CHAPTER 3

QUALITY MANAGEMENT IN HIGHER EDUCATION

3.1 INTRODUCTION

This chapter gives an overview of quality management in general and links with chapter 2 as it deals with quality assurance in higher learning within a framework of a new dispensation of higher education. The concepts quality assurance, quality management models with special reference to total quality management and institutional quality assurance will be discussed. The chapter starts with the systems theory as the most important element in quality (Evans & Lindsay, 2002:49). Quality management models are characterised by placing a strong emphasis on a holistic approach towards the development of quality enhancement initiatives. Managers of higher education institutions should therefore optimise the whole system in order to achieve the goals of an organisation. A university should also be viewed as a "complex system" (Anyamele, 2005:357; Fourie, 2000:52; Holtzhausen, 2000:118) comprising various structures and interdependent subsystems

3.2 THE SYSTEMS THEORY

Exponents of the systems theory are Ludwig von Bertalanffy, Talcott Parsons and Norbert Wiener. As a biologist, Von Bertalanffy (1968:10) argues that living organisms should be studied as a whole. This point of departure is contradictory to the traditional scientific notion of breaking entities into separate parts in order to understand how the parts are functioning. Since the 1930s all studies of living systems, i.e. organisms, parts of organisms, and communities of organisms, emphasise a "new way of thinking" in science in terms of connectedness, relationships and context.

The view of interrelated elements that function as a whole is also applicable to universities as organisations. According to Holtzhausen (2000:118) the general systems theory offers a way of focusing on the effects of the "interrelationships of complex phenomena (as parts of the system) on the system as a whole". The nucleus of the systems theory is "the whole is more than the sum of its parts". According to Capra (1997:37), systems thinking is "contextual thinking". Things should be explained in terms of their context, which means explaining them in terms of their environment. Capra argues that systems thinking can therefore also be viewed as "environment thinking". This type of thinking is a shift in thinking

from objects to relationships. This concurs with the fundamental principle of quantum physics, i.e. that there are no parts at all; a part is nothing else but a "pattern in an inseparable web of relationships" (Capra, 1997:37).

Capra's arguments concur with that of Talcott Parsons, a sociologist. Parsons developed a theory of sociology as a system (Higgs & Smith, 2006). According to Parsons, all human beings and human activity form part of a social system in which people constantly communicate with each other. Central to the systems approach is the notion of interaction of subunits or subsystems within a system and interaction of the system with its environment. Modern systems theory has a common perception of what constitutes the essentials of a system, i.e. the notion that all systems are sharing common or generic concepts. Systems theory declares that all systems are governed by the same logic laws (Higgs & Smith, 2006:28). Modern systems theory therefore has a quest for understanding the fundamental principles and operating logic of all systems. The systems theory, in contradiction to atomism, is a conceptual framework and "philosophy that claims that life is a system of which we are part" (Higgs and Smith, 2006:26). This new way of thinking was underpinned by the discoveries in quantum physics with reference to atoms and subatomic particles. Atomism argues that components of a system cannot be studied or analysed in isolation (Blackburn, 2005:27; Mautner, 2000:49, Capra, 1997:36). Systems theory is regarded as a powerful analytical and conceptual tool that a researcher can use in the field of complex physical and non-physical phenomena (Parsons, 1991:125).

3.2.1 CHARACTERISTICS OF THE SYSTEMS THEORY

According to Blackburn (2005:359) the systems theory is not a single theory, "but an approach to a complex structure that abstracts away from the particular physical, chemical, or biological nature of its components and simply considers the structure that they together implement, in terms of the functional role of individual parts and their contribution to the functioning of the whole" (Blackburn, 2005:359). Higgs and Smith (2006:28, 29) understand and describe the systems theory in the following statements:

- The world we live in is complicated. The methods of the systems theory can be used to cope with this complexity.
- All systems work within a certain context. The context is usually so complex that any system has to select the data that it will incorporate to use in its overall working.

- Central to the systems approach is the notion of interaction of subunits or subsystems within a system and interaction of the system with its environment.
- The contemporary world is ruled by systems that are in conflict with each other; their functions are different and are evolved to solve different types of problems. It is therefore difficult for these systems to "speak to each other".
- The systems theory is about finding out why some systems operate efficiently whereas others disintegrate.

The following are characteristic of the systems theory according to Higgs and Smith (2006:27):

- Parts of the system work together in some way.
- The system is a whole.
- All systems have goals/ purposes.
- All systems have inputs and outputs.
- All systems take inputs and turn them into outputs.
- All systems absorb and generate some form of energy.
- Systems need to be controlled.
- Systems work in a certain order.
- Systems are specialised.

In summary, systems thinking or systems theory can be viewed as a way of thinking about total systems and their components (Churchman, 1968:11), an understanding of processes that comprise three constituents, i.e. inputs that are turned into outputs by means of certain processes.

3.2.2 INPUTS, PROCESSES AND OUTPUTS

Process thinking emerged in the twentieth century science. According to this thinking within the context of systems theory, there are fundamental structures, and "then there are forces and mechanisms through which these interact" which give rise to processes. Systems thinking is process thinking (Capra, 1997:42). The inputs, processes and outputs of an organisation are all encompassed within "the boundary of the environment" (Sahney *et al.*,

2004:150). Processes within a system combine the input of people, equipment, method and environment to produce output (De Bruyn, 2002:288). The typical inputs or resources of an organisation can be people in the form of labour, physical resources in the form of raw material, capital or financial resources, and information or knowledge. An organisation should transform the environment's inputs to outputs in the form of products and services. Ludwig von Bertalanffy was strongly influenced in his thinking by the concept of homeostasis which led him to formulate the theory of "open systems" (Capra, 1997:43). The concept "open systems" is discussed in more detail within the context of higher education in 3.3.

The activities or transformation processes that are involved in the processing of the inputs to outputs constitute the notion of management. The HEQC's programme accreditation criteria are related to process thinking. The programme criteria are clustered in terms of input, processes and output as well as impact and review (CHE, 2004d; Botha, 2005:78). Within the context of higher learning, the inputs with regard to programmes that are offered by universities are typical issues such as the university's teaching and learning strategy, its assessment policies and procedures, infrastructure, library resources, administrative services, postgraduate policies and procedures, programme design, etc. Resources can also be regarded as input into a system. Resources go through a process of transformation and become outputs (Becket & Brookes, 2006:127). The processes are functions such as programme co-ordination, academic development and success, teaching and learning interactions, student assessment practices, co-ordination of work-based learning, delivery of postgraduate programmes. The output can be regarded as student retention and throughput rates and the impact of programmes. Quality assurance activities within a system, such as a university, should include the assessment of all its dimensions with regard to its inputs, processes and outputs (Johnson, Tsiros & Lancioni, 1995:9; Becket & Brookes, 2006:127).

3.3 ORGANISATIONAL ENVIRONMENT

Organisations that are impacted by their environment can be regarded as institutions with "open systems". An organisation can be a "closed" or "open" system. The composition of the environment should always be examined in which open systems operate. An organisation should therefore continuously conduct an environmental assessment (Evans & Lindsay, 2002:246) or "environment scan".

3.3.1 THE INTERACTION BETWEEN A SYSTEM AND ITS ENVIRONMENT

A closed system is self-supporting and exists independently of a particular environment. As already mentioned, an open system, such as a university, is dependent on the environment in which it operates. The environment is also depending on the system; there is therefore an interaction between the system and environment. The "environment" of the system is what lies "outside" of the system (Johnson *et al.*, 1995:10). If something lies "outside" or external to the system, the system can do relatively little about its behaviour, as the system is unable to control its environment (Churchman, 1968:35., Johnson *et al.,* 1995:10). Therefore, if a university is operating under a fixed budget that it receives from a higher agency, for an example a national department of education or government, the budget itself is then a given and cannot be changed by the institution. The budgetary constraints with regard to the latter are in this case in the environment of the system.

According to Churchman (1968:38), if by some organisational change the system could influence the budget, the budgetary process then belongs partially inside the system. According to Johnson *et al.* (1995:10), the environment will have an impact only to the extent that it causes changes to the elements of the system, namely the inputs, processes and the outputs. The environmental variables should have an influence on the actions of management within as well as outside the organisation (Smit & Cronje, 1999:65). As mentioned above, it is therefore imperative from a management point of view to examine, on a continuous basis, the composition of the environment in which a system operates. The environment is not a constant entity but changeable and sometimes even unpredictable. Continuous assessment is imperative because complex factors can change the unstable environment which will have an effect on the system. The changes in the environment should be identified and acted upon because they determine to a great extent how the system performs. Within the context of industry, the demands for the products that industry produces are determined by individual people or customers. These demands lie in the environment of the system or external to it, because they have the ability to influence the performance of the system.

There are numerous environmental variables that have an impact on an organisation. Management of an organisation has no or little control over the external environment (economic trends, social changes, political developments, etc.). The political change in the new South Africa and its impact on the education landscape is a good example of the impact that the external environment can have on the system (see Chapter 2). Management of

institutions of higher learning in South Africa should therefore be able not only to steer universities towards their own goals and priorities but also towards the goals and the national imperatives of the new government (Moore, 2005:95).

Institutions of higher learning are operating within a competitive and highly technological global environment. The notion of constant awareness of the environment can save an institution from extinction. Smit and Cronjé (1999:65) state that the management of an organisation should "adopt a policy of organisational Darwinism to ensure that the organisation does not become extinct in a rapidly changing world in which only the fittest can survive". The evolution theory of Darwin testifies that species survive because they have the ability to adapt to a changing environment (Blackburn, 2005:88).

3.3.1.1 The micro-environment

The micro-environment or internal environment refers to the organisation in particular over which management has complete control. The vision, mission and goals of the organisation as well as objectives and strategies are variables of the micro-environment. These entail the organisation's strategies that are controlled by management, including its management functions and the organisation's resources, employees and corporate culture (Smit & Cronjé, 1999: 66).

3.3.1.2 The market environment

Market or task environment's key variables are consumers, competitors and suppliers (especially within industry). All these variables create certain threats as well as opportunities. Management should identify, evaluate and utilise the opportunities in the market environment and develop strategies that can meet competition. It is clear that management has little or no control over the components in the market environment.

3.3.1.3 The macro-environment

The macro-environment exists outside the organisation as well as the market environment and includes

- the technological environment that is continuously responsible for change and innovation;

- an economic environment that influences factors such as inflation, recessions, fiscal policy of government and the wealth of the community;
- the social environment where people's lifestyles, habits and values are shaped by culture;
- the ecological environment which comprises natural resources;
- the institutional environment with the government and its political involvement as the primary components; and
- the international environment that refer to the local and foreign political trends and events that influence the organisation and the market environment.

The components of the macro-environment are a given and the individual organisation has no control over them (Smit & Cronjé, 1999:68). As already mentioned, the organisation should take cognisance of the market and macro-environment in order to adapt to them. The concepts entropy and synergy within the context of systems theory accentuate the importance of the interface between an organisation and its environment.

3.3.2 SYNERGY

"Synergy" and "entropy" are typical commonly used concepts in the systems theory. Synergy refers to the notion that the whole is greater than the sum of its parts. According to Smit and Cronjé (1999:64), "the individual subsystems are simultaneously applied in such a way that the result of their simultaneous application is greater than the sum of their individual efforts". Therefore, the various functions of an organisation become more effective and productive as in the case where they function individually. All functions should therefore strive for synergy by means of complementing each other as interdependent components of a system.

Entropy refers to the process of systems disintegration. It is therefore the opposite of synergy. If a system or an organisation fails to conduct environment assessments continuously or to make the necessary adjustments in order to ensure its continuous existence within an environment, the organisation or system is doomed to fail and to disintegrate.

It is already mentioned that institutions of higher learning, as open systems, are impacted by the environment. There is also a continuous interaction between the environment and the

system. In order to ensure that an institution does not become extinct, it should conduct environmental scans as a mechanism to align itself with the unstable external environment continuously.

3.3.3 ENVIRONMENTAL ASSESSMENT

The assessment of the environment as a process in institutional planning, will be discussed in more detail in chapter three. From a systems theory point of view, environmental assessment, according to Evans and Lindsay (2002:246), involves the following:

- The key factors with regard to customer requirements
- Information on the competitive environment
- Financial risk factors
- Human resources needs
- Operational and supplier and partner capabilities

The above-mentioned factors are valuable inputs that can be used during the planning process of an organisation. According to Higgs and Smith (2006:27), managers should ask the following questions during an environment assessment:

- Where does this system fit into the total environment?
- How do the components of the system work together?
- What helps the system to work and what prevents it from working more efficiently?
- What is the goal of the system?

As already discussed, universities can be regarded as typical "open" systems due to the fact that the environment in which they operate has an impact on them. Although universities possess characteristics that are comparable with other organisations, there are also fundamental differences between organisations and universities as systems.

3.4 INSTITUTIONS OF HIGHER LEARNING AS SYSTEMS

The approach of the researcher with regard to the aims of this study is fundamentally a systems approach because the systems theory is forming the basis of the notion "together if it is to be effective" (Evans & Lindsay,2002:92). The systems theory underpins the notion of "integration". The researcher is therefore of the opinion that this research on "integration" of the three functions within an institution of higher learning, i.e. quality management, planning and resource allocation, is based on the fundamental principles of the systems theory. A university should be viewed as a "complex system" (Anyamele, 2005:357, Fourie, 2000:52, Holtzhausen, 2000:118) comprising various structures and interdependent subsystems. The concept "complexity" stems from Latin "complexus" which means "interlaced" or "woven together" (Martinico, 2007:205).

Universities are viewed in this study as systems with a variety of subsystems. Systems theory as a conceptual tool is appealing in its applicability to different situations. However, its application to the field of education has been limited and sometimes even rejected due to what Parsons (1991:129) argues "philosophical reservations". As mentioned above, a system comprises several subsystems (Churchman, 1968:9) that are linked together as "internal customers" and "suppliers". It is imperative for a university's management to take cognisance of the interactions of the university's "parts" or subsystems. This concurs with Evans and Lindsay's (2002:48) definition of a system as "the functions or activities within an organization that work together for the aim of the organization". The university can also be reviewed as an "open-closed" system.

3.4.1 THE COMPLEXITY OF A UNIVERSITY AS AN OPEN SYSTEM

As already discussed, universities can be viewed as open systems (Holtzhausen, 2000:118) because they are influenced by the external environment. Institutions of higher learning, as organisations and "open systems" are operating in an environment that is, according to Strydom and Griesel (2002:64), "complex" and "regulatory". In this context, individual institutions represent the subsystems that function within the suprasystem (e.g. the social, political and economic environment). The complexity of universities as open systems is evident in its interrelationship with elements of the suprasystem (the environment external to the university, i.e. the macro- and market environment) and changes in this environment. In other words, higher education is responsive to the elements in the suprasystem.

There are authors that are of the opinion that in an absolute sense, institutions of higher learning are neither open nor closed systems as it is responsive to external influences of the suprasystem or external environment up to only a "certain extent". Theron (2002:83) explains this phenomenon in the context of schools as organisations with the example of schools that are usually open for the advice of parents, but closed with regard to procedures for disciplining learners. The following discussion with regard to the characteristics of a university as an organisation relates to a great extent to Theron's discussion of the organisational theory of the school (2002:78-115).

An open organisation has usually

- a boundary that is to a large extent "penetrable";
- inputs from the external environment;
- outputs back to the external environment;
- feedback from the external environment; and
- activities that do not take place in isolation (Theron, 2002:84).

The above-mentioned issues emphasise that an interactive relationship between institutions of higher learning and their internal and external environments exists (Holtzhausen, 2000:118), a relationship which is "adaptable" (Basson, Van der Westhuizen & Niemann, 1995:600). The university has a dual nature with regard to its open and closed dimensions, namely a bureaucratic and a professional one (Theron, 2002:85).

The following is evident of a closed organisation:

- It has a boundary that is impenetrable to a large extent.
- Inputs from the external environment are limited.
- Outputs are limited.
- Activities take place in isolation.
- Feedback from the external environment is lacking (Theron, 2002:83).

(i) The university as a bureaucratic and professional organisation

The university's professional area refers to the role of the academic and professional staff of the institution. The researcher identified the following characteristics of a university as a

bureaucratic or rather a "bureaucratic-professional" organisation which concurs with Theron's (2002:89-90) view of schools as bureaucratic organisations. An institution of higher learning has in this regard the following characteristics:

- A hierarchical structure of authority and supervision, of vertical communication (decision-makers receive adequate information and assignments are clearly communicated for implementation purposes).
- Clearly written rules, procedures and standards.
- A variety of plans in order to reach the goals of the institution which includes an academic plan, financial or budget plan, etc.

A university's academic support units and administrative positions are included in the hierarchy in order to accommodate changes in the institution and especially to support teaching and learning. The above-mentioned matters concur with the following characteristics of a university as a "formal" organisation from the point of view of Basson,*et al.* (1995:602):

- Clearly defined policies and goals
- A hierarchical structure of authority, certain tasks assigned to people and posts filled by staff
- Suitable rules and regulations
- Official membership

The university does not dissolve if some of the members leave the organisation (Basson, *et al.*, 1995:602). The university has characteristics of an informal organisation as it has informal groups with informal relationships characterised by spontaneous reaction to interaction and communication.

(ii) The university as a "contingency organisation"

A characteristic of the university that concurs with a contingency organisation is that it responds, as an open system, to the variability demands of the environment. Contingency "may designate a relation between events. One event can be said to be contingent upon another. This means that the first would not happen (would not have happened) but for the second" (Mautner, 2000:112). The concept of force is relevant in dealing with the demands of the environment. Force refers to the intensity of any turbulence that confronts the

university as an open system. The target of turbulence is, according to Theron (2002:91), that part of the system "that is a focus of discontent".

Organisations and universities have commonalities as well as differences. They have to establish systems and processes and utilise resources in order to reach their goals and to ensure quality of their core business. Universities differ also from "traditional type" organisations because they can be regarded as "multi-purpose" institutions by undertaking functions such as teaching, research and community engagement (Lategan, 1997:97).

Husen (1993:6) identifies the following characteristics of institutions of higher learning that distinguish them from other organisations:

- Goal ambiguity, complexity of purpose
- Client service
- Problematic technology
- Environment vulnerability
- Internal fragmentation
- Professionalism

Lockwood (1973:20) identifies the following differences between "common" organisations and universities as organisations:

- Universities are multi-purpose organisations (undertake teaching, research and public services).
- It is extremely difficult to measure the outputs of teaching, research and public service in meaningful terms.
- The composition of membership provides differences, e.g. staff "possess virtual life tenure" in comparison with the majority student population that is replaced every three or four years.
- Universities are "permanent" organisations. Non-survival is not an issue that can trouble members' minds in comparison with members in organisations.
- Within the year universities usually have specific terms and vacation periods. Institutional decisions are usually made during the terms, while the vacation periods usually serve as built-in cooling off periods (relieve stress, but unfortunately interrupt the momentum for change).

- Members of the university collectively constitute its government, but they are also employees with contractual responsibilities.
- Faculties, departments and units are interdependent parts of a unitary organisation.
- Participative management is essential. Authority and initiative for activities are delegated to individuals as well as to constituent parts.

There are also differences in the category of customers in higher education in comparison with customers in organisations. The customers in the context of higher education are unique in variety (Lockwood, 1973).

3.4.2 INSTITUTIONS OF HIGHER LEARNING AND THE ENVIRONMENT

As already mentioned, the researcher views institutions of higher learning as organisations and therefore as "systems". Organisations are systems that consist of "a network of interdependent and synergistic functioning components which, if taken together, can attain clearly stated goals" (De Bruyn, 2002:288). This concurs with Churchman's (1968:11) view of a system as a set of components that work together for the overall objective of the whole.

The general systems theory offers a way of "focusing on the effects of the interrelationships of complex phenomena (as parts of the system) on the system as a whole" (Holtzhausen, 2000:118). The national education system with its institutions of higher learning relates to Churchman's (1968:48) theory of "every system is embedded in a larger system". The education systems in the apartheid as well as post-apartheid, dispensation mirror the political imperatives of political systems of the day and demonstrate a characteristic of the systems principles, namely "interconnectedness" which has an effect on institutions of higher learning as open systems. The systems theory views an organisation as a whole with the emphasis on the links among its various functions or subsystems.

3.4.3 SUBSYSTEMS AS INTERRELATED ELEMENTS

The researcher views subsystems within an organisation as related individual systems fitted together within the organisation as a whole. The subsystems are therefore concrete parts of the total. Subsystems are "systems" in their own right with links and influences with and on

other systems within a university. The subsystems within the context of higher education are typically a university's library, its academic support units, finance functions, administration, etc. The functions and influences that subsystems have towards each other necessitate the assessment of the adequacy of the operation of a system as a whole. Assessment may therefore not be conducted in isolation or in a vacuum, which can occur if organisational barriers between departments exist (Oakland, 1998:13).

The university can therefore be viewed as an organisation composed of numerous functions that are often unfortunately viewed by managers as disconnected, as separate or detached units. The latter is a contradiction of the fundamental principle of the systems theory. If units are working detached from other units or sub-units within an organisation, it is usually a breeding ground for silo management. Research confirms that only 60% of the United Kingdom's managers succeed in encouraging their staff members to collaborate with staff of other departments for reaching the goals of the business as a whole (Maitland, 2006:77).

Institutions of higher learning, are composed of many functions which should not be viewed as individual separate units, but as contributing parts to the effective functioning of the whole. Each part of an organisation, every individual and each activity should focus on the achievement of the institution's goals. This is why it is imperative that a university's management should focus on the links between institutional functions (Evans & Lindsay, 2002:48). McDonald's set a good example of an organisation that takes a holistic approach with regard to their service production evaluations. Their service production evaluations focus on all subsystems as well as the links between them. According to Johnson *et al.* (1995:7), part of the audits of McDonald's is the evaluation of their physical facilities, other service production resources (e.g. atmosphere, cleanliness, seating arrangements, and operating hours), customer-employee interactions (e.g. politeness, friendliness, and courtesy of the sales staff), and end results (e.g. correctness of the order, quality and taste of the food, order taking and processing). According to Johnson *et al.* (1995:8), this approach is based on the theory of the systems approach, i.e. an organisation "consists of an arrangement of smaller subsystems (e.g. departments) and acts within a larger system – the environment". The rationale for the evaluation of an organisation's subsystems and its functions is to identify deficiencies and gaps in the system that should be remedied in order to reach an organisation's goals. Regular evaluations should be conducted in order to ensure continuous improvement of quality. Quality is a notorious term, unclear, confusing, relative and vague. It is even a more challenging task to define the concept in the context of education, due to the vagueness and the element of controversy that surround it (Becket & Brookes, 2006:124).

3.5 DEFINITIONS OF QUALITY

The concept "quality" stems from the Latin word *qualis* which means "what kind of" (Sahney, *et al.,* 2004:145). This concept has a range of meanings and nuances which make it in a certain sense indefinable. The term quality management in higher education is viewed in this study as an institution's ability to create quality in its core business, i.e. teaching and learning, research and community engagement. The researcher views quality management as "systematic management", i.e. an institution's results are the products of a planned effort. It is a systematic approach because an organisation's quality results can be linked to its planned and deliberate endeavour. Quality assurance, as quality management, can be described as planned and systematic actions to "provide adequate confidence that a product or service will satisfy given requirements for quality" (Becket & Brookes, 2006:126).

3.5.1 QUALITY DIMENSIONS

As stated above, the concept "quality" means different things to different people. There is still no agreement amongst scholars on a clear definition of what the concept "quality" is. It is a challenging task to define quality in higher education (Becket & Brookes, 2006:124). This uncertainty may result in giving quality a sort of enigmatic description (Pretorius, 2004:104). The concept is relative to the user of the term and the context in which it is used. As an example, in higher education the concept "quality" may be viewed differently by its stakeholders, i.e. students, academics, the labour market, the community and government. Pretorius (2004:105) refers therefore to the "different manifestations" of quality.

The context in which the term is used, as well as the user (s), determines the definition of quality. Quality can be viewed in terms of that which is supreme, which is unconditional and what cannot be compromised. This viewpoint reminds of the traditional point of departure with regard to quality in higher education. From a philosophical point of view It relates to what Huserl calls "apodeictic", or better known as "apodictic", provable and possessing certainty beyond dispute (Blackburn, 2005:19) or even an intention to state what *must* be the case (Mautner, 2000:31).

The judgment of quality takes place against certain standards as thresholds. It is a method to determine to what an extent standards are met or exceeded (which is usually linked to the expectations and needs of the customers). Within the context of industry, "good quality"

reduces costs due to satisfactory returns and it generates customer satisfaction. The customer is therefore a key role player with certain needs and expectations; this emphasises the importance of the concept "customer satisfaction". An organisation receives its dividends for good quality and satisfied customers by means of ongoing support and very often by means of favourable word-of-mouth advertisement by its clients (Evans & Lindsay, 2002: 4).

Although the debate with regard to quality seems to be open to doubt (Pretorius, 2004:105), there is a widely different conceptualisation of the concept in higher education. As already mentioned, this is due to different approaches to quality in industry in relation to education (Mizikaci, 2006:38). This is why the concept "quality" should rather be redefined within a higher education context. The HEQC's Founding Document states that the HEQC will employ criteria for quality in terms of value for money, fitness for purpose and transformation within a fitness-of-purpose framework (CHE, 2001:14). In the following section are some of the most common dimensions of the concept "quality":

3.5.1.1 Quality as "exceptional" or excellence

Viewing quality as exceptional or excellence can be seen as the "transcendent approach", a distinction that is made between fine and poor quality (Rao *et al.,* 1996:26). Pretorius (2004:104) states that the concept "quality" can be used in an absolute as well as in relative terms, which can contribute to the confusion that exists with regard to a definition for quality. The notion of quality in an absolute sense means that it is viewed as that what is "exceptional", distinctive or of highest standard (Rao *et al.*, 1996: 26). Quality has, therefore, from this point of departure an "elitist" meaning (Barrow, 1999:30; Pretorius, 2004:105). It refers in this view to products of high standard, as something of "high class". This approach to quality renders it an attribute of exclusivity, of unattainable at most. If an education provider views quality as exceptional, it means that very high standards are exceeded, as embodied in "excellence". It surpasses a set of minimum standards. This approach is typical apodictic and absolute in the sense that one "knows instinctively" what is quality.

3.5.1.2 Quality as perfection, consistency or zero defect

The focus of quality as zero defect is on processes and specifications. The latter can be achieved through a "zero defects" approach and the creation of a "culture for quality". This viewpoint of quality is "defined most easily in mass industry in which product specifications can be established in detail" (Mizikaci, 2006: 37). Quality as perfection or zero defects can be questioned within the context of education because there is no real consistent conformity

to standards in education, particularly given the fact that the standards of conformance are mainly achieved by the students (Sahney *et al.,* 2004:146).

3.5.1.3 Quality as fitness for purpose

The fitness-for-purpose approach relates quality to the purpose of a service or a product. It defines quality in terms of fulfilment of the needs and expectations of the customers. Juran refers to it as the "user-based" approach (Rao *et al.,* 1996:27). According to Barrow (1999:30) the "product" of an organisation should meet the needs of the "consumer". Therefore, the customer or consumer specifies the needs. "It implies learning how the user plans to use the product and making the product to fit that need" (Rao *et al.*, 1996:27). Green (1994:15) regards fitness for purpose as focusing on the effectiveness of institutional mechanisms in order to reach stated goals. De Jager and Nieuwenhuis (2005:252) define this notion of quality in the context of education as, "based on the ability of an institution to fulfil its mission or a programme of study to fulfil its purpose". This definition concurs with Barrow's (1999:30) definition of fitness for purpose as "a measure of the extent to which an institution can fulfil its mission, or an educational programme to meet its aims". Quality as fitness for purpose requires that the "product or service has conformity with customer needs, requirements or desires" (Mizikaci, 2006:38). This concurs with the customer-driven approach of quality as "meeting or exceeding customer expectations" (Evans & Lindsay, 2002:15).

3.5.1.4 Quality as transformation

Quality as transformation in the context of higher education, refers to adding value to the student as a lifelong learner (Pretorius, 2004:105), it focuses therefore on the student as learner. It deals with the empowerment of students to take control of the learning process (Barrow, 1999:30). This approach is sensitive for the needs of the variety of clients. The better the quality of an institution of higher learning, the better it will achieve its goal of empowering the students with knowledge and skills which they will need in a knowledge-driven society.

Within this "client-centred" point of view, an organisation can never reach the point that its quality can be declared as "good enough". There should always be better ways in satisfying the client which emphasises the notion of continuous improvement (Sallis, 1996:3-5). Pretorius (2004:105-106) and Ferreira (2003) are exponents that emphasise the importance of pursuing continuous improvement for higher education institutions, and not only for

focusing on the achievement and maintenance of quality. According to Genis (2002:65), quality as transformation is "the continuous development and enhancement of new knowledge as part of the empowerment of learners". The latter became a more relevant definition within a post-apartheid higher education context.

3.5.1.5 Quality as value for money

Defining quality as value for money has the notion of accountability at its centre. According to Mizikaci (2006:38) it is based on the need for restraint in public expenditure. Barrow (1999:30) defines it as: "quality as value for money where the outcome of the educative process is seen as being achieved at the lowest possible cost".

3.5.1.6 Quality as conformance to requirements or the manufacturing-based approach (quality as threshold)

Crosby (Rao *et al.,* 1996:27) refers to the manufacturing-based approach as the 'conformance to requirements" approach. The quality of a product, especially within industry, is usually determined to the degree in which manufacturing can conform to the standards that were set by the engineers. This approach has the advantage of offering an objective measurable quality standard. Improved conformance ensures savings with regard to rework, scrap and resolution of errors (Evans & Lindsay, 2002:25). Quality is therefore viewed as "threshold". It is viewed in relative terms of standards which should be met. It adopts an egalitarian meaning by referring not only to characteristics of products and services, but even more to the degree to which standards should be met (Pretorius, 2004:105).

3.5.1.7 Quality as fitness of purpose

There is a difference between the notion of fitness *for purpose* and fitness *of purpose.* Both approaches are recommended for South African institutions of higher learning (Lategan, 1997:99., Botha, 2005:48-50). Criterion 1 of the HEQC's audit criteria document refers to "fitness of purpose" of an institutional mission. This approach links with the notion of "accountability", i.e. institutions of higher learning are accountable to their stakeholders. The researcher views quality as fitness of purpose as a concept that refers to the country's national imperatives in a new dispensation of education and an institution's ability to align itself to issues within this context such as equity, access, effectiveness and efficiency (see

also Chapter 2). Fitness of purpose acknowledges the "politics of quality", according to Botha (2005:48).

Politics of quality should be understood as the way in which external quality bodies (such as the HEQC) legitimise their activities as bodies that operate within a framework of delegated accountability utilised by governments in order to steer a country's system for higher education (Harvey, 1998: 238-239). Therefore, the statement can be made that the HEQC utilises fitness of purpose as a steering mechanism through which higher education in South Africa is steered towards the transformation goals of the new government (*cf.* 2.4; 2.5).

3.6 TOTAL QUALITY MANAGEMENT (TQM)

Organisations can utilise several quality management systems in order to guide them in their endeavour to reach effective quality management. Total quality management (TQM) will be discussed in more detail in this study as it is an integrated system with generic quality management principles, techniques and processes that developed over many years and that have been proven to be effective for many organisations and especially for institutions of higher learning.

Meyer (1998:32) defined a quality management system as a design to manage the continuous improvement of all processes in an organisation in order to meet the expectations of the customers.

It is not an unfamiliar practice for education institutions to develop their quality management systems based on the TQM principles and philosophies (De Bruyn, 2002; Bonstingl, 1992; Bonstingl, 2001; Crawford & Shutler, 1999; Cruickshank, 2003; Sallis, 1996; Coate, 1990; Cope & Sherr, 1991; Cornesky, McCool, Byrnes & Weber, 1991., etc.). TQM principles are "most salient to education reform" (Mehrotra, 2010:1). TQM's fundamental purpose is to enhance service to the client. There are different TQM models that institutions can utilise, e.g. the Malcolm Baldrige Criteria for Performance Excellence, the European Foundation for Quality Management and the International Organisation for Standardisation. Rao *et* al. (1996:37) refer to TQM as "a set of tools and techniques used to ensure quality products and services".

The TQM Model can be described as processes that collect, analyse, and act on stakeholder/customer information on a continuous basis. Customer "knowledge" together with a range of other information and data feed into the planning process which forms the

foundation for all quality-related activities on strategic, tactical and operational levels. This emphasises the importance of planning processes for institutions that implement TQM.

An important element of TQM is participation. An institution that implements TQM acknowledges the role of each individual in its structures as the agents through which work is performed. The leaders are viewed within the TQM approach as the members that are responsible for the development, implementation and refinement of all quality activities. They are the main role players with regard to strategic planning. They empower the members of an organisation and allocate sufficient resources in order to ensure that the plans on all levels can be implemented in order to reach organisational success.

Oakland (1998:18) describes TQM as an approach to improve the competitiveness, effectiveness and flexibility of a whole organisation. According to Oakland (1998:18), for an organisation to be "fully effective, each part of it must work properly together towards the same goals, recognizing that each person and each activity affects and in turn is affected by others". This concurs with sentiments of the systems approach as previously discussed (*cf.* 3.2). In order to understand the TQM approach, it is imperative to look at some of the philosophies of the "quality sages" such as Deming, Juran, Ishickawa and Taguchi.

3.6.1 THE PHILOSOPHIES OF THE QUALITY GURUS

It is only during and after the Second World War that "quality management" developed as a mechanism to enhance manufacturing processes. After the War the United States of America (USA) set the pace with regard to the best technology and success in comparison with other industrial countries. It was during these years that Japan utilised the knowledge of Edwards Deming and Joseph Duran. Deming and Juran were two quality professionals and experts in the notion of "ongoing improvement of products" in the USA. Japan invited them to conduct workshops and training sessions in Japan on quality enhancement. Japan succeeded in embracing the quality principles of Juran and Deming and managed to develop and integrate their own theories. These interventions in Japan's economy contributed to a great extent to its global leading position which it had in the 1970s. The following are some of the most prominent quality professionals that set the framework for the development of quality management:

3.6.1.1 W. Edwards Deming

Deming was a student of Walter Shewart of Bell Laboratories (Liston, 1999:8) whom he met in 1927 (Rao *et al.*, 1996:37). Unlike other quality management gurus, Deming never defined quality (Evans & Lindsay, 2002:91). He assisted engineers during the Second World War to produce war ammunition (Liston, 1999:9). Deming went to Japan in 1950 in order to advise Japanese managers on the improvement of production effectiveness (Smit & Cronjé, 1999:51). Deming was a respected statistician, and influenced by the work of his master, Shewart. Shewart utilised statistical process control in order to study variation in the performance of systems (Liston, 1999:8). Deming introduced quality assurance principles to Japan.

In the middle 50s Japan was poor and in need of direction with regard to quality. He believed that an effective organisation is one that introduces statistical control as a means to reduce variability. According to Deming, the outcome will be uniform quality and predictable quantity of output. His philosophy was to reduce uncertainty and variability in the designing and manufacturing processes. Variation is the main cause of poor quality in industry (Evans & Lindsay, 2002:91). He asserted that unless quality is measured it cannot be improved. According to Deming, the principle for the management of quality is not control but improvement (Liston, 1999:51). Deming's philosophy consists of the following fourteen points that he preached in his early work (Rao *et al.*, 1996:38; Oakland, 1998:354; Evans & Lindsay, 2002:92):

1. The purpose and aims of the company should be published to all employees and the management should demonstrate their commitment to it.
2. The new philosophy should be adopted, learned and passed from top management to every individual in the company, i.e. no longer live with the common levels of delays, mistakes and defective workmanship.
3. Mass inspection should be ceased and replaced by statistical evidence of process control. The purpose of inspection should be understood as the process of enhancement of processes and the reduction of cost.
4. Material should only be bought from a supplier that implements quality processes. The practice of awarding business on the basis of price tag alone should be ended.
5. Problem areas should be identified by means of statistical methods. The system of production should be continuously improved. It is management's responsibility to continuously work on the enhancement of the production system.
6. Institute modern aids on the job. Training on the job should therefore be conducted with modern methods.

7. Modern methods for supervision should be instituted. "Teach and institute leadership" (Evans & Lindsay, 2002:92).
8. Fear should be driven out. Trust should be created. Every individual should feel that he or she works effectively for the company. A climate of innovation should be created.
9. Barriers between departments should be broken down. The aims and purposes of an organisation should be optimised by the efforts of the company's teams and staff.
10. Numeric goals should be eliminated. This includes the elimination of slogans, posters and goals that motivate the workforce to aspire to new levels of productivity without the provision of methods.
11. Work standards should be reviewed in order to account for quality (work standards that prescribed numerical quotas for production should be eliminated). Instead of utilising numerical quotas, improvement methods should be established. Management by objective should also be eliminated and replaced with learning how to improve processes.
12. The barriers that deprive people of their pride of workmanship should be removed.
13. Education of staff and the notion of self-improvement should be motivated. People should undergo a vigorous new skills training programme.
14. Action should be taken in order to accomplish transformation. Top management should establish a structure in order to push the thirteen points on a daily basis.

The following three philosophical categories underpin the above-mentioned points of Deming (Rao *et al.,* 1996:38-40), of which the following are of significance for this study:

- Constancy of purpose: Deming believed that the organisation cannot subscribe to an enhancement programme if management is continuously changing the organisation's approach. It is important that the suppliers of an organisation realise that policies are not constantly changing, as this will foster good long-term relationships (a cooperative relationship should be developed).
- Continual improvement focuses on the importance of management to be committed to this notion and not to accept the errors that exist. He believes that every individual should be trained to utilise statistical methods in order to determine existing causes of errors. Through education, workers will be able to monitor their own work and act when defects are identified. The causes of the defects are distinguished by Deming as "common" or "special" causes. Common causes are evident in many operations in a factory and are usually the result of poor product design, machines that are not fit to perform what they are designed

for, unpleasant working conditions, etc. Special causes are specific to a situation, e.g. a lack of training, poor materials or a worker that makes a mistake. Special causes can be controlled by a department or individual and be corrected without management support.

- Cooperation between functions: The third theme focuses on the notion of cross-functional collaboration. It is imperative that every individual knows the job that he or she is doing. A key tool to use in this regard is to work across functional lines.

The TQM philosophy has customer needs and expectations at its centre. Deming's theory of management is based on quality principles (Liston, 1999:9). He believes that quality is the responsibility of management, rather than focus on technical aspects.

3.6.1.2 Juran

Juran graduated as an engineer. He was a quality management consultant together with Armand and Feigenbaum in Japan for the JUSE or the Japanese Union of Scientists and Engineers in 1951 (Liston, 1999:9).

According to Juran, managing quality involves three processes, namely quality planning, quality control and quality improvement (Rao *et al.,*1996:40):

- Quality planning: According to Juran, It is imperative always first to identify the customer. The customer is anyone that is impacted by the process. There are basically two "types" of customers, i.e. internal and external customers. The customers' needs should be established followed by the establishment of quality goals which include minimum cost, followed by process design.
- Quality control: Juran refers to critical elements that should be controlled. After the identification of the critical elements, the methods of measurement should be defined, followed by the development of standards of performance. If performance is measured against standards, deficiencies will be identified, followed by actions. According to Juran, the control of quality should, be delegated to the person that is performing the task or to the lowest possible level. Staff needs therefore to be trained in data-collection and problem-solving techniques.

- Quality improvement: Enhancement projects should follow after certain improvement projects are identified. A team should guide the project, identify the causes of deficiencies and provide the solutions. They should develop mechanisms to control the new process.

The following, according to Juran, are the steps in total quality management (Oakland, 1998:354; Rao *et al.*, 1996:42):

1. Create an awareness of the need for improvement. A quality planning council should be established, consisting of senior managers. They establish policies, set goals and provide the resources in order to carry out the plans and change the performance review system in order to include the attainment of quality goals.
2. Set goals for improvement. The goals should be based on benchmarks and not historical performance. The goals of external customers should be based on benchmarks while the internal customer goals are focused on the elimination of "waste".
3. Organise to attain the goals by means of the establishment of a quality council, the identification of problems, selection of projects, appointment of teams and designation of facilitators. In order to meet the quality goals of an organisation, it might be necessary to alter the organisation's infrastructure.
4. Resource plans in order to implement them.
5. Solve problems by means of the implementation of projects.
6. Report progress.
7. Give recognition.
8. Communicate results.
9. Keep score.
10. Make annual improvement part of the regular systems and processes of the company.

3.6.1.3 Crosby

Like Juran and Deming, Crosby was also an engineer. He expounded the advantage of the quality management approach of the Japanese in the 1970s, bringing to it a pragmatic realism (Liston, 1999:10). According to Crosby, quality is "free" and zero defects are possible goals to be achieved (Rao *et al.,* 1996:43). The concept of zero defects was developed by Shigeo Shingo and immortalised by Crosby (Liston, 1999:9). Crosby's definition of quality is "conformance to requirements". He believed that zero defects can be achieved if prevention techniques are improved as it will cost lest than improving inspection

levels. According to Crosby, there is therefore a link between the cost of conformance (appraisal and prevention costs) and quality. The following are Crosby's quality management "absolutes" (Rao *et al.*, 1996:43; Oakland, 1998:353; Liston, 1999:10):

1. Quality is conformance to requirements. Every individual in an organisation should know what the requirements are and what is expected from him/her. Whatever is produced should rather conform to requirements than to specifications.
2. Quality should be measured against the cost of not conforming to standards.
3. Quality is linked to system prevention. Prevention is an outcome of training, leadership, etc.
4. Errors are not acceptable as quality performance standard are zero defects. Management should not be satisfied with anything less than zero defects. The achievement of zero defects is not a worker problem but the responsibility of management.
5. Problems originate right through an organisation. It is the responsibility of management to rectify the problems.

Crosby developed a fourteen-point plan in order to enhance quality (Oakland, 1998:353):

1. It is imperative that management should demonstrate their commitment to quality improvement and "subscribing to a written quality policy" (Rao *et al.*, 1996:44). Management should make it clear that they are committed to quality (Oakland, 1998:353) and the quality policy should be clear on what is expected from individuals in order to meet the needs of the customer.
2. Cross-functional quality improvement teams, including heads of departments, should be established for improving quality. Quality improvement teams should therefore consist of representatives of departments.
3. Identify where the quality problems are (current and potential). Measurements for quality in all activities should be established, e.g. time lost due to the failures of equipment, percentage of late reports, etc.
4. The cost of quality should be evaluated in order to identify where quality improvements can be made profitably. The cost of quality can be used as a management tool.
5. It is imperative to create an awareness of quality across the organisation. Participation of all staff is imperative by making them conscious of costs. The concern of individuals and the quality awareness of all employees should be raised.
6. Actions should be taken where problems occur. Remedial actions are imperative for the enhancement of quality in the areas identified in steps 1-5.

7. Establish a committee for a zero-defects programme. The members of the quality improvement team should plan for zero defects.
8. Staff members should be trained to carry out their part of the quality enhancement programme.
9. The organisation should hold a Zero Defects Day in order to signal to staff that a new performance standard is established (employers should realise there is a change).
10. Individuals in the organisation should be encouraged to set goals for themselves and for their groups, which should be measurable and specific. It should be possible to measure progress against them.
11. Employers should be motivated to communicate to management the hindrances to achieve their quality goals. All barriers that prevent employees from attaining these goals should be removed by means of reporting to management.
12. Participants should receive non-financial recognition.
13. Team chairpersons, including quality professionals, should form a quality council. The council should conduct regular meetings, should share experiences and generate ideas.
14. The quality-improvement programme never ends. This emphasises that quality improvement is an ongoing process.

3.6.1.4 Feigenbaum

According to Feigenbaum, the concept "quality" is excellence-driven rather than defect-driven. He concurs with Juran with regard to the view that the customer defines quality. Quality includes all functions of an organisation. His quality philosophy is therefore extended beyond the factory floor in order to include the whole organisation's functions (Rao *et al.*, 1996:45). This reminds of Crosby's approach to TQM as a "broader scope". He views top management as the "drivers" of quality. Feigenbaum utilised the Cost-of-Quality approach in order to persuade management to adopt a quality strategy. He is of the opinion that the roles of inspectors should be redefined as functionaries that act as consultants who promote new methods and techniques. Feigenbaum had a user-based quality approach, it is therefore imperative to ask the customer what quality is. He made use of mainly quantitative methods in his approach to quality enhancement.

3.6.1.5 Ishikawa

Kaoru Ishikawa was a professor at the University of Tokyo and the founder of the Japanese Union of Scientists and Engineers (JUSE). He advocated total quality control prior to the

Second World War in Japan (Liston, 1999:9). He had qualifications in chemistry and his father was the president of two industrial groups. His father was therefore in a position to offer him a position and access to Japan's top industrialists and engineers (Rao *et al.*, 1996:48). Ishikawa advocated the utilisation of statistical methods, and he committed his life to the enhancement of total quality throughout Japan. He created the cause-and-effect diagram which is known as the Ishikawa diagram and views the customer as the primary agent in defining quality. Ishikawa developed the concept of Quality Control Circles.

Staff members that are involved in Quality Control Circles are voluntarily put into teams with the purpose of solving problems. Ishikawa developed seven statistical tools in order to promote quality. Workers in Quality Control Circles should utilise these tools to analyse and solve problems and these solutions will then be implemented with the support of management. Ishikawa's quality philosophy is based on a reliance on workforce education as he believes that workers who are educated can solve problems by means of processes. Management, according to Feigenbaum, should act as a coach that reacts to facts and support workers to apply the problem-solving tools. Quality Circles are voluntarily formed by staff when an opportunity for improvement arises. Ishikawa conceptualises the next person in line as an internal customer. He believes that the person closest to the customer is more informed with regard to the needs of the customers.

3.6.1.6 Taguchi

Genichi Taguchi received the Deming Prize several times for his endeavour to enhance quality in Japan. He made statistics practical in his quality improvement approach. Taguchi concurred with Crosby with regard to quality as conformance to requirements. He proposed that loss is an outcome of what he referred to as "non-quality" (Liston, 1999:9). According to Taguchi, quality and reliability should be built in from the design stage.

3.6.1.7 Shigeo Shingo

Shingo believes that processes should become mistake-proof (Liston, 1999:9). This can be achieved through design and control (e.g. the design of a headlight in such a way that it can only be installed if the "right way" is pointing upwards).

The Japanese manufacturers experienced major successes after introducing management philosophies based on accurate measurements in order to detect deficiencies empowering workers to invest in training, speeding the notion that quality is everyone's responsibility.

With reference to the discussion of the systems thinking theory at the beginning of this chapter, the "system" is fundamental to the TQM approach (Rankin, 1992:72-74., Pretorius, 2004:106).

3.6.2 TQM AND SILO MANAGEMENT

Silo management occurs when an institution violates the fundamental principles of the systems theory. A few remarks on the systems theory have already been made in this chapter. As already discussed, organisations are systems that comprise interdependent (and synergistic) functioning components; if taken together as a whole they can achieve the goals of an organisation. The rationale is that the components together must service the total system and not the individual components. Managers work on the system in order to reach the aims of the whole system. The work of the members in a system should be viewed as continuous processes which should be managed in order to reach certain outcomes (De Bruyn, 2002:310). When one component, function or subsystem benefits without regard to the entire system, the total system is suboptimised. It is therefore the ongoing processes of an organisation (system) that make it possible to achieve its goals.

TQM is the opposite of stovepipe management (Rao *et al.*, 1996:472) where key functions are managed, separated by "walls" which create a silo management or "stovepipe" approach (Rao *et al.*, 1996:472). Fazzi (1999:1) refers to "invisible silos" as silos of the mind. Typical of invisible silos is the illusion of staff members of a specific function, unit or department that their work is more important or even the single most important function in an organisation. They may view themselves as self-contained units and regard other departments as having to be responsive to their needs (Fazzi, 1999:1). As mentioned above, the fundamental principle of the systems approach is that the success of an organisation depends on all its subsystems (units, departments, etc.) to achieve a common goal. All the processes of an organisation should be enhanced in order to ensure the end product's quality. The focus of an organisation should therefore be on the processes (the work of the people in an organisation) rather than the end result. In other words, "quality should not be regarded as an entity but rather as generating an attitude which is built into the process" (De Bruyn, 2002:311). A focus on the processes inevitably means the optimisation of the potential of the working individual which will contribute to the full optimisation of the potential of the system.

Silo management contradicts the philosophy of TQM because the latter focuses on means to integrate functional areas. Silo management eventually leads to the isolation of people and

create unhealthy attitudes based on blaming others for problems that occur. This situation can depress the sharing of resources and hampers the development of staff members.

The following are, according to Fazzi (1999:2), the signs of silo management:

- Department leaders view their departments as top-ranking, with all others as subservient.
- Members in one department view problems that occur as the problem of another department.
- Breakdowns occur when one segment in an organisation fails to coordinate services with those of another department.
- Members of one department "bad mouth" members of another department.

According to Fazzi (1999:2), department leaders should demonstrate their willingness and ability to work with other departments in order to solve problems. Managers and staff members of various departments should develop strategies in order to enhance mutual cooperation. Teams that consist of individuals of different departments (subsystems) should be established in order to address workflow problems. Organisational leaders and managers should therefore focus on sound interdepartmental relationships in order to ensure the enhancement of interdepartmental workflow management. According to Carlson (1994:16) the South African education sector requires strong leadership, management skills and the implementation of TQM principles. The researcher is convinced that synergy among functional units in an organisation can be achieved by means of effective leadership and the willingness of an institution's functionaries to enhance processes for the benefit of the whole.

Maitland (2006:77) suggests the following initiatives which might contribute to the achievement of synergy among departments and units and eventually defeating the mentality of silo management:

- The staff's loyalty and commitment to the organisation as a whole should be fostered.
- The values, norms and common aspirations should be conveyed across the organisation.
- Unit members in the organisation should talk about the organisation as a whole and pay visits to other units, sharing the organisation's vision.

- Goals should be communicated across units, employees should be informed of what other divisions in the organisation are trying to achieve, help all staff members to understand that they all are members of the same body.
- Performance management and incentives should motivate collaboration between units.
- Competition between units should not be encouraged. Individual interest above that of the entire organisation as a whole should not be tolerated.
- Cross-unit and department issues should be dealt with by means of project teams.
- Integration of processes across units should be encouraged in order to serve the same customer base. Duplication should be eliminated.
- Information flows across the organisation should be fostered by means of the "mixing and matching" of high-potential staff members across the organisation that take part in management development programmes and other networking initiatives.
- A culture of "one for all and all for one" should be created.
- Staff members with potential should gain experience of different functions in the organisation before they can be promoted into leadership positions.

The implementation of TQM can eradicate silo management as it promotes interactions between units and departments of an organisation. The implementation of TQM can foster the understanding of an organisation's strategic objectives, the cooperation of all units in order to address the needs of the customer and the individual staff member's understanding of the processes that are executed by the organisation as a whole (Manuele, 1995:116). TQM is "customer focused". Within an organisation such as a university functionaries are viewed as "internal customers" (Sahney *et al.*, 2004:153). This concept will be discussed in more detail in 3.9.1.4. Within an organisation the line manager is the customer of his secretary, a student can be a customer of a student service department, a lecturer is a customer of the Human Resource Unit of a university, etc. This reminds of the viewpoint of the quality guru Ishikawa (*cf.* 3.6.1.5). Each (internal) customer has his or her own needs and expectations that should be addressed (Oakland, 1988:27).

An institution's aims must be consistent with the needs of its customers, both internal and external. Total quality management (TQM) can be described as a "total" process that

recognises the contribution of everyone in the organisation, i.e. every function, all activities in the institution, the leadership, curriculum, as well as external factors that have an impact on the institution. The concept "total" refers therefore to the interactions and interrelationships between the micro- (institution as open system) and macro- (economic, social, political, etc.) environments of the institution (*cf.* 3.3).

3.6.3 TQM AND INSTITUTIONAL LEADERSHIP

According to Oakland (1995:24), "traditional style of management" is replaced in many organisations with the notion of "effective leadership". Effective leadership starts at the vision of top management, capitalising on market opportunities, followed by a strategy that will give an organisation a competitive advantage which leads to success.

Oakland (1995:24-25) states the following issues as imperative for effective leadership which concur to a great extent with the criteria for institutional audits of the HEQC (CHE 2004b):

- Mission statement

  Developing and publishing clear, documented corporate beliefs and objectives – a mission statement. Clearly defined and properly communicated beliefs and objectives which are formulated as a mission statement are imperative.

- Strategy

  Developing clear and effective strategies and supporting plans for achieving the mission and objectives. Senior management develops strategies followed by implementing plans in collaboration with employees.

- Critical success factors

  The critical success factors and critical processes should be identified.

  Critical success factors are the most important subgoals of an organisation. It refers to what should be accomplished in order to achieve the organisation's mission. The critical success factors are followed by the critical business processors for the organisation which are the activities that must be completed successfully in order to achieve the critical success factors.

- Reviews

  By defining the corporate objectives and strategies, it might be necessary to review the organisational structure. An effective structure based on process management determines the success of directors and managers.

- Empowerment

  Empowerment encourages effective employee participation. Effective leadership means getting very close to the employees, developing effective communication and taking action on what is communicated. Attention to attitudes, abilities and participation are key concepts. Training of employees is of vital importance in order to ensure that every employee is enabled to do what he/she is supposed to do. They must receive training with regard to the basics of management, for example on how to conduct evaluations (of the situation and how to define objectives); planning (to achieve the objectives); doing (implementing the plans); checking (that the objectives are achieved) and amending (taking corrective action). This process of Evaluate, Plan, Do, Check and Amend constitutes the "helix of never-ending improvement" (Oakland 1995:27) and concurs with Deming's Plan- Do-Check-Act model (*cf.* 1.4.1).

3.6.4 TQM AND THE SYSTEMS THEORY

The researcher concurs with the statements of Pretorius (2004:106) and Oakland (1995:27) that the foundation of TQM correlates with the systems approach to quality management as it covers the entire organisation, all people and all functions including external organisations and suppliers. The principles of TQM are underpinned by the theories of the quality gurus (*cf.* 3.6.1).

The following table provides an example of some of the commonalities between the systems theory (*cf.* 3.2) and TQM:

TABLE 3: Commonalities between the systems theory and total quality management

SYSTEMS THEORY	TOTAL QUALITY MANAGEMENT
Senior leaders focus on the needs of the customer.	Every Chief Executive must accept the responsibility for commitment to a quality policy that deals with customer needs (Oakland, 1995:32).
Every individual and activity is set on achieving the organisation's goals.	The effectiveness of an organisation and its people depend on the extent to which each person and department perform their role and move towards the common goals and objectives of the organisation (Oakland, 1995:22).
Training must support the processes.	The emphasis of training should be on error, defect, or problem prevention (Oakland, 1995:313).
Inputs from the environment are tuned by means of processes to outputs.	A process is the transformation of a set of inputs, needs and expectations in the form of information or services and outputs are that which is transferred to the customer (Oakland, 1995:12).
Systems comprise subsystems that are linked together as internal customers and suppliers.	Throughout all organisations there is a series of quality chains of customers and suppliers (Oakland, 1995:7).
Judgment includes assessment of inputs, processes and outputs.	Quality assurance is the establishment of a good quality management system and the assessment of its adequacy, audit of the operation of the system, and review of the system (Oakland, 1995:13).

Modern higher education is to a great extent "commercialised" and universities are becoming "businesslike" in their management processes (Ketteridge *et al.*, 2002:23). Smit and Cronje (1999:62) refer to a business organisation as a system that operates within a specific environment, emphasising the interdependency of environment and organisation as an imperative for survival.

Institutions of higher learning that use the principle of continuous improvement as their quality index would start by establishing baseline data from which to measure their annual improvements. The baseline data should be established for all quality indicators which the

institution intends to use in evaluating continuous improvement. Examples of baseline data are through-put rates and pass rates of students, staff turnover, research outputs, etc.

The following are collective descriptions of TQM which apply to both business and universities (De Bruyn, 2002:287):

- A total approach to quality (an integrated effort) which involves every element of the whole organisation.
- A customer-driven focus. Customer needs and expectations should be met. The customer judges whether the quality of services and products is in accordance with his/her expectations. This concept within the context of higher education unleashed strong emotions amongst educators and scholars.
- Empowerment of people. The delegation of functions to the people who are closest to the customer. These people are mandated to make decisions about how best to enhance quality.
- Continuous improvement. The focus is on ongoing improvement achieved by using multi-functional teams, customer feedback, worker empowerment and data-based methods to build quality into the process.
- Systems and processes. TQM represents a quality management process that is concerned with people, systems and culture and which harnesses leadership, systems thinking and meeting of customer needs.

TQM focuses on enhancement of productivity by means of customer satisfaction and participation of every member within an organisation. Many education institutions implemented TQM or developed quality assurance systems that are based on the TQM philosophy, especially universities and schools in the USA.

3.6.5 IMPLEMENTATION OF TQM

Motwani and Kumar (1997:133-135) suggest the following phases for the implementation of TQM:

3.6.5.1 Deciding

The importance of the role and commitment of management to the principles of TQM has already been mentioned in this study. It is imperative that top management understands the TQM approach. They should have a clear understanding of why it is necessary for the institution to implement TQM and they should also decide on the scope of implementation (Motwani & Kumar, 1997). The process can be started by introducing TQM at administration level or in a specific discipline.

3.6.5.2 Preparing

The second phase of implementation is the preparation phase. It is imperative that management should ensure that the institution's culture is suitable for the implementation of TQM. The institutional culture should be on a par with the values of TQM. The following should be done during this phase:

- Strengths and weaknesses of the institution should be identified. This can be done by means of an internal quality evaluation exercise.
- The key staff members should receive training.
- Visions and objectives should be drafted and communicated to all members.
- A new system should be designed.

3.6.5.3 Starting

The following steps should be adhered to by an institution's management:

- Name the process.
- State the purpose through a new quality framework.
- Provide training to all levels of staff.
- Conduct customer surveys in order to make adjustments.
- Establish a quality council that will coordinate and regulate the TQM process.
- Conduct benchmarking exercises in order to compare performance with that of other institutions.
- Establish quality improvement teams.

- Develop measures and indicators that measure the objectives and goals of the institution.

3.6.5.4 Expanding/ integrating

Recognition is an important aspect in this process as it is imperative to improve the morale of staff and to create confidence in TQM. Motwani and Kumar (1997:134) emphasise that a reward system should be carefully managed. The following are important activities during this phase:

- Continuous training
- Establishing new committees, teams, departments, etc.
- Rewarding of quality improvements.

3.6.5.5 Evaluation

The research of Motwani and Kumar (1997:134) refer to institutions of higher learning that introduced TQM with tremendous success. These institutions experience enhancement with regard to communication, employee morale, productivity and process efficiency. There are also critics that emphasise the high failure rate of implementing TQM in educational institutions, emphasising the importance of a critical evaluation of TQM as a management philosophy within the educational context. According to De Bruyn (2002:235), TQM should rather be regarded as a quality enhancement philosophy than a management strategy.

Despite the views of critics, research proves the high success rate of institutions that integrate TQM principles into their quality assurance systems (Motwani & Kumar, 1997). It is not an unfamiliar practice for universities to apply quality management models, concepts and techniques. Several institutions and researchers support it (Meirovich & Romar, 2006:325; Saunders & Walker, 1991; Anyamele, 2005:361). This is why globally more and more institutions of higher learning improve the quality of their core business by adapting the TQM philosophy and principles (Willis & Taylor, 1999).

3.6.6 TQM PRACTICES : QUALITY MANAGEMENT MODELS

There is a range of management models (or quality management systems) that an institution can utilise in order to develop holistically as an organisation. TQM is an integrated quality management system that offers a framework for institutions according to which they can

strive for excellence. The TQM philosophy can be viewed as a "carpetbag term" for more than one approach (De Bruyn, 2002:324). Ferreira (2003:9) states in her research on continuous improvement in higher education that TQM became the "driving force for quality improvement within organisations across the world". She argues that the TQM philosophy and principles formed the basis on which the three quality models were developed. In this study, the internationally acknowledged Malcolm Baldrige Quality Award, the European Foundation for Quality Management and the South African Excellence Model (the latter more relevant for organisations in Southern Africa) will be discussed as well as the International Organisation for Standardisation and the Total Quality Management (TQM) model.

3.6.6.1 The International Organisation for Standardisation (ISO)

ISO is an international federation of national standards bodies. It represents an international consensus on good management practice (Evans & Lindsay, 2002:314). ISO is based on the following quality management principles (De Bruyn, 2002:314-315):

- Customer focus
- Leadership
- Involvement of people
- Process approach
- Systems approach to management
- Continual improvement
- Factual approach to decision-making
- Mutual beneficial supplier relationships

ISO 9000 has its origin in manufacturing settings. It provides a quality management framework for service-oriented organisations that have an intention to upgrade their performance. The aim of ISO 9000 is to improve internal communication and to increase the monitoring of activities of an organisation (Zuckerman, 2000:12). ISO 9000 has been implemented by providers of education in the USA, Canada, Singapore, the UK, Switzerland and Australia (Evans & Lindsay, 2002:315). The following are some of the reasons provided by educational institutions abroad for implementing ISO 9000:

- It improves education, making it more efficient and improving overall performance

- It promotes greater collaboration and partnership with business and industry and therefore prepares learners better for the workplace
- It provides a framework and structure to help improve customer service
- It improves business processes through documentation in order to reduce the internal cost of doing business and communicating with customers
- It brings better management practices to providers (Evans & Lindsay, 2002:315)

A major challenge, according to De Bruyn (2002:316), with regard to the implementation of ISO 9000, is to involve the full range of staff in a meaningful way. De Bruyn (2002) is of the opinion that the implementation of ISO 9000 involves extensive staff training, setting up audit teams and getting documentation done, creating flow charts, developing new procedures and a quality manual which are all time-consuming processes.

3.6.6.2 The Malcolm Baldrige National Quality Award (MBNQA)

The recognition of TQM as a vehicle for changing culture, with an internal and external focus that support service issues and process control, encouraged the United States of America to develop the internationally well-known quality framework, the MBNQA. Malcolm Baldrige served as a Secretary of Commerce since 1981 until his death in 1987. He made a major contribution to the improvement of services in the USA government. The MBNQA is a national quality award programme with the aim to enhance quality and productivity by motivating American companies to enhance quality for the honour of recognition. The MBNQA is, according to Oakland (1998:121), the closest mechanism to an international standard for TQM. The USA's MBNQA is the equivalent of the South African Excellence Model (SAEM) and the European Foundation for Quality Management (Ferreira, 2003:9) or EFQM. The MBNQA acknowledges companies that accomplish to improve their quality of services and by doing that, setting an example to others.

The Award aims to enhance

- awareness of quality as an increasingly important element in competitiveness;
- understanding of the requirements of quality excellence; and
- sharing of information on successful quality strategies and the benefits to be derived from their implementation (Oakland 1998:121).

The Baldrige Award was established in the same year as the International Organisation for Standardisation (ISO) in Geneva, Switzerland. ISO established series of international standards which companies may use in order to ensure that they maintain an efficient quality conformance system. The MBNQA was established as a vehicle for the sharing of good practices, the promotion of quality awareness and the acknowledgement of quality achievements in the USA. ISO 9000, as an example, describes the importance of an effective quality system for ensuring the calibration of equipment on a continuous basis, and for keeping and maintaining an effective record-keeping system. Compared to the MBNQA, ISO 9000 covers less than 10% of the Baldrige Award criteria (Ferreira, 2003:98).

a) Building blocks

The MBNQA comprises the following building blocks:

- The organisational profile
- The system
- Criteria structure
- Achievement of goals

b) Core values and concepts

According to Ferreira (2003:75), criteria of the MBNQA are based on the following core values and concepts:

- Visionary leadership
- Customer-driven excellence
- Organisational and personal learning
- Evaluation of employers and partners

- Agility
- Focus on the future
- Managing for innovation
- Management by fact
- Public responsibility and citizenship
- Focus on results and creating value
- Systems perspective

The above-mentioned values and concepts compare with Oakland's (1998:121) view. Oakland adds the following additional values to the above-mentioned list:

- Continuous improvement and learning
- Employee participation and development
- Fast response
- Design quality and prevention
- Long-range view of the future
- Partnership development
- Corporate responsibility and citizenship
- Results orientation

The following figure illustrates the MBNQA model:

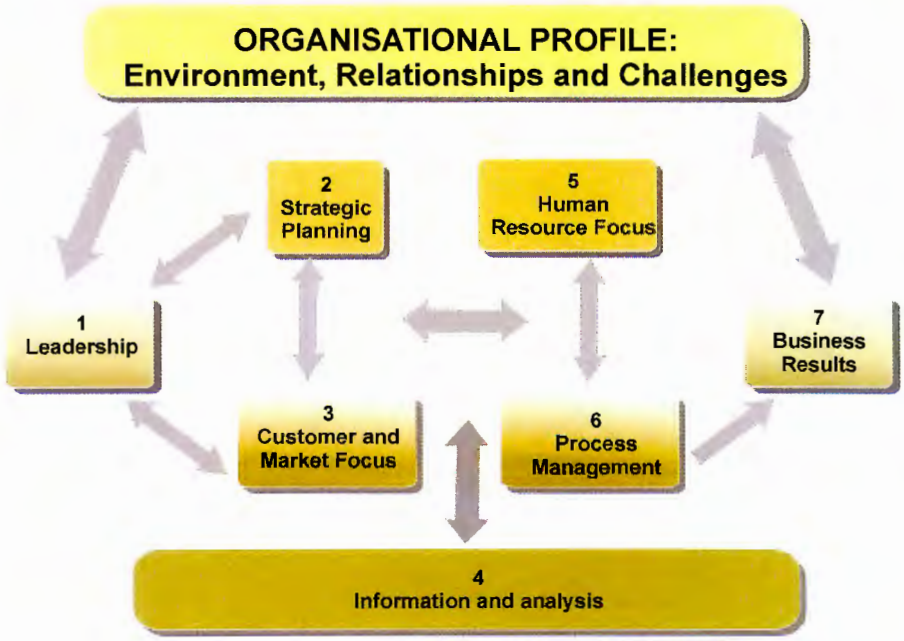


FIGURE: 3. 1 MBNQA *(www.quality.nist.gov)*

According to the above illustration, the organisational profile sets the framework in which the organisation functions. The environment of the organisation, its relationships and challenges form the context of operation. There are four basic elements in the MBNQA: driver, system, measures of progress and goal (Oakland 1998:121). The driver refers to the senior executive leadership that is responsible for creating the organisation's values, goals, and systems. They guide the pursuit of quality and the achievement of the organisation's objectives. The system refers to processes that are designed for meeting the organisation's performance requirements and quality. Measures of enhancement supply a result-oriented basis for actions to deliver the organisation's performance. The basic aim of the quality process is to deliver customer needs and expectations.

Six categories form the centre of the model namely Leadership, Strategic Planning, Customer and Market focus, Human Resources, Process Management and Business/Organisational Performance Results. Customer and Market focus, Leadership and Strategic Planning constitute the Leadership Triad. Categories 1-3 are placed together in order to stress their weight (see figure 3.1). Senior leaders are responsible for setting direction, for creating a learning environment and for seeking future opportunities for the organisation. The results triad is formed by Process Management, Business Results or Organisational Performance Results and Human Resource Focus (categories 5 – 7). The

performance results are produced by the work that takes place within the organisation through staff activities and key processes. For the purpose of this study it is important to mention that all actions are pointing towards the Organisational Performance Results - "a composite of student, stakeholder, budgetary and financial, and operational performance results, including faculty and staff results and public responsibility" (Ferreira, 2003:90).

The two triads are linked by the horizontal two-headed arrow. This linkage is imperative for the success of the organisation and it also emphasises the relationship between categories 1 and 7 (leadership and Organisational Performance Results). The two-headed arrow emphasises the importance of feedback in an effective performance management system. It also emphasises the integration of planning and resources and the important role of leadership. Category 4 represents information and analysis which are significant for successful and effective management of the organisation as well as a system that is fact-based to ensure enhancement of performance. The MBNQA recipients are representatives of industry, businesses as well as education and health providers in the United States.

3.6.6.3 The European Foundation for Quality Management (EFQM)

Europe, like many other regions on the globe, recognised the value of self-assessment techniques for developing and monitoring an organisation's quality culture (Oakland 1998:123). The EFQM is a holistic model and the most popular organisational framework in Europe since its introduction in 1992. The EFQM provides a framework for assessing applications for the European Quality Award. It is now re-branded as the EFQM Model 2010 (LHS, 2010:2). The EFQM emphasises how important it is that any organisation should establish and implement an effective management system. Organisations can evaluate their progress towards excellence by using the EFQM as a practical tool. A relatively new scheme for the assessment of performance against the EFQM model was introduced in 1999. The latter has the acronym RADAR which refers to the concepts Results, Approach, Deployment, Assessment and Review. RADAR is a technique for assessing the stage at which an institution has arrived with regard to excellence. RADAR has similarities with the PDCA (Plan, Do, Check, Act) and ADRI (Approach, Deploy, Review, Improve) models (*cf.* 1.4.1).

The EFQM helps organisations to identify gaps and encourages solutions. The EFQM is used by organisations in their self-evaluation exercises especially during their operational and project reviews. The EFQM is a framework that is based on nine criteria or concepts, of which four are "Results" and five "Enablers". The Enablers refer to an organisation's actions whilst the "Results" refer to what it accomplished. The Results are reached by means of the

Enablers. Feedback from the Results is important management information that will enhance the Enablers. The model acknowledges many methods to accomplish excellence; it has the conviction that "excellent results with respect to Performance, Customers, People and Society are achieved through Partnerships, Resources and Processes" (Ferreira, 2003:100). Innovation and learning help to improve the Enablers which in turn enhance Results.

As already mentioned, the EFQM model comprises the following nine criteria:

- Leadership

The mission and vision of an organisation are achieved by means of leadership within an organisation. The leaders are responsible for the development and implementation of systems and values. If necessary the leaders change the organisation's direction and set a new direction by motivating people to follow them.

- People

The full potential of the people of an organisation should be managed and developed. This takes place individually, on organisational level and within teams. An organisation should treat their people fairly and equally, and motivate them by means of rewards and recognition. This will motivate them to utilise their skills to the advantage of the organisation.

- Policy and strategy

It is imperative to implement a "stakeholder-focused strategy". It is also important that an organisation should take cognisance of the market sector in developing its vision and mission statements. Objectives, plans, processes and policies are usually developed in order to reach the vision and mission.

- Partnerships and resources

Planning and management of external partnerships, suppliers and internal resources are imperative in order to support policy, organisational strategy and the effective operation of processes. Planning, managing partnerships and resources, take place against the background of the organisation's needs (current and future), its environment and community.

- Processes

Processes should be designed, managed and improved in order to achieve excellence and to create value for stakeholders and customers.

- Customer results

Results should be thoroughly measured and achieved with respect to the customers.

- Society results

Organisations should evaluate and achieve its results with respect to the society.

- Key performance results

The measures are key outcomes which are specified by the organisation and included in their policy.

- People results

Excellent organisations measure and achieve outstanding results with respect to their people.

An organisation such as a university can use the EFQM's nine categories in order to develop a model of criteria and a review framework. Oakland (1998:123) states that the above-mentioned criteria and framework of the EFQM can be utilised by an organisation in order to conduct self-evaluation and to identify "gaps".

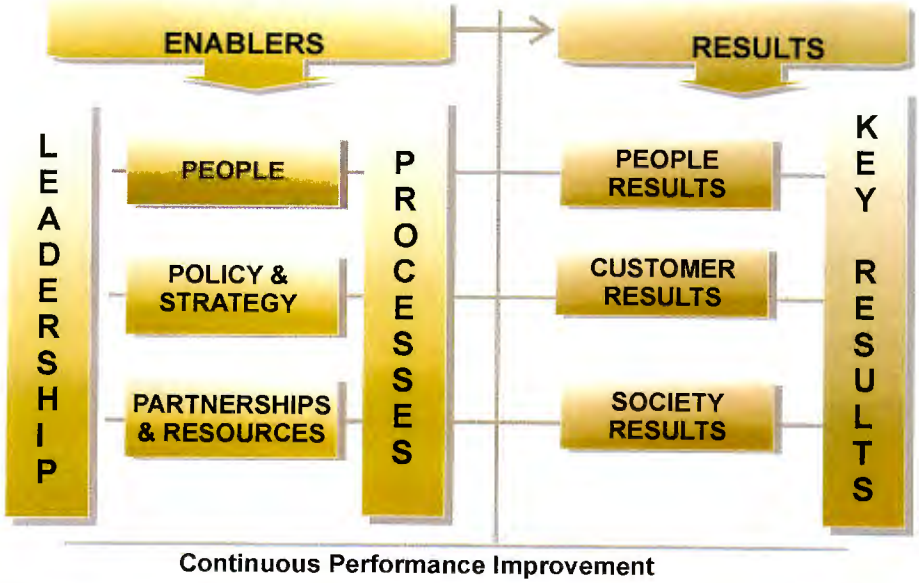


FIGURE 3.2: The European Quality Award Assessment Model (Oakland 1998:123).

3.6.6.4 The South African Excellence Model (SAEM)

The SAEM is based on the point of view that the success of an organisation depends on the involvement of all the people in its processes of continuous improvement. The model was developed by the South African Excellence Foundation (SAEF) in 1997. Elements of the EFQM and the MBNQA, influenced to a great extent the structure of SAEM. It received recognition from both the MBNQA and the EFQM and is used with great confidence by organisations that are members of the Southern African Development Community countries (SADC). The Business Assessment Services (BAS) developed for South African Provincial Governments the SPEAR (Sustainable, Performance Excellence, Assessment and Review) programme which is based on the principles of the SAEM model (BAS, 2007). This programme endorses PDCA concepts (*cf.* 1.3.4.1; 1.4.1). The SAEF promotes the SAEM to ensure good governance and economic competitiveness. It is used in the training of SAEM assessors to successfully implement the model and, like the MBNQA, to manage a national award initiative.

The SAEM provides a framework for self-assessment, continuous enhancement and management in education. The SAEM provides a powerful diagnostic tool. It is a helpful tool for identifying deficiencies and gaps in an organisation and to introduce important operational improvements that will ensure a higher degree of competitiveness. The Department of Trade and Industry acknowledged the SAEF as the guardian of the SAEM.

a) Elements of the SAEM (BAS, 2007:5)

The following elements underpin the SAEM (see figures):

- Results orientation
- Customer satisfaction
- Leadership and constancy of purpose
- Management by processes and facts
- People development and involvement
- Continuous learning, innovation and improvement
- Partnership development
- Social responsibility

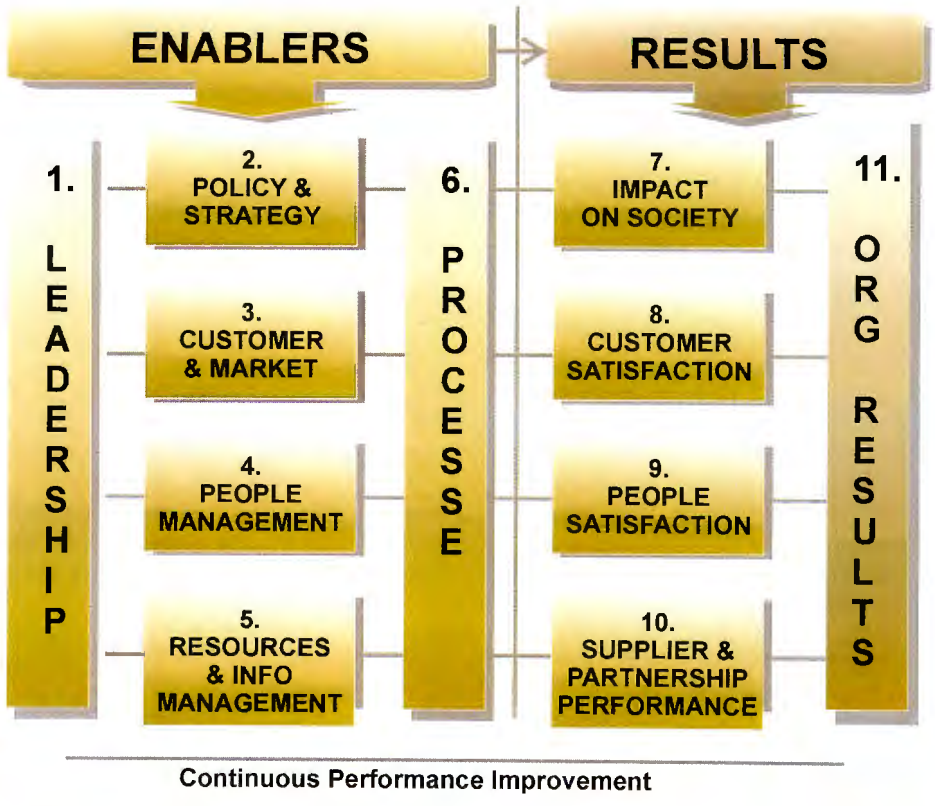


FIGURE 3.3 : SAEM/SAEF

(www2.vlaanderen.be/personeelsbeleid/bijlagen/kwaliteit/efqm.ppt).

The SAEM can be implemented to achieve high quality and performance excellence. The SAEM upholds "customer satisfaction, people (employee) satisfaction, impact on society, supplier and partnership performance achieved through leadership, driving policy and strategy, people management, customer and market focus, resources and information management and processes leading ultimately to excellence in business results" (Ferreira, 2003:95).

b) SAEM criteria

The SAEM criteria can be utilised during evaluation exercises. The following concepts form part of the SAEM criteria:

- Leadership

Leaders on all levels should set an example and inspire a culture of continuous improvement. There should be a visible participation in setting goals which are client-

centred in balance with political aims. Leaders should understand who their clients are, what their needs are, and they should demonstrate commitment to their staff and clients.

- Policy and strategy

The criteria measure how the institution formulates its policy and strategy followed by plans and actions. Policy and strategy refer to institutional culture, structure and operations that are based on the needs of the customers (stakeholders, the community and politicians). Institutions should establish their policies, strategies and plans in such a way that they form a cohesive whole.

- Customer and market focus

The criteria focus on the method that the organisation uses with regard to determining customer needs, as well as how relationships with customers are improved.

- People management

People management refers to human resource management and to every individual that is responsible to serve clients, directly or indirectly. Their full potential should be optimised. These criteria include communication or dialogue, up, down and across the organisation, as well as the development and empowerment of people.

- Resources and information management

It is important to determine how effective and efficient the organisation is in managing its resources.

- Processes

Processes (key processes as well as support processes) should be identified, designed, managed, evaluated and improved. The processes should contribute to the achievement of the institution's mission and vision.

- Impact on society

The organisation's impact on the local, national and international society is important.

- Customer satisfaction

The level of achievement of customer satisfaction should be determined. This includes student feedback on their perception of the institution.

- People satisfaction

The organisation should demonstrate that it succeeds in satisfying the needs and expectations of its customers. Results in this regard should be presented, as well as trends and targets and comparisons with competitors (benchmarking).

- Supplier and partnership performance

Suppliers and partners should receive the best possible service from the institution.

- Organisational results

The organisation should prove its results with regard to achieving its planned business objectives, as well as to achieving customer satisfaction.

The SAEM model (see the following figure 3.4) is based on the premises that customer and people satisfaction, the impact on society, performance of supplier and partnerships can only be reached by means of leadership. Leadership drives policy and strategy, people management, customer and market focus, resources and info management and processes which lead to excellence in business results.



FIGURE 3.4 : The SAEM model for excellence (www.saef.co.za)

The SAEM has six "enablers" that assess the effectiveness of the methods the organisation has in place in order to achieve its targets. The model provides a framework that will help an organisation to conduct a rigorous analysis with regard to its approaches and strategies to deliver results and to ensure continuous improvement.

c) Enablers

During evaluations, the enablers are rated by evaluators (respondents) on a four-point scale within the context of approach and deployment. The results are also evaluated on a four-point scale within the context of scope and excellence. The excellence of the results are evaluated by focusing on positive trends or continuous performance in each area, on the meeting of targets, e.g. were comparisons done with other organisations; were corrective actions taken with regard to deficiencies; is continuous improvement in all areas possible and was there an evaluation with regard to the actions that produced the results? (Ferreira, 2003:104).

The above-mentioned models are used by many institutions of higher learning as a systematic management of institutional capacity in order to produce quality in their core business. Quality management is a concept that links directly with the purpose of this study. The Business Dictionary (2002:1) defines quality management as "all management activities and functions involved in determination of quality policy and its implementation through means such as quality planning and quality assurance (including quality control)". Institutions of higher learning in the new dispensation of higher education in South Africa are responsible to establish their own quality management systems (Fourie, 2000:50). Many countries all over the globe have established national systems for the assessment of quality in higher education. These developments are usually sponsored by the state (Brennan & Shah, 2000:331).

3.7 QUALITY MANAGEMENT IN HIGHER EDUCATION

As already discussed in this study, the global focus on and the development of national quality assurance systems in higher education are the result of a combination of factors. These include massification, the reductions in funding – despite the paradox concerning the relationship between expenditure on education and outcomes (Levačić, 2000:3), globalisation and the emergence of a knowledge society. Another contributing factor is the notion of accountability: Public institutions should be held accountable as the receivers of the scarce resources. Public institutions of higher learning are sometimes viewed by

government and the public as expensive and inappropriate users of public resources (Mauch & Sabloff, 1995).

3.7.1 GLOBALISATION OF HIGHER EDUCATION

According to Middlehurst (2002:15), globalisation affects everyone. Universities become leaders in contributing towards the globalised knowledge economy. Globalisation has an effect on changing watertight borderlines between states to permeable borders. This happens to universities as well. Morley (2003:4) and Middlehurst (2002:25) refer to the phenomenon of "borderless" universities which reminds of Bauman's (2001) concept of "liquified" universities. Communication and information technology developments blur peripheries between "types" of education providers, between further and higher education, and national boundaries. There are "free flows" of technology, finance, ideas and changes in the environment across borders. The fact that education expands across national boundaries requires a firm and strong measure for quality assurance. Concepts such as "chaos" and "control" infuse the discourse on globalisation. The global environment can be viewed as unpredictable and risky. Morley (2003:1) argues that quality assurance is in contrast to the chaos of the globalisation of higher education. Quality assurance ensures that the systems and structures that are in place can deal with global issues such as the massification of higher education and demands more rigour with regard to quality assurance measurements.

3.7.2 A MULTIPLE OR SINGLE NATIONAL QUALITY AGENCY SYSTEM?

On international level there is a considerable debate on external quality assurance systems, specifically the methods to be used, the balance that should be achieved between performance indicators (Segers, Wijnen & Dochy, 1990: 5-46), audit visits by peers and institutional self-evaluation exercises. Concerns focus on developing an international approach to quality, driven by politicised agendas towards a methodology of self-review, peer visit and public reporting (Houston & Maniku, 2005:213). In many countries several national quality agencies exist with a result that institutions have to respond separately to each agency's requirements. This situation can lead to an "over-assessed" higher education sector, a situation that might be avoided in the case of a single national quality agency for higher education. However, there are also strong arguments in favour of a multiple-agency

approach. Woodhouse (1995:17) states the following possible advantages with regard to both a single agency and that of a multiple agency:

Possible advantages of a single-agency system:

- Lower total system cost
- Consistency of approach
- Less institutional staff time used
- No conflicting instructions, recommendations or directives
- A simple relationship between the agency and the institution and other bodies

The following can be regarded as possible advantages of a multiple-agency system:

- Variety of approaches: Factors are less likely to be overlooked.
- Triangulation, permitting the same factor to be reviewed from different angles
- Specialisation of the various agencies by function: Each agency can be simpler and more focused.
- Specialisation of the various agencies by type of institution: The autonomy of each institution and the variety of different institutions are recognised, and the whole higher education sector is not treated like a homogeneous industry.
- Enhancement of the range of accountability if the agencies have different masters.

It is clear that quality assurance in higher education is being addressed in different ways all over the globe. Governments, as well as higher education systems, have different needs and emphases, leading to tension between improvement and accountability, innovation and assurance, as well as change and control (Van der Westhuizen & Fourie, 2002:1). Contributing factors to these tensions are related to cultural, political, economic and social considerations (Van Damme, 2000:11). External conditions refer to issues such as globalisation and national policy expectations. Internal conditions include a wide range of needs such as financial and quality needs, new approaches towards teaching and learning, etc.

3.7.3 FROM REGULATION TO STEERING MECHANISMS

Internationally political and governmental environments are characterised by a changing relationship between the government and the educational sector. According to Van Damme (2000:11) "deregulation, increasing institutional autonomy, devolution of authority, a shifting balance between state- and market- oriented elements in the steering of higher education systems, and a growing weight of output-related, performance-based factors in steering and sometimes also financing, are decisive features of that changing relationship".

The tendency is therefore that governments convert their higher education policies from an input-oriented regulation to an output-oriented steering. Van Damme (2000:11) mentions that on international level there is in general an exchange between deregulation and institutional autonomy on the one hand and quality assurance, accountability and output-control on the other. Quality assurance, in the case of most Western European countries, becomes vitally important for higher education systems that adopted a more self-regulation-oriented approach. In continental Western Europe, governments play a prominent role in the quality assurance and evaluation processes of institutions (Van Damme, 2000: 15).

3.7.4 APPROACHES TO QUALITY ASSURANCE IN "WESTERN EDUCATION SYSTEMS"

The following are the four "general approaches" to evaluation as it occurs especially in the western higher education systems (Houston *et al.,* 2005: 214; Woodhouse, 1995:18-19):

- Evaluations take place in order to determine if an institution achieved its stated goals. Although these may have been derived from criteria that are generally accepted in the academic community, accreditation may provide an external check on their appropriateness.
- Professional associations check the professional discipline's programmes in order to determine if they meet specified standards. This is called professional or specialised accreditation. Accreditation refers to an assessment to determine whether an institution or programme qualifies for continuation. The result or output of an accreditation is usually a decision that is reached by using externally set criteria or minimum standards. The result after an accreditation assessment is usually a "fail" or a "pass".

- The quality of institutions can be measured by means of conformance of its performance to its system norms as expressed by means of performance indicators. The latter involves statistics and other quantitative information and is commonly known as quality assessment.
- Quality audit or process audit (also academic audit) represents an evaluation system in which an institution's own quality control and quality assurance procedures and structures are assessed. An institutional audit is a systematic determination of whether an institution's planned arrangements are suitable to achieve its stated objectives.

This system implies a "low level of external intrusion" into an institution and a high level of autonomy. Unlike accreditation, an audit does not check the appropriateness of the educational objectives, but rather a "process of evaluating the way quality is assured. It is not so much looking for quality, more to quality assurance mechanisms" (Vroeijenstijn, 1995: xix).

Within the context of mass education and the demands of accountability the external legitimation of a system has a positive role to play in order to prove to the outside world that an institution's quality system and self-evaluation outcomes are trustworthy. External agencies are established to play a meta-evaluative role in this regard (Vroeijenstijn 1999:278).

3.7.5 FACING EXTERNAL AUDITS

In most countries national quality regulations are developed, implemented and accepted by institutions as a means of maintaining and enhancing competitiveness. On international level Szanto (2005:188) reviewed several cases of external audits by quality agencies and mentions the following complaints from both institutions (that were audited/evaluated) and the national quality agencies:

- Self-evaluation guidebooks or manuals of agencies are very demanding as to the amount of data and information required from institutions.
- Institutions in general complain that the self-evaluation process prior to the audit place a significant burden on them (extra work and resources).
- The audit scope and audit process should be more "user-friendly".

According to the national agencies, participation and involvement of staff and students in the self-evaluation exercises are very limited. Only a few people that are assigned for the task take part in the process. Self-evaluation reports are usually descriptive and lack in-depth analysis and evaluative statements.

3.7.6 The establishment of a national quality assurance system in South Africa

In South Africa, the development of a national quality assurance system should be viewed not only against the background of external and internal influences within the worldwide higher education context, but also against the South African history of higher education (see chapter 2).

The impact of the legacy of apartheid, as well as the above-mentioned international trends in higher education, necessitated radical change after the democratic elections (*cf.* 2.3). It was decided that institutions should strive for enhancing accessibility, mobility and progression, the quality of education and training, the acceleration of redress of past unfair practices, including discrimination (training and education opportunities) and the full development of each learner, as well as the social and economic development of the nation.

Singh (2000:5-6) describes the legacy of apartheid and its impact on higher education with reference to the following:

- The structure of higher education institutions in South Africa, the official apartheid policy and inequality that ruled for many years, the physical environment, the resource allocations, the infrastructure of higher education, admission criteria that affected education and separation along racial lines. The establishment of a national quality assurance system should be seen as the new government's initiative with regard to rectifying the mistakes of the past.
- The discrimination and neglect of the apartheid system left the country with a shortage of well-trained black academics. The real problem lies in the intellectual content of disciplines that were developed "on the pervasive but acknowledged racism" of the regime (Singh, 2000:6). According to Singh, what was taught reflected the structure of apartheid.
- The pedagogical traditions were "antithetical" to the development of independent-minded and creative young men and women. Dictatorial discipline, memorisation and rote learning reinforced the authoritarian tendencies of apartheid. The

establishment of the National Qualifications Framework and Outcomes Based Education should be viewed as interventions of the new democratic government to rectify these tendencies.

In conclusion, the above-mentioned issues emphasise the desperate need for change in higher education in South Africa and the steering role of an external or national quality assurance body against the framework of the new government's transformation objectives. A national quality assurance system was developed for the new dispensation in higher education in South Africa in order to keep pace with the competitive world and simultaneously to steer universities to be responsive to the transformation objectives of the country. Like all national quality assurance systems, this system "has to be effective, efficient and economical in order for higher education institutions to act as responsible and effective bodies to grant awards with national and international standing" (Holtzhausen, 2000:120).

3.8 THE HIGHER EDUCATION QUALITY COMMITTEE

A national education system focuses usually on the aspects of education that a country needs. As discussed in chapter two, in South Africa in the new dispensation of higher education, greater accessibility to higher education, issues such as equity and redress are national imperatives. These imperatives are to be found in the national education policy of the country.

Steyn (2002:5) describes an education system as an open organisational structure with the following characteristics:

- Specific aims
- Policy
- Different components
- Relations
- Processes and programmes
- Constant interaction with its environment (open system).

3.8.1 RECONSTRUCTION OF HIGHER EDUCATION IN SOUTH AFRICA

An education systems policy is a statement of intent that explains how a country's educational needs will be addressed. With reference to the concise history of South Africa's education system described in chapter two, the post-apartheid government in South Africa reconstructed education in order to address the legacy of the apartheid education system. The following initiatives were introduced in the new system (Steyn, 2002:9-10):

- Focus on lifelong learning
- Creation of a learning nation
- Development of a framework for the registration of standards and qualifications (National Qualifications Framework or NQF)
- Registration of qualifications and standards (establishment of the South African Quality Authority or SAQA)
- Establishment of National Standards Bodies Regulations

The above-mentioned initiatives are characteristic of a new philosophy for education in the post-apartheid South Africa which developed as a reaction to the "legacy of apartheid". This philosophy is based on transformation of higher education in order to address the needs of a new social order, as well as achieving the national needs of the country.

The social context of the country consists of several overlapping sectors (economy, ideology) and the political structure (Steyn, 2002:23-24). Problems that occur in these sectors have an influence on education and eventually on institutions of higher learning. This tendency emphasises the system's thinking principle of interconnectedness of systems. Churchman (1968:4) states that problems that occur in the world are all interconnected and overlapping. The solution of one problem usually has a great deal to do with the solution of the other. The education system interacts with the social structures that have an interest in education: It is linked to the community, the government, political parties, business and industry, and the parents of students.

Within the context of a new democratic South Africa, the scope of the HEQC institutional audit system, area 2 (CHE 2004a:12) is a response to the government's national transformation initiative. The criteria of the HEQC are developed for the three functions or pillars of an institution of higher learning, i.e. teaching and learning, research and community

engagement. The latter refers to an institution's quality-related arrangements for community engagement. In the new dispensation it is expected of institutions of higher learning to be more responsive to the needs of the community (e.g. by means of service learning, community service and engagement, etc). Universities in the new dispensation can therefore be viewed as key stakeholders in the community that contribute to the achievement of the community's future goals. This interaction between a community and a university holds certain mutual benefits.

The responsibility of government with regard to education is to ensure the existence of educational opportunities. The new government (African National Congress) in the post apartheid South Africa plays a vital role in higher education with regard to the following issues:

- Equal educational opportunities
- Finance of education
- Administration of education
- New legislation that governs education

For the purpose of this study the focus will be on the HEQC's institutional audit criteria that relate to quality management, planning and resource allocation. Audit area 1 of the HEQC institutional audit criteria focus on an institution's mission and goals (criterion 1) and the link between planning, quality and resource allocation (criterion 2). The integration of planning, quality management and resource allocation determines the success of quality management systems (CHE, 2004b:5).

South Africa has multiple external quality assurance agencies (ETQA's) additional to the HEQC. The HEQC is a permanent sub-committee of the Council on Higher Education and has the mandate to coordinate all quality assurance activities in higher education in South Africa. Only a few of the SAQA registered professional bodies and ETQAs in South Africa have structured quality assurance systems in place (e.g. the Engineering Council of South Africa). Although the focus of this study is not on the role of external quality assurance agencies *per se*, the impact of the HEQC's requirements on the development of an institutional quality assurance system is relevant, with special reference to the already mentioned integration of quality management, planning and resource allocation as the basis of good practice for quality management. Some academic component parts are subject to external review by professional bodies as mentioned above. Institutions must decide whether these parts are also subjected to internal reviews or self-evaluation, or alternatively

only self-reviewed in the context of an external accreditation review exercise (Woodhouse, 1995:22).

In conclusion, the South African higher education system had been characterised during the apartheid era by fragmentation, uneven provision and racial segregation. The restructuring of the higher education system aims to produce a more just effective, efficient and responsive system. The quality-related goals of increased access and equity opportunities for the previously disadvantaged groups, greater improvement of institutional effectiveness leading to increased throughput, retention and graduation rates, increasing number of black and women researchers underpin the criteria that the HEQC developed. The HEQC is therefore instrumental in steering the new system for higher education in South Africa in the direction of responsiveness to the country's transformation agenda (Botha, 2005:49).

3.8.2 THE HEQC AND GLOBAL QUALITY AGENCIES

Already in 1976 the Carnegie Council on Policy Studies in Higher Education envisaged that institutions of higher learning in the United States of America will base their decisions with regard to resource allocations increasingly on programme reviews (Glenny, Shea, Ruyle & Freschi, 1976:31). The South African national quality assurance system has "generic" characteristics of equivalent systems abroad with the exception of a few approaches. One exception is that the HEQC's activities are not linked to funding (CHE, 2004a:10).

The HEQC shares the following "generic attributes" with national quality agencies:

- Developments that are sponsored by the state
- A national agency that possesses a considerable degree of operational autonomy
- The utilisation of peer review as a primary method (Brennan & Shah,2000:331)

The HEQC's audit criteria are similar in scope to the criteria of New Zealand (Botha, 2005:48).

3.8.3 RESPONSIBILITIES OF THE HEQC

The South African Higher Education Act of 1997 assigns responsibility for quality assurance in higher education to the Council on Higher Education (CHE 2004d:1). The CHE has to perform its duties in terms of the SAQA Act 85 of 1995. The CHE advises the Minister of

Education on issues pertaining to higher education in South Africa. The responsibility for quality assurance of public and private providers in South Africa is discharged through the CHE's permanent sub-committee, the HEQC. On national level the HEQC, as an Education and Training Quality Assurer (ETQA) for higher education, is responsible, to promote quality, to conduct institutional audits and to conduct programme accreditation activities. For the purpose of this study the focus will not be on programme accreditation but on institutional audits with special reference to the HEQC institutional audit criterion 2, i.e. the integration of quality management, planning and resource allocation.

The HEQC's role is to monitor and evaluate during audits "whether, how, to what extent and with what consequences" an institution's vision, mission and strategic priorities are on a par with the national transformation of higher education (Lange & Luescher, 2003:85). It has already been mentioned in this study that the HEQC received a "delegated accountability" to steer the national system of higher education by utilising fitness of purpose as a key mechanism (Botha, 2005:48-49). Many scholars view the "steering from a distance" of external quality assurance bodies as a form of "new managerialism" (Morley, 2003:48).

The HEQC's institutional audit approach compares with international practices of external quality assurance bodies. The approach is identical to that of the Australian model, i.e. of institutional self-assessment which results in the production of an audit portfolio or an institutional self-evaluation report followed by a site visit of an external panel (Scott & Hawke, 2003:325).

3.8.3.1 Purpose of institutional audits

An institutional audit is a form of quality assurance and is general practice in many countries. It is usually associated with quality improvement and enhancement. The role of the HEQC is to assist an institution in its endeavour to continuously improve its core business. According to Woodhouse (2003:133), an audit is an improvement-oriented activity and designed to support institutions in their effort to develop institutional policies, processes and structures which should correspond with their institutional objectives. It monitors also whether an institution's mechanisms for quality are fit for purpose. The researcher is of the opinion that this approach of the HEQC is fundamentally process-oriented and aligns with the process-thinking approach within the context of the systems theory (*cf.* 3.2).

3.8.3.2 Preparations prior to audits

The HEQC developed a set of comprehensive institutional audit and programme accreditation criteria. The HEQC recommends institutions to conduct self-evaluation exercises and to draft institutional portfolios prior to an audit visit. The audit portfolio is a document that describes the analysis and evaluation of an institution's effectiveness of its policies, systems, strategies and resources for quality management in its core business against the audit criteria of the HEQC (CHE, 2004a:14).

The HEQC selects an audit panel. This external panel consists of peers and experts. They are trained by the HEQC to conduct institutional audits on the basis of their knowledge and experience. This process compares methodologically with that of the Netherlands and the majority of West European countries, i.e. internal self-evaluation as the primary activity followed by a peer review and site visits by so-called "visitation committees" (Van Damme, 2000:12). The external audit team validates the results of the self-evaluation exercise followed by an audit report with recommendations and a subsequent check that the key recommendations of the audit report are addressed or that the deficiencies and gaps identified in the report are addressed.

3.8.4 HEQC CRITERIA FOR INSTITUTIONAL AUDITS

The HEQC's scope of audit includes a range of issues that are related to planning, implementation and review of academic programmes, as well as research and community engagement. Quality-related criteria were developed to fulfil the dual purpose of serving as tools for evaluation during audits, as well as programme accreditation activities. They also set broad benchmarks for quality management arrangements in higher education (CHE, 2004d:1). The HEQC audits the quality assurance mechanisms of institutions of higher learning and promotes quality in higher learning. As already mentioned (*cf.* 3.8.3.2), in the context of an audit an institution first conducts a self-evaluation exercise which can be regarded as a process in which an institution under evaluation can review the effectiveness of its quality management system against the HEQC criteria for institutional audits.

3.8.5 THE HEQC'S DEFINITION OF QUALITY

International quality authorities do not provide an official definition of quality (Barrow, 1999:30) but use various definitions simultaneously (Van Damme, 2000:11). The definition of the notion of quality has important strategic consequences as it defines the purposes and

contents of quality assurance mechanisms. With reference to Van Damme's statement (2000:11) in this regard, the HEQC follows a many-sided or multi-faceted approach, e.g. the HEQC's Founding Document (CHE, 2001:8) defines quality as

- fitness of purpose (*cf.* 3.5.1.7) - quality is viewed in the context of national goals, including equity, access, effectiveness and efficiency;
- fitness for purpose (*cf.* 3.5.1.3)- quality in relation to an institutional mission within a national framework that encompasses differentiation and diversity;
- value for money (*cf.* 3.5.1.5) – quality judged in relation to the education purpose as indicated in the White Paper on Higher Education (1997b); and
- transformation (*cf.*3.5.1.4) - with a view of quality higher education that develops the capabilities of learners for personal enrichment, educational and social effectiveness.

According to the Framework for Institutional Audits (CHE, 2004a:5), the HEQC states that "the HEQC's understanding of quality encompasses fitness for purpose, value for money, and individual and social transformation, within an overarching fitness of purpose framework". It further states: "HEQC audits consider the relationship between quality and fitness of purpose and the manner and extent to which an institution's mission and academic activities take national priorities and needs into account, as well as respond to regional and international imperatives" (CHE, 2004a:5). This notion of quality by the HEQC did not escape critical reflection on national level (Pretorius, 2003:132).

The concept "quality" as "fitness for purpose" within the South African Higher Education context, is based on an institution's mission and its effectiveness to achieve its goals (Green, 1994:15). This takes place against a fitness of purpose approach, i.e. within a national framework, i.e. the country's national imperatives, its goals, priorities and targets (*cf.* 3.3.1). Critics of the HEQC's focus on quality as "fitness for purpose" argue that it implies restrospective quality assurance in the sense that summative judgment reflects on what has happened (Biggs, 2001:222). Harvey (1998:225) states that a fitness for purpose approach may suffer from reductionism that fails to discover the different dimensions of quality and avoids politics of quality. The HEQC's view of "fitness of purpose" should be in relation to an institution's mission within a national framework of transformation of higher education. Transformation should be understood as the development of capabilities of individual learners for personal enrichment, as well as the requirements of social development and economic and employment growth" (Ferreira, 2003:62).

The above-mentioned definitions and descriptions of the notion of quality, emphasise the fact that the new national quality assurance system operates in the context of transforming the higher education milieu. In this context the system seeks to advance the aims of the White Paper on higher education. Therefore, the HEQC links the notion of achievement of quality to equity and fosters innovation and diversity in the sector (Pretorius, 2003:133). The fitness of purpose approach can be used in a reductionist sense because certain purposes are depicted as "the" purpose of higher education. Not only does Botha (2005:49) concur with Harvey's statement on reductionism with regard to the fitness for purpose approach, he indicates that both approaches, fitness for purpose and fitness of purpose, may suffer from "reductionism".

3.9 INSTITUTIONAL QUALITY MANAGEMENT AND QUALITY ASSURANCE IN HIGHER EDUCATION

Quality management can be defined as the arrangements of an institution to assure, support, develop, improve and monitor the quality of an institution's core business (CHE 2004b:26). The history of quality management can be traced back to the early years of the 1900s when a British farmer, R. Fisher, devised a method of organising a string of crop growing experiments in order to determine the relationships of cause and effect (Liston, 1999: 8). Quality management developed within industry from inspection-based systems. These systems examined a product's characteristics by means of comparison with specified requirements. The products that fail to comply with specific standards were scrapped or sold as products of so-called "low quality" (Kanji & Asher, 1993).

The next phase in the development of quality management was the development of the notion of quality control. Non-conformance of products was drastically reduced as a result of "systems control". Systems control takes place by means of process control, self-inspection, data collection, etc. Globally there was a shift from quality control to quality management as quality control developed into quality assurance. Quality assurance is not "inspection-based" as in the case of quality control; the emphasis with regard to quality assurance is more on prevention than inspection.

3.9.1 QUALITY MANAGEMENT CONCEPTS AT INSTITUTIONAL LEVEL

The prime responsibility for institutional quality rests with institutions themselves (Woodhouse, 1995:21).

3.9.1.1 Quality management systems

Quality management systems are conceptualised by the HEQC as the institutional policies, systems, available resources and strategies that exist in order to improve the core business (teaching and learning, research and community engagement). The researcher defines a quality management system at an institution of higher learning as a collection of coordinated policies, plans and actions in order to continuously enhance the quality of an institution's core business. From a systems thinking point of view, there are many environmental forces that necessitate effective quality management of the core business of universities (Becket & Brookes, 2006:123). This aligns with systems thinking as contextual thinking which explains things in terms of their environment. Systems thinking is therefore nothing but "environment thinking" (Capra, 1997:37). Strydom and Van der Westhuizen (2002:116-117) concur with this statement by referring to the development of institutional quality management systems as a response of an institution of higher learning to its external environment. According to Murdoch (2005:124), the external demands of accountability compel institutions of higher learning to develop and improve their quality enhancement activities.

Holtzhausen (2000:120-121) states that the internal influences are mostly a reaction to external influences. The internal influences refer to issues such as the importance of commitment of institutional leaders, internal motivation among leaders and participants, threats, fears and anxieties and the lack of internal communication that all have an impact on successful implementation. The role of the HEQC and other quality agencies in South Africa might be regarded by many academics as forces from the external environment that act, according to Shore and Wright (1999:563), as "intermediary agencies" to mobilise institutions of higher learning and academics to take part in the process of cultural reform of universities. According to Anyamele (2005:357), "forces mainly from outside higher education institutions have stimulated the rise of assessing quality in the university". The phrase: "forces mainly from outside higher education institutions", reminds of the present discourse regarding the audit culture and the influences of neo-liberalism in higher education (Shore & Wright, 1999:557-575) as already discussed (*cf.* 3.7.2).

3.9.1.2 Quality management

Quality management is that aspect of the overall management function that determines and implements the quality policy. With reference to the view of the HEQC (CHE 2004b:26) quality management includes quality assurance and all other functions that might have an influence on quality improvement. Van Vught (1996:223) identifies two approaches of quality management, i.e. evaluation and comparison of study programmes with the aim to improve the quality of programmes (in order to be accountable to the community) and secondly a focus on the institutional mechanisms and procedures that are in place at an institution for the purpose of self-evaluation. The characteristics of effective quality management, according to Liston (1999:53), are

- planning, innovation and strategies to implement change;
- use of benchmarks, standards and key performance indicators for monitoring change;
- evaluation of best practice for continuous improvement;
- efficiency and cost-effectiveness;
- relational management information systems and reporting mechanisms; and
- dissemination of information and ongoing communication.

3.9.1.3 Quality assurance

Quality assurance is not a set of controls in order to identify institutional deficiencies but rather a tool for optimising quality within an institution's existing frame of resources (Hove, Benedict & Svinddal, 2005:2). Quality assurance is "a means of ensuring that errors are, as far as possible, designed out. In education it examines the aims, content, resourcing, levels and projected outcomes of modules, programmes and courses" (De Bruyn, 2002:313). De Bruyn's view concurs with the definition of Oakland (1998:13). Oakland defines quality assurance as "broadly the prevention of quality problems through planned and systematic activities (including documentation) ...these will include the establishment of a good management system and the assessment of its adequacy, the audit of the operation system, and the review of the system itself".

The HEQC (CHE, 2004b:26) defines quality assurance as the "processes of ensuring that specified standards or requirements have been achieved". SAQA (2001:6) defines quality assurance as the "sum of activities that assure the quality of products and services at the

time of production or delivery. A quality system dictates how an institution should implement quality management and how it interacts with its deficiencies. The following is a summary of Coetzee's (2002) description of the notion "quality assurance" in relation to the definition of SAQA. According to Coetzee (2002:43), service providers (institutions of higher learning) should develop their own quality assurance systems in order to

- clarify customers' needs and expectations;
- have a clear understanding of the quality standard;
- ensure that they have the available resources and systems in order to deliver the required quality;
- audit and monitor quality and feed this information back to those who are in a position to contribute to enhancing quality;
- have the required skills, knowledge and motivation to deliver the service; and
- have the skills and means to monitor the quality and to modify what they do to meet or enhance the required standard.

Lewis and Smith (1994:32-33) refer to the compatibility of the principles of quality within higher education practices and the underlying philosophy and values that quality assurance systems have that are also relevant for higher education. The following are generic principles of quality:

- Focusing on service
- Anticipating and meeting customer expectations
- Improving transformation processes and systems
- Implementing teamwork and collaboration
- Instituting management that is based on leadership, knowledge-based decisions and involvement
- Solving problems based on systematic identification of facts and the use of feedback systems and statistical methods
- Implementing development of human resources (staff of an institution of higher learning)

The above-mentioned characteristics remind of elements that constitute quality models such as MBNQA (Ferreira, 2003:39; Rao *et al.,* 1996:63-117); SAEM (Ferreira, 2003:95) and TQM (Oakland, 1998:31-32; Rao *et al.,* 1996:25-163).

According to Liston (1999:52) effective communication as an important aspect of a quality system within an educational setting should include:

- mission, goals and objectives that are clear and are communicated to all;
- systems that are planned and coordinated and communicated to all;
- shared responsibility which is communicated to all;
- quality indicators which are well defined, documented and communicated to all;
- monitoring and measurement systems in place for verification and which are communicated to all; and
- methods to correct errors that are communicated to all.

On national level, quality assurance of higher education in South Africa illustrates a systems approach (Fourie, 2000:52) which is common within the context of higher education (Mizikaci, 2006:42). The systems approach is amongst others clearly demonstrated in the HEQC's emphasis on the importance of an institutional mission statement as a response to its local, national and international context (CHE, 2004b:5-6). The modern approach to quality assurance moves away from a system of external inspection towards an internal quality management system (Coetzee, 2002:43). Quality assurance on institutional level should ensure, by means of its quality assurance system and management, that the implementation of the system takes place at all levels (academic, support, administrative, etc.). This concurs with systems thinking: All structures (departments and units) of an institution are regarded as entities with their own systems elements, and are standing in interrelation to each other (Von Bertalanffy, 1968:37). From a systems point of view, quality assurance refers to the institution's sum of activities which assures the quality of "products" and "services". The university is a provider of education to its "customers". A university should therefore develop a quality assurance system in order to clarify its customers' needs and expectations (Coetzee, 2002:43). Customers are individuals or groups that are utilising the service or products of an organisation (Liston, 1999: 3). The notion "customer" in industry refers therefore usually to consumers, a characteristic that cannot be allocated to the customer in education.

3.9.1.4 "Customers" in higher education

According to Sahney *et al.* (2004:153), "a customer may be both internal and external, depending on whether they are located within or outside the organisation". To address the needs and expectations of the customer is one of the foundations of the total quality management approach (Oakland, 1998:27). The emphasis on quality assurance within industry stays primarily on the customer, whereas the continuous debate in higher education is on seeking answers to the question: who is the customer, and what is the product (Cruickshank, 2003:1162, Motwani & Kumar, 1997:131)? Cruickshank (2003:1162) refers to students as "products" and employers as "customers". There is little agreement as to who the "customers" are within the context of academia (Sahney, *et al.,* 2004:147); the utilisation of the concept within the context of higher education has unleashed controversial and emotional debates for many years.

There is a range of exponents against utilising the concept "customers" in higher education (Harvey,1995a., Harvey & Langley, 1995). An argument is that by utilising the concept in higher education it may destroy the traditional student-teacher relation. Some propose an adaptation of the concept (Yorke, 1994), or a differentiation in application (Srikanthan & Dalrymple, 2002:222) others accept the utilisation of the concept within the context of education (Grant, Mergen & Widrick, 2004:426). The reactions in academic circles are more often than not negative (Redding, 2005:409).

Some authors are convinced that what students as customers want from their institutions are not necessarily what they need. Therefore, there is a risk in viewing the students as customers because the needs of society and other external "customers" may then be compromised (Motwani & Kumar, 1997:131).

A popular argument amongst educators against the utilisation of the concept "customer" in education is that the student as customer does not correspond with the generic view of a customer as someone "that is always right". Although this might be viewed as a valuable argument, the researcher is of the opinion that a student knows what his/her needs are and have certain expectations with regard to the basic service that they should receive from a university.

The student might therefore be right "to a certain degree". The implementation of student (and staff) satisfaction surveys as mechanism in quality assurance at institutions of higher learning is common practice. This mechanism gathered valuable information on the satisfaction of the students (as "customers") on the services that are rendered to them. The

researcher is of the opinion that although the student is not "always right", he or she can reflect on the deficiencies that might occur in a system. The institution then has the prerogative to decide if, when and how they will address the demands and expectations of the customers. What should be determined by a provider of higher education is rather the internal customers' autonomy in the managing process of an institution.

Redding (2005:409) makes a semantic distinction between the two concepts "customer" and "consumer". The concept "consumer" should be associated with "the person that pays". Redding (2005:416) states that the customer, consumer, client and producer in academia do not particularly care what they are called, as long as someone is addressing their needs. According to Jacobs (1997:159), the employers and students are the customers, irrespective of who is responsible for the payment of fees.

Harvey and Green (1993:10) refer to the customers of a university as typically the students, employers, teaching and non-teaching staff, government and its funding agencies, accreditors, validators, auditors, and assessors, including professional bodies. As mentioned above, within industry the concept "customer" is synonymous with the concept "consumer". In this study, staff and students are viewed as "internal clients" or "internal customers" of higher education institutions which view concurs with the viewpoint of many scholars such as Liston (1999:3). All external stakeholders such as government bodies, industry, etc. can be viewed as external clients. This approach to the concept "customers" (i.e. internal and external) concurs with the viewpoint of scholars such as Sahney *et al.*, 2004). According to them, there are different customer groups or categories of customers in higher education, whether they are internal or external, that should be recognised (Sahney *et al.,* 2004:155). Pretorius (2004:105) and Redding (2005: 412) refer to the learner as a "primary external customer". Redding argues that the internal and external customers in higher education do not "consume" education in the same sense as customers in industry consume goods.

As already mentioned in this study, the researcher holds the point of view that the customers in education, especially the internal customers, are in a position to reflect on the quality of service that they receive. Therefore it is common practice in higher education to conduct student and staff satisfaction surveys or to evaluate customer satisfaction by means of qualitative methods as quality assurance mechanisms, such as interviews (Brits & Du Plessis, 2007:119). The researcher believes that the controversy regarding the concept in education has to do with the meaning application of the word "customer" that originated within industry. It should rather be redefined when used in the context of education. The researcher is convinced that institutions of higher learning cannot be competitive if students

(internal customers) and external key stakeholders (e.g. industry) are not regarded as customers. The researcher is of the opinion that the concept "customer" in academia should rather be viewed as a "customer of a special kind". They are key role players as customers and contribute to a large extent in shaping the educational output.

The researcher concurs with the viewpoint of Liston (1999:3) that customers are the utilisers of the products or services of an organisation. Although the researcher agrees on Liston's (1999:3) viewpoint of customers as utilisers of products or services of an organisation, he differs with regard to her viewpoint on the concepts "internal and external customers" in higher education. Liston (1999:3) views learners and professional organisations as external customers and those who receive products (e.g. information, research findings, teaching etc.) as internal customers.

The researcher is convinced that part of the dilemma with regard to the concept "customer" in higher education can be contributed to the fact that the concept is used without making a distinction with regard to its meaning within an educational context. This concurs with viewpoints of scholars such as Sahney *et al.,* (2004:153). This emphasises the need for a generic definition of the concept "customer" or "client" in education.

3.9.2 CHARACTERISTICS OF QUALITY MANAGEMENT

As already mentioned (*cf.* 3.9.1.2), quality management refers to the arrangements of an institution of higher learning to assure, support, develop and enhance as well as to monitor the quality of teaching and learning, research and community engagement.

Quality management has the following characteristics:

3.9.2.1 Top-down and bottom-up approach

A characteristic of quality management is that it is both a top-down and bottom-up approach. Oakland (1998:20) states that commitment to quality and the quality policy start at top management and cascade down to all levels of an organisation. Top management is also responsible for ensuring that the efforts and achievements of their subordinates are recognised.

Quality management can therefore not be viewed as a responsibility that is left solely to an institution's "quality experts" or to "top management". Every staff member and student is responsible for the enhancement of quality. Oakland (1998:18) rightfully states that quality is

too important to be left to the "quality professionals". If quality management is left to quality experts, it usually creates the highly mistaken perception that quality is mainly the responsibility of an institution's quality professionals such as an institution's quality managers. Quality can only succeed in an organisation if it forms part of every member of that organisation's daily activities (Evans & Lindsay, 2002:153). Therefore, the achievement of quality necessitates a commitment of all stakeholders in an institution to quality principles and a continuous review and improvement of its system (Coetzee, 2002:44).

3.9.2.2 Integrated approach

Quality management includes the implementation of quality management principles at all institutional levels. This aligns with the systems theory approach (*cf.* 3.4). Pretorius (2004:106) refers to an integrated quality management approach where all functions within an institution strive to achieve quality goals. Oakland (1998:18) emphasises, from a TQM point of view, that "for an organization to be truly effective, each part of it must work properly together towards the same goals, recognizing that each person and each activity affects and in turn is affected by others".

Therefore, fundamental to quality management is systems thinking (*cf.* 3.2) and the notion of "synergy" (*cf.*3.3.2) which requires a comprehensive thinking to improve competitiveness, effectiveness and flexibility of a system. The enhancement of quality can only be achieved if the organisation as a whole is considered, and if every individual takes the responsibility for quality in order to reach an organisation's goals. A systems approach is also evident in the HEQC's emphasis on the importance of the integration of mechanisms for quality assurance and quality development with institutional planning and resource allocation (CHE, 2004b:5).

3.9.2.3 Combination of processes

Quality management attempts to prevent quality problems by means of the above-mentioned integrated approach through all facets of an institution. Pretorius (2004:106) concurs with this statement and emphasises the importance of a more comprehensive approach to quality management which means that attention should be given to quality assurance as well as all other functions which might have an impact on quality. According to this approach, it is more important to prevent quality problems than to implement mechanisms to detect deficiencies. An integrated approach towards quality management is imperative for achieving high quality services. This means that all functions in an organisation with regard to the achievement of its quality goals are integrated.

Van Vught (1996:223) makes a distinction between two approaches of quality management in higher education:

- Evaluation and comparison of study programmes with the aim to improve the quality of the programmes or/and for the purpose of accountability to the community – especially with regard to funding issues.
- From an organisational point of view, a focus on the institutional mechanisms and procedures that are in place for the purpose of self-evaluation.

In this study the researcher utilises the concept "reviews" for all quality assurance activities and mechanisms such as institutional self-evaluation exercises and surveys. The HEQC's definition for the concept "course reviews" concur with the researcher's understanding of the concept "review" i.e. course reviews as "internal quality assurance procedures that a provider uses to monitor and reflect on the outcomes of the education it provides through a course. The findings from course reviews should feed into the reviews of the programmes of which they form part" (CHE, 2004d:33). This concurs with the notion of process thinking within the context of the systems theory, i.e. the cyclical flows of "matter and energy through ecosystems" (Capra, 1997:43). Usually universities develop cyclical reviews that have the elements of planning, review and adjustments followed by re-planning (cyclical processes). An example is institutional reviews (in the form of self-evaluation exercises) that are usually followed by audits. The latter can be regarded as a peer review exercise or an exercise conducted by an external team, i.e. a national quality assurance body (e.g. HEQC, etc.). This concurs with the definition of the HEQC of an Institutional Audit as an "improvement-oriented evaluation of the effectiveness of institutional arrangements of quality and quality assurance in teaching and learning, research and community engagement, based on a self-evaluation conducted by the institution" (CHE, 2004d:35). The audit recommendations usually feed into an institution's remedial action plan (including its resource allocation processes), the implementation of the plans and processes of monitoring followed by adjustments or replanning.

Organisations usually have quality manuals with guideline documents on e.g. how an organisation will react to deficiencies that were identified as a result of its quality assurance initiatives. Evans and Lindsay (2002:48-49) describe quality management in the following sentence: "Senior leaders need to focus on strategic directions and on customers; strategies need to be linked to human resource plans and key processes in order to effectively align resources. Human resources issues such as training and work system design must support

the processes that manufacture products or deliver services; and data and information management should provide the means for obtaining useful feedback".

In South Africa the HEQC intends to direct universities towards quality development "that is internally driven" (Botha, 2005:49). Institutions are therefore responsible to develop and implement effective quality management systems. As already mentioned in this study, globally there is a shift away from the historical "elite education" to "mass education" in higher education, followed by an increasing demand for "accountability". Universities are also competing on national and international level for scarce resources.

Within the new dispensation of higher education in South Africa, the government promotes the continued growth of and access to higher education especially with regard to the previously disadvantaged members of society (see Chapter 2). Massification of higher education and the demands of a new dispensation of higher education in South Africa compel institutions to develop and implement effective quality assurance systems that ensure continuous improvement of its core business. Institutions of higher learning should develop and maintain formalised systems that document the structure, responsibilities and procedures required for achieving effective quality management.

Not only government and other external stakeholders demand accountability from universities, but also the internal stakeholders of institutions of higher learning, i.e. the students. As "paying customers" students of today have greater expectations of the quality of their learning experience. Their needs and expectations should be met. They need and expect to obtain a proper qualification that will be relevant for the demands of the world of work. The implementation of an effective quality management and assurance system at an institution of higher learning is therefore imperative. It is an assurance for students that their qualifications and course of study are highly regarded by employers (Woodhouse, 1995:16) and that as paying customers they receive"value for money". The "collaborative provision between universities" (Becket & Brookes, 2006:23) demands from institutions as partners a sound institutional quality assurance system. There is also an increase in collaborative provision between universities (Becket & Brookes, 2006:123), which demands partners that render services and academic qualifications of acceptable standards.

Many universities adapt and implement the industrial type of quality models such as the EFQM, ISO, the MBNQA, etc. The value of these models for quality in higher education has already been discussed in detail in this study (*cf.* 3.6). Globally the quality management tool that institutions most frequently use, is TQM (Becket & Brookes, 2006:124).

3.9.3 RESISTANCE AND SKEPTICISM

Internationally, universities realise that quality assurance in higher education "in the context of product competition, market expansion and, ultimately, globalisation is a major objective" (Marga, 2005:336). As already discussed in this study, higher education institutions should be accountable and are required to reassure all its stakeholders, including government, of its quality by introducing internal quality management systems and by engaging in external quality reviews. Not all academics at institutions of higher learning are optimistic with regard to the implementation of quality assurance initiatives. Anthropologists such as Shore and Wright (1999:566) argue that quality assurance systems and more specifically audits that form part of the system, "encourage the displacement of a system based on autonomy and trust by one based on visibility and coercive accountability". Many educators are skeptical and concerned that the university in its traditional form is "under fire from those who want to politicize, moralize and reform an institution whose primary allegiance is to cognitive rationality" (Husén, 1993:10).

Others are of the opinion that "industry-based concepts that are utilised within the educational context might lead to situations in which educational aspects may remain unattended" (Mizikaci,2006:41). Cruickshank (2003:1161) refers to an "attitudinal problem that may stem from academic's skepticism for management fads". Cuthbert (2002:46) refers in this regard to the tendency of "managerialism" in universities. Furthermore, the "audit culture" in higher education creates the very distrust it is meant to address, and eventually culminates in a regress of what Power (1994:13) calls "mistrust".

Fourie (2000:52) argues that the characteristics of institutions of higher learning, as discussed in 3.4, make it difficult to implement quality assurance systems. She refers to the complex social status of universities as a contributing factor to this phenomenon. Many educators are concerned that the system already overburden academics with administrative issues that hamper the core business of teaching and research. Singh (2000:7) states that "many saw quality assurance as an added responsibility and burden to an already over-subscribed schedule there are those who are alarmed at the introduction of business language, metaphors, terminology and methods into their educational world". Pretorius (2004:111) warns that an approach to quality that is based on quality measurement, reports and quality assurance supports a bureaucratic appliance to minimum requirements with no major effect with regard to changes on an organisation's processes. An argument of academics for not implementing a specific quality model is that they are concerned about the "standardisation" of the creative aspects of their work (Zuckerman, 2000:12).

Whatever academics' concerns might be with regard to the rationale for introducing quality assurance systems to institutions of higher learning, all institutions of higher learning in South Africa are regarded by government as agents to rectify the wrongs of the past. From the HEQC's notion of quality as fitness of purpose, institutions of higher learning are key role players in achieving the goals and national imperatives of the new dispensation in higher education, regardless of the view of academics that the quality assurance system functions as a political technology for introducing neo-liberal systems of power or not.

The staff of an institution of higher learning should be well-informed with regard to the rationale for the implementation of quality assurance initiatives at an institution of higher learning (Whitty,1992:3). Smout (2005:8) refers to three "categories" of academic staff i.e. those who are positive, well-informed on quality assurance issues and supportive of an institution's quality initiatives; those academics that are neutral but comply with the requirements that are set (because it forms part of their jobs) and those who are negative because they regard quality assurance initiatives as a waste of time and an "intrusion" on their teaching and research. Pretorius (2004:107) argues that resistance of academics with regard to quality initiatives is usually based on the fact that the academics associate "quality" with "control". This emphasises the importance of a balance between quality assurance which relates to the notion of accountability and quality improvement.

The following sentiments are some of the contributing factors to the above-mentioned skepticism and resistance amongst academic staff members in higher education:

3.9.3.1 "Industrial type" of models

The implementation of "industrial type" of quality management models is one of the major reasons why some academics are usually skeptic. It is not an unfamiliar practice for institutions of higher learning to adapt and use "industrial type" of quality models and quality assurance mechanisms as internal diagnostic tools in order to identify deficiencies and gaps in their systems. The utilisation of these quality theories, mechanisms and concepts in higher education unleash emotional and deliberate debates (Harvey & Green, 1993; Mizikaci, 2006.;Motwani & Kumar, 1997).

3.9.3.2 Change processes

Quality management facilitates change of the status quo as well as innovation. Carlson (1994:16) states that TQM is extremely difficult to implement and sustain as a change

process. Arnold, Harman and VanderBilt (1999:28-30) emphasise the need for strategic direction, leadership and commitment of all members at a university in order to implement TQM especially when members are skeptic and reluctant to embrace TQM as a so-called "product from industry". The only way to create a need for change is by inspirational leadership. This concurs with the views of Deming (*cf.* 3.6.1.1). Members of an institution of higher learning should be convinced of a need for change in order to improve quality. Educational institutions are usually slow to accept the need for change due to the fact that decline of quality is usually slow and therefore often accepted as the "status quo" (Motwani & Kumar, 1997:131).

3.9.3.3 Academic autonomy and neo-liberalism

Members of the academia may view the implementation of a quality model such as TQM with some degree of skepticism due to its possible threat to the members' "academic autonomy". They may view the implementation of a quality assurance system as a demonstration of distrust from top management in the professional service that they render. Harvey (1995a:29) refers to "implied criticism" that is associated with the implementation of quality assessment in higher education. This skepticism amongst academics can be enhanced by implementing the quality management principles of e.g. customer participation and teamwork (Morley, 2003). The focus on participation of all stakeholders during a quality assurance exercise might enhance this skepticism amongst academics especially if an educational institution is used to silo management (Motwani & Kumar, 1997:131), or functioning within a "closed" system such as the universities of the European east block under the previous Communist Party government (Marga, 2005:268-281).

Quality assurance in higher education within the context of the new South African political dispensation is imperative in addressing the political wrongs of the past and crucial in creating a sound national economy and social order (see Chapter 2). However, there is a concern amongst many academics and anthropologists that the "remaking of social order" is underpinned by neo-liberalism which suppresses or limits academic freedom and autonomy (Marginson, 2006:1; Shore & Wright; 1999:563; Harris, 2006:11). Institutions' reaction to the compelling pressures or external influences that give rise to internal pressures and eventually to the development of quality assurance systems is often the massification of higher education (Fourie, 2000: 50; Vroeijenstijn, 1995:2; Munasinghe & Jayawardena, 1999:69; Brennan & Shah, 2000:332), financial stringency (Anyamele, 2005:358; Fourie, 2000:50; Barrow, 1999:27; Munasinghe, 1999:69), globalisation (Morley, 2003:1), internationalisation (Barrow, 1999:27; Fourie, 2000:50), the notion of accountability and

information technology (Holtzhausen, 2000:120), and the emergence of a knowledge society that demands more graduates (Fourie, 2000:50). The concept "audit" entered higher education as a reaction to the above-mentioned pressures, with a revealing new cluster of terms including "performance", "quality assurance", "quality enhancement", "accreditation", "efficiency or effectiveness", "value for money", "ownership", "responsibility", "benchmarking", "external verification", and "empowerment" to mention a few (Shore & Wright, 1999:559).

Shore and Wright (1999:558) refer to the concepts "audit systems" and "audit techniques" as "political technologies" that introduce neo-liberal systems of power in higher education and which embody a new rationality of governance. What Foucault described as "political technology" refers to "what is essentially a political problem, removing it from the realm of political discourse, and recasting it in the neutral language of science" (Shore & Wright, 1999:559).

Institutions are utilising "mechanisms" such as continuous assessment and measurement of output in order to ensure accountability. Unfortunately, measuring of performance may be seen by skeptics as "accountability elided with policing" or the reduction of professional relations to quantifiable and so-called "inspectable templates", or as a mechanisms that introduce a new form of neo-liberal "governmentality". The external regulation and pressures are sometimes viewed as instruments of governmentality underpinned by a "power" theory (Barrow, 1999:31).

The change of perceptions with regard to higher education is not unique to post-apartheid South Africa. According to Harris (2006:11), "neo-liberal governments are disciplinarian in industrial and economic matters, where they enforce reforms aimed at producing entrepreneurial yet obedient behaviours". Ewell (2007:10) describes within the context of the United States a changing perception of higher education from an enterprise that intends to provide benefits to individual citizens in the form of enhanced income and greater social mobility, to a "collective investment" with payoffs, not only for the individual citizen, but also to the benefit of the social level by means of economic stability and growth and workforce competitiveness. This concurs to a great extent with the role of government and its quality agencies within the context of a new dispensation of higher education and the emphasis on social reliability of institutions of higher learning.

3.9.3.4 Fear

The staff of a unit under evaluation may feel threatened by the implementation of quality assurance initiatives especially when they are specialising in narrowly-defined areas or if

they are members that are not related to the specific unit. It might also be that the department or the institution views their specialities as of minor value to the organisation. There is therefore a risk of obsolescence in environments with a silo-management syndrome. Institutions of higher learning should also allow a minimum recognition of faculty or departmental "individualism" when they introduce TQM. Managers should therefore keep in mind the exhortation of Deming, his advice that fear should be driven out while trust be created when TQM is implemented (Rao *et al.*, 1996:38; Oakland, 1998:354; Evans & Lindsay, 2002: 92).

Despite the above-mentioned reactions of staff members towards the implementation of a quality assurance system, universities are accountable to their stakeholders. Loder (1990:2) states that accountability involves rendering account that the service rendered by an organisation is carried out "efficiently" and "effectively". Kells (1992) emphasises the need for universities to establish effective evaluation systems that satisfy the needs and expectations of governments and the public who "invest" in higher education. This emphasises the notion of accountability. In higher education, self-evaluation is a first step in quality promotion (Bitzer & Malherbe, 1995:50). It is also the most important exercise to be conducted within a system that follows a developmental approach. This statement concurs with Vroeijenstijn's (1995:39) view that the cornerstone of a quality assurance system is self-assessment. The concepts self-assessment and self-evaluation are used in this study as synonyms. The primary purpose of quality assurance is improvement and accountability (Murdoch, 2005:123). Institutions should strike a balance between these two purposes of quality assurance which are often regarded as incompatible.

3.9.4 THE QUALITY ASSURANCE SYSTEM

There is a distinction between the concepts quality control and quality assurance. Traditional quality control strives to reach specified quality standards by means of "inspections" (Pretorius, 2004:106). Quality assurance procedures are frequently applied only to activities and products associated directly with the goods and services provided to "external customers". Coetzee (2002:44) states that "the quality assurance system of an organisation, such as an institution of higher learning, encompasses the organisational structure, responsibilities, procedures, processes and resources for implementing quality management".

3.9.4.1 Quality assurance

Within the context of higher education, the HEQC defines quality assurance as a "process of ensuring that specified standards or requirements have been achieved" (CHE 2004b:26). Universities should develop quality aims, quality assurance policies and plans in order to demonstrate the importance of the existence of quality assurance at all levels. It is a way in which institutions can demonstrate that they are accountable for the resources that they are using (e.g. funding) and that they are responsible with regard to their professional practices. Quality assurance, within the context of systems thinking, should be present in all institutional functions. It cannot be viewed as separate from, for example, strategic planning (Fourie, 2000:51). In the South African higher education landscape quality assurance has a dual purpose. It should serve the interest of quality *per se* and it is an instrument for the new government to enhance the cause of transformation in higher education (Smout, 2005:9; DoE, 1997a).

3.9.4.2 Accountability vs improvement

The indirect pressure of the South African government (as an external environmental force) on universities to be more efficient and effective is not restricted only to this country. In many countries legislation requires accountability from institutions of higher learning in return for funding. Accountability can be described as the "rendering of some form of account that an activity is being carried out effectively and efficiently" (Loder, 1990:2). Self-evaluation exercises are usually conducted in order to review the effectiveness of an institution's arrangements to improve the quality of its core business, i.e. teaching and learning, research and community engagement (CHE, 2004b:26). Self-evaluation (reviews) and external monitoring provide the foundation for a systematic evaluation of a provider's performance. This makes the abandonment of "inspection" and external annoyance by government and its external quality agents possible (Barrow, 1999:31). Institutional audits are enhancement-orientated external evaluations by a panel of peers and experts with regard to the institutional arrangements for the quality of an institution's core business, based on the outcome of the respective institution's self-evaluation exercise (CHE 2004b:25). Audits can be defined as an evaluation of the effectiveness of an institution's quality assurance processes (Ketteridge *et al.,* 38). The outcome of evaluations and audits can generate valuable management information. They are exercises that assist institutions to make informed decisions, e.g. with regard to the allocation of institutional resources (Glenny *et al.,*1976:31, Jones & Ratcliff,1999:106).

The "external annoyance" of governments, e.g. by means of institutional audits by external quality assurance bodies, is a reality as they need to be reassured that institutions are operating efficiently and that they achieve the desired quality. This is imperative because public institutions of higher learning should be accountable for the large amounts of public funds that they receive (Woodhouse, 1995:16). According to Upcraft and Schuh (1996: 6) accountability became an issue because there are too many examples of people with higher learning qualifications that are ill-prepared for the "world of work". The public is also dissatisfied with the rising cost of higher education. Furthermore, there is also a dissatisfaction with regard to the quality of instructions at many institutions of higher learning due to factors such as large classes and an emphasis on research at the expense of teaching. There is also the issue of access and equity in education. Institutions of higher learning become more inclusive and diverse with regard to race, ethnicity, gender, disability, etc. The discrepancy between success rates of representative groups (drop-out rates, etc) is alarming. This "external dissatisfaction" with regard to the quality of higher learning compels universities to revitalise initiatives in order to enhance and to renew internal (institutional) commitments to quality. Remedial action initiatives and plans should therefore be developed and implemented after a review or audit exercise in order to address the identified deficiencies.

Shore and Wright (1999:572) criticise audits and the rationality that drives it and state that the audit system appears to rely largely on fear and expectations of compliance. Although some scholars may argue that the focus on accountability bears little evidence of quality improvement with regard to the work of academics and researchers in higher education in South Africa (Pretorius, 2004:106), it is imperative for a university to strike a balance between accountability and improvement. It is therefore expected from institutions to develop accountability initiatives that link national imperatives to institutional goals. All institutional plans of an institution of higher learning should be linked to its institutional goals. These include strategies and plans on strategic, tactical and operational levels. The latter refer to institutional departments that are regarded as the most responsible units for academic results and institutional performance (Burke, 2005:19).

According to Genis (2002:65) the question whether the approach to quality assurance should be on accountability or improvement is an enduring one. The three pillars of public accountability and institutional improvement are societal concerns, institutional goals and the aspirations of departments (Burke, 2005:20). Institutions establish quality assurance systems (*cf.* 3.6) in order to monitor and to give substance to the improvement of internal academic quality. As already mentioned, they have also to align their quality assurance

systems and criteria with the requirements of "external bodies" (e.g. national quality management bodies) in order to ensure that they are "accountable". An institution of higher learning should therefore be responsive to and involve in a recognition of, as Harvey (1995b:39) calls it, "an obligation to external quality monitoring processes". This requires an internal quality approach that meshes with external requirements.

Newton (1999:4) concurs with all these statements - according to him, institutions should develop quality assurance systems that meet both external and internal requirements for quality evaluation. This is why the alignment of institutional standards with the criteria of an external quality assurance body such as the HEQC has its benefits for an institution that prepares itself for an audit (Brits, 2005:1035), i.e. it is on a par with a respected national quality assurance body's requirements. An institution may also develop a quality assurance system that focuses more on institutional improvement (Murdoch, 2005:123) than accountability. This places the emphasis more on programme and/or departmental quality enhancement.

3.9.4.3 Continuous improvement

According to Kells (1992), mechanisms should be developed at universities that are effective to enhance the services that they render to their customers which include the quality improvement of programmes. It is an institution's own responsibility to develop, implement and maintain an effective quality assurance system in order to ensure the enhancement of its core business, i.e. teaching and learning, research and community engagement. Murdoch (2005:123) views improvement as a matter of institutional integrity.

Internal and external quality assurance processes should be undertaken by institutions of higher learning. Jones and Ratcliff (1999:97) emphasise the importance of regular programme reviews within an expanding knowledge environment which necessitate regular alignment. According to Harvey (1998:251) there is a growing thrust amongst institutions of higher learning all over the globe to move from quality assurance to continuous quality improvement. Continuous reviews ensure relevancy of e.g. curricula, and inform resource allocation and decision-making processes. Although it is extremely difficult to measure the outputs of an institution of higher learning in meaningful terms (Lockwood, 1973:20), planning should always be informed by reliable information and data. The outcome of reviews forms an important source of management information for planning and decision-making purposes on all institutional levels. This concurs with the statement of Vicki, Harvey

and Moon (1997:218) that continuous improvement can only be ensured if the results from quality assurance exercises are incorporated in an institution's quality plans.

Many institutions of higher learning conduct departmental self-evaluation exercises which may include the above-mentioned programme evaluations. If a department is used as a unit of evaluation, all the programmes that are offered by the specific department are under evaluation. This is also a more holistic evaluation approach in comparison with programme evaluation, as it involves more stakeholders in the process (Murdoch, 2005:124).

Procedures for programme reviews tremendously improved during the last 30 years (Stetar, 1999:95; Jones and Ratcliff, 1999:106). The following procedures are generic elements in programme evaluations or reviews:

- The aim of reviews is on programme enhancement and accomplishments.
- Reviews take place by means of self-study (self-evaluation) and peer reviews, complemented by external expert involvement, surveys, bench-marking exercises, etc.
- Government or non-government bodies or agencies can oversee programme review processes.
- The result of a programme review is usually recorded by means of a written report. The report is sometimes made public.
- The information gathered during programme reviews is used to make changes or is utilised in decision-making processes.

Sallis (1996:3-5) emphasises why continuous quality improvement (and not only attaining quality) is imperative for higher education by referring to its relationship and links with the needs of the following different stakeholders:

- Links with the client: From a moral point of view it is imperative that institutions of higher learning should deliver high quality education to its clients.
- Links with educators: From a professional point of view it is imperative that educators are contributing to achieving high quality education.
- Links with competitors: From a competitive point of view the links with the institution's competitors in the market are vitally important for any organisation.

- Links with stakeholders: From an accountability point of view it is imperative that higher education institutions are linking with the community.

Management should ensure that the "right" conditions are created to ensure participation in quality assurance and improvement activities and the development of employees. The leaders of an organisation are responsible to plan for remedial actions after reviews and for monitoring the implementation of these plans on operational level.

3.9.4.4 Institutional leadership and structures

Leadership on senior management level is imperative and forms part of the criteria framework of the MBNQA award which evaluates an organisation against the success of the senior executives (Rao *et al.,* 1996:73). The establishment of a quality management infrastructure is the responsibility of the leaders and top management of an organisation. It is also their responsibility to ensure employee participation. Employees have the potential to make effective contributions towards achieving an organisation's goals. Quality is not the responsibility of a person or persons or a department, it is every individual's responsibility demonstrated by the leaders of the organisation. Rao *et al.* (1996:85) emphasise that the "stocking" of a quality management infrastructure with people does not mean that the long-term goals of participation of employees will be attained. They argue that it is easy to establish a quality council and team structure that is not an integral part of managing the "real business" of the organisation. Very often, quality management is established as a staff function, while line functions operate almost uninterruptedly in management practices. Such companies are paying cursory attention to suggestions from the quality function, but "unfortunately, this is common, and companies that act in this manner rarely succeed" (Rao *et al.,* 1996:85). Top management is responsible for the development and implementation of a sound quality policy. A quality policy is a fundamental requirement for an institution as it states its view on quality, together with arrangements for implementation. Institutional leaders should demonstrate their commitment to the policy, it should be publicised, communicated and understood at all levels of an organisation (Liston, 1999:53).

3.9.4.5 The implementation/development of quality management models

As already mentioned, TQM is a quality management system and philosophy which originated from industry. Many institutions of higher learning adopt and adapt the principles of TQM in the development of their quality management systems. The majority of quality

models that are utilised by institutions of higher learning (EFQM, SAEM, MBNQA, etc.) were developed on the philosophy and principles of TQM.

Institutions in Finland modified and implemented successfully the EFQM excellence model (Anyamele, 2005:357). It has already been mentioned that the implementation of the models has a mixed reaction amongst educators and institutions. There are institutions that find it quite easy to adopt and adapt quality models (Genis, 2002:67) that stem from industry and there are those that are very skeptic about the effect that "standardisation" will have on the creative aspect of teaching and learning (Zuckerman, 2000:12).

Many institutions in South Africa implemented centralised-decentralised quality assurance systems that are underpinned by the principles and philosophy of TQM (Brits, 2005:1034-1035). The fact that quality assurance (industrial) models and systems have "compatible generic principles" makes it easy for universities to develop quality assurance systems that will be fit for purpose.

3.10 CONCLUSION

This chapter refers to the systems theory as the most important element in quality management, it describes quality concepts within the context of higher education, the philosophies of the most prominent "quality gurus", Total Quality Management and other renowned quality management models that institutions of higher learning implement. The philosophical contributions of the so-called "quality gurus" place a strong emphasis on the following issues that are fundamental to the majority of quality management systems:

- Constancy of purpose (Deming)
- Continuous improvement (Deming and Juran)
- Co-operation between functions or cross-functional collaboration (Deming)
- Quality planning follows the identification of customers' needs (Juran)
- Quality control by the person who is performing the task (Juran)
- Resources are imperative for the purpose of improvements (Juran)
- Quality as zero defects (Crosby)
- Quality as conformance to requirements (Taguchi and Crosby)

- Quality improvement by means of the establishment of quality teams/ also quality control circles (Ishikawa, Crosby and Juran)
- Top-management is the driver of quality (Feigenbaum)
- The role of "inspectors" should be replaced by functionaries that act as consultants or facilitators that promote new methods and techniques (Feigenbaum)
- The utilisation of statistical methods (Ishikawa)
- Cause-and-effect diagram (Ishikawa)
- Processes should be mistake-proof (Shingo)

Quality management in higher education can be viewed as the ability of an institution to create quality in its core business, i.e. teaching and learning, research and community engagement. Quality management includes an institution's policies, innovation and strategies in order to implement change, an institution's utilisation of benchmarks and standards, as well as performance indicators and quality assurance exercises to enhance quality. The HEQC defines the concept "quality assurance" as the processes that ensure that an institution's specified standards or requirements have been achieved (CHE, 2004b:26). Quality assurance is discussed with reference to the "Western" higher education systems that have the following characteristics: evaluations that take place to determine if an institution achieved its goals, professional associations that evaluate professional disciplines for the purpose of accreditation and the general practice of measuring the quality of an institution by means of conformance to its system's norms (expressed by means of quantitative and qualitative performance indicators).

The role and responsibilities of quality agencies as well as that of the HEQC within the new dispensation of higher education are discussed. The latter is responsible to assist institutions of higher learning in their endeavour to continuously improve their core business. For the purpose of this study, the role of the HEQC and its criteria with regard to institutional audits are important. Criterion 2 refers to the ability of an institution to integrate quality management, planning and resource allocation. The HEQC's institutional audits are designed to support institutions to develop and refine their policies, processes and structures which should support their institutional objectives. The HEQC's "multi-faceted" approach with regard to a definition of quality is discussed, i.e. fitness for purpose, fitness of purpose, value for money and transformation. It is clear that the HEQC's definition of quality is underpinned by systems thinking as it considers an institution's relationship between fitness

for purpose and fitness of purpose. The latter is a notion of quality that did not escape critique amongst scholars on national level (Pretorius, 2003:132) and is evident of systems thinking as "contextual thinking". The HEQC's definition of quality is on a par with its role of being instrumental (as sub-committee of the CHE) in steering the new system for higher education in the direction of responsiveness to the country's transformation agenda.

The systems theory is a conceptual framework that claims "that life is a system of which we are part" (Higgs & Smith, 2006:26). A university can be regarded as a complex system with various structures and interdependent subsystems. Subsystems are regarded as systems within the system. The notion "the whole is greater than the sum of the parts" underpins the systems theory. All functions within an institution of higher learning should therefore strive for synergy by means of complementing each other as interdependent components of the system. The interrelationship between the "parts" of the system as a whole is also a key concept to quality improvement. Total quality management (TQM) is discussed as a good example of a quality model that is based on the systems theory. In this regard, a fundamental principle of TQM which is discussed in this chapter is that each part of an organisation must work properly towards the same goals, recognising that the individual affects and in turn is affected by others (Oakland, 1998:18). TQM is a "carpet bag" term for more than one approach to quality management (De Bruyn, 2002:324). The other related quality management models that are popular in higher education are ISO, MBNQA, EFQM and SAEM. A characteristic of these models are that they are all underpinned in their approach with systems (process and contextual) thinking, with a strong focus on customer satisfaction, leadership, continuous improvement and a factual approach to decision making.

The three quality models (SAEM, EFQM and MBNQA) that are implemented by universities abroad and in South Africa have the following aspects in common:

- The exploitation and discharging of the potential of a university's internal customers (staff and students) and the production of its desired results can only be achieved by means of processes.
- The criteria of the three models are divided and classified in "enablers" or "results".
- The concept "enablers" refers to what an institution of higher learning "does".
- The concept "results" refers to what an institution of higher learning is achieving.
- Results are attained by means of an institution's enablers.

The following elements of the TQM approach (also to be found in the three models) seem to be relevant for institutions of higher learning:

- View of an organisation as a whole
- Continuous improvement
- Customer driven
- Leadership
- Empower people

The concept "customer" in higher education is discussed. For the purpose of this study, staff and students will be regarded as "internal customers" and government, professional bodies, industry, the community, etc. as "external customers". TQM is customer-driven: The customer judges whether an organisation's services and products are in accordance with their needs and expectations.

The researcher concludes from the discussion in this chapter that the implementation of the principles of TQM counteracts silo management. The latter refers to staff and managers that view the functions of subsystems as disconnected and detached units within a system such as a university. Silo management occurs usually when one component benefits without regard to the whole system. This contributes to a situation where the entire system is sub-optimised and from a quality assurance point of view, is not "fit for purpose". It is therefore important that managers and leaders of an organisation should focus on sound interdepartmental relationships in order to enhance interdepartmental workflow management which counteracts silo management. TQM fosters also an understanding of the processes which are executed by an organisation as a whole.

The university is a system that functions within a certain context. This concurs with systems thinking as "contextual thinking" (Capra, 1997: 37). Within the context of an institution of higher education, there should always be an interaction between the subsystems (internal relations) within the university as well as interactions between the university and its environment (external relations). Universities have, like all systems, goals or a purpose and inputs that are turned to outputs by means of interrelated processes. Systems thinking is always process thinking (Capra, 1997:42-43). The inputs can be resources such as material, capital, information or knowledge. As an example, the typical inputs of an academic programme at a university are teaching and learning activities, library sources, administrative services, postgraduate policies, procedures, programme design, resources, etc. Typical

processes are co-ordination, academic development initiatives, teaching and learning activities, learner assessment, work-integrated learning, etc. Outputs are student throughput, retention, the impact of the programme, customer satisfaction, etc. The processes in a system should be managed in order to turn the inputs to outputs. The HEQC programme accreditation criteria focus on the notion of inputs, processes and outputs (Botha, 2005:78).

This chapter describes universities as open systems, i.e. they are impacted by their environment. There is also a continuous interaction between the environment and the system. The environment is external to the system and therefore "uncontrollable". It necessitates that institutions should conduct continuous scanning exercises. The latter is important because it has an impact on the institution as an open system, it may cause changes to the elements of the system – its inputs, processes and outputs. Institutions of higher learning should therefore develop an approach of "organisational Darwinism" in order to ensure that it does not become extinct in a rapidly changing world (Smit & Cronjé, 1999:65).

The chapter discusses the implementation of quality management models and quality assurance systems in higher education. Many educators are skeptical with regard to the implementation of quality assurance systems at their institutions. Some of the skeptics argue that audits encourage the displacement of a system based on autonomy and trust by one that is based on "coercive" accountability (Shore & Wright, 1999:56). Some academics might argue that quality assurance is a "waste of time", that it is an introduction of a new form of neo-liberal "governmentality", etc. It is therefore imperative that academics should be informed on the rationale for quality assurance initiatives, that they should be empowered by means of capacity-building exercises to utilise quality assurance mechanisms during processes of self-evaluation (which is not a punitive exercise) and that they should know how to utilise the outcome of the processes in order to conduct remedial action planning. Quality management requires a top-down and bottom-up approach. The achievement of quality necessitates the commitment of every individual in a system to the respective institution's quality principles. This is characteristic of the systems thinking approach that the role of each part of the system should work towards the goals of the whole and by recognising the role of each individual in this process. In conclusion, Evans and Lindsay. (2002:153) state that "a total quality system must be built on effective managerial practices that focus on customers; provide leadership to all employees; integrate quality into strategic business planning; involve and motivate everyone; build quality into all products and processes; and

provide useful information to maintain high performance; continuously improve, and lead to sustainable competitive advantage".