate to the literature discussed in the previous chapters. Recommendations will then be made as to how to address the research findings in practice.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter addresses the conclusions reached from the research and how they compare to the literature and the objectives of the research. Ultimately recommendations will be made as to how project management can facilitate strategic change in a public sector department such as the Gauteng Department of Environment. The discussion will consider the respective problems identified in Chapter One. After each problem and the potential implications for organisations, the findings will be discussed and recommendations will be made. These recommendations will predominantly be made on the basis of which areas in the organisation or which function will need re-aligning in order to implement a more effective strategic change through project management.

7.2 The Role of Project Management in Facilitating Strategic Change

It is clear from the literature reviewed in Chapter 5, Section 5.2, that in order for project management to be considered successful, the following nine areas of knowledge must be applied:

- Project Integration Management;
- Project Scope Management;
- Project time management;
- Project quality management;
- Project cost management;
- Project human resources management;
- Project communication management;
- Project risk management; and
- Project procurement management.

7.2.1 Findings on project management facilitating strategic change

The results of the research in Chapter 7 indicated that the critical elements of the project were adhered to, i.e. that the project did not exceed its budget or its allocated time, and the quality was up to standard. In terms of quality, this was defined as having an end product that resulted in a streamlined decision-making environment. It should be noted that the end product did result in high productivity and an improved decision-making process. The sample group was in agreement that improved decision-making had resulted due to the change, though they were nebulous as to whether the project did in fact result in a streamlined decision-making environment, i.e. decisions being taken quickly. This indecision may be interpreted that it was in fact not realised. In terms of having considered the risk of the project, the sample group was of the opinion that this was sufficiently dealt with to make them comfortable.

There was an indication that integration management and scope management were sufficiently addressed by management. Planning through management standards and procedures, as well as through historical data, sufficient proposals and planning had occurred. Responses to the issue of administrative support made it became clear that the project scope management was sufficiently addressed by management.

Responses showed that there was agreement that some aspects of human resource management were good, specifically the securing of an appropriate project manager. As far as identifying appropriate skills are concerned, there was insufficient evidence to indicate that this had occurred in an effective manner. The results of the research showed that communications management was effectively implemented.

From the results of this research it is clear that most elements of project management were successfully implemented during this change, hence project management did in fact facilitate the strategic change within the Department of Environment. The Department moved successfully from a current state to new state with a new structure that was expected to result in greater efficiencies.

7.2.2   Implications for the Department

These findings pose a risk in that one can make the erroneous assumption that the project, having been completed within budget, in time and to quality and specification, is a successful execution of project management. The skills required for the job may not have been available and the project may not have been executed in the most effective manner. Furthermore, the objective of having an environment within which a streamlined decision-making process existed was not entirely realized. In the absence of the secondary benefits that were identified as high productivity and an improved decision-making process, the project could be construed as a failure.

7.2.3   Recommendations

The organisation should continue to adopt a philosophy in which good project management is encouraged. The idea of employees being part of the project team, will aid the change process due largely to the need of individuals to be responsible for managing key aspects of a project. These individuals must have knowledge of the elements they will be dealing with. It is especially important that they are given the necessary support to ensure that the change is successfully concluded. Care must be taken to ensure that chosen individuals are able to contribute meaningfully – they are resources that must be secured.

It is also important to ensure that individuals drawn into the team do not have agendas other than the improvement of the organisation. They are ultimately entrusted by the organisation to ensure that the project brings about changes in the organisation to improve on the status quo. In addition, there may be other skills within the organisation that can used to promote the change in an efficient manner and these must be made available to the organisation in a coherent fashion.

7.3 The benefits of strategic change to the departmental staff

According to Anderson and Anderson (2001) change management is a "set of principles and techniques applied to the human aspect of executing major change initiatives in organisational settings." The focus of this change management is not on "what" is driving the change, but rather on "how" to drive changes. This is generally done through the co-ordination of the human infrastructure in a manner that allows them to better understand and deal with the implications of change that affects them.

Change is a multifaceted process. The need for the change must be communicated to the personnel. Secondly, change agents that will promote the change process must be identified. Thirdly, a climate that supports change must be created in the organisation. Finally, the objectives of the organisation must be changed or adapted to fit in with the change process.

7.3.1 Findings on the benefits of strategic change to the departmental staff

From the literature study undertaken in Chapter 4 it is clear that the type of change that has occurred is a transformational change. Transitional change replaces what is currently occurring with something different. In this scenario the organisation will never be the same again.

The survey indicated that the sample group thought that the strategic change process was executed successfully. Change did benefit the departmental staff in a positive manner. However, there were a number of deficiencies in this process. There was ambivalence from the respondents as to whether the Department prepared them adequately from a training perspective in order to deal with the changed state that they found themselves in. The other possible deficiency was that the managers were not considered to be good change agents. A significant percentage of the respondents were neutral on the issue of whether the managers had clear direction. Uncertainty was similarly indicated on whether respondents were allowed to be innovative and involved in the projects.

7.3.2 Implications for the Department

The change-management process was largely successful. However, the Department must take note of the ambivalence with which some of the questions were answered. This included training, more direct involvement in processes by the staff and managers as change agents, all of which are critical elements in the change-management process. The Department risks failure with regard to these aspects and failure here could ultimately jeopardise any change-management process.

7.3.3 Recommendations

In order to have a more successful change-management process than the one recently experienced, the Department needs to improve on certain elements of the process. It needs to ensure that managers become better change agents. They should be clear about the direction in which they need to move the organisation. These managers should be able to expand the capabilities of the personnel to ensure that the organisation as a whole engages in positive action for the change-management process to be successful. In order for this to occur, though, these change agents or managers need to be recognised by the personnel. They need to have strong communication skills that must encompass strong negotiation skills. These are critical in drawing in all stakeholders and finding common ground with them.

The second element that requires attention in the Department is the role of skills and training in the organisation. Buildings people's ongoing ability to change is a major investment in the organisation's future. Anderson and Anderson (2001: 139) state that teaching them how "to embrace the transformational journey is a strategic level for bringing that future into being."

7.4 Conclusion

One cannot discount the process of continuous improvement. This study has shown that project management did in fact facilitate the strategic change within the Department. It showed that there was planning through management standards and procedures. In addition

there was sufficient reference to historical data and proposals, all of which indicated that planning did occur. Responses to the issue of administrative support made it clear that the project management scope was sufficiently addressed. Furthermore, it was found that operational staff benefited from changes brought about by the strategic change process. However, there was ambivalence from the respondents in determining whether the Department sufficiently addressed training in order to deal with the changed state. Other issues were raised, such as uncertainty whether innovation was encouraged and whether effective and decisive leadership was provided.

A strategy is simply a means by which risk can be managed. The above recommendations provide a means by which these issues that pose a risk can be managed, and none of them are beyond the scope of any organisation that values change that improves the organisation and benefits the operational staff.

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Appendix A - Questionnaire 1 for Management Staff

In 2003, the Department of Environment underwent a strategic change. This change involved Department of Environment being split into two Directorates namely EPI&A and IW&PA and created new units, where each unit within EPI&A was multi-disciplinary while those within IW&PA was specialist. Prior to the split, the Department of Environment was a single department with various sub-directorates which were specialist units. The aim of this questionnaire is ascertain whether the strategic change that occurred was facilitated by change process management. Furthermore the study is trying to establish if there were any benefits in using change process management to facilitate such a change.

Instruction: Please evaluate each of the following statements by crossing the number corresponding to your answer, or fill in your answer where required.

Part I
CHANGE PROCESS IMPACT PERFORMANCE

Why was the change necessary?
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

	Disagree	Neutral	Agree
1. The change process was completed on schedule	1	2	3
2. The change process exceeded the budget allocated to it.	1	2	3
3. The final product of this change process is what was planned for.	1	2	3
4. The final products lead to improved decision making for the end user.	1	2	3
5. The final product has a positive impact on those who use it.	1	2	3
6. The final product has lead to streamlining the decision making .process.	1	2	3
7. The final product has lead to improved productivity.	1	2	3
8. The change process was the best solution for the problem at hand.	1	2	3

9. The final product is used by its intended users.	1	2	3
10. The change process was a success.	1	2	3
11. The change process was completed below the budget allocated to it.	1	2	3

Do you have any other thoughts regarding the change process impact performance?

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Part II
CHANGE PROCESS MANAGEMENT PRESENCE INDEX

Instruction: Please answer each of the following questions by crossing out the number corresponding to your answer, and fill in your answer where required.

A. Change process Management Standards and Methods.

Were the following provided or used during the change process?

	Yes	No	Do not Know	Cannot remember
1. Assistance during the proposal stage of the change process. (This includes assigning managers, selecting a writing team, establishment of development schedules and securing management approval for the change)	1	2	3	4
2. Methods for implementing changes during the implementation phase. (This includes how it was initiated, how it was to be routed and what method was used for approval)	1	2	3	4
3. Risk assessment.	1	2	3	4
4. An impact analysis.	1	2	3	4

5. Progress reports.	1	2	3	4
6. Status reports.	1	2	3	4
7. Time sheets.	1	2	3	4
8. Quality policies.	1	2	3	4
9. Quality measures.	1	2	3	4

Do you believe that the standards and methods used were appropriate? If not, can you suggest any improvements to this aspect of the change process management cycle?

_____
_____
_____
_____
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_____

B. Change process Management Historical Archives.

Instruction: Please evaluate each of the following statements by crossing the number corresponding to your answer, or fill in your answer where required.

Which of the following was available during this change process? Mark all applicable.

Items	
Histories of prior change processes.	1
Changes made to prior change processes	2
Risk management documents	3
Quality Management Documents	4

Do you believe that the institutional memory was able to support this process? If not, can you suggest any improvements to this aspect of the change process management cycle?

_____
_____
_____
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_____
_____

C. Change process Administrative Support

Instruction: Please evaluate each of the following statements by crossing the number corresponding to your answer, or fill in your answer where required.

Do you agree with the following statement?

	Disagree	Neutral	Agree
1. There was appropriate change process administrative support during the life of the change process.	1	2	3

Was the change process administrative support able to lend value to the change process? If not, what in your opinion can be used to ensure that this adds value to the change process management process?

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_____
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D. Human Resources

Instruction: Please evaluate each of the following statements by crossing out the number corresponding to your answer, and fill in your answer where required.

Do you agree with the following statement?

	Disagree	Neutral	Agree
1. An appropriate project leader was identified.	1	2	3
2. The skills required to manage the project were identified.	1	2	3

In your opinion did the Human Resources aspect of the change process allow for creating better skills, and identifying any further skills that will be required in order to better execute change processes? If not, what in your opinion will allow for this?

_____
_____
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_____
_____

E. Training

Instruction: Please evaluate each of the following statements by crossing out the number corresponding to your answer, and fill in your answer where required.

To what extent do you agree with the following occur?

	Disagree	Neutral	Agree
1. Training was provided in order to manage the strategic change.	1	2	3

In your opinion did the training provided adequately address the needs of the change process? If not, what in your opinion will allow for this?

_____
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F. Instruction and Mentoring

Instruction: Please evaluate each of the following statements by crossing out the number corresponding to your answer, and fill in your answer where required.

To what extent do you agree with the following?

	Disagree	Neutral	Agree
1. The change process manager received adequate mentoring on necessary measures to successfully manage complex change processes.	1	2	3

In your opinion did the instruction and training provided adequately address the needs of the change process? If not, what in your opinion will allow for this?

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Part III
SAMPLE OF DEMOGAPHIC INFORMATION

Instruction: Please evaluate each of the following statements by crossing out the number corresponding to your answer, and fill in your answer where required.

4.   What is your gender?

Female	1
Male	2

5. How many years of experience do you have with respect to your position within the Department of Environment?

Less than two years	1
At least two years but less than four years	2
At least four years but less than 10 years	3
At least 10 years but less than 20 years	4
20 or more years of experience in current position	5
20 +	6

6. What is your current position?

CEO	1
HOD	2
Director	3
Deputy Director	4
Assistant Director	5

7. What is the average rand value of the change processes you currently manage?

< R 100 000.00	1
R100 000.00 – R1 000 000.00	2
R1 000 000.00 +	3

8. What is your current position with respect to organizational level?

Executive Management	1
Middle Management	2
Supervisory	3
Technical/Professional	4
Administrative	5

Appendix B – Questionnaire 2 – For Operational Staff

The Department has undergone a strategic change which as resulted in the Department of Environment being split into two directorates, namely EPI&A and IW&PA. The purpose of this study is to investigate whether the strategic change that was undertaken was assisted by project management. This aspect of the study seeks to identify the benefits that may have been accrued due to this process.

Instruction: Please answer each of the following questions by crossing the number corresponding to your answer, where 10 indicates that you are in complete agreement with the statement, while 1 indicates that you are in complete disagreement with the statement.

After the change that occurred:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The Department does a good job communicating information about changes or that may affect employees	1	2	3	4	5
2. The Department has a defined corporate "culture"	1	2	3	4	5
3. The Department has distinctive corporate values	1	2	3	4	5
4. The Department is open to new ideas	1	2	3	4	5
5. My job responsibilities are clearly defined	1	2	3	4	5
6. I know what is expected of me	1	2	3	4	5
7. The training I receive at the Department equipment me to do my job	1	2	3	4	5
8. The Department offers opportunities to improve my skills	1	2	3	4	5
9. The Department provides me with the resources to do my job well	1	2	3	4	5
10. The Department supports my efforts.	1	2	3	4	5
11. At the Department I am given recognition for my efforts	1	2	3	4	5
12. At the Department, managers have a clear sense of direction	1	2	3	4	5
13. Decisions in my Department are made timeously	1	2	3	4	5
14. Employees in my Department participate in deciding how the work gets down	1	2	3	4	5
15. I am able to get the information I need to do my job	1	2	3	4	5
16. I am encouraged to show initiative	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17. I am given sufficient latitude to perform my duties	1	2	3	4	5
18. I am given the freedom to improve the way work gets done	1	2	3	4	5
19. I am held accountable for the work that I do	1	2	3	4	5
20. My job is satisfying	1	2	3	4	5
21. I have input into decisions that affect me	1	2	3	4	5
22. I have the materials and equipment to do my job	1	2	3	4	5
23. I understand my job responsibilities	1	2	3	4	5
24. I participate in the performance management system	1	2	3	4	5
25. My job contributes to the success of the Department	1	2	3	4	5
26. I understand how my performance is evaluated	1	2	3	4	5
27. I understand the measures used to evaluate my performance	1	2	3	4	5
28. My Department looks for ways to improve processes	1	2	3	4	5
29. My Department looks for ways to improve productivity	1	2	3	4	5
30. My supervisor sets performance goals for my job	1	2	3	4	5
31. My work allows me to be productive	1	2	3	4	5
32. My work is challenging	1	2	3	4	5
33. My work is interesting	1	2	3	4	5
34. I can cope with my workload	1	2	3	4	5
35. I am satisfied at the Department	1	2	3	4	5

SAMPLE OF DEMOGAPHIC INFORMATION

Instruction: Please evaluate each of the following statements by crossing out the number corresponding to your answer, and fill in your answer where required.

9.   What is your gender?

Female	1
Male	2

10.   How many years of experience do you have with respect to your position within the Department of Environment?

Less than two years	1
At least two years but less than four years	2
At least four years but less than 10 years	3

In the event of you being in the Department for more than four years please give an indication of some of the improvements in your job satisfaction since the change process

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_____

11.   Which sub-directorate do you work for?

EPI&A	1
IW&PA	2

Appendix C Reliability Analysis for Questionnaire One

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.932	35

Item-Total Statistics		
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q1	.415	.932
q2	.439	.931
q3	.479	.931
q4	.661	.929
q5	.530	.931
q6	.560	.931
q7	.653	.929
q8	.576	.930
q9	.650	.930
q10	.687	.928
q11	.677	.929
q12	.312	.932
q13	.472	.931
q14	.353	.932
q15	.625	.930
q16	.613	.929
q17	.565	.930
q18	.498	.931
q19	-.295	.939
q20	.724	.928
q21	.735	.928
q22	.559	.931
q23	.732	.929
q24	.224	.933
q25	.683	.929
q26	.101	.934
q27	.140	.934
q28	.726	.928
q29	.595	.930
q30	.418	.931
q31	.741	.928
q32	.568	.930
q33	.605	.929
q34	.450	.931
q35	.817	.926

Appendix D Reliability Analysis for Questionnaire Two

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.610	11

Item-Total Statistics		
	Corrected Item-Total Correlation	**Cronbach's Alpha if Item Deleted**
Part 1: Question 1	.593	.489
Part 1: Question 2	-.388	.689
Part 1: Question 3	.254	.590
Part 1: Question 4	.599	.504
Part 1: Question 5	.193	.602
Part 1: Question 6	.251	.595
Part 1: Question 7	.476	.538
Part 1: Question 8	.311	.579
Part 1: Question 9	.057	.617
Part 1: Question 10	.597	.505
Part 1: Question 11	-.093	.649