

**THE MEANING OF ADMINISTRATIVE TOOLS TO THE
ADMINISTRATIVE PROCESSES IN THE PUBLIC
SECTOR**

by

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1. INTRODUCTION

The purpose of government is to meet the needs of the public through its structures such as the legislative and executive authority. The legislators in a democratic state are elected representatives of the citizens (Cloete 1996:71). Government structures are striving towards the realisation of predetermined goals which are based on the identified needs of the public (Gildenhuis 1993:3). The government or state can be classified into three structures, namely: the legislative, executive, and judicial institutions which work together to provide the needs of the public it serves.

The needs of the public are diverse and too many to be provided by the state funds available through its resources. The public is composed of different cultural groups with different values and opinions which results in demands that differ from group to group. The legislative body as the supreme power has to decide which needs are generally important to the public which are also basic to human rights. However though different pressure groups often demand action to be taken by the government in various aspects of the public needs, generally the public is not prepared to pay more taxes to increase state funds. Therefore, financial constraints still remain a problem in meeting public demands (Cloete 1996:99).

The legislative body has to make decisions which are based on a proper analysis of the situation, to come to a point of identifying which needs are a priority, and must be pursued first to meet needs which will bring the best welfare of the public. The legislative authority gives guidance through formulation of policies which are in line with the political ideology of the government in power. For effective and smooth running of the public institution the legislative and executive authorities must have clearly identified needs and objectives so that policies are formulated in line with the identified needs. The legislative body must work in co-operation with the executive administrative authorities so that bills are discussed and approved after inputs have been

received from the executive body. The executive institution is more in contact with the public and is therefore more aware of the public needs and the problems involved in the administration of the planned activities. Therefore, executive institutions need to have enough information and clear objectives in order to plan and programme activities for the achievement of objectives (Thornhill & Hanekom 1995:55).

The legislative body besides giving guidance to public officials concerning activities that must take place in different public institutions, it must also provide co-ordination and control of activities. Control can be brought about through public accountability. The legislative authority expresses convictions and directives by legislation which becomes a supreme authority from which planning of activities and objectives is derived. Accountability is brought about by the appointment of a chief financial officer who is accountable for the activities of his institution. In other words the accounting officers must personally give account for all the financial transactions and activities in their departments. Accounting officers are charged with budgeting and programming of activities according to the approved policies of the legislative body (Gildenhuys 1993:157).

Therefore, all leading public officials in charge of public institutions need to implement measures that will ensure co-ordination and control of activities so that public accountability is possible. To ensure that control and accountability is possible, approved policies must have clearly defined objectives and must be programmed and quantified. The executive institutions must give details of the activities that must take place to achieve approved objectives. They must also indicate how the identified needs will be met in the short, medium and long term planning. In planning, officials must take into consideration the available resources and indicate time frames in order to bring about control.

Each department has to work within a specific budget, therefore it is important that in identifying activities costs must also be indicated in terms of resources required as well as the time frame within which these activities will take place to

meet the objectives. It is also essential to identify alternative ways of achieving the objectives so that a choice of the best method can be made in terms of costs and benefits after consideration of factors such as social, economical and environmental aspects. Using administrative tools the setting of objectives and alternative methods can be identified and make decisions more rational.

The legislature as the supreme body cannot formulate policies that will meet the needs of the public unless it has adequate and relevant information concerning these needs. Information must be accurate, scientific and recent in order to be useful to managers for rational decision making. In fact information is needed at all levels of the government structure so that decisions made at each level, are realistic and relevant to the needs of the public. Decisions must never be made without accurate information because that destroys trust and confidence in a leader (Marquis & Huston 1994:161). The state in providing the needs of the public cannot perform these duties effectively without performing within the six generic administrative processes. In implementing the administrative processes, it is also necessary to implement administrative tools which aid and support the administrative process to make necessary information available. In modern public administration which is more complex, administrative tools are necessary to provide a scientific and more accurate approach in providing information necessary for formulating alternatives, identification of objectives and making rational decisions possible.

Administrative tools can be usefully implemented to program activities, analysing costs and benefits of programs so that decision makers can decide which alternative will be the best to reach the approved policy. Control and accountability can be exercised more efficiently by using administrative tools to aid the process of division of work, setting procedures and checking progress towards set goals (Fox et al. 1991:120). The aim with this paper is to highlight the meaning of administrative tools in facilitating the process of administration. The word "mean" can imply being of special importance to a person or situation

- Network analysis makes it possible to study a project through a diagram presenting activities which are fully programmed which means that it is possible to monitor activities throughout a project.
- Management by objectives makes it possible to clearly identify objectives, set priorities and set time frames which are attainable.
- Programme budgeting makes it possible to forecast costs of a programme by providing a detailed programme of activities and their possible costs.

The above-mentioned administrative tools will now be discussed and shown how they can be used in policy making, organizing, financing, staffing, work procedure and control.

2. MEANING OF ADMINISTRATIVE TOOLS ON POLICY MAKING

Policy making is one of the six generic processes which are part and parcel of public administration. The process of policy making consists of a number of functions to be performed, such as identification of matters on which policies need to be formulated. It also involves the interaction between the public functionaries and the public, so that values and interests of the public are accommodated. The process of making decisions takes place throughout the process of policy making (Cloete 1991:91).

Policy making cannot be separated from other generic administrative functions because they are interdependent. However policy making is directed at setting guidelines for the performance of public activities aimed at achieving a clear public goal or interest (Thornhill & Hanekom 1995:55).

Hanekom et al. (1987:29) describes policy making as a process which involves the identification of a goal authorisation to act by policy makers, a public statement of what the policy maker intends doing, execution of the policy and evaluation of the policy. Throughout this process of policy making decisions are made which mould and direct activities towards achievement of objectives. Decision making can be defined as the process of establishing criteria by which alternative courses of action are developed and selected (Sullivan & Decker 1992:233).

Gillies (1994:418) defines decision making as a deliberative cognitive process consisting of sequential steps that can be analysed and refined. As South Africa is embarked on democracy, there is a need to have old policies analysed, improved and new policies to be put into effect in order to implement the provisions of the South African Constitution. Administrative tools can be used to facilitate this process and promote a scientific approach.

Van Niekerk (1988:36) defines a policy as a predetermined general guide formulated to indicate the acceptable course in decision making. Gillies (1994:154) defines a policy as a long range of organisational objectives. From these definitions one can deduce that a policy as a declaration of intent has to be supported by objectives which act as a guide on decision making directed at achieving policy objectives.

According to Fox et al. (1991:28) a policy can be seen as the authoritative but democratic allocation of values, implying that it is a result of a consensus and compromise between contending groups in society. In formulating a policy it is necessary to consider the views of the people in order to have a policy that really addresses the needs of the people being served. The Reconstruction and Development Programme produced by the African National Congress (ANC) has a number of policies which are directed at bringing about transformation. The Reconstruction and Development Programme (RDP) is the product of on going

consultation that has been adopted and supported by all political parties in the government of national unity (Mandela 1994:1). However the RDP as a policy, still need to be implemented and evaluated to show its success. There is a need to have a clear plan of how all these political policies can actually be effected to bring about the expected goals. It should be borne in mind that a political policy which is a policy that is authorised by the legal system has to be realistic so that it is feasible to implement. Therefore, a political policy has to be based on facts and knowledge (Cloete 1981:73). To obtain factual information administrative aids such as the information system can be used to make rational decision making possible.

2.1 Information system as an administrative tool for policy making

An information system can be regarded as one of the most important administrative tools as information is needed in all aspects of the six generic processes as well as in all management functions. Information can be described as data that has been processed to make it meaningful (Fox et al. 1991:255). Ross (1970:106) describes an information system as a network of component parts developed to provide a flow of information to decision makers. An information system is a structured set of procedures for processing, storing and distributing information designed in a way that will best serve the goals of the organisation. It is of service to the public managers in providing the necessary information to plan and implement policies (Fox et al. 1991:262). It is therefore important that public managers should take part in planning the information system by indicating the type of data and information that will be relevant to the needs of the institution.

One way of developing an information system is to organise a steering committee which will be responsible for the project management and planning.

Thus public managers participate in the project planning and management of activities. For instance Gillies (1994:145) suggests that effective management involves planning in advance for possible downsizing in nursing by accumulating patient census and acuity data for forecasting the numbers and types of employees needed to care for fewer patients. A steering committee should set policies to guide managers in deciding which positions and personnel can be relinquished without compromising the standards for patient care.

In South Africa the government is faced with the problem of right sizing the public service. Information is necessary to carry this process efficiently without compromising the efficiency of the service. The increase in the level of crime is sometimes blamed in the media to lack of adequate manpower, though it is sometimes blamed on the type of training given to the police. The use of technics such as computerising can provide scientific and accurate information statistically. The computer cannot by itself solve problems but can help the manager to identify problems through provision of relevant information. It can also be programmed to simulate complex problem situations thus allowing the manager to speculate on probable outcomes (Hanekom et al. 1987:196). According to Booyens (1993:628) having a well developed information system can help managers to make decision making rational because it will be based on facts.

Van Straaten (1984:46) cites the following factors about information:

- It must be accurate. When extensive data is handled it is possible to have mistakes due to human error.
- It must be timeous so that it is available in time to make decision making fast and based on factual information.

- It must be up to date to accommodate changes brought by time and technological development.
- It must flow freely so that it reaches all public officials who need it and it must be easily retrievable.
- It must come from a variety of sources, which are reliable so that it is broad enough to give insight into the problem.
- Data must be concrete, concise and be based on fact.

2.2 Computerised technology as an aid in the development of an information system for effective decision making

The computer keeps on being improved and is becoming more user friendly in so much that it is becoming indispensable as a management tool. It is possible through the computer to network with other programmes by using various services such as the internet to communicate over long distances and to access information in connected computers all over the world. This has facilitated communication and has advantages such as being able to get essential information for decision making in emergencies (Turban & Meredith 1991:957).

A point in illustration is the case of a student in Peking University in China, who was saved by fellow students from death. This article describes how these students sent a SOS internationally, giving the signs and symptoms displayed by the ill student. They obtained information through the internet which gave them the diagnosis, treatment and where it can be obtained (Mconnel Readers Digest September 1996:36).

2.3 Feasibility study to decide on the possibility of implementation of a policy

Policies cannot be implemented unless there are resources which are adequate enough to implement them such as funds, equipment and personnel. A feasibility study examines the available resources, costs involved in performing the identified activities and the probable outcome in relation to the set objectives. Feasibility assessment has been designed to provide managers with information about the probable position of stake holders to access resources and the possibility of using those resources to influence a particular policy (Fox et al. 1991:287).

Cost benefit analysis can be used to determine the feasibility of the policy by examining the available resources and the cost implementation. Cost benefit analysis is a technique which allows public managers to compare the various decision alternatives on the basis of the costs against the benefits in relation to the achievement of desired objectives (Gillies 1994:87). Cost benefit analysis makes it possible to examine the budget against the cost of activities planned to achieve objectives.

Public administration problems are seldom simple. They are complex and subject to conflicting multiple goals. A systems analysis would be more applicable in helping the manager to make decisions with less risks.

2.4 Systems analysis as an aid in choosing between alternative policies to meet a certain need

Systems analysis may be defined as an analytic study designed to aid a decision maker choose a course of action by systematically examining objectives, com-

paring where possible costs, effectiveness and risks associated with alternative policies or strategies. It also involves formulating additional alternatives where those examined are found wanting (Hoos 1972:44).

Systems analysis can enable public officials to examine questions implicit in many problems which are avoided because of their politically sensitive nature. Systems analysis can be used to present factual arguments and reliable information to help win acceptance for a proposed course of action. The newly elected democratic government needs public officials that can bring about change to meet the principles of democracy. However there is a great need for systematic examination of the existing policies in some spheres to see where change is due to prevent change for the sake of change. Systems analysis will enable public officials to plan realistically. For example the provision of a free medical service as a political policy is excellent and acceptable to all. The reality is that this policy is being thwarted in its implementation by the fact that resources are not adequate. Health workers such as doctors and nurses have not been adequately prepared to deal with primary health care approach.

To add to this problem medical supplies are often not available because a proper estimation of the costs and forecasting of future needs for the service has not been done for political reasons.

2.5 Clear identification of objectives as a guide to policy making

The process of policy making involves identification of objectives because objectives will be the guiding stars which indicate the type of activities and the costs involved. Gillies (1964:108) defines an objective as a concrete statement of intention, an external goal towards which effort is directed. According to Fox et al. (1991:51) objectives are the aims towards which all activity is directed.

From these definitions it can be deduced that objectives are giving direction to the activities necessary to fulfil the aspirations of organisation.

Everything in an organisation takes on meaning in relation to its goals and objectives. According to Fox et al. (1983:16) without objectives managers would have no sense of direction and no solid basis for making and evaluating decisions. They would have no base for planning and organising human resources for the future. It appears that goals and objectives are basically close in meaning. According to Sullivan and Decker (1992:213) goals provide direction and vision for actions as well as provide a time limit in which activities will be performed or accomplished. The promotion of general welfare of the society which is the broad objective of public administration depends on the policies made, the resources available, and the extent to which policy makers have a clear understanding of societal problems and needs (Hanekom et al. 1987:25).

It is essential to have a political policy before objectives can be clearly identified. A political policy is the statement of the aspirations of the ruling party which give an indication of the way in which the general welfare of the community will be carried out by the authorities (Cloete 1991:82). All public institutions are created for a certain purpose or objective which is to achieve a certain aspect of public welfare. Therefore, a clear identification of objectives is of utmost importance to the achievement of correct functioning and organisation of all public institutions.

Fox et al. (1983:17) states that objectives define the mission of the institution and give the organisation its identity. Having a clearly defined policy is the starting point for identification of objectives. Administrative tools can be used to identify and set objectives. However it is necessary at this stage to describe what is meant by objectives. Craythorne (1980:281) describes objectives as practical statements of intuition for the realisation of goals. Furthermore objectives should not be stated in vague terms because they then lack meaning

and lack direction. Objectives should give guide to the activities that should take place and be more specific. According to Andrews (1982:27) a goal is a target towards which all activity should be directed. It suggests aspirations and desired ends towards which the organisation is striving.

2.5.1 Administrative tools to aid identification and setting of objectives

Management by objectives is one of the tools that can be used to identify objectives. Management by objectives involves a systematic identification of objectives in relation to the goals of the institution as well as prioritisation to meet the constraints set by available resources. Van Niekerk (1988:46) defines management by objectives as a management technique aimed at involving the individual worker by means of an interactive process of goal setting, participation in decision making and performance feedback. According to Marriner-Tomey (1992:379) management by objectives is a tool for effective planning and appraisal. It emphasizes the achievement of objectives instead of personality characteristics. For management by objectives to be successful there is a need for managers to be committed to the process and the education of the subordinates in the role they have to play in implementation (Hand 1981:299).

Involvement in the decision making process of managers and the subordinates is an important aspect of management by objectives. It encourages more commitment by all stakeholders such as managers, subordinates and related departments. It is therefore imperative to have a clear understanding of the organisation's mission and long term goals for a proper guidance in setting objectives. In each and every step of setting objectives decisions have to be made and choice made between alternatives. Decision making can be described as a selection of a preferred course of action from two or more alternatives (Andrews 1982:28). Decisions are made throughout the process of

administration and management. A decision is a step that has to be reached after careful consideration of all relevant factors so that decisions result in achievement of the set objectives and desired goals.

A decision is a step that has to be reached after careful consideration of all relevant factors so that decisions result in achievement of the set objectives and desired goals. Decision making can be described as a deliberate cognitive process consisting of sequential steps that can be analysed and refined (Gillies 1994:426).

In management by objectives there is a process of deliberate identification of long term objectives. Managers and subordinates meet to determine and state precisely the specific results that are to be accomplished by a certain date in the future. At designated times performance is reviewed (Ivancevich *et al.* 1983:133). Objectives also have to be ranked according to their order of priority, such as objectives that are critical to the organisation's existence and those that are desirable. It also helps to have a negotiated settlement of objectives because all parties become committed to achievement. However for management by objectives to be effective it must be used by all departments in the institution to prevent overlapping and omissions in some areas (Turban & Meredith 1991:395). Furthermore joint participation of managers and subordinates in the formulation of goals has an impact on the employees motivation. The fact that employees have to achieve goals set by themselves encourages team spirit, stimulates self control, self discipline and realistic setting of goals and objectives (Gillies 1994:54).

2.5.2 Planning Programming Budgeting System (PPBS) to aid identification and setting of objectives

No policy can be implemented unless there are resources to make it possible, so allocation of resources is an important aspect of policy making. Resources can be allocated through the budget. Budgeting can be described as the allocation of scarce resources on the basis of forecasted needs for proposed activities over a specified time (Sullivan & Decker 1992:410).

Dimock and Dimock (1964:492) describes planning programming budgeting as a process that defines the objectives of a programme as precisely as possible for the budgetary period of a year as well as a period of at least five years. In this process complete data must be provided as to the costs, benefits and feasibility. Choice of alternative courses of action is based on information provided by this data. Activities that are directed at achieving objectives can only take place if there are adequate resources to carry them out. The Planning Programming Budgeting System was designed to provide policy makers with a way of analysing and evaluating existing as well as proposed programmes. These programmes are directed at achieving set objectives and are supported by quantitative calculations where possible. In a Planning Programming Budgeting System managers are forced to examine different ways of achieving objectives which will minimise costs (Gildenhuis 1993:519). According to Van Straaten (1984:191) the Planning Programming Budgeting System provides legislators with the ability to weigh suggestions backed by relevant information concerning budgeting. According to Craythorne (1980:213) the Planning Programming Budgeting System is based on the following principles:

- Provisions of a programme structure which is hierarchical and classifies particular activities according to the objectives and subobjectives met by the activity. It presents choices and exposes ideas.

- A programme analysis in which the generation of alternative ways of achieving objectives and subjectives is set out in the programme as well as the evaluation of alternatives. This assists in making choices.
- A long term planning which is carried over a number of years. These plans incorporate both capital and revenue expenditure.
- A process subject to feed back and review.

By adhering to these principles the Planning Programming Budgeting System makes it possible to determine in which object, objectives money can be invested with the best results and less costs. Planning for a long term makes it possible to review progress and even change where goals have changed to meet with the demands of the situation.

In South Africa a Planning Programming Budgeting System could play an important role in encouraging economic development and prevention of a waste of money in funding unrealistic projects such as the Sarafina debacle (a programme that was directed at promoting Aids awareness, which cost the state a lot of money). Through examination of costs managers are forced to evaluate alternatives and prioritize objectives.

3. MEANING OF ADMINISTRATIVE TOOLS ON ORGANISING

Organising consists of a number of actions such as the grouping of people in an orderly pattern so that everything they do will be aimed at achieving predetermined objectives grouping activities that require similar skills to facilitate competence and productivity (Cloete 1981:79). It also involves giving attention to mutual relationships between individuals within the organisation as well as

with different departments. Matters such as work division, span of control, co-ordination, delegation and communication are part of organisation. In using administrative and other tools meaningful organisational arrangements can be made possible.

According to Robbins (1988:5) organisation leads to formation of an organisational structure that indicates clearly who is responsible for what task. It involves important aspects such as unity of command, channels of communication, delegation, systematic grouping of tasks and co-ordination of activities.

3.1 Tools that can be used to facilitate organising

Different administrative tools can be used to bring about meaningful and efficient organisation of activities in the public sector. The following tools can deliver important meaningful information for decision making to rationalise organising.

3.1.1 Utilisation of work study to promote organisation of work

A work study is an administrative tool that can be used to facilitate organising. According to Andrews (1982:125) a work study can be described as a term used to embrace the techniques of method study and work measurement which are employed to ensure that the best possible use of human and material resources in carrying out a specified activity. A work study is a systematic examination of methods of carrying on activities so as to improve the effective use of resources and to set up standards of performance for the activities being carried out (Kanaway 1992:9). The objective of a work study is to assist management to obtain the optimum use of the human and material resources available to an organisation for the accomplishment of the work upon which it is engaged. A

Division of work implies that the functions of the organisational structure should be divided into small defined duties which are assigned to a position. It is also necessary to have the smallest number of employees who will be able to deliver the largest attainment of objectives. It is therefore necessary to have division of work into duties that are compatible in skills (Cloete 1996:143). Systems analysis can be used to divide work into manageable units and to allocate people according to the skills needed. In systems analysis the problem is viewed as a whole rather than investigating one or two obvious aspects. Systems analysis examines problems as well as to take a look into alternative ways of solving problems. It can be used to look into factors such as what activities are involved in a particular job and what criteria is acceptable for performance of these activities. Systems analysis can be defined as an investigation to aid a decision maker in choosing a course of action by systematically investigating his objectives, comparing where possible the costs, effectiveness and risks associated with alternative actions (Hoos 1972:44).

It can be used to examine existing activities to see whether they are in line with the new goals especially in the new democratic South Africa (Gillies 1994:73).

3.1.3 Meaning of network analysis as an administrative tool in the division of work

Horizontal division of duties is aimed at dividing an institution into functional subsections so that each is directed at achievement of overall objectives. According to Van Niekerk (1988:76) horizontal divisions of labour is based on the specialisation of work. The basic assumption underlying horizontal division of labour is that when the job of a worker is more specialized the same effort creates work of a higher quality. Horizontal division of work has the following advantages:

- Less skills are needed per person.
- Repetition of the same activity can develop more proficiency.
- Greater uniformity of the final product is possible when only one person performs a certain activity (Van Niekerk 1994:76).

Network analysis makes it possible to study the project from the start to completion. Network analysis is a diagrammatic presentation of activities which are fully programmed in order to achieve specific objectives within a prescribed time (Craythorne 1980:288). Work measurement can be used to improve accuracy in horizontal division of work by performing time studies to standardize the time required to perform certain activities. It also assists by ensuring a healthy equity in work loads, thus bringing about a fair division of work (Larkin 1969:24).

3.2 Use and meaning of administrative and other tools in departmentalisation

Departmentalisation is the process through which activities are arranged in categories which form controllable units. The way in which activities are grouped together depends on the criterion selected. Functions which have to be performed in order to give realisation to a particular government policy, tend to show a large degree of commonality. This can be used to form departments based on commonality of functions (Van Niekerk 1988:81). The increasing number of institutions in the public sector makes it necessary to consider various ways of organising and dividing work efficiently. Division of services can be according to territory also referred to as geographical division. Geographical division has the advantage of facilitating communication between the service and the public which is being directly served. It also brings about more co-

A brief description of the staff and line organisation as well as the project system will be given to bring out how each form of organisation has certain advantages depending on the circumstances in which it is used. The line organisation is a hierarchical system. This implies that there is a direct chain of command pattern that emphasizes superior subordinate relationships. It is a top down form of organisation. Each worker takes orders from one supervisor. In the line system of organisation supervisors are found at various levels of the hierarchy and each supervisor delegates duties to his subordinates (Andrews 1982:42).

Line organisations are still used mostly in nursing organisations because they are regarded as having advantages in such organisations because of the following:

- Interpersonal relations are easy to understand.
- It is easier to orient new members in such an organisation.
- Responsibility and accountability are clearly defined and messages can be quickly transmitted (Gillies 1994:133).

However, in this democratic era such organisations are unpopular because they emphasize passive acceptance of orders from superiors. Subordinates are not involved in decision making. Change and new ideas are strongly resisted. This type of organisation can be clearly presented by an organisational chart.

3.2.3 Line and staff functions in formal organisation

In organising in the public sector, institutions are sometimes divided according to the type of functions they perform. Line functions in an organisation are generally responsible for attainment of primary goals. In such an organisation the line functions are supported by the staff functions. Staff officers are a group

of specialists who provide expert knowledge where necessary to the management. In line and staff organisation the line functions still command and control, while the staff functions are more on the advisory level, where the department is too large for the management to take responsibility for all duties.

Staff officers may be appointed to take over selected functions. By executing specialised activities the staff officers facilitate and help to co-ordinate line functions (Adam & Ebert 1982:275). However, for organisation to be effective there is a need to analyse the work done so that line and staff functions do not become confused. A work study can be used to analyse activities and allocate them to specific areas.

3.2.4 Project management

A project cannot be defined as a form of organisation in a particular institution. It is a temporary organisation of activities by a special group and is directed at achieving a set of specified objectives within a specified time (Adam & Ebert 1982:409). It is used to implement new ideas and to adopt old approaches in executive public institutions. It is useful in dealing with dynamic but unstable environments. It is sometimes used in organising operations that need expert knowledge to achieve certain objectives. The manager establishes a project team consisting of experts from different departments in the organisation. These members are appointed temporarily to achieve a certain goal and return to their normal posts as soon as they have achieved the aims of the project (Roux et al. 1997:59).

Project management has its advantages and disadvantages which can be listed as follows:

- It makes mobility of specialised human resources possible, which results in a sharing of ideas by members.
- It has rapid results because members have to work within a time limit especially where critical issues are at stake.
- It provides opportunity for rapid assembly of trained skilled personnel for a specific objective, to share expert knowledge, experience and a variety of ideas.
- It stimulates interdisciplinary co-operation and gives flexibility to the organisation. It broadens the view of different specialists making accommodation of change easier.
- However the frequent use of the project system decreases the strength of formal chain of command with disintegrating discipline in some cases.
- It decreases worker loyalty to the primary group.
- It disrupts the functioning of the departments from which specialists have been deployed (Gillies 1994:139).

3.2.4.1 Network programming as an administrative tool to facilitate project management

There are various methods of scheduling projects such as the network programming which uses techniques such as the Gantt Chart, the Program Evaluation and Review Technique (PERT) and the Critical Path Method (CPM). The Gantt Chart is a bar chart that schematically indicates the relationship of

activities over a time. Project activities are listed down the page as well as the time against each activity. This device facilitates the process of evaluation for several interdependent activities (Adam & Ebert 1982:412). The Gantt Chart can guide members of the project team on the time and costs of various activities. It encourages effective use of time. Network programming refers to a schematic diagram of all activities that need to be programmed in such a way that they facilitate the achievement of goals within a certain time frame (Van Straaten 1984:171). The value of network programming is that one can identify activities that can be done simultaneously as well as those that need to be done first or follow each other. This can save time and costs in performing activities (Redelinghuys et al. 1985:33).

The Programme Evaluation and Review Technique (PERT) is a model that minimises conflicts, delays and interruptions in a project by co-ordinating the various activities in project management. It identifies requisite activities, decides optimum sequence, organise personnel, equipment and supplies (Ivancevich et al. 1983:455). The CPM is a technique that estimates before hand which activities will take the most time and which steps are critical in the achievement of objectives and how the total period can be shortened. The focus is on control of time where it is most essential and the accommodation of expected problems (Newman et al. 1967:715). All these techniques can be used to improve project management and to facilitate work flow in public institutions. Thus network programming can be used to programme activities and deal with problems at an early stage.

3.3 Span of control as a necessity for effective organising

Organising involves division of work and a hierarchical arrangement of positions which means that each supervisor has a number of subordinates under his

control. However, there is a limit to the number of subordinates each manager can control effectively. Span of control refers to the number of subordinates that can be effectively controlled by one manager. The span of control can be narrow or wide. A narrow span of control with three to five subordinates allows a great degree of control. A narrow span of control has the disadvantage of killing the initiative of the subordinates by being too restrictive. On the other hand a wider span of control that involves over ten subordinates make it difficult to supervise and control effectively (Sullivan & Decker 1992:51).

3.3.1 Factors that influence the size and ideal span of control

A number of factors influence the ideal size of the span of control such as:

- The competence of the manager involved. The more competent the manager is the wider the span of control.
- Geographical distribution of the people being supervised. The further apart the subordinates being supervised the narrower the span of control which means that only a small number can be controlled under one supervisor.
- The availability of standardised procedures increases the span of control. If a comprehensive set of standards determine the actions of employees then a wider span of control is possible.
- The level of training of the employees concerning the work they are doing increases the span of control. Skilled workers need little supervision when performing their duties.

- The nature of tasks performed also influence the span of control. If the subordinates are doing simple repetitive tasks then a wider span of control is possible (Kroon 1990:244).

To ensure that information will be available on all these matters, administrative and other tools can play an important role.

The work study as an administrative tool can facilitate decision making concerning the ideal span of control. Work measurement can examine procedures and obtain information that will help programming by examining the work load of individuals. It can help to determine how many people must be employed to keep up with the work involved (Stahl 1976:115). According to the International Labour Organisation (1979:30) the advantages of the work study are as follows:

- Defining duties and establishing fair work loads for workers.
- Graphical recording of information makes it easier to question the necessity of activities, the sequence and environmental constraints in operating according to standards.

The manager by using a work study on regular basis can be able to get information that will help to make rational decisions concerning the number of people that are ideal for the job and the extent of supervision necessary.

- Assigning responsibility to the subordinate is necessary so that the subordinate feels obliged to perform what is delegated according to set standards. However, assigning responsibility to the subordinate does not mean that the manager abdicates his own responsibilities as a manager. It means that the manager still has to exercise responsibility by supervising, directing and controlling the subordinates performance of the delegated work. The manager remains accountable that is, he bears the last responsibility for the standard of product or service delivered (Haimann & Scott 1970:198).

Network programming can also be used to decide on the delegation of work. In network programming all activities to be performed, are identified as well as the resources necessary to perform these activities and the time frame within this must take place. A network programming diagrammatically presents which activities will take place first and which are interdependent. It provides opportunity to identify needs for personnel. It can be used to obtain information concerning the type of personnel necessary and where shortage occurs, it can provide information concerning what activities can be delegated to others who are not overloaded with work or those whose tasks are not critical at that moment (Kroon 1990:549).

3.5 Co-ordination of activities in the organising process

After dividing the work and allocating people according to duties, there is a need to co-ordinate activities so that they are directed at achieving the goals of the institution. Co-ordination is a purposeful attempt to link and synchronise the activities of the organisation. The aim of co-ordination is to attain unity of action in order to achieve common goals effectively (Van Niekerk 1988:84). In other

words dynamic organising should provide for co-ordination to achieve uniformity of action.

Unity of command is another aspect of co-ordinating activities. Unity of command refers to the fact that an employee may interact with many individuals in the course of performing his duties but should be responsible to only one supervisor. It is therefore important that the manager makes it clear to the employee who is the direct supervisor to whom he must report. Unity of command shows how authority moves up the hierarchical structure by clearly indicating who gives orders to who and who carries them (Andrews 1982:46).

For co-ordination to exist there must be clear lines of communication so that information can flow freely within the organisation and externally. There should be programming of activities so that co-ordinated action is taken (Roux et al. 1997:108). Programming is the process of planning activities to ensure that overall objectives of the institution are achieved and that all duties are conducted in an orderly manner (Andrews 1982:99). According to Kroon (1990:210) once there is division of work the need to co-ordinate activities arises. Furthermore co-ordination can be seen as the process aimed at the integration of the objectives and activities of different departments. The need for co-ordination depends to a great extent on the nature of the tasks to be performed. If there is interdependence between the units responsible for the performance of certain activities the need for co-ordination becomes essential.

The following administrative tools can be utilised to make meaningful co-ordination possible.

3.5.1 Utilisation of management by objectives to facilitate co-ordination

Management by objectives (MBO) can be defined as an administrative tool aimed at involving the individual worker by means of interactive process of goal setting, participation in decision making and performance feed back. The concept of MBO comprises of certain basic elements namely: total management, time strategy, participation and motivation as well as the planning of goals (Van Niekerk 1988:46).

In MBO the process of determining objectives should be based on organisational goals which should take precedence in determining activities and objectives. In other words the long term goals will be based on the mission statement of the organisation. Subordinate objectives made by the workers at each level of the hierarchy should support and facilitate achievement of the organisation's objectives (Sullivan & Decker 1992:45).

Objectives are ranked in their order of priority according to their level of critical importance to the organisation. Thus, the setting of objectives forces all members of the team to consider and organise their activities in a manner that will help them to achieve the overall objectives of the organisation.

In this manner co-ordination of activities is achieved through discussions and participative decision making (Marriner-Tomey 1992:380).

3.6 Meaning of network programming on the process of organising

Network programming is a diagrammatic presentation of activities which are fully programmed in order to achieve a specific objective within a prescribed time. Functionaries are forced to plan what is to be done at each step of a programme

or project this can be done through network programming. Network programming indicates the resources needed as well as the time frame for each step in a sequence of activities. It emphasizes the relationships between activities. It enables managers of different sections to see precisely how their duties mesh with the work of others (Kroon 1990:550).

3.7 Meaning of an information system to aid co-ordination of activities

A free flow of communication in any organisation is necessary to promote co-ordination. According to Van Niekerk (1988:229) a management information system is a formal method of transferring accurate information to management for decision making regarding the performance of activities. The management information system must contain relevant information. This information must be accessible for dissemination to all public functionaries so that activities can be co-ordinated. According to Fox et al. (1991:255) information technology can be defined as the art and science of producing and distributing information in a manner that suits the needs of the users. The computer technology in this modern era is used to process and transmit information. The major goal of information system is to provide the right information to the right decision maker at the right time (Ivancevich et al. 1983:435).

The flow of information promotes communication between team members as well as between departments. The flow of information can be facilitated through the use of techniques such as meetings, reports and informal relationships which encourages team work. In this manner every worker is aware of what activities are taking place and is able to identify his role within the functioning of the organisation as a whole. Thus having a well developed information system promotes co-ordination of activities within the organisation.

4. MEANING OF ADMINISTRATIVE AND OTHER TOOLS ON FINANCIAL ADMINISTRATION

Financial administration can be described as all those activities that are directed at collecting funds, allocating funds, planning work programmes as well as devising means of controlling the use of available funds so that funds are used to achieve the desired goals of the government (Cloete 1991:135). Financing is one of the generic processes in public administration which exerts influence on decision making in all aspects of administration. Policies can be made but they can never be implemented if they are not supported by funds. It stands to reason that in planning any activity the management has to consider the available funds. The needs and demands of the public are increasing while the economic states of the country is not improving enough to accommodate these needs. It thus becomes imperative for a state to manage its available financial resources with the utmost care and efficiency in order to meet as many as possible of the needs at the most acceptable standard (Booyens 1996:182).

Public funds are derived from a variety of sources such as selling of some services to the public, privatisation of some government structures and the taxation of the public in various ways (Booyens 1996:184). There is also expenditure which is money used to develop the service, provide resources such as material and human resources. The balance between the funds accumulated and the expenditure gives the amount of money available for allocation. According to the principle of democracy public funds can only be used with the approval of the elected officials that is the politicians (Cloete 1981:106).

Politicians are the elected representatives of the public being served by the government. Representative government is based on the principles of division of labour between elected political representatives through the voting system and the public officials which are citizens hired to facilitate the work of the politicians (Gildenhuys 1993:52). The minister of finance as a political office

bearer, plays a major role in financial administration. As there are financial constraints in meeting the goals of the government there is a need for efficient planning, prioritisation of goals, rational allocation of funds as well as adequate control of the funds allocated. To achieve rational allocation of funds adequate information is necessary.

Public officials who are actually involved in the implementation of public activities in each department have the knowledge of what is required in each department. According to Thornhill and Hanekom (1995:36) effective management of the public service requires a team effort between politicians and top officials. Therefore, these public officials play an important role in providing relevant information which is required for rational decision making even in financial matters.

According to Section 213(2) of the **Constitution of the Republic of South Africa, 108/1996** money may be withdrawn from the National Revenue Fund only in terms of an appropriation act of Parliament. Therefore, the allocation of funds is done in accordance with the political mandate given through legislature. Gildenhuys (1993:180) states that the **Constitution of the Republic of South Africa, 1996** determines the authority over public financial matters. In the Republic of South Africa the present government is a government of National Unity. The **Constitution of the Republic of South Africa, 1996** states that there should be equitable shares and allocations of revenue (Section 26). The National legislation must establish a national treasury and prescribe measures to ensure both transparency and expenditure control in each sphere of government.

4.1 Financing policy in the public sector

The department of finance has certain goals as a department which are influenced by the political views of the government and the availability of resources. Therefore a financing policy has to be set out by the legislature. The financing policy can be described as the general policy in which each level of government prescribes in broad terms how institutions are to be financed (Cloete 1981:109). Therefore, the financing policy is necessary to co-ordinate the allocation of resources as well as expenditure.

4.2 Policy making for financing

According to Thornhill and Hanekom (1995:55) it is impossible to completely separate the various generic administrative functions because they are interdependent. It is therefore impossible to discuss financing without discussing policy making because a policy is essential in guiding the activities of the public service through setting out objectives. In other words the policy making function is to prevent purposeless and uncontrolled activities in the public sector.

4.3 The budget as a financial planning tool

The budgeting procedure serves as a planning as well as a controlling activity, it is therefore an essential procedure for the management to acquire as a skill. There are different types of budget methods each with its own advantages and disadvantages (Gillies 1994:83).

A budget may be defined as the monetary embodiment of an enterprise's operations planning. It constitutes the most effective aid for an enterprise's total planning (Faul et al. 1981:464). Compiling a budget entails decisions such as the objectives to be achieved, activities necessary to achieve those objectives, resources applied in carrying out these activities and the cost of these resources.

According to Marriner-Tomey (1992:74) a budget is a plan for the allocation of resources and control for ensuring that results do comply with the planning. Therefore, in budgeting decisions have to be made throughout the process, deciding which objectives are essential, deciding which plans should fit in the programme and choosing which will be more cost effective. The goal of good budgeting should be to try to move government towards a better allocation of public resources, because unwise appropriation of funds will lead to breakdowns in the provisions of essential services and general welfare of the state will be undermined (Cloete 1991:31).

Budgeting can be said to involve a number of important activities such as planning, prioritisation of objectives and control of available resources. To ensure that these activities will take place, administrative and other tools can be used to ensure a meaningful budget.

4.4 Budgets to facilitate planning, programming and budgeting

4.4.1 Zero Base Budgeting System

Zero base budgeting is a technique whereby the total cost of every item included in a proposed budget must be justified and approved. Resources are not necessarily allocated in accordance with the previous years pattern. This

approach requires the evaluation of all expenditure and of all activity (Coombs & Jenkins 1994:95).

Zero base budgeting has the following advantages:

- Resources are allocated to priorities.
- It improves decision making because budgetary allocation is related to objectives.
- It encourages managers to plan ahead and defend their budgets thus creating more commitment and a feeling of ownership between officials (Gildenhuis 1993:530).

4.4.2 Performance budget

A performance budget is a budget organised in terms of functions rather than items of expenditure.

Advantages of a performance budget are:

- it increases managerial accountability for spending; and
- it makes it possible to identify how much is spent on each programme.

However this approach has the disadvantage of being retrospective in nature. Thus it cannot prevent the expenditure of funds on non essential objectives before it takes place (Gillies 1994:83).

4.4.3 Program budgeting

It is necessary to have programmes which are goal oriented so as to be able to plan allocation of funds effectively. The programmes must be comprehensive with set objectives which act as guidelines on activities that will take place. They must identify goals in terms of short, medium and long term so that allocation of funds is more rational. Therefore, the programmes must be based on adequate relevant information. Prioritising by programming can be used to facilitate making decisions. Programmed planning enables the law makers and state officials to determine which short term programmes need to be financed first in order to attain essential objectives. It also gives the opportunity of co-ordinating certain programmes in order to lead to effective attainment of objectives (Van Straaten 1984:154).

Programme budgeting takes forecasting further by assessing costs on the entire programme being planned. The focus is on the outputs that can be achieved by the programme. The programme budget is multi year and is aimed at realising pre-determined objectives. Programmes which contribute to similar objectives are placed together so that competition for resources takes place with consideration of real alternatives (Gildenhuis 1993:519).

The principle underlying programme budgeting is that the manner in which financial information is classified and communicated should guide managers to make an informed decision based on a global picture of the budget. In detailing activity costs for each programme, the manager gets information concerning costs of labour, manpower availability and technological development. Therefore, programme budgeting helps public officials dealing with finance to choose the most workable solution. It also helps them to deal with priorities first as this information is provided by the programme budget because programme budgeting involves a programme structure which is a hierarchical organisation of activities according to objectives. It therefore helps in making political decisions

because the minister of finance can base his budget speech on a more comprehensive information based on costs, activities and priorities (Craythorne 1980:213).

(a) Necessity of information for financial administration

Information can be compiled through obtaining budget estimates from different departments. In other words each proposed project should be accompanied by an explanatory memorandum and the projects should be ranked in their order of priority (Andrews 1982:61). Information can be compiled for decision making through the use of various administrative tools and techniques such as cost benefit analysis and a program budget and then computerised. The determination of priorities will be influenced by the policy of the government of the day. For instance in the Republic of South Africa the goal is to provide the needs of the people as set out in the **Bill of Rights by Act, 108/1996, Section 7**, which states that the state must respect, protect, promote and fulfil the rights of all people.

(b) Management by objectives as an administrative tool in providing information

Management by objectives (MBO) is a tool for effective planning and appraisal. Important information can be obtained through MBO, which can be used to make decisions that will lead to effective planning. MBO can be used by the manager and staff with a program budget to identify major areas of their work, set standards for performance and measure results against those standards (Marriner-Tomey 1992:379). In other words, MBO can give answers on questions such as how much is being achieved through examination of objectives achieved. It can also help the manager together with sub-ordinates to

make decisions on when and how to take corrective steps when objectives are not being met. According to Roux et al. (1997:235) after resources have been allocated and action plans implemented, progress should be monitored to ensure that the desired objectives are achieved. The evaluation and feedback becomes an aid to further planning and corrective action.

This means that management by objectives can be used to provide essential information for planning as well as to prevent unnecessary expenditure through continuous evaluation of achievement against standards that are set by the people involved in the planning (Mellish & Lock 1992:30). The process for satisfactory management by objectives is as follows according to Mellish and Lock (1992:31):

- There must be identification of a problem related to an activity within the organisation.
- There must be statement of objectives which also involves planning.
- There must be quantification of objectives related to time setting, frequency of occurrence of a particular activity, and quantity of resources required to meet objectives.
- Identification of possible alternative methods to achieve objectives.
- Cost and effort involved in proposed, initial approach and suggested alternatives.
- Constant feedback of interim results to allow for improvement or adaptation of original plan.

Therefore, management by objectives used with a program budget can help officials to make administrative decisions which are directed at improving productivity by examining problems attached to activities as well as setting time frames for achievement and quantifying resources available. Management by objectives helps public officials to make decisions based on facts and maintain objectivity. It discourages emotional decision making as the supervisor and the subordinates have to consider the goals of the institution and link them to their own objectives. In other words, it helps the managers and subordinates to put meaning in their work by correlating their career plans with job realities and organisational needs (Gillies 1994:53).

(c) Computerisation as an administrative tool to information analysis

The computer can be programmed and the relevant data computerised can be analysed to get required information. The computer can be used to simulate complex problems as a way of identifying and forecasting future constraints to the implementation of a certain programme (Hanekom et al. 1987:196). Planning for future financial needs can be improved through the use of the computer e.g. using the programme of student activities for the coming year and the projected number of students for the coming year it is possible to make a decision on how much registration fees can be increased to meet the student needs for the coming year.

Using the computer future costs can be estimated through examining the projected rise of materials needed and the cost of labour which is influenced by the constant demand for an increase in salaries. The computer has the advantage of being able to accommodate vast amount of data with accuracy. Therefore estimates of income and expenditure can be computerised. Using the information provided in programme budgeting the minister of finance is able to make political decisions that are based on rational consideration of financial

costs. Decision on which programmes will be implemented first, will depend on the availability of funds, the costs of alternative programmes and the level of importance of the programme in delivering the needs of the public politically (Fox et al. 1991:57). Thus, using the value system of the organisation as it is operationalised for the computer, it is possible to exercise choice. Possible choices are evaluated against the values and criteria stipulated.

(d) Cost benefit analysis as an aid in preparation of alternatives

Cost benefit analysis is a numerical relationship between the value of a programme's costs and the value of the programme's benefits (Gillies 1994:98). If benefits outweigh costs the programme is considered to be worthwhile. However, this tool is not always applicable because in many programmes it is impossible to separate costs on programme to programme benefits e.g. nursing.

Research may cover a number of units or departments. In some cases the programme benefits cannot be measured in financial terms e.g. the programme for abortions which is directed at preventing giving birth to unwanted babies, the benefits may be a decrease in child abuse which cannot be measured in monetary terms (Fox et al. 1991:288).

Cost benefit analysis can be used to prepare different alternative solutions and to select out of these alternatives the best solution. The managers are forced to making decisions which will choose one way of achieving objectives against another. This is influenced by the fact that resources are always limited and ways that cost less as well as being able to achieve the desired objectives are chosen (Van Straaten 1984:158). Thus, cost benefit analysis is useful in making these decisions as it is involved in adding up the costs and benefits of alternative economic choices and selecting the alternative which offers the

largest net benefit. Cost benefit analysis has the following advantages in making financial decisions:

- It presents a broad base for making decisions by presenting a number of alternatives which indicate costs and benefits.
- It provides a holistic view of the entire project by setting costs and benefits over short, medium and long term basis.
- Decisions are made with a proper view to future planning. The decision makers can also maintain objectivity because they have a picture of what is entailed in the programme.
- The ultimate objective of the government is to satisfy the greatest number of public needs through the available funds. Cost benefit analysis can ensure that this objective is obtained through providing information about the costs and benefits of alternative programmes. Choice is made by examining which programmes will be most cost effective for the government (Van Straaten 1984:158).

Cost benefit analysis can be used as a control measure in budgeting by analysing the costs of the programme against benefits especially after an alternative has been implemented. It controls the allocation of resources to those programmes that will provide the most benefits with less costs. Thus expenditure of funds is controlled to activities that will provide the best benefits. Waste of funds on projects that are not directly linked to the attainment of set objectives is avoided.

(e) Network analysis as an administrative tool in financial management

Network analysis is a tool that can be used in combination with cost accounting to monitor the use of funds. According to Gillies (1994:102) cost accounting is a set of techniques used for associating costs with the purpose for which they were incurred. It is a process that supports the budget reporting system and can be used to examine how relevant the expenditure was to the attainment of goals. Network analysis which is sometimes referred to as network programming is a diagrammatic presentation of activities which are fully programmed in order to achieve specific objectives within a prescribed time (Craythorne 1980:288). Network analysis makes it possible to study the project from the start to completion. It indicates the more important steps in the plan, when they can be started and how long they will take and which activities will influence the performance of others. When this technique is used in combination with techniques such as cost accounting it will help to give an estimation of expenditure and the purpose for which it was incurred.

Since network programming also gives an indication of the longest time that can be taken with each activity, it prevents waste of funds through projects that get delayed and are funded indefinitely. Network analysis forces managers to plan activities and indicate through symbols the starting point, the duration and the sequence through which different activities are going to take place. This brings about control in the budget by looking at the diagram and identifying which activities should have taken place already. Thus project activities are monitored (Van Straaten 1984:172).

In using the above-mentioned administrative tools programming, planning and more efficient budgeting is promoted. By supplying decision makers with relevant, scientific and well structured information, the decision makers can make better decisions.

5. MEANING OF ADMINISTRATIVE AND OTHER TOOLS ON STAFFING

Staffing consist of a series of steps which managers should carry out in order to place, compensate, develop and promote the right people at the right time in the right position (Van Niekerk 1994:107). According to Cloete (1991:151) the staffing function is also known as the personnel function, personnel administration and personnel work. Personnel administration refers to the functions which must be undertaken at all levels of organisational hierarchy to manage personnel.

It consists of three main components such as the:

- Generic enabling processes which are essential for the smooth running of personnel activities.
- Functional activities which must be undertaken to supply, train, utilise, remunerate and retain personnel.
- Analytical instruments and aids necessary to facilitate generic functions and functional activities (Andrews 1982:77).

Taking formulation of a policy as the most important function to initiate the process of personnel administration, it is necessary to emphasize that the personnel policy will be based on the legislature which is a political policy. The legislature prescribes the basic fundamentals applicable to personnel administration. The central personnel office should formulate a positive personnel policy, determine work methods and introduce control measures (Andrews 1982:80). Legislature provides directives on how, where, when and by whom the policy should be implemented. Therefore legislation dealing with staffing or personnel administration matters should take into account the values of the society being served.

The policy formulation can be facilitated by the use of information stored in the computerised information system. Computerized information can provide a vast amount of information at the touch of a button. Information concerning the work to be done, the cost of personnel required and the average work done on daily basis can be computed and a decision made on a policy for employment of personnel (Booyens 1993:634).

The policy for employment will be influenced by the political ideology of the government of the day, which will set broad objectives through its policies depending on what the primary achievements are necessary to meet the public needs. Clear policy statements on all aspects of personnel provisions are necessary if each participant in the institution is to know what is expected of him (Cloete 1986:52).

5.1 Legislation as a guide to personnel administration

To promote fairness and objectivity in handling personnel matters there is the **Public Service Act, 103/1994** through which the Public Service Commission for example has powers to establish or abolish departments. The Public Service Commission can make recommendations concerning the number of posts, grading, designation or conversion in a fixed establishment. It can also make recommendations regarding the scale of remuneration of all the various ranks and grades of officers and employees **Public Service Act, 103/1994:Section 3.**

This means that the provision of personnel is controlled to a great extent by legislation which makes recommendations on all aspects of employment to prevent abuse of the employees through unfair treatment.

It also ensures that selection of employees should be according to a certain standard and procedure. The **Public Service Act, 103/1994** through the Public Service Commission determines the terms and conditions of employment which prevail generally in regard to a certain group or rank of personnel (**Public Service Act, 103/1994, Section 4**).

According to Cloete (1986:50) personnel administration embraces a large number of activities which can be grouped into two categories that is those activities relating to provisioning of personnel and those relating to the utilisation of personnel. For this reason it is necessary that programmes must be prepared to ensure a well organised staff will perform their duties to deliver approved goods and services to the people.

5.2 Personnel provision as part of personnel administration

Personnel provision is an important task because it costs the government a lot of money and the personnel provided have to undertake staff functions in the central personnel institutions. Choosing and allocating personnel at all levels of government institutions is a costly process and should be carried out with utmost care (Van Niekerk 1994:124).

Different departments have different needs for personnel. Thus, it becomes necessary to employ officials with diverse qualifications and varied experience in the central personnel institutions. Specialists in public administration are essential to bring about organisation and integration of all personnel. It is essential to have suitably qualified people to work in the public service commission so that employment of personnel should be directed at obtaining people with appropriate qualifications and experience (Cloete 1991:159).

A clear policy on all aspects of personnel provision is necessary. The policy must be provided by the governing political body to serve as a framework for the preparation of executive programmes. This necessitates the use of administrative tools to enable officials to prepare these executive programmes. Functional activities for personnel provision are entrusted to the central personnel bodies which must align themselves with the functions of the Commission for Administration. Heads of the various public service departments also play an important role in personnel administration by providing factual details and advice which enables them to function effectively (Cloete 1991:156).

Another link in personnel administration is the supervisors at all levels of different institutions. For effective personnel administration to take place, it is necessary that various institutions and individuals should be involved (Andrews 1982:82).

5.2.1 Creation of posts as part of personnel provision

Personnel provision must be preceded by job determination which will provide guidelines for personnel recruitment, selection, placement, training, promotion and remuneration. In order to create posts or jobs, the various functions to be undertaken for achieving a predetermined goal are analysed and grouped together. The purpose of grouping and allocating duties to a specific job is to obtain groupings of duties within the physical and psychological abilities of an individual as well as the skills necessary to perform the job efficiently (Andrews 1982:83).

Creation of posts must begin with the collection of detailed information about the work to be performed. The processes that can be used to aid the process of obtaining relevant information is job analysis and job description.

Job analysis involves collecting and examining information concerning the duties that must be performed in a specific job. Analysis must be directed at the physical requirements, environment and skills demanded of the employee as well as the responsibility attached to a particular job.

It also gives a summary of the content as well as the position of the job in relation to others. This job analysis can be done by a job analyst or a member of the central personnel body. A job description generally presents the principal responsibilities and organisational relationships that make up a given job or position. They define the duties and the scope of responsibility involved in a particular job (Di Vincenti 1990:184).

5.2.2 Meaning of work study as an administrative tool in determination of a job

A work study can be used as an aid in obtaining more scientifically correct and detailed information concerning a particular job. Work study is an aid to management which is based on various techniques particularly the work method and work measurement (Van Niekerk 1982:31).

5.2.2.1 Method study as a technique used in a work study

Method study can be described as a systematic recording and critical examination of all the activities and proposed ways of doing work with special emphasis on developing easier and more effective methods (Andrews 1982:128). It is aimed at finding easier and more efficient ways of doing the

work involved in that particular job without increasing costs. In other words, it is also helpful in looking at the number of personnel required in that particular job. In performing a job certain factors should be taken into consideration such as:

- The selection of the work to be studied. There are several factors to be considered to make sure that this effort is really worthwhile. For instance consideration of how important is the job to be studied to the success of goal achievement is necessary and how change can bring about reduction in costs.
- Consideration of how a change can bring about improvement in the quality of service or product and increase output.
- The importance of examining how improvements can be achieved without increasing costs in labour or equipment (Van Niekerk 1982:25).
- There are also technical considerations to be considered such as the availability of suitably qualified people to perform the job.
- It is also essential to examine how the job is perceived by the people because if it is not acceptable there will be difficulty in obtaining personnel. The values of the people in relation to the job affect job performance, e.g. termination of pregnancy is a sensitive issue though the service is made available by the government because there is a need for such a service. There is however a reluctance in the nursing profession in getting involved in those clinics despite the fact that there are short courses provided to equip the nurses with the necessary skills.
- The environment must be examined to find how adequate and conducive it is to high performance. Using the method study the improvement of working conditions and effective application of material and equipment may be

achieved (Mellish & Lock 1992:208). Thus the assessment of the required number of personnel will be based on valid needs which have been examined through the method study.

To effectively reflect the reality of the situation there must be a flow chart indicating activities involved in the performance of the job as well as movement from one area to another and the frequency. The chart must also point out alternative ways of performing these activities. The chart must reveal events that have been seen to take place, it must not include assumptions and opinions (Larkin 1969:38).

5.2.2.2 Work measurement as a technique used in a work study

Work measurement can be defined as the application of techniques designed to establish the time required for a qualified worker to carry out a specified job at a defined level of performance. Work measurement thus refers to the establishment of a specific time standard in which a trained person can carry out a specific task according to the required standards of performance (Andrews 1982:130).

In general work measurement must be directed at studying time taken for performance of a certain activity by a qualified worker according to set standards. Therefore timing of a poor unacceptable method is not done. Certain factors have to be taken into consideration when doing a time study in order to obtain a certain degree of accuracy. The points to be checked when doing a time study are:

- That co-operation is established through explaining to the operator before hand what is involved in work measurement.

- That the best and safest method is being employed.
- That the quality of work is set according to accepted standards.
- That the operator is experienced, qualified and suited to the work.
- That all safety measures are fully operational and are being employed during the work process (Larkin 1969:101).

Assessment of the various aspects of the operators work for time consistency should be done. Where inconsistency exists examine those areas with a view to improve performance (Cloete 1981:180). Work measurement can be directly linked to the determination of work load for the personnel and the number of working hours each worker can put per day without negatively affecting the quality of work produced.

Work measurement provides basic information concerning time taken to perform certain activities, the activities involved in each element and takes into consideration time necessary for rest, personal needs and contingency plans where necessary (Gillies 1994:270).

According to Graham (1972:28) individual elements of a job may be timed and used to form an assessment of the content of the job. Therefore, information obtained through method study and work measurement can help public officials in creating posts by determining the work load and estimating the number of people who can be employed to do the job efficiently within a specified time. Through work measurement activities can be examined and a decision made on the number of activities that can be involved in a particular job, that can be done by a single person within a given time without bringing about exhaustion.

5.3 Use of systems analysis in promoting co-ordination of personnel

Personnel administration should emphasize co-ordination of activities which is essential in facilitating goal achievement, prevention of duplication and overlapping of services as well as the existence of grey areas which may be neglected. The purpose of human resources management is to obtain the optimal utilisation of employee as well as optimal outputs (Gerber et al. 1995:46).

A systems approach allows the manager to examine the problem and all relevant factors as well as the environment in order to get a bigger picture of what is involved. System analysis can be described as a scientific approach which examines problems as well as look into alternative ways of solving the problems taking the total organisation as a system.

According to Di Vicenti (1990:68) each system is made up of individual functioning components but the focus is on the total system and its end products. Furthermore in systems analysis the study of a system is directed at examining the whole system with its interrelated and interdependent components. The systems approach provides a dynamic point of view that stresses changing relationships and interrelationships. Thus, it takes into consideration that a change in one aspect of the organisation can affect the functioning of other areas. This is an important aspect in South Africa as there is transition and changes in many areas have to be effected. Existing posts and job specifications have changed drastically which means these changes have to be examined to find out how they affect personnel allocation and personnel demands in order to accommodate the idea of rationalisation of public service. Public managers are expected to utilise the services of the available personnel in a manner that will bring about the greatest possible benefit (Thornhill & Hanekom 1995:176).

In performing the systems analysis the analyst has to ensure that the activities of various public officials and functionaries pursue the overall aim of the institution. Special consideration must be taken to ensure that objectives and subobjectives are interrelated so that duplication and overlapping which is often a problem with public services is avoided. The analyst also needs to have certain capabilities in order to succeed in introducing changes. The analyst must be capable of inspiring confidence in the practicability of his ideas and be able to gain their support (Graham 1972:197).

According to Booyens (1993:584) human resources form an important part of the system through which productivity can be improved. Therefore, a systems analysis can be used to examine the influence on the system brought about by personnel factors such as the affirmative action and rationalisation of public services.

There is a need to examine the impact of these factors on productivity. The systems analysis can provide information on how personnel can be utilised efficiently by not duplicating services and can highlight the reality of the feasibility of rationalisation without retrenchment.

5.4 Utilisation of management by objectives in team building and job satisfaction

Team spirit and job satisfaction are necessary in any agency that uses human resources to deliver a service. - It is an asset to any organisation when the employees as a group pull together persistently and consistently in pursuit of a common goal. It has implication for staff turnover and productivity. In a broad sense the inculcation of morale which is a state of mind that expresses itself in

loyalty, enthusiasm, co-operation and pride in the service is the aim of the whole personnel system (Stahl 1976:186).

Management by objectives can be used to ensure that the right personnel are allocated to the right jobs as well as increase motivation while doing the job. Job descriptions are necessary to describe activities when using MBO so that objectives are related to activities and are prioritised according to their order of importance.

A job description can be described as the written information concerning the duties involved in particular job or post. It involves information concerning the responsibilities involved, the degree of supervision, position in the hierarchical structure of the organisation and the qualifications necessary for the job (Stahl 1976:80). Objectives are useful as they provide a course of action to follow in order to achieve the desired goals. They determine what is to be done in future (Di Vicenti 1990:93).

The type of personnel required to do a job will be decided upon according to the type of activities involved in meeting the objectives which are directed at achieving certain goals. The type of activities will also determine which skills are essential in order to perform these activities according to the required standards. Therefore by analysing the objectives of a particular organisation it is possible to determine which activities will be involved (Booyens 1993:127).

MBO can be used together with network programming to determine how many workers are necessary to perform the job efficiently. Network programming is a diagrammatic presentation of activities which are fully programmed to achieve specific objectives within a given time (Larkin 1969:54). Therefore, network programming can give information concerning the number of personnel required to do a specific job and the direction that will be taken. It is therefore possible to estimate the number of people required for the job and whether they are to be temporal or permanent depending on the activities involved. The goal of a

personnel allocation programme is to provide an adequate number of individuals in appropriate job categories to deliver effective service at a predetermined standard (Gillies 1994:270). MBO can encourage team spirit because the subordinates and supervisors will have to agree on the planned objectives and activities involved, so a discussion takes place before implementation. It can also bring about job satisfaction as the person is evaluated according to his agreed objectives. The achievement of these objectives will bring about satisfaction as they are seen as the subordinate's own success in achieving goals. MBO emphasizes the achievement of objectives and can be used for assessment of progress (Marquis & Huston 1994:352).

5.5 Recruitment

Recruitment is an important aspect of staffing because it is essential that the right type of personnel should be attracted to the job. Recruitment is the process of actively seeking out qualified applicants for existing posts in the organisation in a cost effective manner (Marquis & Huston 1994:175). For recruitment to be effective it must be proactive. There must be determination of the need for personnel. A decision has to be made concerning the method of recruitment, for instance which posts are going to be filled by candidates outside the service and which posts are going to be filled by promotion of employees from the institution concerned (Cloete 1986:58). Other factors that need to be considered in determining the personnel of any institution are the retirement candidates, staff turnover, need for leave and the training needs of the people to be employed.

5.5.1 Tools that can be used to aid recruitment

An computerised information system can be a valuable tool in compiling relevant information. It is necessary to collect and record information regarding the current and projected work force in each public sector (Stahl 1976:116). Changes in the government's political ideology bring about changes in objectives and the type of activities that need to be performed. An example of changing demands brought about by a political change is the high rate of attendance in health services brought about by the free health care service.

There is a need to compile statistics of attendance and compare them with the available staff members which will give an indication of the workload. This information can be computerised and analysed to give an indication of the number of people necessary to do the job efficiently (Fox et al. 1991:261).

(a) Work study as a tool to aid recruitment

A work study can be used to determine the number of personnel necessary to perform the activities involved in a job as well as consideration of the time involved in performing those activities. To maintain objectivity and fairness in employment there is a need to have internal policies concerning selection, fields of recruitment, methods of recruitment and promotion procedures. In terms of the **Public Service Act, 103/1994** the public service staff code provides the basis from which details relating to the organisation, establishment of posts, employment, training and general conditions of service are specified.

If it is known how many personnel is needed to do a specific job, the managers can launch a recruiting programme to get people to apply for the job(s).

6. MEANING OF ADMINISTRATIVE AND OTHER TOOLS ON WORK PROCEDURES

Administration in the public sector will not be effective if it cannot provide control over activities that are performed and set standards for acceptable methods to deliver the service. The public sector consists of several people who may have different approaches as individuals in performing tasks within the institution. If public officials are not guided by procedures in performing their duties it can lead to a haphazard manner of performing duties. There is also a need for a code of conduct which will bring control on the type of behaviour allowed in the public sector. Work procedures can form a frame of reference in the evaluation of standards of performance. It is therefore necessary to have work procedures to provide uniformity and to ensure maintenance of standards (Cloete 1981:66).

Work procedures can be described as a series of interdependent consecutive steps which must be taken in performing a certain activity in order to achieve a set objective (Andrews 1982:121). Procedures provide a specific guide on how a particular job must be done. Procedures should be written down so that they can be referred to from time to time by the worker to ensure that activities are carried out correctly. A procedure manual is a handbook that has been compiled to give instructions concerning all procedures that are performed in that particular department (Hanekom & Thornhill 1992:117). Procedure manuals provide a basis for orientation and staff development and are a ready reference for all personnel. Therefore procedure manuals should be accessible to all personnel (Marriner-Tomey 1992:153).

Good procedures can result in time saving and effective service. However procedures need to be written with a questioning mind to determine why certain procedures are done, who will do the procedure, what type of skills are necessary for efficient performance and what type of equipment is needed. The

procedure should be written in a simple language that can be easily understood with illustrations where possible (Cloete 1986:72).

Work procedures provide a standardised approach to performing duties which can also be explained to the public being served so that they know what to expect. This encourages correct use of the service and the ability to bring about public accountability which helps public officials to maintain standards. According to Cloete (1996:194) work procedures are necessary for the following reasons:

- To ensure that activities are directed at achieving the objectives of the institution.
- To prevent waste of time due to different approaches to tasks, taken by individuals when performing duties.
- To ensure control of activities by having standardised and approved methods of doing things.
- To ensure uniform and integrated action in matters where more than one institution is involved.
- To make orientation of new personnel easier and more standardised by having a set method of performing tasks.
- To have appropriate training based on standardised methods of performing tasks. This provides a basis for evaluation of work performance.

- To provide an orderly manner of maintaining a high quality of service by examining and revising existing policies.
- To provide a way of keeping the public informed on how to use the public service. Members of the public are able to maintain standards of the service through expressing dissatisfaction when standards are not being met.

6.1 Factors which necessitate revision of procedures

It is essential that procedures should be revised from time to time because objectives do change. Improvement in operating procedures increases productivity. It is therefore important to identify problem areas and to take note of factors that influence the need for change in procedures. Drawing up work procedures requires expertise, consultation and flexibility. Work study is a valuable tool in determining work procedures. Personnel who are specifically employed for the purpose of performing work studies are used. The personnel of the work study section are usually people who are trained either in method study or work measurement or both and can apply these techniques wherever they are required. They serve in an advisory capacity and are not part of the working staff (Van Niekerk 1982:131).

According to Mellish and Lock (1992:20) it is vital that the team charged with determination of suitable methods for efficient performance should consult the subordinates who will be responsible for carrying out the procedure in order to gain their co-operation.

The following factors are influential in bringing about a change in procedure:

- The government policy provides guiding principles of activities that have to be performed, for an example all procedures in the public sector must not be found to be discriminating against a particular group because the **Constitution of the Republic of South Africa 108/1996 (Section 8)**, provides the **Bill of Rights** which is binding to all government institutions.
- The changing needs of the people mean that the public sector has to continually change work procedures in accordance to the changing needs and situation. For instance now that the women's rights are being emphasised the health department has provided clinics for the termination of pregnancy which is now in demand. Work procedures for these clinics have to be formulated so that these services can be used effectively by the public.
- Technological progress is a factor which brings about changes in work procedures. The introduction of the computer in the public sector for an example has revolutionised the keeping of records and retrieval. Information is now available at the touch of a button when previously it was necessary to wait a long time for a file from the filing department.
- Scientific progress has revolutionised certain procedures in the health service. To give an example Tuberculosis was a disease that involved hospital treatment for at least six months before a sufferer was considered safe from infecting others. Scientific progress in medication has changed this drastically, modern treatment renders the sufferers non infectious within a month.
- Division of labour and specialisation which has resulted from the increase in complexity of government. This has resulted in problems occurring when a department makes changes in work procedures from within to meet their needs without making adjustments in other related institutions. This may result in overlapping or duplication of duties. Duplication may also be a

result of resistance to change; when public officials cling to old and absolute methods of performing tasks inspite of introduction of change.

- Development of administrative science which has resulted in the training and development of supervisors who are qualified in administrative skills with the result that they implement their knowledge through renovation of organisational systems and work procedures.

6.2 Tools that can be used to facilitate the formulation of work procedures

Before dividing work and deciding on a particular work method an analysis of the work involved is necessary so as to identify the best method. The best method should be cost effective that is, cost less in resources and time without decreasing productivity. To identify the best method a work study can be used. According to Van der Waladt and Du Toit (1997:333) work study can be regarded as a tool that management can use to improve efficiency by developing and implementing more effective and efficient methods and procedures.

6.2.1 Utilisation of work study in the formulation of work procedures

Work study can be used as a scientific method of analysing work and coming to a point where decisions can be made concerning the activities to be performed, how they should be performed and who are the best people in doing the job (Andrews 1982:127).

Work study is based on two different techniques that are related to each other, that is method study and work measurement. Steps taken in both studies are similar though method study is directed at improvement of methods of production while work measurement is mainly directed at assessing human effectiveness in performing the task being examined (Van der Waldt & Du Toit 1997:335). Method study can be described as the systematic recording and critical examination of the factors and resources involved in existing and proposed ways of doing work as a means of developing and applying easier and more effective methods (Curie 1978:48).

6.2.1.1 The function of method study in the formulation of work procedures

Method study is essentially concerned with finding better ways of doing work. It contributes to improved efficiency by getting rid of unnecessary work and avoidable delays. It also examines the environment to get rid of barriers to efficiency that exists. The main aim of method study is to reveal and analyse the facts concerning the situation, then examine those facts critically with a view to possible ways of improving. It is also aimed at finding answers based on the results of the critical examination of existing factors. Therefore, method study facilitates implementation of new ideas and accommodates advancement in technology (Van Niekerk 1982:75). The Republic of South Africa at present should use the method study more often so as to bring about change more smoothly and effectively. For instance, the need to establish new clinics in the health department means that a job analysis must be done to find out the principal duties and then method study can be applied to these identified activities.

Method study can be used to change from the traditional methods of performing tasks to new and more effective ways of doing tasks and thus reduce costs of using ineffective methods (Van der Waladt & Du Toit 1997:335). At a glance, method study may seem easy and unimportant but this technique can play a great role in bringing about change and initiating new ways of doing tasks. It is essential that people doing the job should be trained and should have the right attitude which is the desire and determination to produce results (Curie 1978:57).

6.2.1.2 The function of work measurement in the formulation of work procedures

Another aspect of work study is the work measurement. Work measurement can be described as the comparison of a standard with a particular activity involved in work. A work standard is a measure of accomplishment that should be attained in a specific activity under specified methods and conditions affecting the activity (Lazzaro 1959:153). This implies that the person performing the job must have certain skills that are necessary to perform the job and that this person must do this using an accepted level of performance within a specified time. Andrews (1982:130) defines work measurement as the application of techniques designed to establish the time for a qualified worker to carry out a specified job at a defined level of performance.

The essential value of work measurement is that it provides a basis for determining the extent of progress and improvement in performance of a particular task. However the measurement of human work has always been a problem for management, as plans for efficient services or quality products, rely mainly on the accuracy of the amount and type of human work involved that has been forecasted and organised (Lazzaro 1968:143).

The main objectives of work measurement is the establishment of yardsticks for determining the extent of progress and improvement of productive effort in performing a particular activity. It also provides a basis for accomplishing subordinate objectives such as the:

- Planning and scheduling of work more effectively.
- Improved forecasting of manpower requirements.
- Determination of the most economic work methods.
- Determination of the skills required and the time required to perform the task without having a negative impact on the person performing it.
- Estimation of the future requirements for labour and costs involved (Curie 1977:137).

Work measurement can be direct or indirect and different techniques are used for both approaches. In this paper the time study will be explained briefly as a technique for direct work measurement and the predetermined motion time system as an example of indirect work measurement (Van Niekerk 1982:80). Time study is a work measurement technique for recording the times and rates of working for the elements of a specified job carried out under specified conditions and for analysing the data so as to obtain the time necessary for carrying out the job at a defined level of performance (International Labour Organisation 1978:205).

Time studies are concerned with the direct observation of the work while it is being done and are a technique that can be used in direct work measurement. Indirect work measurement uses predetermined motion time system as a technique. The predetermined motion time system is a work measuring technique whereby the times of basic human movements are used to determine synthetically the standard time for a job at a defined level of performance. The system is based on the principle that all human work is composed of basic

They further organise queuing to meet different needs of the customers such as those who have come to deposit money only in a separate queue in order to facilitate service. Delays cost an institution money in terms of time, cost per unit and others, hence the private sector is more concerned with minimising the queue (Van der Waldt & Du Toit 1997:225). Queuing is a common phenomenon in public institutions which is not being dealt with effectively. Long queues result in dissatisfied customers and a decline of the use of the service. For instance a study or observation of the needs of the service at specific times can help the manager to plan and divide work effectively (Marriner-Tomey 1992:32).

An example that can be given in the health service for preventing queuing is the allocation of personnel in the family planning clinics during the holidays in such a manner that there are more personnel on duty during the morning session. This anticipation of increased attendance at a particular time can prevent problems of delays and dissatisfaction. Public officials must be trained in their field of work and have procedure manuals that will facilitate the performance of duties. Distribution of work load amongst the individuals must be even so as to prevent bottle necks in certain areas. The manager must analyse the work load distribution over the shifts and determine how the staff should be distributed (Sullivan & Decker 1992:422).

6.4 Computerised information system as an administrative tool for the revision of procedures

The management information system is regarded as the most important resource in a modern institution. To keep up with the changing environment which can influence the validity of existing procedures in achieving objectives, managers have to use computerised information system. Computer information can be used for several purposes. These include staffing, scheduling, personnel

administration and other programmes. For instance in nursing the computer can be programmed to list the nursing care requirements for a particular patient (Booyens 1993:633). To make effective procedures and keep on revising them, an information system that provides relevant information is necessary. Managers must learn to programme their computers in a manner that will provide information they need.

7. CONTROL

Control is one of the generic processes which enables managers to determine whether public activities are carried out efficiently and effectively. In other words the exercising of control is one of the functions that must be carried out in order to complete the joint actions required to achieve a common goal in the public sector (Hanekom & Thornhill 1992:101).

The main objective of the exercise of control in the public sector is to ensure that account is given to the public by the politicians and the public officials about the activities carried out in government (Cloete 1981:184). The functions of the government with its complex network of executive institutions is to deal with all facets of public service which are directed at meeting the needs of the public. Control is essential to productivity and the improvement of the economy in the public sector. Administrative tools can be used to make it possible for control to take place.

The administrative tools make it possible to quantify as well as allocate responsibility which are the main requirements for accountability. The accounting functions mean that a particular individual is personally responsible for all expenditure of the approved budget (Thornhill & Hanekom 1995:127). The meaning of using administrative tools is that through using administrative

tools such as the programme budgeting estimation of the budget for the coming year becomes possible. Thus, financial planning can be based on set objective, activities and expenditure can be controlled as well as directed towards the achievement of goals.

Quantification of costs and resources can be brought about by the use of administrative tools such as the cost benefit analysis which analyses the costs of different alternatives against benefits to make a decision on what action to take (Fox et al. 1991:288).

The use of network analysis as an administrative tool can ensure a more effective project management. It can indicate the sequence of events, time frames within which these events must take place and indicate costs through indicating personnel needed and the material resources needed (Van der Waldt & Du Toit 1997:356). Control can be brought about through the monitoring of the progress of the activities throughout until the project is completed.

Necessity for the use of the administrative tools to facilitate the exercise of control cannot be over emphasized. The need for control can be based on a number of reasons such as the following:

- The need to increase efficiency by standardising actions;
- The need to evaluate efficiency in planning and achievement of objectives;
and
- The need to prevent malpractices and waste of public funds (Van der Waldt & Du Toit 1997:20).

7.1 Pre requisites for control

Control is the most important aspect of public administration. Yet it is the most neglected administrative process as can be proved by the evidence of overspending which occurs in almost every department in the public sector. For effective control to take place, certain guidelines must be followed and adhered to:

- there must be determination of aims and objectives through a policy statement and quantification of these through programmed planning. Quantification can provide a frame of reference through which evaluations of progress towards set goals can be implemented;
- there must be forecasting of future needs which helps in the estimation of progress and future constraints. In this manner timeous warning is given to the effect that the set goal will not be achieved and thus a change of plan can be implemented;
- there must be appointment of controllers, that is people who will be responsible for the controlling function over and above the supervisors e.g. the appointment of the Auditor-General by the State President is for the purpose of independent control over public affairs (Andrews 1982:69);
- there must be determination of control measures such as the formulation of clear policies and standards which can be used as a frame of reference;
- establishment of formal control measures must also be specified, such as the prescription of the reporting format for public officials; and

- there must be provision of corrective measures when deviations are identified such as the Standing Committee on Public Accounts which investigates deviations identified by the Auditor-General (Roux et al. 1997:156).

Control in the public sector can be divided into two sections, the external and internal control.

7.2 External control

It is control that makes public accountability possible. Political office bearers and public officials are expected to display a sense of responsibility when performing their duties and be able to give account to the public of what has happened in their departments (Cloete 1991:62).

Accountability can be described as a personal obligation, liability and being answerable for actions taken in the performance of work delegated to that person (Andrews 1982:152).

Public service is carried out within a framework of policies laid down by the legislative authority. It is the duty of the politicians and public officials to see to it that approved government activities are carried within the parameters set by legislature. Measures that exercise external control are:

- Legislature which maintains control through procedures such as the budget debate by the Minister of Finance, which gives broad guidelines regarding taxes, and the general economy of the country. The political heads of departments are present during these debates as they are accounting officers of their various departments and must have knowledge of the meaning of the budget concerning the activities in his department. Thus, each political office

bearer has to give account regarding activities in his department (Gildenhuys 1993:127).

- The Standing Committee on Public Accounts which is appointed by Parliament from its own members is also a control measure. The function of this Standing Committee is to investigate the irregularities indicated by the Auditor-General in his report. Thus deviations from the normal procedure are investigated and brought to light in a public report (Cloete 1996:151).
- Appointment of a commission of enquiry should there be any matter which causes dissatisfaction to the public, especially in cases where corruption and misuse of funds is suspected. A recent example in the Free State is the commission of inquiry into the department of education published in the newspaper (Galloway : Express, 10 December:12).

The public protector provides control through investigating complaints brought by the public against the public service. It is important to point out that all these measures would not have been possible if there were no standards or procedures set out which can be used as a frame of reference. The administration tools play an important role in supplying information in determining work standards and procedures through the use of tools such as the work study. It is possible to examine in which way has the public official deviated from the normal procedure and corrective measures can be taken by following set procedures for disciplinary action.

- Formal methods of control specified by Parliament such as inspections of public institutions e.g. the Nursing Council has to inspect all public institutions in which nurses are practising in order to maintain standards. Thus control can be brought about concerning the activities performed within the profession.

- Judicial institutions provide control through public hearings and court procedures which deal with misdemeanours and give judgement (Roux et al. 1997:163).

In theory external control should be mainly at the hands of political office bearers and they should be accountable for each action taken by public officials serving in their departments. However, in practice this is impossible because of the complexity of executive institutions, and the broad manner in which policies and objectives are set by the government (Cloete 1986:83).

The political office bearers are the usual links between the legislature and the executive institutions. However, they have no direct control over the financial administrative activities of their departments such as the collection of funds, banking and spending of funds.

These activities are under the control of the public officials and the accounting officials, who are heading these departments. To overcome the problems of control the state appoints accounting officers who are normally the administrative public officials who are the heads of the executive institutions. These accounting officers normally work under the direct control of the political office bearer holding that specific portfolio (Cloete 1996:152).

The accounting officer works hand in hand with the financial officer who is the departmental accountant. The departmental financial officer is that person who is exclusively responsible for the financial administration and financial record keeping and who is directly responsible to the accounting officer. The departmental financial officer is the adviser to the accounting officer on financial matters. He compiles monthly appropriation statements in which current expenditure is compared with figures in the approved budget expenditure. Any deviations which may be over expenditure or under expenditure must be brought to the notice of the accounting officer (Gildenhuys 1993:160).

Therefore, there are formal set rules for direct communication between the department's financial officer and the departmental accounting officer. The accounting officer also has a duty of keeping the financial officer informed on all policy matters and any other developments which have financial implications within the department. The accounting officer is personally accountable to the Standing Committee on public accounts for the financial administration of his department (Thornhill & Hanekom 1995:128). He is therefore obliged to keep proper records of the financial transactions of his department. It is therefore his duty to ensure that prescribed procedures and rules contained in the **Exchequer Act, 66/1975 (Section 12)** and other legislation concerning the administration of funds, are maintained. The accounting officer is the link between his subordinates who control the budget through implementation of activities, works hand in hand with the departmental financial officer who is his adviser and gives him the information he needs on financial matters. He is also responsible to the minister heading that particular department as the latter is also accountable for whatever happens in his department as a political leader (Cloete 1996:153).

Maintenance of good working relationships with all these people already mentioned is important for effective control as the minister and the accounting officer depend on each other as well as the subordinates and the departmental financial officer for relevant information which can bring about control (Gildenhuys 1993:177).

7.2.1 Tools that can be used to facilitate external control

The information system can be used as a tool to bring about control in the public sector. For instance before Parliament can make decisions on any type of policy, adequate information is needed. Information may be obtained through annual reports, budget estimations and auditing reports. The political office

bearer as the head of the department should during the course of the financial year, keep himself informed of the financial situation in his department as well as the progress achieved towards the achievement of set goals. Thus he can obtain essential information through studying the appropriation statements submitted monthly to the Treasury (Gildenhuys 1993:152).

Reporting can be a useful control measure in providing relevant information if used correctly. There should be a format prescribed for writing reports so that deviations from set objectives are reported timeously to prevent waste of time and money. Another disadvantage of report writing is that it takes place after the event has taken place and cannot be reversed. The person writing the report is seldom honest enough to report negative aspects which may reflect his image negatively (Cloete 1996:207).

The computer can be used to compile and analyse vast amounts of information received by the head of the department. The meaning of using computerisation as an administrative tool is that control can be exercised with more ease and speed. When data is computerised it is possible to process the data quickly to obtain the information required to make quick decisions. Furthermore, decisions can be made based on adequate information if the computer is properly programmed. This means that computers can change the character of information flow, making it more accessible to members of the department (Hanekom et al. 1987:197).

7.3 Internal control

Internal control can be described as the process through which predetermined standards in executive institutions are strictly monitored by leading public officials to ensure that there will be accountability for the approved programmes

(Thornhill & Hanekom 1995:117). There is a need for public officials to devise means by which control can be exercised effectively. Internal control can be brought about mainly through financial control and work performance control measures. Control measures can be formal or informal, however this paper will emphasize the formal control measures. Various tools can be used to exercise control.

The control process should be viewed as being composed of three basic steps which are the establishment of standards, followed by the comparison of performance against these standards, and then the correction of decisions that have been identified. In other words part of the controlling process is the feedback mechanism which must be followed by corrective action (Hodgetts 1979:135).

7.3.1 Tools that can be used to facilitate control of work procedures

Formulations of standards must be preceded by the formulation of internal policies which will be specific to the situation. However, internal policies cannot be in contrast with the broad objectives and policies laid down by legislature.

7.3.1.1 Information system

Information system can be used as a tool to bring about formulation of rational policies. In order to make rational decisions that will result in effective internal policies relevant information is necessary (Fox et al. 1991:261). The meaning of

activities that must be done so that they can easily be evaluated and controlled (Van der Waldt & Du Toit 1997:291).

Management by objectives (MBO) is a technique that emphasizes the attainment of specific objectives and the role played by each subordinate in seeking the approved objectives. The meaning of MBO is that its use promotes motivation and commitment to institutional goals which in time means that control of activities does not depend on the supervisors but on the individual actually performing the job (Gillies 1994:53).

The success of the control function depends on how well the objectives and standards of performance have been spelled out within the programme. It is essential that in planning activities performance must be quantified by stating the accepted level of performance. It is also necessary that the achievement of objectives must be in time frames and must also be measurable (Van der Waldt & Du Toit 1997:293). The meaning of using MBO as tool is that it makes it possible to bring about control by evaluating performance against the programme that was planned. It means that the results of the measurement of performance will give a feedback on what has been achieved and areas in which achievement has failed. The guidance and discussion of set objectives between the supervisor and subordinates play an important role in giving insight into the possibilities and challenges that exist within a particular situation. It provides the spirit of team work which boosts up morale and self control in striving to achieve set objectives (Marquis & Huston 1994:353).

7.3.1.4 Network programming

Programmes are necessary because through programmes the managers are able to monitor activities of the subordinates. Network programming is a

diagram of activities which have been programmed to achieve an objective in a particular time frame (Van Straaten 1984:171).

Network programming consists of a number of elements such as the Gantt and the Programme Evaluation and Review Technique. The Gantt chart is useful in planning and control of activities. It indicates the beginning and the end of an activity. Horizontal bars indicate the work being done, brackets represent the plan and a solid bar indicating the actual situation. Through the Gantt chart the manager can plan and monitor work for a complex project. This device facilitates process evaluation for several interdependent activities (Gillies 1994:202). It is therefore possible to correct delays through re-allocation of resources from slack areas to areas which need more resources. The meaning of using the Gantt chart is that the manager is able to control the progress of activities throughout the project.

The Programme Evaluation and Review Technique (PERT) is a diagram which identifies all the activities as well as their logical sequence. The period for each activity is estimated and written down. Using the PERT the manager is able to make an educated guess on the time of completion and spot delays in time or possible areas of problems and institute means of unblocking bottle necks (Van der Waldt & Du Toit 1997:187).

By the use of the critical path method a chart similar to that used in PERT reflects all significant facets of the programme and presents the critical path which is the longest time for a task to be carried out. By identifying the critical path, it is possible to identify critical activities in a project which will determine its completion and it is also possible to work out costs based on time and other needs (Van Straaten 1984:173).

According to Fox et al. (1991:291) network programming has a number of advantages for the manager which help them to monitor the process of events,

because it shows interrelationships between activities, calculates the use of resources which have been committed to the project, controls progress of activities right through the project duration, as well as re-allocates under utilised resources and determines the optimum project duration. From the above statement it can be deduced that network programming gives the manager an overview of the project as a whole and he is able to influence and change plans to correct delays where necessary. This is what controlling means.

7.3.1.5 Systems analysis

In the public sector dividing work into departments for easier management is something that is common. Departmentalisation can be described as the act of grouping together tasks according to technical activity or any criteria that is found to be suitable for the institution (Van Niekerk 1994:81). However, this becomes a problem where there is lack of co-ordination of goals, poor interpretation of policies with the result that some activities become duplicated and there is overlapping of duties which is a waste of human resources. This is sometimes a fact within which the health services operate, where at one stage the midwifery services were being offered by the Municipality as well as the Provincial Administration. Control of such activities can be brought about by the use of systems analysis. According to Gillies (1994:60) a system is a set of objects or elements that interact to achieve specific goals. Gillies (1994:72) further avers that systems analysis is both a planning and a control tool that provides valuable information for decision making as well as problem solving. Systems analysis can be described as an orderly study of the detailed procedure for collecting, organising and evaluating information within an organisation with the objective of improving control of operations within an organisation (Schoderbeck 1971:276).

The meaning of using a systems analysis is stressed because it creates an opportunity to study each department as a system in relation with other systems in an environment that influences the existence of each system. It provides a way of looking at similarities and co-ordination of services. Thus preventing unnecessary duplication of services. With the present system of re-allocation of public servants it becomes possible to identify areas of need and the manager is able to identify alternative and trade-offs that would increase productivity (Gillies 1994:72).

7.4 Financial control

Control of finances is important because no government activities can take place without financial resources. Financial resources are always limited and are a constraint in the delivery of the demands of the public. However, financial resources are always open to misuse by both political figures and public officials through lack of proper control. Control measures have to be implemented and monitored closely in order to be effective. Another important aspect of financial control is that public officials as well as political heads of departments must be people of a certain calibre. They must be trustworthy, responsible, accountable and committed to their work as well as efficient (Faul et al. 1981:161).

7.4.1 Tools that can be used to facilitate financial control

There are a number of tools that can be used by managers to help them exercise control over the activities that take place in the departments in which they are in charge. The managers need to have understanding and insight into how these tools are used so that they can be correctly and effectively

implemented. However, some of them need specially qualified people to apply them correctly and effectively, such as the cost benefit analysis.

7.4.1.1 Auditing

Auditing can be described as the examination of records of expenditure as well as records of money received in order to ensure that legal requirements relating to accounting and reporting have been complied with (Cloete 1986:38). Auditing is mainly arithmetic in nature and will indicate money received and expenditure. Therefore, it is necessary to bring in examination of the effectiveness of performance in order to make it possible to determine not only financial activities but also the nature of the goal and the degree to which it has been attained (Hanekom & Thornhill 1992:111).

Auditing as a tool for control can only be used effectively if a programme of activities that must be performed and records exists. This means that auditing forces managers to keep clear records according to required accounting procedures. It also means that there must be an approved budget which gives a programme of activities as well as objectives that are to be achieved. This programme helps the auditing process because it provides a frame of reference from which activities and use of funds can be monitored. Maintenance of records is so essential that managers need to have a working knowledge of accounting procedures. The **Exchequer Act, 66/1975** requires that the accounting officer should keep account of all credits and all payments made by him. He must also keep a record of appropriation account. The main aim of the appropriation account is to establish whether the amount voted by Parliament has been spent (Hanekom & Thornhill 1992:56).

According to Gildenhuis (1993:143) internal financial control requires managers to have procedures and financial regulations which can guide the accounting

officer on the type of records that need to be kept so that even those unexperienced can be able to function effectively. There are different types of auditing such as the following:

- The accounting audit which is a financial accounting of all records in connection with finance. The documents are examined to ascertain whether funds have been used for the purpose for which they were voted for. Accounting audit is also directed at maintenance of records showing revenue received and expenditure as well as measures taken to safe guard funds. Payments are examined to find out whether the correct procedures have been followed.
- Appropriation audits examine the budgetary expenditure to ensure that budget appropriation have been utilised for the purposes for which they were voted for and that expenditure and revenue are recorded in the budget in which they occurred. It also examines procedures to find out whether the correct procedure has been followed in obtaining funds.
- Performance audit is primarily concerned with the evaluation of economy that is the efficiency and effectiveness achieved in performing institutional activities. It is also aimed at identifying ways in which a greater value for money can be received. Performance audit is directed at providing a bases for improvement of the utilisation of all resources and developing measures for effective identification of ability as well as enforcing accountability in public (Gildenhuis 1993:496).

Through all these various types of auditing control is exercised by examining procedures and ensuring that they have been followed. These measures and procedures for handling of financial affairs need to be clear and standardised for effective control to take place. Auditing is also done through examining records to find out money that has been received, money that have been spent and how

much of the money appropriated have been spent. This means that clear records of revenue, expenditure and appropriation should be kept by the accounting officers to facilitate auditing.

In spite of all these measures of control through records there is still a great amount of overspending which is usually discovered later after the money has already been spent. Measures to correct this fault can be taken through strategic timing of when auditing should take place. Auditing can be divided into:

- A prior auditing which means that a critical analysis of financial affairs is made before payment. This means that examination of conditions of transactions take place before actual expenditure. It prevents waste of funds on illegitimate projects but it delays the process of implementation.
- Ex post facto auditing is the examination of records of revenue and expenditure after transactions have taken place. Therefore records play an important part in this type of auditing because they can reveal whether any irregularities have taken place (Gildenhuys 1993:492).

7.4.1.2 Cost benefit analysis

Financial resources are often a constraint in planning or programming for activities. It is therefore very important that costs and benefits are correctly analysed and estimated before programmes are implemented to prevent unnecessary waste of funds. Cost benefit analysis is based on the idea that decisions to proceed with activities in the public sector should be based on a full analysis of their costs and benefits. Cost benefit analysis can be described as a

tool that can be used by public officials to select among alternatives the most economic alternative without sacrificing the standard of productivity or services. Cost benefit analysis is a practical way by which the desirability of projects to be undertaken by the government can be assessed, with a view of coming up with the best possible choice to achieve the objective (Van Straaten 1984:139). It makes it possible for the manager to take a long view of the consequences of a particular action. This means that control is exercised to the extent of looking at the impact of taking a particular choice and its influence in the future. It means that cost benefit analysis takes into consideration all the relevant costs and benefits.

Since the cost benefit analysis offers information about the expected cost of each alternative it is able to give a picture of the money needed for each project. It can provide the necessary information to bring about programming budgeting. In cost benefit analysis all costs resulting from purchasing material, operating and utilisation of resources are determined and compared with resulting benefits which are determined in monetary terms (Gillies 1994:87). A ratio is calculated to reflect the relationship of costs to benefits.

Cost benefit analysis is able to look at different variables to come up with solutions. Some costs are not directly proportional to their increment. Cost such as the semi variable cost are costs that do change as the volume of output changes but not in direct proportion to the change in output. Managers therefore, should be familiar with the concept of break-even point (Hodgetts 1979:142).

Some benefits on the public sector though essential to the public are not measurable in monetary terms. However, these benefits can be measured using other methods of measurement such as cost effective analysis which measure costs as well as effectiveness. Effectiveness is measured in units such as the satisfaction of recipients or the quality of goods (Fox et al. 1991:288).

7.4.1.3 Programme budgeting

Budgeting can be seen as a process and aid that is authorised by the legislative body for the executive institutions to spend money on behalf of the people in pursuing the advancement of identified objectives. Sullivan and Decker (1992:410) describes budgeting as a process of planning and controlling future operations by comparing actual results with planned expectations.

Programme budgeting makes it possible for the manager to adhere to the policies set out by the legislature because the budget has to be approved by the minister of finance and discussed with the executive authority to iron out areas of dissatisfaction (Gildenhuis 1993:474). When the budget has been approved activities in the programme budget have to take place as planned. Therefore, money can only be appropriated for the approved activities. Programmed budgeting provides a pattern of activities and thus a control over future operations (Van Straaten 1984:80).

Programme budgeting system is an administrative tool that can be used to exercise control because it provides information concerning the costs of the entire programme. In programme budgeting detailed descriptions of programme activities and cost analysis of the preferred programmes as well as alternative methods of realising the institutional objectives are supplied (Gillies 1994:84). Managers are able to use programme budgeting to control activities and choose the most effective solution to a problem.

7.4.1.4 Cost accounting

Cost accounting is a tool that can be used to support programme budgeting in controlling costs. Faul et al. (1981:437) defines cost accounting as that sphere

of accounting bearing upon the determination of the costs of activities and products, for the purposes of management and profit determination.

Cost accounting can be described as a set of techniques, for associating costs with the purposes for which they are intended. The advantage of cost accounting is that managers can use information acquired to assess the cost of additional demands made on the utilisation. Cost accounting also enables managers to identify the interaction between different expenditures and the progress towards achievement of objectives (Gillies 1994:102).

7.5 Informal control

Every institution in which a number of people are working together informal relations develop. These informal relations are important to the organisation and should be developed. Informal organisation is a product of social processes and is inevitable where a group of people are working. If the relationships are good between subordinates motivation increases and there develops a pride in performing well. The need for imposed control is decreased as the individuals are committed to performing quality work (Cloete 1981:90).

Strategies that can be used by the manager to encourage team work is open communication with subordinates so that matters that cause dissatisfaction can be discussed freely. Management by objectives can also be used because it encourages subordinates to plan their work using objectives under the guidance of their supervisor. This boosts self esteem and self control (Gillies 1994:543).

8. CONCLUSION

To summarise this dissertation it can be concluded that for public administration to be effective and serve the needs of the public satisfactorily several actions have to take place and these actions can be enhanced and supported by the use of administrative tools. There is a need to have clearly defined objectives so that all public officials involved in the delivery of the service know exactly what to do and what they are aiming at, that is the goal. Setting objectives brings about specificity in actions that must be taken. However there can be a multiple of objectives that are directed at achieving one goal hence there is a need to plan and programme activities. This can bring about a smooth running of the activities within the institution because all energies are directed towards a common goal.

There is also a need for programming so that objectives can be prioritized and the activities involved can be set out in their order of importance. A programme makes planning possible so that resources and skills are used as a unified unit in an effort to achieve the set objectives. Programming should involve details of activities involved to achieve objectives. They must also indicate costs that will be involved such as costs in labour and material resources. It is clear that planning is an important part of administration, without planning of objectives and activities achievement of objectives will be unorganised and goals will be distorted. It is a fact that during the process of administration decisions have to be made from time to time.

These decisions are important because they are a choice of the route that must be taken to reach the set objectives. However, rational decision making can only be reached if there is enough relevant information available to the decision makers. Control should be exercised in order to achieve the set objectives. Control can be exercised through implementation of measures that will definitely allocate responsibility and accountability to a certain source which can be called

upon to account for activities that have taken place in a public institution. Effective control can only be brought about if activities are co-ordinated and there are set standards and procedures for performance of duties.

These standards and procedures need to be written down and revised regularly to meet with the changing needs of the people and the changes brought about by the advancement in technology. For instance the use of the computer in public administration has brought changes in how information is stored and retrieved. It has also had an impact on the type of skills required for a manager who now has to be computer literate in order to function effectively. Control must also have a feed back mechanism which can give information on what is taking place from the beginning to the end of the programme of activities. This gives an opportunity to the manager to implement corrective action in time so that a waste of public funds is controlled in time. The aim of managers should be to adhere to control measures and create where necessary measures within their departments which will bring about a better control of resources whether its just a more stringent method of recording and checking stock.

It can be further concluded that administrative tools such as the management by objectives bring about clarity of objectives which is essential for the planning of activities. Administrative tools also bring about more information which makes it possible to make rational decisions. With adequate information decision makers are able to make different alternatives which are based on scientifically obtained information. Decisions are made on facts and objectivity is maintained. This prevents decision makers from taking decisions that are based on emotions and personal needs.

In this complex and modern society it is becoming more imperative to use administrative tools. The management information system is indispensable to the manager when making decisions. Cost benefit analysis and programme budgeting are of great value in planning. Programmes give an indication of costs and the activities involved while cost benefit analysis gives information of

costs and relates them to benefits. The value of this information cannot be undermined especially as resources are scarce and have to be used to the greatest benefit of the public. It is essential that the money available should be used in a way that will meet the greatest number of needs as efficiently as possible.

In this democratic era changes are the order of the day. New projects are being organised to implement new policies e.g. the termination of pregnancy policy. In such cases administrative tools such as the network programming gives an overview of the whole project which can help the managers to quantify the resources necessary and examine interdependent activities through diagrammatic presentation.

Democracy has enforced changes in many areas including work procedures. This revision of work procedures is promoted by the use of administrative tools such as the work study. The work study used correctly and regularly can help in up dating methods of performance and maintain standards. It can also help managers to identify training needs of the staff and areas in the working environment which need improvement.

It is therefore impossible in this modern age to make meaningful decisions, plan and organize to deliver effective and efficient production of goods and services to the public without the use of administrative tools. A systematic analysis of each department is necessary to prevent duplication and overlapping of services, which can be a misuse of funds. Duplication or overlapping of services can result in underutilisation of resources and cause conflict between members of different departments. However the use of systems analysis can identify such problems and provide information for solving such problems.

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