



# **Development of Quality Management Systems for Support Services in the South African Public Higher Education Institutions**

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**APPROVED FOR FINAL SUBMISSION**

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\_Date: 30 April 2021

## DECLARATION

The work described in this thesis was performed by the author under the supervision of Dr. Manduth Ramchander at Durban University of Technology, Durban, South Africa, between 2017 and 2020. The study presents original work by the author that has not been submitted in any form at another university. Where use is made of the work of others, this has been clearly stated in the text.

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## ABSTRACT

The adoption and implementation of quality management systems has increasingly become an important feature of higher education institutions' attainment of goals and objectives, as exhibited in the development of relevant policies, structures and systems at national and institutional levels.

This study contributes to work in conceptualising quality management in higher education support services. Most studies focusing on quality management have been from an industry standpoint with little examination of higher education quality management systems, and even less on service quality systems in higher education. This study investigated the extent to which quality management systems have been adopted South African public higher education institutions' support services. This is done by evaluating the quality management mechanisms in use and by examining the current practices of implementation.

Although this study was mainly qualitative, it did not preclude quantitative dimensions thus allowing not only for triangulation of data, but also for a multi-dimensional analysis of some of the phenomena investigated. Data was gathered from a range of participants that included senior HEI managers, quality directors/ managers, support service sector unit heads, as well as senior academics from six purposefully selected South African public higher education institutions. These participants were the key informants of the semi-structured interviews conducted. The semi-structured interviews formed the main evidence base, alongside the content of institutional documents. A sequential collection and analysis of data approach was used. Different data sources were compared and paralleled; and later merged to form a set of qualitative data, which provided a comprehensive image of the status quo and achieved a unified interpretation of results for presenting findings.

Although the study found structured quality management processes at public higher education institutions, these were developed and implemented particularly for their

academic enterprise practices. Findings from the study highlight the variance in the HEIs' development implementation of internal quality management systems while it noted an absence of systematic approaches to the quality management of the support services sector.

The study contributes to the understanding of the application of the systems thinking approach on the development and implementation in the support services sector quality management systems. The thesis argues for the conceptualisation and operationalisation of quality management systems in the support services sector within South African public higher education institutions. The recommendations that emanate from the study include the need to: build an institution-wide culture of quality and continuous improvement; develop a systematic approach to quality management that is grounded on well-designed systems-thinking-based support sector service quality models, policies and procedure guidelines; mobilise resources and develop tools and processes for assessing quality of support services, feedback mechanisms and self-assessment systems.

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## Abbreviations and Acronyms

ANC	African National Congress
ASQ	American Society for Quality
BESA	Business Excellence Southern Africa
BNQP	The Baldrige National Quality Program
BPI	Business Process Improvement
BPR	Business Process Re-engineering
CHE	The South African Council on Higher Education
CoL	Commonwealth of Learning
CQI	Continuous Quality Improvement
CSF	Critical Success Factors
DHET	Department of Higher Education and Training
DoE	Department of Education
DoEx	Design of Experiments
EC	European Commission
EFQM	The European Foundation for Quality Management
EHE	Excellence in Higher Education
EOQ	European Organisation for Quality
EQA	European Quality Award
ETQA	Education and Training Quality Assurer
HE	Higher Education
HEdPERF	Higher Education PERFORMANCE-only Model
HEFCE	Higher Education Funding Council for England
HEI/s	Higher Education Institution/s
HEQC	Higher Education Quality Council
HESQUAL	Hierarchical Model of Higher Educational Service Quality
HETQMEX	Higher Education TQM Excellence Model
HiEdQUAL	Higher Education Service Quality
IQMS	Integrated Quality Management Systems
ISQM	Interview Schedule – Quality Management Director/Manager

ISM	Interview Schedule – Management
ISO	The International Organisation for Standardisation
MBNQA	The Malcolm Baldrige National Quality Award
MMR	Mixed Methods Research
NCHE	National Commission on Higher Education
NDP	National Development Plan
NEPI	National Education Policy Investigation
NPHE	National Plan for Higher Education
NQF	National Qualifications Framework
NWG	National Working Group
OECD	Organisation for Economic Co-operation and Development
PDCA	Plan-Do-Check-Act
PDSA	Plan-Do-Study-Act
QA	Quality Assurance
QCA	Qualitative Content Analysis
QEP	Quality Enhancement Project
QLF	Quality Loss Function
QMS	Quality Management Systems
QRD	Quality Robust Design
RQ	Research Questions
SABS	South African Bureau of Standards
SADC	Southern African Development Community
SAEA	South African Excellence Award
SAEF	South African Excellence Foundation
SAEM	The South African Excellence Model
SAHE	South African Higher Education
SAHEI/s	South African Higher Education Institution/s
SAPHE	South African Public Higher Education Institutions
SAQA	South African Qualifications Authority
SERVPERF	Service Performance Model
SERVQUAL	Service Quality Model
SNR	Noise and Signal-To-Noise Ratio
SQ	Service Quality
SQM	Strategic Quality Management
SSMED	Service Science, Management, Engineering and Design
TA	Thematic Analysis
TLF	Taguchi Loss Function
TQC	Total Quality Control
TQM	Total Quality Management
USAf	Universities South Africa
VSA	Viable Systems Approach
ZQC	Zero Quality Control

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## **Chapter 1 Introduction and Background**

This thesis is about the 'Development of Quality Management Systems for Support Services in the South African Public Higher Education Institutions. The study seeks to probe the nature of this development.

The evolution of quality management has occurred in a wide range of industries and sectors, which now includes the higher education sector. With this sector in focus and its support services in particular, this thesis addresses recurrent themes through an investigation of the modern approaches, principles and practices of quality management.

In brief, the thesis consists of six chapters. Chapters 1-3 present the structure, the context, and the models and measures through which the main concepts relating to quality management are explored. Chapters 4-5 hone in on the key area of investigation, the method applied and an analysis of the data and results. Chapter 6 concludes the investigation and offers recommendations.

### **1.1 Background to the Study**

The higher education system in South Africa has been undergoing rigorous and robust transformation to ensure adequate delivery of high quality education (Du Preez et al. 2017: 97; Pandor 2018: 32; Seepe 2017: 122). The National Development Plan's (NDP) Vision 2030 states that each South African Higher Education Institution (HEI) should be founded on a well-defined vision that clarifies its distinctive input in response to the national imperatives of knowledge-production and nation-building (National Planning Commission 2012: 267). Characteristics that define the Higher Education Institutions (HEIs) are to be those of efficiency, typified "by high knowledge production units, throughput, graduation and participation rates" (National Planning Commission 2012: 267). This places the higher education sector at the epicentre of national development, which has as its pillars socio-economic and cultural development.

The Green Paper on Higher Education Transformation (1996) states that to realise the importance of the higher education sector in national development and transformation, the system of higher education in South Africa must be reshaped and thus further developed. This would mean the provisioning of quality higher education may be assured, enhanced, continuously improved and maintained (South Africa. Department of Education 1996: 5). To achieve this, the risks and weaknesses within the system must be identified and addressed to “serve a new social order, to meet the pressing national needs, and to respond to a context of new realities and opportunities” (Kistan 1999: 125; Badat 2010: 4). Thus, the significance of higher education quality management systems.

In an endeavour to achieve the provisioning of quality higher education, the South African government instituted a new Higher Education Act of 1997 as a framework for transformation (The Council on Higher Education 2001: 1). Its general aim was to reconstruct the system of higher education – making it responsive to national human and developmental needs established on the “values of an open and democratic society” (Odhav 2009: 40). It was to engineer one harmonised and synchronised system (The Council on Higher Education 2001: 1). As Odhav (2009) describes its function:

“Importantly, it seeks to redress past discrimination and ensure representativeness and equal access, to provide optimal opportunities for learning, and to foster knowledge creation, to develop the potential of every student and employee, and to provide for national and local community needs” (Odhav 2009: 40).

The Higher Education Act of 1997 provided for the establishment of the Council on Higher Education (CHE) assigning to it statutory responsibility for higher education quality assurance and promotion (Strydom 2001: 7). This was to be made possible through the formation of the Higher Education Quality Council (HEQC) (The Council on Higher Education 2001: 3). The HEQC was established to co-ordinate quality assurance activities in higher education (The Council on Higher Education 2001: 7). The work of the HEQC is subject to the South African Qualifications Authority (SAQA) Act of 1997 requirements (Strydom 2001: 7). This has placed quality assurance at a centre-stage as a key element in the fulfilment of the role of the CHE in restructuring the higher education

landscape. For this reason, the development of any quality management system in HEIs should make reference to the coordinating role of the CHE.

Since then there has been a significant change in the South African higher education system – a shift from the apartheid system characterised by structural fragmentation and racialism, to a more integrated system (Badat 2010: 8; Universities South Africa 2015: 2). Higher education restructuring resulted in the reduction of South Africa's public higher education institutions (that is twenty-one universities and fifteen technikons) from thirty-six to twenty-five public universities by the end of 2015 (Heher 2017: 78).

The National Working Group (South Africa. Department of Education, 2001), established by the Minister of Education to develop a National Plan for Higher Education, recommended the new higher education landscape comprised of universities (traditional university degree offerings); universities of technology (technikon-type degree offerings); and comprehensive universities (combinations of both types of offerings). This resulted in South African Public Higher Education Institutions (SAPHEIs) being merged, unbundled or incorporated.

The year 2013 saw the establishment of two new universities from provinces that previously had had none. These two new public HEIs are Sol Plaatje University and the University of Mpumalanga in the Northern Cape and in Mpumalanga respectively, which both started their operations in 2014 (South Africa. Department of Higher Education and Training 2015: 8). A further new university is the Sefako Makgatho Health Sciences University which opened its doors for its first intake of students in 2015 was established (South Africa. Department of Higher Education and Training 2019: 9).

Currently there are twelve traditional universities, which mainly offer degree programmes; six comprehensive universities (instituted from the merger of former Technikons and traditional Universities, of which one is distance learning), which offer a widespread of certificates, diplomas and degree programmes. Additionally, there are six universities of technology (formerly known as Technikons), which are meant to offer vocational and career-focused programmes (South Africa. Department of Higher Education and Training 2015: 8).



An extensive agenda and policy framework for South African higher education (SAHE) has been laid down and explicated by the state. Its fulfilment has the “potential to create a higher education system that is congruent with the core principles of social equity and redress, social justice, democracy and development” (Badat 2010: 7). This broad policy framework establishes a national quality assurance framework. Since 2004 policies, mechanisms and initiatives for the implementation of institutional audits, programme accreditation, quality promotion and capacity development were introduced at national level, and in 2014, the quality enhancement project began (The Council on Higher Education 2017: 2-4). This study makes reference to and draws lessons from the implementation of the policy framework constructs by the SAHEs.

The HEQC (The Council on Higher Education 2017), as part of its mandate has developed a Framework for Programme Accreditation, a Framework for Institutional Audits, and more recently has introduced the Quality Enhancement Project (QEP) through a Framework for the Second Cycle of Quality Assurance 2012-2017. These frameworks focus on the HEIs’ core business which is primarily carried out by the academic faculties and their departments (hereinafter referred to as the academic enterprise). In the context of this study, academic enterprise refers to academic faculties, colleges, schools and departments, including associated activities of learning and teaching. At this point the academic support and non-academic support services units (hereinafter referred to as the support services sector) and their service quality are not understood to be an integral part of this broader national quality assurance policy framework wherein the enhancement and continuous improvement of the whole student learning experience is the main focus (Badat 2010: 6; Brits 2015: 163).

In this study, support services sector is classified into two broad categories, that is, the HEIs’ academic support and non-academic support services units, divisions or functions, including their associated activities and the services they render. According to *The Glossary of Education Reform* (n.d.) and Chen (2005: 79), academic support involves a broad range of educational strategies and a multiplicity of instructional methods, educational services, and an array of direct and indirect resources availed to assist students in accelerating skills attainment and learning development that lead to student

achievement and success. Kapur (2019: 1) concurs and summarises academic support services as those institutional programs and strategies that are implemented in order to enhance the students' academic achievement (as shown in Table 1.1).

Non-academic support services and/or activities are postulated to influence and enhance academic success but are not overtly academic, hence in many occasions they are underrated and unrecognised because of their non-academic nature (Dominguez-Whitehead 2018: 1693; Karp 2011: 1). The researcher has further classified non-academic support services into three categories, that of Administrative Student Support, Operations and Management Support and Student Support Services as presented in Table 1.1. This support system is of an educational necessity as it benefits both students' total learning experience and staff in general thus when improved, it enhances the whole systems efficiencies and institutional effectiveness (Dhillon *et al.* 2006: 284).

**Table 1.1: The Support Services Sector Units**

<b>Support Services Sector Units</b>	
<b>Academic Support Services</b>	<b>Non-academic Support Services</b>
<ul style="list-style-type: none"> <li>– Academic Advising</li> <li>– Academic Planning (Curriculum Development)</li> <li>– Extended Curricular</li> <li>– Information and Communication Technology (Computer/IT Services)</li> <li>– Learning and Teaching Center (Learner Support, Teaching Development)</li> <li>– Library and Information Services (Libraries)</li> <li>– Post-Doctoral Studies and Research</li> <li>– Quality Assurance</li> <li>– Recognition of Prior Learning</li> <li>– Reprographics</li> <li>– Short Learning Programmes and Continuous Education</li> </ul>	<ul style="list-style-type: none"> <li>– Administrative Student Support (Student Admissions and Registration; Examination and Certification; Student Finance)</li> <li>– Operations and Management Support Services (Audit and Risk; Campus Security; Community Engagement; Corporate Affairs and Communication (Marketing); Finance; Health and Safety; Human Resources and People Management; Information and Communication Technology; Infrastructure and Maintenance; Institutional Planning; International Relations; Quality Management)</li> <li>– Student Support Services (Accommodation and Catering; Career Guidance and Services, Financial Aid; Student Counselling; Student Health Services; Culture, Sports and Recreation; Students with Disabilities)</li> </ul>

Source: Author

Badat (2010: 6) highlights challenges that face the South Africa higher education sector, pointing out that the development and the implementation of the quality assurance frameworks, has to be accompanied by quality management within institutions in the higher education sector. However, if the institutionalisation of quality management within both the academic enterprise and support services sector is to be balanced, multiple whole system imperatives are required.

Within the current quality management agenda and policy, frameworks that might provide for quality management of the support services sector within the South African Higher Education Institutions are lacking (Brits 2015: 163). As stated earlier the aim is to facilitate the institutionalisation of quality for the optimisation of a whole student learning experience in response to South African transformational imperatives. The critical role of support services in university planning, budgeting, resource allocation and risk management requires a quality management system that seeks to transform and redefine the traditional culture prevalent in universities about support service units into contemporary and dynamic business units that support the academic enterprise.

## **1.2 Rationale for the Study**

The background has shown that the environment in which the SAPHEIs operate is rapidly changing. For this reason, HEIs are required to establish and implement internal quality management systems to improve the standards and quality of their academic enterprise – included here is the quality of teaching and learning activities, research and community engagement service (The Council on Higher Education 2001: 9).

The academic enterprise is thus subject to accreditation and reviews of its academic programmes by the HEQC and relevant professional bodies. Academic programmes are also required to be registered in the National Qualifications Framework (NQF) by SAQA (Strydom 2001: 7). These systematic processes are guided by set criterion and minimum standards to ascertain the academic quality of the programmes, including their relevance and responsiveness to the national imperatives of higher education transformation (The Council on Higher Education 2001: 7).

By contrast, the support services sector in HEIs is not subjected to any mandatory reviews and self-assessment processes. For an example, the CHE has a set criterion for the review of academic programmes that it applies in the performance of national evaluation and reviews of academic programmes (The Council on Higher Education 2004, 2012: 23-24; 2015: 8). These criteria are suitable and adaptable for use at institutional level for academic programmes that are subjected to internal programme reviews as part of the institution's internal quality assurance system (The Council on Higher Education 2015: 8). Whilst, in the contrary, the support services units (such as ICT or student development and support) have none. Neither do support services units have formalised frameworks, criteria or minimum standards as opposed to academic programmes. Such 'instruments' could facilitate the establishment of quality management systems and internal controls to enable the attainment of general institutional goals.

Quality management is a relatively new field of interest in higher education in South Africa. The researcher was thus interested in determining the extent to which research has been conducted in quality management through support services for this sector. The catalogue of research projects' database, and NEXUS and ProQuest databases were consulted at the commencement of the study. The objective was partly to establish the obtainability of research material for the purpose of this study; but also to specifically determine the extent of research in the subject area to date, notably on the proposed topic.

Search hits on key words such as, Quality Management, Quality Management Systems, Higher Education, Service Quality and Support Services returned results on research done in the following common areas:

- (i) Quality Assurance in Higher Education (for example, Anis and Islam 2019; Cao and Li 2014; Harris-Huemmert 2010; Luckett 2006; Mosia 2006; Ngwenya 2003)
- (ii) (Total) Quality Management and Integrated Quality Management Systems (IQMS) (for example, Calma and Dickson-Deane 2020; Makaota 2008; Sandrock 1995; Shams 2017; Sukboonyasatit *et al.* 2011)
- (iii) Continuous Improvement and Higher Education (for example, Ferreira 2005; Soria-García and Martínez-Lorente 2020)

- (iv) Perceptions of Quality Management in Higher Education (for example, Sharabati *et al.* 2019; Shurair and Pokharel 2019; De Jager 2007; Duzevic and Ceh Casni 2015; La Rotta 2020; Moonsamy 2002)
- (v) Models of Service Quality in Higher Education (for example, De Jager *et al.* 2010; Egedigwe 2019; Van der Westhuizen 2014; Sahney 2016; Schwantz 1996)
- (vi) Measures of Quality in Higher Education (for example, Corneilse 1998; Oliver 1997; Reda 2017; Sfakianaki 2019; Tsinidou *et al.* 2010)

A preliminary study of the existing literature revealed very little information about research similar to the proposed study on the development and implementation of quality management system for support services in SA public higher education sector. Indeed, what did emerge was a lack of empirical evidence regarding the extent to which quality management systems have been implemented in the support sector. Consequently it became imperative that this study be undertaken to contribute towards addressing and bridging the current knowledge gap in scientific research on quality management of support services. It is therefore anticipated that this study may make a significant contribution both to the discipline of higher education and to the quality management of its support services.

Furthermore, this study is expected to contribute towards the advancement of the South African higher education policy, particularly the quality management policy framework and specifically for the support services sector. It is also envisaged that the study will benefit the Education and Training Quality Assurers (ETQAs), that include the CHE and HEIs in South Africa (both public and private), in Africa and beyond, with insight in the development and implementation of their support services quality management systems, mechanisms and instruments that include frameworks, policies and procedures

### **1.3 Significance of the Study in the Higher Education Context**

The enquiry in this study is significant, as it should allow for the identification of a conceptual framework for quality management that:

- (i) takes into account the nature of the work and environment of the HEIs support services units;
- (ii) supports and enriches the use of theory and models of quality management in HEIs support services;
- (iii) generates greater awareness among HEIs of the importance of developing appropriate and practical quality management systems for their support services as a means to organisational effectiveness and service excellence;
- (iv) bridges the gap that may exist between the current quality management systems designed and implemented within the HEIs' academic enterprise with those envisaged for the support services sector, thus resulting in an institution-wide quality management system; and
- (v) benefits both internal (students and staff) and external (governments, funders, labour market/employees, parents and society) stakeholders through subsequent anticipated improved efficiencies and effectiveness of the higher education system.

### **1.4 Statement of the Research Problem**

The concept of quality management is relatively new to the South African higher education sector and the scope of the HEQC only “extends to institutional policies, systems, strategies and resources for managing quality in the core areas of teaching and learning, research and community engagement” (The Council on Higher Education, 2004: 6). Significantly there is a perceived lack of knowledge, awareness, and ‘buy-in’ with regard to quality as a concept and quality management systems in general, notably support services quality (The Council on Higher Education 2016: 96,98).

Lockwood (1973 cited in Britz 2010) highlights the importance of all institutional operational units by stating that faculties, departments and support units are interdependent parts of a unitary organisation and are to function as such if quality is to

be achieved. However, a common global phenomenon is that quality management systems and strategies, including their application, can be encumbered where there is disintegration in operations and a lack of cooperation between institutional activities (Ahmed *et al.* 2012: 102). Furthermore, even though HEIs world-wide have similar long lists of their support services, it cannot be concluded that all the services represent viable systems that encourage and enhance learning and development and/or are actively and efficiently achieving the institution-wide objectives while also effectively benefiting their stakeholders (CAS 2015; Dhillon *et al.* 2006: 4; Dominguez-Whitehead 2018: 1693; Kapur 2019: 1). This suggests that the establishment of institutional quality management systems and the strategies thereof should cut across the whole institutional activities and processes, consequently incorporating both the academic enterprise and the support services sector.

Thus, the research problem of this study could be stated as: 'How do SAPHEIs assure quality of their support services and what are the frameworks within which SAPHEIs could develop and implement support services quality management systems and practices?'

### **1.5 Research Questions**

As this study comprises analyses of institutional level support services quality management systems and practices, and the quality of services rendered/delivered by the support service units (hereinafter referred to as service quality); it deals with terms and concepts such as quality and its management, service quality dimensions and their underlying assumptions, and with theories that can be used to explain how contextual factors influence existing practices.

To explore its objective the study seeks to find answers to the following sub-questions:

- (i) What are the conceptual, theoretical and empirical underpinnings to the construct of service quality and models of good service quality practice?
- (ii) To what extent has the support services sector at South African HEIs adopted, developed, implemented and monitored service quality principles, policies and management practices?

- (iii) What are the reasons for any similarities or differences in the manner and extent to which service quality has been embraced, adopted, implemented and monitored by support services at South African HEIs?
- (iv) To what extent can models of good service quality practice be applied to the support sector in South African HEIs?
- (v) What are the drivers, and what are the barriers to the implementation of a quality management system for support services at South African HEIs?
- (vi) How can service quality be improved in the support sector at South African HEIs?

## **1.6 Research Aim and Objectives**

The purpose of this research is to investigate the extent to which quality management is adopted in selected South African HEIs' support services units. The study sought to examine current quality management mechanisms in use by the support services sector and to examine how the implementation process has been conducted in a number of cases. One objective is to use the information gained as a basis for determining the current status of institutional quality management systems for the support services sector. Another is to identify areas for development, change and improvement. In this way, recommendations made are targeted at improvement of quality management practices in the South African HEIs and also other HEIs in other parts of Africa and globally.

To this end, the study explored the existing literature on the theoretical constructs and implementation of quality models elsewhere in the world and other quality management approaches in other contexts. The study also drew from the current practices' successes and challenges identified in the research.

The specific objectives of the study were:

- (i) to undertake a literature review of the conceptual, theoretical and empirical underpinnings and models of good service quality practice in HEIs;
- (ii) to explore the extent to which the support sector at South African HEIs has adopted, developed, implemented and monitored service quality principles, policies and management plans;



- (iii) to establish the reasons for any similarities or differences in the way, and extent to which service quality been embraced, adopted, implemented and monitored by support services at South African HEIs;
- (iv) to explore the extent to which models of good service quality practice may be applied to the support sector in South African HEIs;
- (v) to establish the drivers of and barriers to the implementation of a quality management system for support services at South African HEIs; and
- (vi) to make recommendations for the adoption, implementation and monitoring of service quality within support services at South African HEIs.

## **1.7 Context of the Study – The Higher Education Sector with specific reference to South African Public Higher Education Institutions**

The higher education system in South Africa is undergoing rigorous and robust transformation to ensure adequate delivery of high quality education (The Council on Higher Education 2016: 10, 151-152; South Africa. Department of Higher Education and Training 2015: 3; South Africa. Department of Education 2001: 9; South Africa. Department of Education 2002: 6). The National Development Plan (NDP): Vision 2030 states that each South African Higher Education Institution should have a clear vision that articulates its distinctive contribution towards production of knowledge and nation building. The Higher Education Institutions (HEIs) therefore need to be proficient, characterised by high knowledge production units, participation, throughput and graduation rates (National Planning Commission 2012: 317-318). This places the higher education sector at the epicentre of national development, whose pillars are socio-economic and cultural development.

### **1.7.1 A brief overview of the South African Public Higher Education Sector**

A significant change in the South African higher education landscape occurred with the end of apartheid. Under apartheid, all systems were characterised by structural fragmentation and racism. Once this ended an integrated, coordinated and differentiated system (Badat 2010: 7) could begin to emerge. Significant restructuring in public higher education ensued in post-apartheid South Africa. This involved the reduction of 36 South

African public higher education institutions (21 universities and 15 technikons) to 26 public universities (Arnolds *et al.* 2013: 291; Badat *et al.* 2009: 3; The Council on Higher Education 2016: 6; Jansen 2003: 1,10).

The National Working Group (NPHE 2001), established by the Minister of Education, recommended that the new higher education landscape comprise traditional universities (conventional university degrees); universities of technology (technikon-type degrees); and comprehensive universities (a combination of both types). These changes would be the result of SAPHEIs having been merged, incorporated or unbundled, thus giving rise to the current landscape.

The mergers' process concluded with eleven traditional universities, which predominantly offer degree programmes. Six comprehensive universities were initiated from the merger of former technikons with traditional universities and one distance-learning institution, together offering a widespread of certificate, diploma and degree programmes. Six universities of technology – formerly known as technikons – are intended to offer vocational and career-focused programmes (Higher Education South Africa 2014:10; South Africa. Department of Higher Education and Training 2015: 6).

The year 2013 saw the establishment of two new universities in provinces that previously had none. These are Sol Plaatje University in the Northern Cape Province and the University of Mpumalanga in the Mpumalanga Province, which commenced with operations as from 2014. In 2015, The Sefako Makgatho Health Sciences University opened its doors for first registrations, which led to a total of 26 public HEIs in South Africa (South Africa. Department of Higher Education and Training 2015: 6, 2017: 6).

According to the South Africa. Department of Higher Education and Training (2017: 6-7; 2019: 9 ) reports *Statistics on Post-School Education and Training in South Africa: 2017; 2019*, student enrolments in HEIs (both public and private) increased from about 983 703 in 2010, to 1 103 639 in 2013, to more than 1.1 million in 2016, with 975 863 students in public HEIs. The DHET purports that “plans are afoot to ensure that government's enrolment target of 1 620 000 for public HEIs, as expressed in the National Development

Plan (NDP), is achieved by 2030” (South Africa. Department of Higher Education and Training 2015: 6).

The foregoing statistics further record that in 2015 more than half of permanently employed staff were administrative at 29 853 or 52%, 19 214 or 33.5% staff were employed as instruction and research staff, and 8 317 or 14.5% as service staff at public HEIs (South Africa. Department of Higher Education and Training 2019:26). In other words, 66.5% of staff in HEIs represents staff from the support services sector.

### **1.7.2 Policy framework for the Higher Education Sector in South Africa**

Policy starting points that precede the Higher Education Act 101 of 1997 are reflected in the report of the National Education Policy Investigation (NEPI) Report (1992); the National Commission on Higher Education (NCHE) (1996); the Green Paper on Higher Education (1996) and the White Paper 3: A Programme for Transformation of Higher Education (1997) (Ensor 2002: 272; Lomofsky and Lazurus 2001: 308).

The NEPI was intended to investigate the apartheid system of education and provide alternative policy choices that would focus on equality and development, misgivings and demands, and how these might have been facilitated or responded to by the system of higher education. It was guided, amongst other principles, by the right to basic education and quality education for all through the protection of human rights, values, and social justice (NEPI 1993: 333; Lomofsky and Lazurus 2001: 307). Boghey (2007: 9) regards the NEPI report as the utmost significant policy document ever shaped throughout the period between the unbanning of the African National Congress (ANC) in 1989 and the democratic elections in 1994. The NEPI report states that equity demands in higher education should be consistent and aligned to South Africa’s need for a Higher Education system of high quality (Strydom 2001: 5).

The NCHE was set up in the wake of NEPI, for the purpose of helping to restructure the fragmented higher education sector to conform to a single coherent national system of higher education (Mouton *et al.* 2013: 131, Odhav 2009: 45; OECD 2008:329). It foregrounded the argument that quality assurance is a critical component for the emerging rapport amongst the government and the higher education sector as the

government directs “the overall mission and goals of the higher education sector” (Kistan 1999: 127).

Hence, amongst others the technical committee of NCHE was charged by the government with the task of assessing and making recommendations on the policies to be undertaken by the NCHE and HEIs for Quality Assurance (QA) in Higher Education (HE). Their role was also to explore how these could be operationalised, for instance to establish how policy decisions were to be translated in the development of QA systems for higher education (Strydom 2001: 5-6). This study traces the infusion of these policy decisions into the HEIs mission and goals, particularly in their quality policies.

A further stage in the function of the NCHE was the public consultation process with a broader spectrum of interest groups and stakeholders who had an interest in higher education. This culminated in a report, the Green Paper on Higher Education Transformation (1996), which proposes a quality assurance system for the higher education sector, one that would be underpinned by the principle of quality improvement in the context of a transformational system of higher education. Herein wide-ranging proposals for the transformation of higher education through new planning, governance and funding arrangements are made (Kistan 1999: 128).

The Green Paper on Higher Education Transformation states that to realise the importance of the higher education sector in national development and transformation, the system of higher education in South Africa must be reshaped and be further developed. The quality of higher education must be assured, enhanced, continuously improved and maintained (South Africa. Department of Education 1996: 5,9,25). The risks and weaknesses within the system must be identified and addressed so as to serve a ‘new social order’, to meet the demanding national needs, thus responding to a contextual new opportunities and realities (Kistan 1999: 125; Badat 2010: 4,11).

In South African higher education policy the importance of quality management systems in higher education is more clearly set out in the Green Paper. Hence the recommendations of NCHE and the outcomes of the consultation processes that is, the

Green Paper led to the drafting of the White Paper 3: A Programme for Transformation of Higher Education. As stated by the DoE:

“The White Paper outlines a comprehensive set of initiatives for the transformation of the higher education through the development of a single coordinated system with new planning, governing and funding arrangements” (South Africa. Department of Education 1997a: 3).

Whilst the White Paper addresses a wide scope of issues, Ferreira (2005: 55) highlights those salient to quality, such as the purpose of the National Qualifications Framework (NQF) in relation to higher education qualifications and “the importance of quality control and the functioning of the HEQC”.

The White Paper calls for the advancement of goals “to improve the quality of teaching and learning throughout the (higher education) system and in particular, to ensure that the curricula are responsive to national and regional contexts”. The White Paper also promotes equality and quality assurance by means of programme accreditation, program evaluation and institutional audits (Badat 2010: 6-7).

In an endeavour to realise the programme for higher education transformation – of the White Paper 3 in 1997 – the South African government had enacted the new Higher Education Act (No 101 of 1997) as a legal framework for transformation. The general aims of the Higher Education Act are to reconstruct the higher education system and to provide the vision of a single coordinated system that will be responsive to national human and developmental needs, and stimulate open democratic societal values for the advancement of various freedoms and scholarship (The Council on Higher Education 2004a: 1; Odhav 2009: 40). As stated:

“Importantly, it seeks to redress past discrimination and ensure representativeness and equal access, to provide optimal opportunities for learning, and to foster knowledge creation, to develop the potential of every student and employee, and to provide for national and local community needs” (Odhav 2009: 40).

Ferreira (2005: 55) too makes reference to Chapter 1 of the Higher Education Act that refers to higher education quality and deals specifically with the formation of the Council on Higher Education, and subsequently the Higher Education Quality Committee.

### **1.7.3 The South African Council on Higher Education (CHE) and the Higher Education Quality Committee (HEQC)**

According to Badat (2010: 7) “a comprehensive agenda and policy framework” for SAHE has been laid down and explicated. Its realisation “has the potential to create a higher education system that is congruent with the core principles of social equity and redress, social justice, democracy and development”. It is from this broader policy framework that the establishment of a national quality assurance framework emanated.

Following the counsels of the White Paper, those working on the Higher Education Act established the Council on Higher Education (CHE), assigning to it statutory responsibility for quality assurance and promotion in higher education. This was to be implemented using an established permanent structure, namely the Higher Education Quality Council (HEQC). The HEQC was set up to “provide for the co-ordination of quality assurance in higher education” (Kistan 1999: 128; Strydom 2001: 6-7; The Council on Higher Education 2004a). This explicitly placed quality assurance at a center-stage in the function of the CHE, identifying its central role in higher education restructuring.

Since 2001, initiatives, mechanisms, and policies with respect to programme accreditation, institutional audits, capacity development and quality promotion have been developed and implemented; in 2014, the quality enhancement project resumed (The Council on Higher Education 2001; 2002a; 2002b; 2004; 2014).

In this study, lessons are drawn from the implementation of the policy framework constructs of the SAHEs.

#### **1.7.3.1 Responsibilities of the Higher Education Quality Committee**

The vision and mission of the HEQC, as outlined in its *Founding Document* (2004) is “to support the development, maintenance and enhancement of the quality of public and private higher education provision in order to enable a range of stakeholders to benefit

from effective higher education and training”. This is to be accomplished with the fundamental objective of ensuring that:

“providers effectively and efficiently deliver education, training, research and community service which are of high quality and which produce socially useful and enriching knowledge as well as a relevant range of graduate skills and competencies necessary for social and economic progress” (The Council on Higher Education 2004: 6)

The work of the HEQC is subject to the requirements of the South African Qualifications Authority (SAQA) Act No 58 of 1995, which also provides for the establishment of the National Qualifications Framework (NQF) and has been pivotal in establishing a macro level system of quality assurance (Kistan 1999: 128; Strydom 2001: 9; The Council on Higher Education 2004: 3). The HEQC, as an Education and Training Quality Assurer (ETQA) for higher education executes its quality assurance duties in terms of the SAQA Act, and the SAQA Regulations of 1998, and is responsible for promoting quality, and conducting institutional audits and programme accreditation activities.

#### **1.7.3.2 The Higher Education Quality Committee's definition of quality**

As alluded to earlier the notion of quality is elusive. It is difficult to define as various definitions are used simultaneously. According to Brits (2010: 90), defining the concept of quality is strategically significant and has consequences for expressing the purpose and content of quality assurance mechanisms. Hence the HEQC follows a multifaceted or multidimensional approach in its quality assurance frameworks and criteria notably in its Founding Document (The Council on Higher Education 2001: 8) where it defines quality as follows:

- (i) “fitness of purpose based on national goals, priorities and targets;
- (ii) fitness for purpose in relation to a specified mission within a national framework that encompasses differentiation and diversity;
- (iii) value for money judged in relation to the full range of higher education purposes set out in the White Paper on Higher Education; judgement about the

effectiveness and efficiency of provision will include, but not be confined to labour market responsiveness and cost recovery; and

- (iv) transformation – developing the capabilities of individual learners for personal enrichment as well as the requirements of social development and economic and employment growth”.

The definitions and narratives of the notion of quality as stated in the foregoing list seek to advance the aims of the White Paper on higher education, with an emphasis on the fact that the new national quality assurance system operates in the context of transforming the higher education environment.

### **1.7.3.3 The Higher Education Quality Committee's criteria with reference to Support Services**

The HEQC developed a Framework for Institutional Audits (The Council on Higher Education 2004b), a Framework for Programme Accreditation (The Council on Higher Education 2004c) and recently introduced the Quality Enhancement Project (QEP) through a Framework for the Second Cycle of Quality Assurance 2012 – 2017 (The Council on Higher Education 2014).

However, these frameworks all have their focus on the HEIs' core business, which is primarily carried out by the PHEIs' academic enterprise. To date the academic support and administrative services units and their service quality, are not deemed integral to this broader national quality assurance policy framework wherein the enhancement and continuous improvement of the whole student learning experience is the focus.

Badat (2010: 8) highlights challenges confronting SAHE by pointing out that there is a concomitant emergence of quality management within higher education institutions. Multiple whole system imperatives are thus required to balance the institutionalisation of quality management. These would affect both the academic enterprise and the support services sector.

According to Matsebatlela (2015: 71) “the HEQC was mandated to conduct institutional audits on the country's higher education institutions in the context of continuing reform



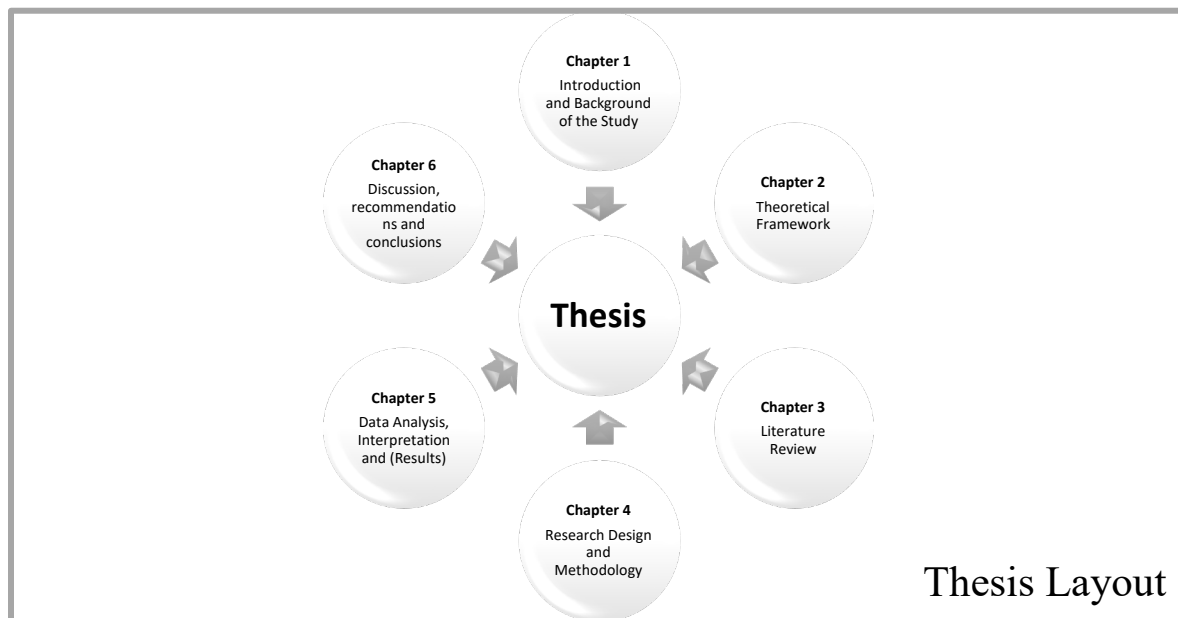
and restructuring". Central to this initiative was the goal of producing "a transformed higher education system of high quality, able to address the complex knowledge and development needs of South African society" (The Council on Higher Education 2001: 8).

For the purpose of this study, the focus will not be on those aspects of the frameworks that make reference to the HEI's support services sector role on institutional areas for meeting criteria of the HEQC institutional audit and programme accreditation. In other words, this study will not hone in on criteria relating to infrastructure and library services for accreditation, or on linking quality management with planning and resource allocation. Rather the focus is on the quality management systems for the HEIs' support services sector as a whole, which incorporates all support services units.

## 1.8 Overview of the Thesis

This subsection provides a brief overview of the thesis which itself is presented in eight chapters. Figure 1.1 presents a graphic overview of the thesis plan.

**Figure 1.1: Graphic Representation of the Thesis Outline**



**Source:** Author

## **Chapter 1 Introduction and Background to the Study (Context)**

The introductory chapter provides background to the study. It presents an overview of the rationale, the research problem, the research questions, aims and objectives, and the significance of the study. The chapter also discusses the conceptualisation of quality in the higher education sector in the South African context.

## **Chapter 2 Theoretical framework- Systems theory**

This chapter outlines the contextual theoretical framework in the form of a review of relevant literature on theories that underpin HEIs as systems.

## **Chapter 3 Literature Review**

This chapter reports on the literature related to the quality movement over the years and the quality management approaches and principles, including modern approaches to quality improvement relevant to higher education. The chapter also relies on literature related to service quality and introduces the idea of higher education as a service. It also addresses quality management models and frameworks that are applicable within the higher education sector and the implementation approaches at an institutional level.

## **Chapter 4 Research Design and Methodology**

This chapter discusses the research approach, research design, and methodology used to collect and analyse the data in this study.

## **Chapter 5 Data Analysis, Interpretation and (Results)**

This chapter provides a brief overview of case institutions and reports on the analysis of data and its interpretation; it includes discussion.

## **Chapter 6 Discussion, recommendations and conclusions**

Chapter 6 draws together the findings of the study by summarising the conclusions and making recommendations aimed at guiding the further development and implementation of quality management systems for support services in the South African Public Higher Education Institutions. It offers recommendations for the improvement of the current quality management systems, and provides suggestions for further research.

## **1.9 Summary**

In summary, Chapter 1 has provided the background against which this research study was conducted. The rationale for, and significance of the study are presented together with a problem statement, the aims and objectives of the study, and the research questions. Furthermore, the scope and limitations of the study, the research design and methodology are presented.

In the chapters that provide a contextual overview of the study, followed by an extensive review of literature on quality and quality management systems, quality management mechanisms and frameworks, service quality models and practices in a range of contexts.

## **Chapter 2 Theoretical framework**

### **2.1 Introduction**

The systems theory underpinned this study. Thus, Chapter 2 commences by positioning the systems theory's theoretical dimensions while also providing a brief synopsis of systems characteristics. This chapter considers the implications of the organisational/institutional systems' environment within which the SAPHE sector subsists and functions. Furthermore, it introduces the SAHE system as a supra-system with HEIs as its subsystems.

### **2.2 The Systems Theory**

The approach to studying SAPHE as a system is entrenched within the Systems Theory. Systems Theory can be traced back to its origins whose protagonists include the General Systems Theory Ludwig von Bertalanffy, the sociological paradigm exponents Talcott Parsons and Niklas Luhmann, and The Information Theory proponent Norbert Wiener (Laszlo and Krippner 1998: 2; Stichweh 2011: 1). They form part of a historical trajectory of interest in the concept of 'systems', one which extends as far back as Aristotle's Holism, wherein Aristotle claimed that the understanding of the whole and not its singular parts is the source from which knowledge is derived (Mele *et al.* 2010: 126).

Deming (2000: 50) defines a system as "a network of interdependent components that work together to try to accomplish the aim of the system." Carder and Monda (2013: 4) broadened this definition to include a "collection of processes that are working in collaboration to achieve a common purpose by sharing their resources for their conjoint benefit". In this instance, the outcome of a system becomes better if the process is better understood (Mele *et al.* 2010: 126); therefore the focus is on the process rather than on the outcome (Carder and Monda 2013: 4).

Also defining a system are Ng *et al.* (2009: 6) who view a system "as an entity, which is a coherent whole" with internal and external elements that are distinguishable by a perceived boundary wherein the entities' emergent inputs and outputs are identified.

Narkhede (2001: 10) refers to a system “as an assemblage of objects united by some form of regular interaction and interdependence, meaning that every system at one point or the other operates in relation to a supra-system, super-system or a sub-system”.

### **2.2.1 Characteristics of the Systems Theory**

Almost every paper that has been written on systems theory includes a section on von Bertalanffy's (1956) aims of a general theory of systems. Some scholars contend that the main purpose to the development of systems theory was the integration of natural and social sciences with the intention of formulating uniting principles, focusing on systems' structures and their functions (Hieronymi 2013: 1; Banathy and Jenlink 2003: 38; Laszlo and Krippner 1997: 5).

There are different perspectives from which systems can be perceived. Firstly, systems are perceived as open systems because of their embryonic characteristic – they develop. Their properties continually emerge through their interaction with the environment (Dracka and Pouvreaub 2015: 525; Mele *et al.* 2010: 127; Barile and Polese 2011: 152). Secondly, systems are said to be holistic, in that the focus is on the organisation of systems, considering the interaction and relations between the parts that connect systems to a whole, resulting in the whole being bigger than the part itself (Barile and Polese 2011: 152). Thirdly, systems are seen as goal-oriented because through the interdependency of all system parts, systems interact in a nurtured and coordinated manner and engage in feedback with the environment within which they exist so as to meet the goals, thus resulting in their goal-directedness (Dracka and Pouvreaub 2015:152). Fourthly, systems are perceived to be self-organising, because of their productive dynamic nature, they possess an ability adaptive to adjust to changes in the environment within which they exist (Dracka and Pouvreaub 2015: 525; Barile and Polese 2011: 152).

Concurring with these perspectives of systems theory, Higgs and Smith (2006: 27) depicts a system as a whole where its parts work together, in some way, towards particular goals/purposes, functioning in a certain order to transform inputs and turn them into outputs in a controlled yet specialised manner. Facing the realities and intricacy of

the world and context within which systems function, they further acknowledge systems theory as a tool with which to handle the complexity where the fundamental conception of the systems approach is the interaction of the subsystems within a system, and that of the system within its environment – its super-system. They hasten to highlight that systems that manage the modern-day world are generally in conflict with each other because of having been developed for solving different problems and different functions, making it challenging for these systems to synchronise (Higgs and Smith 2006: 27-28).

In the evolution of 'systems theory' scholars have been tirelessly struggling with systems, parts and sub-systems' contents and their relative dynamics (Mele *et al.* 2010: 126). In this regard, there are numerous varieties of systems perspectives, which have yielded a multiplicity of interdisciplinary "rich" research areas or streams. For example, from Mele *et al.*'s (2010) characterisation, there is service systems from the Service Science, Management, Engineering and Design (SSMED) stream; viable systems perspective which is derived from the Viable Systems Approach (VSA); smart systems originating from systems thinking; reticular systems emanating from network theories; living systems from natural sciences; economic systems that are developed from economics; from sociology are social systems; institutional systems are built from law; technological systems emanating from cybernetics; conceptual systems stemming from psychology; and ecosystems resulting from ecology (Mele *et al.* 2010: 126). Intrinsically, systems theory is thus a multidisciplinary, interdisciplinary theory (Mele *et al.* 2010: 127).

### **2.2.2 Organisational Environment**

Nelson (1993: 146) postulated about systems, submitting that in a part's connexion to the whole, an essential quality of the part lies therein. Broks (2016: 409) concurs by referring to a system as "a totality of systems interconnected parts and as a whole, each system is a part of its surrounding medium, made from other systems". Therefore, the system and its parts should be designed from the whole systems viewpoint that takes into account embeddedness to its environment. This necessitates integration and coordination where all systems' elements are designed and equally placed to simultaneously function interdependently and interactively at the organisational level and throughout system levels (Nelson 1993: 146). From the systems' concept viewpoint, organisations

continually interact with their environment, where, according to Amagoh (2008: 1) “the organisational environment is comprised of a set of relationships between agents or stakeholders and other factors that may be beyond the control of the organisation”. Brits (2010: 39) states that the environment is considered to be the supra-system within which organisations operate. The environment is the source of external elements that intrude on the system and that often determines how a system must function. For example, the national higher education system can be regarded as suprasystem within which HEIs exists and operate as subsystems.

There are two types of systems – an organisation can either be an open or a closed system (Holtzhausen 2000: 118; Muljana *et al.* 2020: 731). Organisations that are influenced and impacted by the environment within which they coexist can be regarded as organisations with open systems (Holtzhausen 2000: 118); contrary, closed systems are independent and self-sufficient and can endure environmental changes (Muljana *et al.* 2020: 731). The distinction between open and closed systems is an important aspect of the general systems theory.

According to Amagoh (2008: 2), all conformist models and theories of organisations stereotypically apply the approach of closed systems to the study of organisations. The closed systems approach is based on the assumption that the organisation’s internal elements are its main features. However, the closed systems approach does take into account the organisation’s external environment and the organisation’s interaction with it.

The open systems’ approach is distinctive in that it views the organisation’s interface with its external environment as fundamental to the survival and success of that organisation. Brits (2010: 35) explains that HEIs, when viewed from an open systems’ perspective, are somewhat reliant on the environment within which they function; they constantly evolve through influences of the environment’s interconnected and interdependent components – subsystems (Muljana *et al.* 2020: 731). Likewise, that the environment is reliant on the system; and therefore the interface occurs between the system and its environment. It is therefore essential for management to continually examine the environmental framework within which a system functions (Brits 2010: 35). This is so because, firstly, the micro-

environment or internal environment comprises those variables over which the organisation and management have control. Such variables include the organisational vision and mission, goals and objectives, organisational strategies, management functions, resources, employees and the organisational culture (Brits 2010: 36). Typically, HEIs' internal environment components comprise, for example, administrators, faculty, staff, students, facilities, policies, and procedures; whilst the external environmental components will include, for example, parents, accrediting agencies, legislatures, and taxpayers (Muljana *et al.* 2020: 731).

Secondly, it is the macro-environment that comprises those variables which exist beyond the organisation. There are various external environmental variables that have an impact on an organisation, for example, economic trends, technological developments, social changes, political developments, and many others. The macro-environment components are a given and the organisation solely does not have control over. The macro-environment includes variables such as the economic environment that influences factors, for example, 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 technological environment that is continuously responsible for change and innovation; the ecological environment which comprises natural resources; the institutional environment whose components are the government and its political involvement on institutional affairs; and the international environment comprised of local and foreign political trends and events influencing the organisation and the market environment (Smit *et al.* 2011: 68).

Significant to the interaction between an organisation and its environment, Brits (2010: 37) argues that organisations should be cognisant of their macro-environment in order for them to adapt to environments within which they exist, whilst at the same time creating synergies within the environment. Synergy refers to the concept that the whole is greater than the sum of its parts. Smit *et al.* (2011: 64) state: "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 no subsystem's functions should operate in silos; instead, each should strive for synergies by interacting



complementarily with one another as interdependent constituents of a system. Entropy is the opposite of synergy and denotes the process of systems' disintegration. Systems fail and disintegrate when there is failure to continuously conduct environmental assessments thus making necessary adjustments that would otherwise sustain their continuous existence and relevance within an environment (Smit *et al.* 2011: 62). HEIs as open systems are influenced by their environments and have a continuous interaction between the environment and themselves as systems. For this reason, institutions should continually conduct environmental scans as a way of aligning themselves with the unstable external environment, thereby ensuring that they do not become extinct (Brits 2010: 37).

### **2.2.3 Environmental Assessment**

As alluded to, HEIs can be regarded as typical "open" systems due to the impact that the environment within which they exist and operate has on them. It is in this paradigm that Benathy and Jenlink (2003: 48) introduce and define system-environment relationships in their attempt to guide institutions "to make an assessment of the environmental responsiveness of the system and, conversely, the adequacy of the responsiveness of the environment toward the system".

In doing so, from a systems theory perspective, the environmental assessment should involve the understanding of customer requirements dynamics; obtaining and evaluating the competitive environment information; the assessment of financial risk dynamics; the identification and appreciation of human resources requirements; and the evaluation of operational, supplier and partner competencies (Evans and Lindsay 2002: 246). These environmental factors constitute valuable input to institutional planning processes, requiring managers to pose pertinent questions throughout the process of an environment assessment, satisfying themselves as to whether does this system fit into the total environment?; what are the systems' goals?; do the components of the system work together and how?; and what helps the system to work and what prevents it from working more efficiently? (Higgs and Smith 2006: 27).

Although universities possess characteristics comparable with those of other organisations, there are likewise fundamental differences that distinguish other organisations from universities as systems.

## **2.3 Higher Education Institutions as Systems**

The environment is comprised of numerous social, economic and political institutions that are continuously interacting and are symbiotic in nature (Oyebade 2001: 39). An education system is a complete system on its own that is deemed to be a living and a dynamic organisation, yet it remains a subsystem of the nation's educational system which itself subsists within the environment; the environment being the greater social suprasystem that embodies the nation's political, economic, social, religious, and cultural systems (Oyebade 2001: 39). Thus all that is in an environment is alone a complete system, while simultaneously also forming a unit or subsystem of a superior system that is symbiotic and interrelates.

### **2.3.1 The complexity of Higher Education Institutions as Open Systems**

Likewise, in this study the South African HEIs are considered as systems with a variation of subsystems. Von Bertalanffy (1971), when explaining systems, talks of “complexes of elements standing in interaction”; what much later Muljana *et al.* (2020) simply articulates as “interrelated objects working together to perform a function”. The HEIs’ organisational components interact with many other components, all with different competences (Lobato *et al.* 2011: 487). Hence universities are complex institutes, constituted of diverse structures which are hierarchical and goal-oriented in nature (departments, divisions, units and sub-units), each possessing distinguishing cultures, and numerous system components (Lemke 2009: para. 3; Anyamele 2005: 357; Fourie 2000: 52).

Lobato *et al.* (2011: 485) further expatiate the notion of HEIs’ complexity, characterising them amongst the world’s oldest “rich” complex systems with proven capacity to adapt to political and socioeconomic changes of the centuries past. In support of their qualifying HEIs as complex systems, they contend that HEIs also fit the descriptors of complex systems because they too are a formulation of a vast number of elements that have a

dynamic, rich and non-linear interactions with cyclical interconnections; they are open systems that interact in close ranges yet far-removed from the equilibrium (Lobato *et al.* 2011: 485). The nature of HEIs fits these characteristics of complex systems. However there is a view advanced by certain authors (Brits 2010: 40; Theron 2002: 83-84) that in an absolute sense HEIs are neither open nor closed systems due to the fact that their influence in or response to the external environment – or suprasystem – is to a certain degree limited.

Theron (2002) argues for the duality of HEIs by first differentiating the characteristics of open and closed organisations that are evident in HEIs. Firstly, as open systems that emphasise on interactive relationship with their internal and external environments, HEIs boundaries are to a large extent "penetrable", that is, their activities do not take place in isolation, they have inputs from the external environment and outputs back to the external environment and receive feedback from the external environment. Secondly, as closed systems HEIs also manifest characteristics to the contrary, where their activities that take place in isolation and their boundaries to a large extent are impenetrable, there is limited inputs and outputs from the external environment with no feedback from the external environment (Theron 2002: 83-84). This argument for duality is illustrated through the organisation theory of schools (Bush 2006, 2015; Husén 1979; Scott and Davis 2015) which outlines the duality of open and closed systems as observed in the dimensions of bureaucracy and professionalism as may be seen in HEIs as organisations. HEIs are found to be bureaucratic-professional and 'formal' organisations due to features such as:

- (i) hierarchical supervision and authority structures with vertical communication pathways;
- (ii) clearly defined and formalisation of standard policies and goals;
- (iii) suitable rules and regulations, procedures and standards...clearly written; and
- (iv) institutional goal-oriented plans which include academic plans, financial or budget plans (Koybasi and Ugurlu 2017: 197, 205; Martin 2016: 8 – 10; Theron 2002: 89 – 90).

The HEIs support services sector, that is, academic support units and non-academic support units, are included in the hierarchical structures specifically to support the

academic enterprise of teaching and learning. The systems approach emphasis is on every institutional level where there is interface and inter-dependence of system components (departments, division, units and sub-units), and seeks to determine whether the practices and systems of quality management are broadly understood, accepted, implemented, monitored and continually improved within each institutional level (Fourie 2000: 52).

### **2.3.2 Element of a Higher Education System (Inputs, Processes and Outputs)**

The twentieth century science saw the emergence of the concept of 'Process thinking' (Brits 2010: 23). Within the context of systems theory, process thinking is about interaction of the organisational fundamental structures through some forces and mechanisms thus giving rise to processes (Brits 2010: 23). Quality management programmes and activities within an HEI as a system should thus include the evaluation of inputs, processes and outputs in all of its dimensions (Becket and Brookes 2006: 127; Johnson *et al.* 1995: 9).

Oyabade (2001: 39) describes the Input-Process-Output-Feedback Model adapted from Owens (1981) through Obilade's (1989) examination of education as a process that involves human, materials and financial resources, constraints and existing knowledge in the society as the five forms of input. Within the higher education context, typical inputs may include educational resources (for example, learning materials – infrastructure, facilities, classrooms, library resources, textbooks), people (academic staff, supervisors, support staff, leadership), sustained and supported by policies and procedures, capital or financial resources, administrative services, and information or knowledge management (Babalola 2011: 3,18; Claude *et al.* 2019: 58; Salam 2015: 2).

According to Becket and Brookes (2006: 127) resources are transformed into outputs, and therefore may be considered as system inputs. In higher education financial, physical and human resource inputs go through processes such as learning and teaching, research, administration and knowledge transformation. Other processes include functions such as support service units' interactions, programme co-ordination, student assessment practices, academic development and student success.

In education, output is referred to as “the end product of the institution” (Rana 2009: 7). It is interpreted by Patel (2013: 82) as including enhanced student morale, healthier departmental teamwork, synergised faculty-staff functions, improved quality from a customer perspective and continuous development for all who are part of the education system. Output incorporates programme impact and graduate attributes, which Hewitt and Clayton (1999 cited in Becket and Brookes 2006: 127) describe as “increased capabilities and knowledge as embodied within the transformed student, including an enhanced capability for further learning”. It can also be anticipated that where the system has enabling inputs with efficient processes in place, outcomes such as bridging the knowledge gap, better competitiveness, reduction in substandard services and improved professionalism will be attained and continuous improvement made possible through effective periodic feedback and feedforward mechanisms put in place (Babalola 2011: 19).

### **2.3.3 Subsystems within Higher Education Institutions as Interrelated Elements**

Whereas a system is a set of components that function as a whole aimed at achieving a shared purpose, a subsystem is an element of a grander system (Betts 1992: 38; Mizikaci 2006: 43; Zhu and Lu 2019: 208). As an element of a whole system, each subsystem is similarly devised to achieve a purpose, where its achievement is imperative to the accomplishment of the overall system’s purpose (Mizikaci 2006: 43; Razik 1969: 8). As systems are characterised by synergies, so too are its subsystems, since the correlation of its elements is value adding to the system (Patel 2013: 82). Without the elements of the system, the system cannot achieve its intended purposes, and the system's operations cannot be duplicated by the element as a standalone (Betts 1992: 38; Zhu and Lu 2019: 208).

Brits (2011: 1292) indicates that within an organisation, subsystems can be regarded as related individual systems that are form-fitting within the organisation as a ‘whole’. Brits (2011) suggests that subsystems are therefore material parts of the whole. He points out

that “subsystems are ‘systems’ in their own right with links and influences with and on other systems within a university” (Brits 2011: 1292).

In the context of higher education support services, subsystems typically include the HEI’s library and information services, its academic enterprise support units, student services and development units, human resources (HR), information and communications technologies (ICTs), administration units, finance functions, facilities and infrastructure management services (see Table 1.1).

These functions and their influence on each other as subsystems, necessitate ongoing quality management arrangements and mechanisms that include the monitoring and evaluation of adequacy in the operation of the system as a whole. Concurring, Brits (2011: 1292) advises that quality assessment may therefore not be conducted in isolation, except in cases where organisational barriers between subsystems (departments/units) are present. Subsystems must thus be well integrated firstly, to benefit from ‘inter-functioning’ (Zhu and Lu 2019: 208), and secondly, to attain the effectiveness of the system – the whole system (Razik 1969: 8).

However, HEIs are perceived as organisations comprised of various functions that institutional management frequently inconveniently and subconsciously interpret as a systems disconnect, as isolated or detached units and subunits (Brits 2011: 1293). Inopportunately, this contradicts the fundamental systems theory principle and ushers in proliferation of silo management wherein institutions experience silo functioning within their main operations. Silo functioning constructs barriers within organisations, a consequence of what Rao *et al.* (1996: 472 cited in Brits 2011: 1293) term ‘stovepipe’ management. A study by Maitland, (2006: 77) “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”.

According to the edicts of systems theory, each HEI component, every activity and each individual endeavour ought to be concentrated on the accomplishment of the set goals of the institution. Management should thus focus on the institutions’ functional interlinks and on interactions at and between relevant yet different levels of the institution, thus

emboldening subunit interdependencies. As a system, all HEI functions should pursue complementing one another as interdependent elements in pursuit of building synergies (Brits 2011: 1293; Smit *et al.* 2011: 64).

Thus, in order to attain and achieve institutional goals and objectives the functions and operational activities of an organisation's subsystems should be subjected to continuous monitoring and evaluation in an endeavour to identify gaps and deficiencies in the system for remedial action. Systematic and regular evaluations are to be conducted in order to ensure continuous improvement of the system's quality. Systems Theory is regarded as a general theory of Systems Thinking which is a significant tool that is critical for solving many problems of the 21-st century (Broks 2016: 409).

## **2.4 Systems Thinking Approach in Higher Education Institutions**

Academic literature (Abdyrova *et al.* 2016: 1150-53) builds up to the understanding of systems thinking, beginning firstly, with systems thinking as the people's ability to determine connexions that exist within the different domains of science whilst also developing some inner logic of understanding the patterns or sequences of activities in the development of nature and society thus allowing, to a certain extent, a measure of influence and the ability to control situations (O'Connor and McDermott 2008; Sarybekov *et al.* 2008). Secondly, that systems thinking encompasses the capacity to have an integrated view of a phenomenon (that is, as systems and their parts) in their multiplicity, veracity and interrelatedness whilst simultaneously being able to singularise specific phenomenon from the whole. Thus also being able to view and understand oneself as a segment (system component) of wholesale processes and outcomes (Pushkar and Potrashkova 2008). Thirdly, that systems thinking incorporates the realisation that "everything is related to everything", and recognising the non-linearity of the interrelations that consequently "form cycles of back relations" where a system is deemed more than being simply a combination of its parts. Thus equipping one with an ability to analyse one's organisation from the position of the external environment rather than that of an internal participant (Ksenchyuk 2011; Meadows 2010).

Shaked and Schechter (2020: 107) explain systems thinking “as the ability to see the whole beyond its parts and to see the parts in the context of the whole” thus being an enabler to handle increased complexities and change. It is a holistic and cohesive management approach that considers all significant processes as parts of a whole system, and provides the opportunity to implement a systems approach in various practical areas (Abdyrova *et al.* 2016: 11153; Furst-Bowe 2011: 2; Shaked and Schechter 2020: 107) such as business, education and public health (Shukla 2018: 948).

Systems thinking approach focuses on strategic, functional and operation levels of the organisation (Shukla 2018: 947), while a systems thinking design method or approach is directed at technical (hardware and software), human (internal and external stakeholders) and organisational (policies, procedures, set of rules, interaction guidelines and more) levels (Dhukaram *et al.* 2018: 2). The key principle behind systems thinking is that all organisational processes at all these levels are interrelated. It is critical to have a complete understanding of these relations, that is, the interdependencies due to interlinked functionalities and interconnectedness of processes with each other. This should be done in order to attain intended outcomes, effect changes and improvements as well as achieve desired levels of efficiencies and effectiveness (Furst-Bowe 2011: 2; Dhukaram *et al.* 2018: 2; Davis *et al.* 2015: 2-3; Muljana *et al.* 2020: 731; Shukla 2018: 950).

The higher education system is a complex and by no means an isolated system in that it is entangled to organisational, technical, economic, political, and social structures that blend components of control, choice-making and autonomy (Furst-Bowe 2011: 2; Dhukaram *et al.* 2018: 3). The higher education system requires “systems-management approach” since it combines individual activities, technological interactions and social practices to ensure synch, alignment and integration of all organisational units and of their activities (Furst-Bowe 2011: 2; Dhukaram *et al.* 2018: 3), thus rendering systems thinking approach a necessity in higher education.

Within HEIs, incorporated are the activities related to teaching and learning, research, administration and academic/learning support services, curriculum and courses, students, staff (academic and non-academic), buildings and infrastructural support,



psychological capital (for example cultural beliefs, perceptions, personalities), community engagement, funding, legislation and many more which all form components of systems thinking in higher education (Babalola 2011: 18; Shukla 2018: 950). The scenario confirms the complexity of the system and thus suggests the idea of interlinked functionality.

Higher education literature has multiple cases as evidence of a wide application of the systems thinking approach. Systems thinking has been found, amongst others, to be applicable in various spheres. Firstly, in higher education leadership, decision-making, change management initiatives (Shukla 2018: 950-1). Secondly, in areas of programme and curriculum design and reform, courses and learning support (Ison 1999: 107). Thirdly, in the administration of applications, registration and enrolment management system, timetabling and programme selection using methods generally developed for use in service industry – the Vanguard Method (Dunnion and O'Donovan 2014: 23-5). Lastly, systems thinking as a design approach has been used to solve complex systems of higher education provisioning including the understanding of the higher education ecosystems (such as people, organisation, regulations) embedded within the institutions sub-levels (such as leadership, staff, students, policies and procedures) (Bentley *et al.* 2013: 451; Dhukaram *et al.* 2018: 3).

Systems thinking has been used in these areas of higher education to improve efficiencies and effectiveness in the fields of learning and teaching, professional support services as well as organisational performance through the implementation of continuous improvement initiatives and the adoption of changes at the strategic, functional and operational levels of the institution on an incremental basis (Bentley *et al.* 2013: 451; Dhukaram *et al.* 2018: 3; Dunnion and O'Donovan 2014: 23-5; Furst-Bowe 2011: 2; Mensah and Graham 2019: 408; Shukla 2018: 950).

A study by Davis *et al.* (2015: 337-340) supports the application of systems thinking in higher education. Their work examines the methodologies and processes employed in using systems thinking as an organisational intervention tool within a HEI's setting and outlays the organisational outcomes that these processes achieved (Table 2.1). Their

study considered eight higher education empirical case studies undertaken by different authors.

**Table 2.1 Summary of systems thinking processes employed and organisational outcomes achieved**

<b>Author(s) / Level of Rigor</b>	<b>Systems thinking processes employed</b>	<b>Organisational outcomes achieved</b>
Ayers (2002)  High	<ul style="list-style-type: none"> <li>• Flexible and flattened organizational structures</li> <li>• Multi-directional communication</li> <li>• Interdependency of networks, collaboration</li> </ul>	<ul style="list-style-type: none"> <li>• Improved ability of the college to respond to changing learner needs when systems interdependencies are acknowledged</li> </ul>
Clarke and Lehaney (2000)  Medium to High	<ul style="list-style-type: none"> <li>• Discovering needs of stakeholders, designing a change plan</li> </ul>	<ul style="list-style-type: none"> <li>• Developed and designed an information systems plan for a university which included both functional and human centred needs</li> <li>• A clearer perception of how information systems strategy can be developed and managed</li> <li>• Formation of an IS strategy committee with broad participation</li> <li>• Participative approach of developing the plan had added benefits in other IS areas</li> </ul>
Córdoba & Midgley (2008)  Medium to High	<ul style="list-style-type: none"> <li>• Uncovering concerns, issues, and ideas of diverse stakeholders</li> <li>• Exploring of opposing views through personal interviews and group workshops</li> <li>• Drawing of rich pictures</li> </ul>	<ul style="list-style-type: none"> <li>• Clarified the main issues of concern and identified stakeholders to be included</li> <li>• Successfully avoided the marginalization of groups</li> <li>• Designed and structured an information systems plan</li> </ul>

<p>Houston, Robertson, and Prebble (2008)</p> <p>Medium</p>	<ul style="list-style-type: none"> <li>• Discovering values and concerns of stakeholders,</li> <li>• Mapping boundaries and interdependencies,</li> <li>• Structuring frameworks for intervention</li> </ul>	<ul style="list-style-type: none"> <li>• Visually mapped boundaries and interdependencies of academic department, structured intervention to align purpose and values for quality improvement</li> <li>• Encouraged dialogue and debate among department members</li> </ul>
<p>Jenkins (2007)</p> <p>High</p>	<ul style="list-style-type: none"> <li>• Strengthening alignment, coordination, and integration of services across campus</li> <li>• Promoting collaboration among faculty, staff, and administrators</li> </ul>	<ul style="list-style-type: none"> <li>• Improved student success measured by degree completion or retention in programs that were well-aligned with coordinated</li> <li>• Integrated systems across campus and collaboration of faculty, staff, and administrators</li> </ul>
<p>Levin, Cox, Cerven, and Haberler (2010)</p> <p>High</p>	<ul style="list-style-type: none"> <li>• Promoting partnerships</li> <li>• Aligning support and resources</li> <li>• Adapting to changing contexts</li> <li>• Shifting structures to recognize faculty contributions</li> </ul>	<ul style="list-style-type: none"> <li>• Success in closing the student achievement gap of underrepresented groups in programs with characteristics of cohesion, cooperation, connection, and consistency</li> </ul>
<p>Somerville, Schader, and Huston (2005)</p> <p>Low to Medium</p>	<ul style="list-style-type: none"> <li>• Identifying stakeholders</li> <li>• Uncovering values, assumptions, and needs of stakeholders</li> <li>• Aligning systems and structures</li> </ul>	<ul style="list-style-type: none"> <li>• Redesigned library systems and services to align with changing purpose of academic libraries</li> <li>• Shifted thinking of library personnel from a service to a learning and teaching orientation</li> </ul>
<p>Warren and Adman (1999)</p> <p>Medium</p>	<ul style="list-style-type: none"> <li>• Discerning stakeholder perceptions</li> <li>• Mapping problem situation</li> <li>• Developing frameworks</li> <li>• Designing new systems</li> </ul>	<ul style="list-style-type: none"> <li>• Streamlined and centralized call logging</li> <li>• Improved customer service</li> <li>• Redesigned reception space of a university information systems service center</li> </ul>

Source: Davis, Dent and Wharff (2015: 337-340)

Bringing into line with higher education support services, which is the focus of this study, Davis *et al.*'s (2015: 337-340) examination reveals, firstly, that when systems thinking is used for aligning, coordinating and integrating all university services whilst also promoting faculty, staff, and administrator collaborations, the result is that student success is improved as well as more interdependencies, integration of institution wide systems and organisational structures is achieved (Ayers 2002; Jenkins 2007; Houston *et al.* 2008). Secondly, examination reveals that when systems thinking is used to align resources and support services, to promote partnerships and create value for stakeholders, the result is improved "cohesion, cooperation, connection, and consistency" within the institution (Clarke *et al.* 2000; Córdoba and Midgley 2008; Houston *et al.* 2008; Levin *et al.* 2010). Lastly, systems thinking is used to develop and/or restructure intervention frameworks and align and/or design new systems thus resulting in improved customer services and in the redesign of systems and services (Somerville *et al.* 2005; Warren *et al.* 1999; Houston *et al.* 2008).

Shukla (2018: 950) concurs, as he also advocates for the adoption of systems thinking approach in higher education suggesting that it is an effective tool for the establishment of goals, resource determination and allocation and for the development and use of performance indicators, particularly indicators for student success. This requires specific attention to be given to student support services, both non-academic and academic support services, using systems thinking as a tool for the alignment and coordination of these services institution wide. Davis *et al.* (2015) make an observation that, despite advocacy for the integration and promotion for interdependencies in higher education systems, HEIs are still being criticised for operating in silos amongst their units, with cooperation, more often than not, thwarted by hierarchical and bureaucratic administrative structures (Davis *et al.* 2015: 17). This indicates a gap in the systems thinking approach or in its implementation thereof.

Mensah and Graham (2019) identify and advocate for systems thinking as an underpinning approach to the management of quality in higher education. Correspondingly, they contend that it is a "generic and adaptable theoretical model" that is suited for the effective implementation of quality management systems for complex

systems such as HEIs that are comprised of several substructures/ systems necessitating optimisation of the whole system for institutional efficiencies and effectiveness whilst concurrently ensuring continuous improvement of the institution's wide quality (Mensah and Graham 2019: 409). However, the term quality can be unclear, confusing, vague and relative – conveying different meanings to different people. Becket and Brookes (2006: 124) state that, “due to the vagueness and the element of controversy that surrounds quality, it is even more challenging to define the concept in the context of education”. An attempt to define quality, within the context of higher education, is included in the next chapter.

## **2.5 Conclusion**

This chapter has provided a summary of the theoretical dimensions of systems theory. A significant aspect of systems theory is an understanding of system elements of transforming inputs into outputs by means of particular processes. It briefly provides characteristics that give rise to the appreciation of HEIs as systems. It depicted HEIs as complex open systems, which exist in environments known as suprasystems. Suprasystems necessitate adaptation, in the ongoing process of continual improvement. Systems theory has been depicted as a general theory of systems thinking showing how systems thinking approach can be employed as a way of thinking about whole systems and their constituents. The chapter shows how its dimensions are relevant to higher education systems.

The chapter that follows is the literature review for this study.

## **Chapter 3 Literature Review**

### **3.1 Introduction**

This chapter reviews literature relevant to this study. It begins by setting out the theoretical dimensions of quality management, and explores how its approaches and principles have evolved over the years to find a place in a wide-range of industries and sectors that now include the higher education sector. The main issues addressed in this chapter are quality management themes drawn from quality ‘experts’; and how these issues have led to the modern quality management approaches, philosophies and practices, specifically those that find resonance in the services industry wherein the higher education sector resides.

The chapter further explores literature on models and measures of service quality employed in higher education. Having classified higher education provisioning as a service, the chapter examines how the challenges associated with the driving forces in higher education quality management have impacted on the SAHE and the extent to which they have influenced the SAHE national quality management system and subsequently the internal quality management systems at institutional level. The integrated approach and the implementation of quality management systems at institutional level is also explored.

### **3.2 Definitions of Quality**

The concept of quality is an elusive one, rendering it difficult to articulate. Liu (2016: 18) likens it to freedom or justice in its subtlety. Nonetheless, there are many definitions of quality and it is not the intention of the researcher to choose any or to express a preference of one over the other, but rather to contextualise quality as a concept.

Certain authors avow that quality cannot be defined neither can it be quantified, while others assert that due to its subjective nature, quality depends on individual perspectives. Raising some significant challenges in defining quality in a study on the “Definitions of quality in higher education”, Schindler *et al.* 2015: 4) agree that defining quality continues

to be difficult and challenging. Literature cited by Schindler *et al.* (2015: 4) capture the challenges in defining quality in the context of higher education.

Firstly, the 'term' quality is elusive as there is an assortment of versions that depend on how different stakeholders view the concept of quality (Bobby 2014; Campbell and Rozsnyai 2002; Cullen *et al.* 2003; Harvey and Green 1993; Kemenade *et al.* 2008; Martin and Stella 2007; Newton 2010; Vlăsceanu *et al.* 2007). In the SAHE context, these stakeholders include service providers, users of products, users of output and employees of sectors. Each of these stakeholder groupings has their own perspective on quality. Secondly, as a 'concept' quality is multidimensional (Green 1994; Vlăsceanu *et al.*, 2007; Westerheijden *et al.*, 2007). This means that if some definitions of quality were unidimensional or linear, they will be short of meaning and lack specificity, or they may be too broad for operationalisation. Lastly, quality is deemed to be non-static and dynamic; due to its continual changing nature in quest for excellence, it must be contextualised in light of the broader educational, economic, political, and social environment (Bobby 2014; Ewell 2010; Harvey 2005; Harvey and Williams 2010; Opre and Opre 2006; Singh 2010).

The classification of these challenges finds resonance in Watty's (2002: 2) earlier literature review concerning the impact of quality initiatives on changes in higher education, which uncovers two broad ways of thinking about quality. One gives quality context-specific meaning, that is, it ascribes quality to a context and subsequently quality develops meaning. In the case of the other, quality is related to a stakeholder-specific meaning. The latter implies that quality is of concern to diverse stakeholders who may each think in different ways about quality. This can be seen in how the South African historical context has and the post-apartheid transformation agenda has had influence on the definitions of quality for the SAHE sector.

Schindler *et al.* (2015: 5) note that the definitions of quality in higher education in the past twenty years and beyond have revealed four broad conceptualisations of quality from which a wide range of definitions emerge. In contemplating these, quality may be classified as purposeful, exceptional, transformative, and accountable. Table 3.1

represents these classifications, depicting how definitions by different authors fit into the classifications.

**Table 3.1:** Classifications of Quality

<b>Classifications</b>	<b>Definitions</b>
Purposeful	Institutional products and services conform to a stated mission/vision or a set of specifications, requirements, or standards, including those defined by accrediting and/or regulatory bodies (Cheng and Tam 1997; Commonwealth of Learning 2009; Green 1994; Harvey and Green 1993; Harvey and Knight 1996; Peterson 1999)
Exceptional	Institutional products and services achieve distinction and exclusivity through the fulfilment of high standards (Bogue 1998; Cheng and Tam 1997; Green 1994; Harvey and Green 1993; Harvey and Knight 1996; Peterson 1999)
Transformative	Institutional products and services effect positive change in student learning (affective, cognitive, and psychomotor domains) and personal and professional potential (Biggs 2001; Bobby 2014; Bogue 1998; Green 1994; Harvey and Green 1993; Harvey and Knight 1996; Haworth and Conrad 1997; Pond 2002; Quality Assurance Agency for Higher Education 2012; Srikanthan and Dalrymple 2002, 2004, 2005, 2007)
Accountable	Institutions are accountable to stakeholders for the optimal use of resources and the delivery of accurate educational products and services with zero defects (American Society for Quality n.d.; Cheng and Tam 1997; Green 1994; Harvey 2005; Harvey and Green 1993; Harvey and Knight 1996; Nicholson 2011)

Source: Schindler, Welzant, Puls-Elvidge, and Crawford (2015: 5)

In their study, Schindler *et al.* (2015) employed a second strategy for defining quality by identifying specific inputs- and outputs-based quality indicators. In other words, they identified indicators that replicate anticipated inputs such as receptive staff and faculty; and desired outputs such as graduate employment. Theirs is a predominantly standards-based approach, which excludes a broader definition of quality. As a result, four distinctive categories were identified; administrative, student support, instructional, and student performance indicators (see Table 3.2). The desired inputs are largely addressed in the



first three categories while the final category on student performance concentrates on desired outputs, for example improvements in learning and graduate attributes.

**Table 3.2:** Categories of Quality Indicators

Categories	Definitions
Administrative Indicators	– a set of quality indicators that pertain to the administrative functions of an institution, including developing a relevant mission and vision, establishing institutional legitimacy, achieving internal/external standards and goals, and procuring resources for optimal institutional functioning (Cheng and Tam 1997; Commonwealth of Learning 2009; Hill <i>et al.</i> 2003; Iacovidou <i>et al.</i> 2009; Mishra 2007; Online Learning Consortium 2014; Owlia and Aspinwall 1996; Zineldin <i>et al.</i> 2011)
Student Support Indicators	– a set of quality indicators that pertain to the availability and responsiveness of student support services, for example, the degree to which student complaints are adequately addressed (Garvin 1987; Hill <i>et al.</i> 2003; Iacovidou <i>et al.</i> 2009; International Organisation for Standardization n.d.; Lagrosen <i>et al.</i> 2004; Mishra 2007; National Institute of Standards and Technology 2015; Oldfield and Baron 2000; Online Learning Consortium 2014; Owlia and Aspinwall 1996; Quality Matters 2014; Wong 2012; Zineldin <i>et al.</i> 2011)
Instructional Indicators	– a set of quality indicators that pertain to the relevance of educational content and the competence of instructors, for example programs and courses that prepare students for employment; (Biggs 2001; Commonwealth of Learning, 2009; Harvey and Green, 1993; Hill <i>et al.</i> 2003; Iacovidou <i>et al.</i> 2009; Online Learning Consortium 2014; Quality Matters 2014; Tam 2014; Wong 2012)
Student Performance Indicators	–a set of quality indicators that pertain to student engagement with curriculum, faculty and staff, and the development of knowledge, skills and abilities that might lead to gainful employment, for example, increased critical thinking skills (Bogue 1998; Cheng and Tam 1997; Harvey and Green 1993; Harvey and Knight 1996; Haworth and Conrad 1997; Iacovidou <i>et al.</i> 2009; Scott 2008)

Source: Schindler, Welzant, Puls-Elvidge, and Crawford (2015: 6)

Defining quality in terms of both the classifications and categories of quality indicators as outlined in the foregoing section, is in congruence with quality dimensions outlined by Harvey and Green (1993).

### **3.2.1 Dimensions of Quality**

The concept of quality management in higher education is relatively new (Anttila and Jussila 2016: 1; Cruickshank 2003: 1159; In'airat and Al-Kassem 2014: 295; Rosa *et al.* 2012: 129; Sá *et al.* 2012: ID171-1; Welzant *et al.* 2015: 5). In this study, the term quality management is viewed as the public higher education institution's competence to create quality in its institution-wide systems. Both the academic enterprise and the support services are central to this study, notably their sector (higher education) systems and subsystems.

Furthermore, quality management is also viewed, from a systems thinking approach discussed in the previous chapter, as "systematic management", that is, a systematic approach that yields the institution's outcomes as the products of a planned institution-wide effort. Within a framework of such achievement, the institution's quality results may then be associated with strategic and deliberate initiative.

In their pioneering paper referred to earlier, Harvey and Green (1993) explore the nature of quality in relation to higher education. They state that 'quality' is often expressed as a relative concept, in that it can mean various things to various people. It remains relative to the user of the term and on the circumstances in which it is sought. They further argue that instead of one fixed definition of quality, five distinct yet interrelated modes of thinking about quality might be grouped together with a view to seeing quality as something special: "quality as perfection, quality as fitness for purpose, quality as value for money and quality as transformation" (Harvey and Green 1993: 10). This is one of influences the concept of "quality" within the SA higher education context had to be redefined.

In its founding document the Higher Education Quality Committee (HEQC) of the Council in Higher Education (CHE) outlined its intent to use the criterion "for quality in terms of value for money, fitness for purpose and transformation within a fitness-of-purpose

framework” (The Council on Higher Education 2001: 14). The section that follows captures some of mostly common conceptual dimensions of quality deemed significant in this research. Table 3.3 presents quality dimensions as initially presented by Harvey and Green (1993: 11-27) and later expatiated on by Harvey (2006: 19-20).

**Table 3.3:** Definitions of quality

<b>Quality</b>	<b>Definition</b>
Exceptional	– a traditional concept linked to the idea of ‘excellence’, usually operationalised as exceptionally high standards of academic achievement; quality is achieved if the standards are surpassed
Perfection or consistency	– focussed on process with aims specified; here quality is understood to be the interrelationship between zero defects and getting things right first time.
Fitness for purpose	– quality is judged by the extent to which a product or service meets its stated purpose; the purpose may be customer-defined to meet requirements or (in education) institution-defined to reflect institutional mission or course objectives
Fitness of purpose	– fitness of purpose involves an evaluation of whether the quality-related intentions of an organisation are adequate; it provides a check on fitness for purpose, and as such it is not a ‘definition’ of quality
Value for money	– quality is assessed in terms of return on investment or expenditure; in education this approach concerns accountability; public services, including education, are expected to be accountable to the funders; increasingly, students are also considering their own investment in higher education in value-for-money terms
Transformation	– quality is viewed as a process of change, which in higher education benefits students through their learning experience; education is not a service for a customer but an ongoing process of transformation of the participant; this leads to two tenets of transformative quality (in education): enhancing the consumer and empowering the consumer.

Source: Harvey (2006: 19-20)

The Higher Education Quality Committee's (HEQC) definitions of quality incorporates fitness for purpose, fitness of purpose, value for money and transformation as its cornerstones. These dimensions of quality are briefly discussed due to their focus on the quality of services which is crucial for the development and implementation of support services quality management systems in higher education.

### **3.2.1.1 Quality as "exceptional"– or 'excellence'**

The idea of quality as exceptional or embodying excellence may be seen as a superior approach, where quality is perceived "as something special, distinctive and elitist", and a distinction is made between good and poor quality (Brits 2010: 46; Harvey 2006: 4; Harvey and Green 1993: 11; Vlăsceanu *et al.* 2007: 71).

Relating excellence to service provision, Harvey (2004-17) cites the University of Louisville (1995) where it is stated that:

"Operational excellence is defined as a focus on reliability, convenience, and price competitiveness. Customers would expect total availability, security and integrity of the infrastructure and services. Customers expect reliability to be the norm, followed by convenience (delivery of quick, dependable service), and then price competitiveness (lowest price)" (Harvey 2004-17).

In this approach to quality, attributes of exclusivity and unattainability are found, so that if an institution were to view quality as exceptional, it would mean exceeding very high standards as embodied in the notion of excellence.

Conversely, Harvey (2006: 5) brings to light a non-elitist version of quality as excellence, advocated by Doherty-Delorme and Shaker (2001: 8) wherein quality is defined:

"as the degree of excellence of the entire educational experience... this includes: the quality of student life; the adequacy of university or college finances; the breadth of disciplines and modes of learning offered; and student access to tenured faculty" Harvey (2006: 5).

In this instance the student qualifications are not the only indicator of excellent quality to service standards, but rather the whole student life experience impacted by all institutional systems.

### **3.3.1.2 Quality as perfection, consistency or zero defect**

This concept of quality emphasises reliability and is captured in two interrelated concepts namely, ‘zero defects’ as coined by Phillip Crosby, and ‘quality culture’. In these descriptions the focus is on processes and specifications (Brits 2010: 46; Harvey 2006: 6). Watty’s (2003: 215) synopsis of perfection involves “getting things right the first time” (Crosby 1995), with the emphasis on processes as against inputs and outputs.

This notion is applicable to higher education as it integrates different concepts of standards. It focuses on service standards (mainly in relation to administrative processes), on organisational standards (regulations, document procedures and good practice), and to a lesser extent on academic standards and standards of competence (Harvey 2004: 17). However, on the contrary, scholars such as Watty (2003: 215) and Stamelos and Kavasakalis (2011) cited by, object to Harvey’s (2004) idea of quality as perfection in the context of higher education, arguing that higher education “does not aim to produce defect-free graduates” and that the “flawless consistency of a product or service...is better understood in (settings) other than higher education”. However, again, an opposing view is that this argument negates other aspects of higher education activities such as administrative processes which contribute to the delivery of institutional quality where the conception of perfection may be applicable.

### **3.2.1.3 Quality as fitness for purpose**

The fitness-for-purpose dimension of quality as coined by Joseph M. Juran (Juran 1993) associates quality to the purpose of a service or a product in relation to the extent to which its specified purpose is met. The purpose would be met by either realisation of the customers’ needs and expectations according to specifications, or conformity with the institutional mission. Quality is seen as meeting a customer’s requirements, desires or needs where the customer stipulates their requirements. In education, it is typically based on the institutions capability to realise its mission, or on a study programme to achieve its

goals (Brits 2010: 47; Harvey 2004: 17; Henard and Leprince-Ringuet 2008: 12; Nicholson 2011: 2).

In higher education, it is intended that this notion be for quality evaluations that assess “fitness for purpose against institutional specifications of purpose” (as) or against trans-institutional standards, at the same time allowing for sectoral comparison to some degree. This conforms to Vlăsceanu *et al.* (2007: 71–72) who define quality as fitness for purpose as sectoral standards’ conformism, stating that it is:

“a concept that stresses the need to meet or conform to generally accepted standards such as those defined by an accreditation or quality assurance body, the focus being on the efficiency of the processes at work in the institution or programme in fulfilling the stated, given objectives and mission” Vlăsceanu *et al.* (2007: 71–72).

This definition concurs with Woodhouse (1999: 29–30) who submits that through the ‘fitness for purpose’ quality definition, institutions are empowered to outline their purpose in their mission and objectives, so that quality is exhibited by the institutions’ achievement of these.

#### **3.2.1.4 Quality as fitness of purpose**

Whereas fitness-for-purpose-based quality approaches are aimed at evaluating the extent to which the institutional mission is fulfilled. The institutions are further judged by whether they comply with national priorities, governmental policy imperatives, disciplinary, professional or other expectations, alternatively, a fitness of purpose’ quality approach.

For Vlăsceanu *et al.* (2007: 72) quality as fitness of purpose – as a concept – concerns the evaluation of the adequacy of the organisation’s quality-related intentions. Further they argue that the concept has two alternative approaches, that is, quality as threshold and as consumer satisfaction (Watty 2005: 127). They state that quality as threshold is about the capacity of an institution or programme to reach certain set norms, standards or criteria for it to be considered to be of quality. Quality as consumer satisfaction places

the focus on the significance of the peripheral consumers and other stakeholders' expectations. In this regard, quality is viewed to be inextricably connected to the emergent prominence of higher education market forces.

The foregoing assertion validates Harvey's (2004: 17) statement that "fitness of purpose closed down inclusivity as there are external determinants of what is acceptable as a quality criterion". In standards-based evaluations, Westerheijden *et al.* (2007: 87) state that, "external evaluation will first of all establish the 'fitness of purpose' judged against an externally given standard".

### **3.2.1.5 Quality as value for money**

Quality is often universally equated with value for money. Central to the value for money approach is the conception of accountability (Brits 2010: 48; Cheng 2016; Liu 2016: 18; Lomas 2002: 4).

As a 'public good and service' higher education is expected to be accountable to its funding sources namely, the taxpayer and its 'customers'. Harvey (2004: 17) uses value for money as "one definition of quality that judges the quality of provision, processes or outcomes against the monetary cost of making the provision, undertaking the process or achieving the outcomes." Within this framework quality is seen as a "return on investment", or a form of accountability governments may regard as their due. And in this economic set-up students are increasingly demanding value-for-money as they have to carry the mounting costs of higher education.

This is in congruence with the description of 'value for money' by Erlendsson (2002 cited in Harvey 2004:17), who states that value for money "is a term used to assess whether or not an organisation has obtained the maximum benefit from the goods and services it both acquires and provides, within the resources available to it". A further implication is that the elements of value for money may be intangible, unclear, misunderstood, and subjective and therefore difficult to measure. So to judge whether value for money has been achieved and good value attained, Erlendsson (2002) submits that "the mix of quality, cost, resource use, fitness for purpose, timeliness, and convenience" also be evaluated.

### 3.2.1.6 Quality as transformation

Harvey and Green (1993: 24) developed a transformative view of quality as being “rooted in the notion of ‘qualitative change’, (or) a fundamental change of form”. Generally this view refers to a conversion process from one state to another, of an individual or an organisation or the organisation’s product or service. Hence, as a definition of quality, transformation focuses on value-adding enhancements and empowerment processes experienced by a learner (Harvey 2004: 17).

In relation to higher education, transformative outcomes are provided by the institution, having been enabled by students’ transformation through learning or the transformation of the institution. According to Harvey and Knight (1996: 57), transformation includes transforming institutions into change agents so as to facilitate transformative student learning experience, thus enabling students to become transforming architects of society.

Cheng (2014: 273) perceives transformation as the best appropriate definition of quality in higher education. This notion is in support of Srikanthan and Dalrymple’s (2003: 131) argument that through transformation the concerns of all stakeholder groups may be addressed. Transformation spells not only the improvement and empowerment of students through the development and change intrinsic to learning processes, but also institutional changes that support student transformation.

This insinuates that transformation is purposeful and developmental and its achievement involves a ‘continual spiral’ of transformative processes (Cheng 2014: 273; 2016: 11). Quality as transformation thus implies continuous improvement. An assertion by Eckel *et al.* (1998) confirms this perspective. They point out that:

“Transformation (i) alters the culture of the institution by changing select underlying assumptions and institutional behaviours, processes, and products; (ii) (that it) is deep and pervasive, affecting the whole institution; (iii) (that it) is intentional; and (iv) (that it ) occurs over time” (Eckel *et al.* 1998: 8).

In this regard Genis’s (2002: 65) point affirms that quality as transformation is “the continuous development and enhancement of new knowledge as part of the



empowerment of learners". She states that this is a definition that applies within the context of higher education in a post-apartheid SA.

### **3.3 Quality and Quality Management**

In their study on a holistic approach to quality improvement in universities, Shanahan and Bhindi (2004: 34) draw together certain strands that are significant to understanding quality. They submit that:

“there is no single nor correct definition; a perception of quality is the product of a person's life experience; different perceptions of quality are both inevitable and legitimate; perceptions of quality have changed over time and will continue to change; and (that) quality is determined by stakeholders and their level of satisfaction” (Shanahan and Bhindi 2004: 34).

Cooper and Fisher (2002: A-7) describe quality as the extent to which an entity's processes, products or services satisfy a definite set of characteristics, qualities or requirements. The American Society for Quality (ASQ) (n.d. cited in Chandrupatla 2009: 2) states that “quality denotes an excellence in goods and services, especially to the degree (that) they conform to requirements and satisfy customers”. Similarly, according to ISO (9000: 2000) “quality is the extent to which essential characteristics complete the requirements”. In higher education one of the definitions for quality can be the level at which institutional objectives are successfully achieved to the contentment of the institution itself, its students and the society

It is not only goods and services to which quality refers but, according to Schonberger (1990: 9), it includes other quality attributes such as time, place, people, processes, equipment and implements, information and measurement, the environment and safety. Thus it becomes clear that quality is an inescapable, continuing process which has to be pervasive throughout the institution; it is an institution-wide culture and philosophy. Hence it extends into an institutional strategy that is adopted by all departments and units (Schonberger 1990: 11).

Bilich and Neto (2000: 5 cited in Ali *et al.* 2014: 75) present the idea of quality as a macro-function effectively permeating other sectors of an institution that:

“must be present in the day-to-day running of an institution, in aspects such as establishment of policies, the decision process, selection of personnel, allocation of resources, definition of priorities and service delivery to satisfy customer requirements” (Ali *et al.* 2014: 75).

These sets of activities are carried out for defining and realising the desired quality, of both the product and service that the institution as a system is commissioned to be responsible for. Generally, all institutions to varying degrees produce and sell products and services, and so contain interlinked networks of interrelated and interacting issues and problems. The system of interest for this research is that HEIs as referred to by Houston and Studman (2001: 477) as a “complex, messy social system” which is branded firstly by the presence of people, and secondly, by the realities of issues, problems and dilemmas that are highly interdependent. HEIs’ interest is on a management conception aimed at collectively directing all the effort of the institution’s leadership, management and its staff in general towards the satisfaction of its customer’s expectations and to continuously improve the professional standard of its activities (Faganel and Dolinšek 2012: 245). Quality management systems have in HEIs been developed particularly for this purpose.

To better appreciate and the concept of quality management systems in higher education and ultimately the quality management systems support services in HEIs, it is imperative to trace the origins and the evolution of quality management from its inception to the present day commonly adopted and used practices.

### **3.4 Quality Management Approaches and Principles**

Oschman (2004: 32) suggests that in a comprehensive quality management approach to HEIs as systems – one which allows for a holistic perspective – both product and service quality management must be given appropriate attention, including the synergies that

affect them. To this end the principles and recommendations advanced by scholars such as Deming, Juran, Crosby, Feigenbaum, and Ishikawa work well for products, production and services delivery. The sections that follow seek to examine the underpinnings of quality management.

### **3.4.1 Underpinnings of modern Quality Management**

Traditionally, quality management involved 'inspection'. It has evolved into Total Quality Management (TQM) to reach its contemporary expression in the form of 'Six Sigma' and Lean. This history steered the development of many theories, ideas, processes and tools that have become fundamental to change management, organisational development, and the performance improvement initiatives that are generally desired for organisations, teams and individuals.

The conceptual root in a unique definition of quality is traceable to the effort of Walter Shewhart who in the 1920s, as an employee of the Bell Laboratories in the USA, developed the idea of statistical process control (Zairi 2013: 659; Khoja 2016: 64). Later Shewhart (1931) "defined quality as meeting the requirements of products and services". Shewhart's emphasis was to generate a passable understanding of work processes, through the use of statistical analysis as this was pivotal to "grasping the essence and causes" of controlled and uncontrolled system variations.

Hence the development of a system to measure production variations, which was followed by the invention of the 'prominent' plan-do-check-act cycle through the application of a scientific method for improving work processes (Zairi 2013: 659).

Further advancement in the substance and significance of Shewhart's contribution emerged from the influences of pioneers such as Deming, Juran and Crosby in the 1940's and 1950's. Having based their research on variation in production, they introduced statistical quality control techniques which incorporated analytical decision-making tools. Thus they established a basis for continuous monitoring and the introduction of corrective measures for quality control (Kathawala 1989: 8; Khoja 2016:64; Zairi 2013: 659).

These developments in quality management have had a profound effect on innumerable organisations and managers internationally. The result is the emergence of offshoots in the form of qualitative and quantitative philosophies that have had an impact on the revolution and development of contemporary knowledge regarding quality management. These include Armand V. Feigenbaum, Noriaki Kano's, Kaoru Ishikawa, Shigeo Shingo, Genichi Taguchi, and W.G. Ouchi (Bendell *et al.* 1995: 44; Kathawala 1989: 8; Khoja 2016: 64; Zairi 2013: 659).

The following subsections present a brief account of the philosophical trajectory that has led to our present-day practical understanding of quality management. The research by Oschman (2009) provided a historical chronological trajectory of some of the first philosophies by some of the pioneers that this study also considered.

#### **3.4.1.1 W. Edwards Deming's universal 14 points**

Beyond the statistical methods introduced by Shewhart, Edward Deming became known for his “14 points for quality management”, “7 deadly sins and diseases”, “the theory of variance”, and the famous “PDCA cycle” (Neyestani 2017: 4; Gomes n.d.).

Deming's point of departure was to envisage quality management neither as an inspectoral technical assignment nor as a tool for a special quality assurance select unit, but rather as an organisation-wide activity. It would propel active involvement of senior management in programmes for quality improvement and in other activities of their business.

Noting that most problems are systemic, Deming observed that managers must be the ones who design and create systems and processes that engender quality. He thus identified quality as an area of managerial responsibility, reminding management that it is they who are to improve the systems for more effective work performance in the domains of both management and non-management employees (Deming 1986; Gomes n.d.).

Furthermore Deming emphasised that higher accountability for quality improvement resides with the organisation's top management than with senior- or middle-level management (Bendell *et al.* 1995: 44; Deming 1986; Zairi 2013: 660).

In response to this, Bendell *et al.* (1995: 45) note that Deming stresses the necessity for continuous improvement in the systems of production and services. As Zairi (2013: 660) points out, this “new theory of management” is grounded on 14 points. They stipulate criterion by which organisations may measure the performance of management. The table that follows presents Gomes' (n.d.) articulation of Deming's 14 Points for Management.

**Table 3.4:** Deming's 14 Points for Management

Points	Implications
1. Create constancy of purpose for continual improvement of product and services	Any successful (organisation) must clear its (Vision-Mission-Values) to provide long-term direction for its management and employees.
2. Adopt the new philosophy for eco-stability based on mutual cooperation between labour and management and a never-ending cycle of improvement	In today's competitive environment, companies must take a customer-driven approach.
3. Chase dependency on inspection to achieve quality	Work ownership – workers must take responsibility for their work rather than leave the problems for the inspectors.
4. End the practice of awarding business on price tag alone	A total cost assessment of any purchase is essential by loyalty and opportunities for mutual improvement with good suppliers
5. Constantly improve the system of production and services	Improvement means reducing variation by eliminating special causes and reducing the effects of common causes. This improves quality which in turn improves productivity and (decreases) costs.
6. Institute training on the job	(This implies) continuous improvement of the organisation's most (valuable resources).
7. Adopt and institute modern methods of supervision and leadership	Leadership rather than supervision helps managers/supervisors to eliminate the elements of fear and encourage team work.

8. Break down barriers between departments and individuals	Interdisciplinary 'TEAMS' and teamwork (help to break down barriers between departments and individuals, and to build quality products, compared to strictly function-oriented processes).
9. Eliminate the use of slogans, posters and exhortations	Motivation can be better achieved through trust and leadership than through slogans and goal-setting.
10. Eliminate work-standards and numerical quotas:	Unrealistic quotas cause fear and frustration and leave room for improvement.
11. Remove barriers that rob the hourly worker of a right to pride in workmanship	Deming believed that TQM sets one of the highest barriers to pride in workmanship or performance appraisal. P.A destroys team work by promoting for limited resources, focuses on the short term and discourages risk-taking.
12. Institute a vigorous project of education and retraining	Continual training keeps the workforce up to date with information about new developments, changes in product designs and machinery, new tools and procedures and innovative techniques.
13. Drive out fear: • fear of reprisal, fear of failure • fear of weakness, fear of losing control, fear of change	(Fear is a major obstacle to improvement, efficiency and effectiveness, and a major barrier to change).
14. Define top management commitment to ever-improving quality and productivity	(Top management) must publicly demonstrate their vigorous commitment to ensuring continuous quality improvement and innovation.

Source: Gomes (n.d.: 2-3)

Important as they are, these 14 points for management do not provide implementation tools in themselves. However, Deming also advances “a seven-point action plan” (Bendell *et al.* 1995: 45) as management generally struggle with the implementation of Deming’s 14 points.

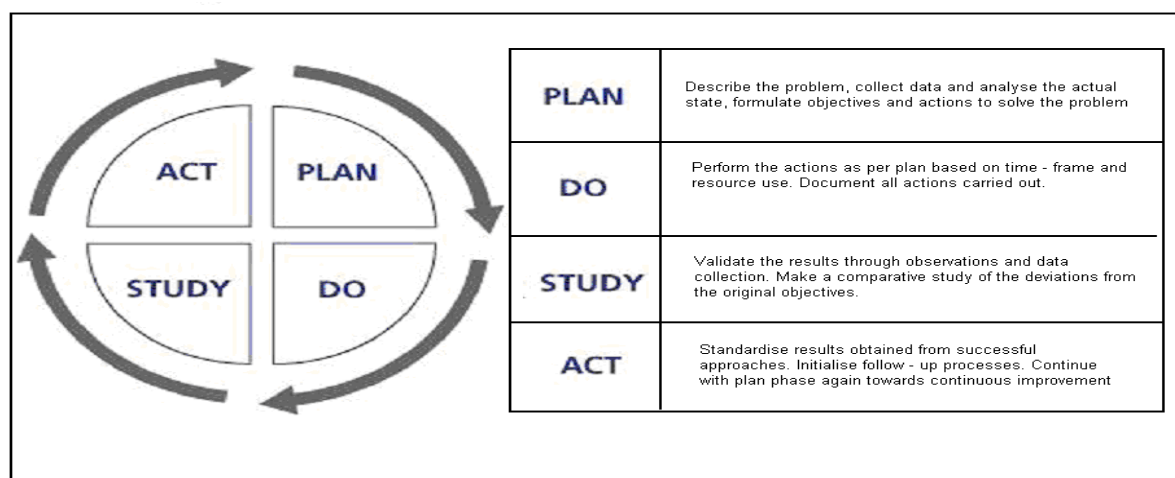
The seven-point action plan action suggested that management should first agree on what the Deming’s 14 Points for Management actually mean before they plan and develop courage for the new direction; management should also embark on an organisation wide stakeholder engagement on the necessity for change; activities should be divided into stages with clear identification of who the customers are and what continual improvement methods will be employed for each stage while ensuring that all these stages collaborate

towards achieving quality by developing a guide for continual quality improvement; in addition, encourage team participation of everyone in improving the input and output of each stage thereby bringing change and improving organisational quality (Zairi 2013: 660).

In the process of activating such change, management was to eliminate the bad traditional management practices first branded as “seven deadly diseases and sins”, if ‘14 points for management’ was to be successfully implemented. Zairi (2013: 660) presents factors contributing to bad traditional management practices that were identified by Deming (1994) which amongst other included lack of consistency; emphasis on short-term goals while undermining teamwork and mutual respect; and over- emphasis and -reliance on performance appraisals at the expense of quality (Gome n.d.: 5).

Having impressed on the notion of continuous improvements in dealing with systemic problems as one of management’s responsibilities, Deming advanced Shewhart’s Plan-Do-Study-Act (PDSA) (known as the Shewhart cycle) and introduced problem-solving tools now known as Deming’s wheel or Plan-Do-Check-Act (PDCA) cycle (presented in Figure 3.1). This cycle has been widely adopted by organisations engaged in continuous improvement initiatives.

**Figure 3.1:** Deming PDSA Model



Source: Adapted (Deming 1986)

Juran and Godfrey (1999: 4.8) trace the early version of the PDCA cycle (interchangeably used as PDSA) from the first lectures by W. Edwards Deming in Japan (Deming 1950) wherein the primary focus was on continuous improvement. Several supplementary versions have since been created and published, making it applicable as a comprehensive series of steps not only for quality improvement, but also for quality control.

Corroborating this in contemporary studies, Khoja (2016: 69-70) refers to Deming's PDSA cycle as a method designed for the development and continuance of TQM programmes and practices. This is pertinent where TQM is distinctly being defined and implemented, leading to improvements that places the organisation closer to the achievement of its objectives.

Mohammed *et al.* (2016: 7,10) conclude that quality requires a model for continuous improvement in planning, designing products and services, and in changing implementation. They consider the Deming cycle as such a model since it is a continuous cycle that is a managerial method for continuous quality improvement. They believe that organisations could learn valuable insights on continuous improvement of processes, products or services by applying the PDSA cycle.

Reflecting on higher education quality, Redmond *et al.* (2008: 433) stress the point that the focus of the Deming's philosophy is on effecting quality improvements by reducing variability and uncertainty in the ways services are delivered.

Variability in higher education can occur in teaching and learning approaches. Table 3.5 presents a summary by Redmond *et al.* (2008 cited in Khoja 2016: 77-76), of six of Deming's fourteen principles applicable in higher education quality management. These the researcher finds relevant to the study.



**Table 3.5:** Summary of six of Deming's fourteen principles

<b>Deming Principle</b>	<b>Relevance to Higher Education Quality Management</b>
<b>Principle 2.</b> Adapt a new philosophy with management learning what their responsibilities are and by assuming leadership for change	Deming's profound knowledge system has four components, namely appreciation for a system, understanding of variation, theory of knowledge and psychology. This system highlights individual transformation in the organisation. Higher education centres are knowledge-centric, but the education programs are often of poor quality due to many inadequacies including incoherent curricula and inefficient administration.
<b>Principle 3.</b> Cease dependence on mass inspection for quality by building quality into the service	The traditional approach to quality is an inspection. This includes inspecting the behaviour of employees. As in manufacturing, an inspection event in an academic situation often results in a waste of time and energy. Deming suggests building quality into service rather than inspection of service.
<b>Principle 5.</b> Aim for continuous improvement of the service to improve quality and decrease costs	Striving to be responsive to the students and other stakeholders, improving curricula, promoting the highest academic standards, and constantly monitoring educational outcomes are some of the points highlighted in the case of higher education.
<b>Principle 7.</b> Institute leadership with the aim of supervising people to help them to do a better job	This is considered as an important aspect. In higher education, the student must be of central importance to the leader. Many past works have highlighted the importance of the leader in higher education. Leadership needs to have a connection with all parts of the organisation. In this way, quality becomes the shared responsibility of all.
<b>Principle 8.</b> Drive out fear so that everyone can work effectively together for the organisation	Fear at work will affect everyone and their ability to work effectively in a team. Past studies have revealed that higher education is more vulnerable to the fear factor due to concerns about reputation, career advancement, interpersonal rejection and loss of self-esteem. Higher education managers need to eliminate fears to create academic freedom and creative work.
<b>Principle 9.</b> Break down barriers between departments and encourage departments to work together	Deming advocated that for best results a team should consist of persons with varying opinions, strengths, and experiences. In higher education lack of knowledge about each other's role and unclear definition of skills makes it difficult to organise teamwork.

Source: Adapted from Khoja (2016: 77-76)

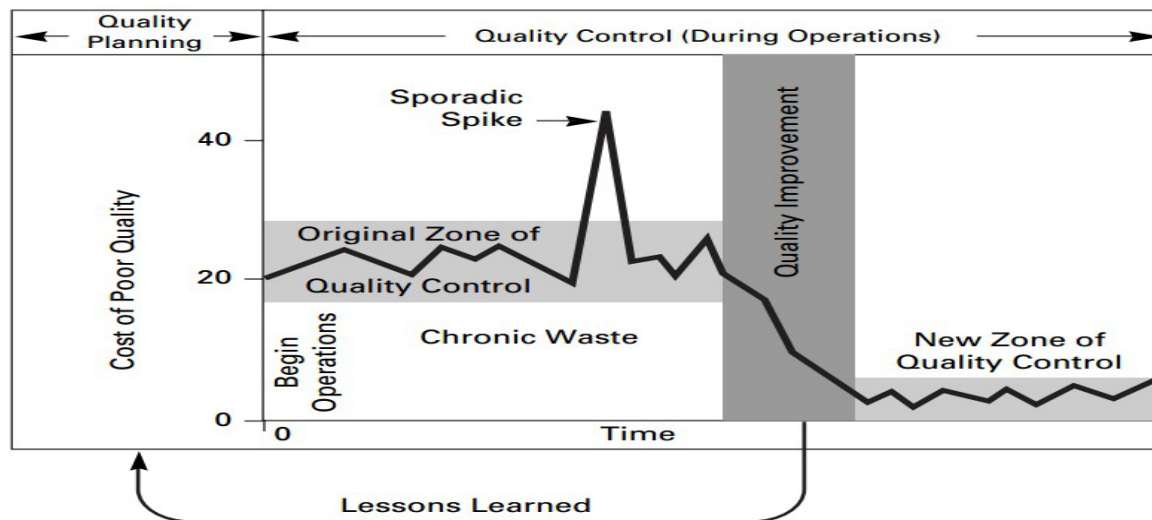
These principles are relevant to higher education support services as they suggest building and enhancing quality within the usually inefficient administrative services, promotes student and stakeholder feedback; advocates for teamwork; and responsive and responsible leadership with shared values and quality.

#### **3.4.1.2 Joseph M. Juran's Quality Trilogy and ten steps to quality improvement**

One of the quality experts who has had utmost influence on quality management theory and practices is Dr Joseph Juran. Resembling Deming, Juran believes that quality problems are mainly because of management, and not owing to employees (Khoja 2016: 66). Deming (1988) acknowledges that the concepts introduced by Juran are useful for establishing a 'traditional quality system', and he also supports the strategic management of quality advanced by Juran. Juran's contribution is centred around four themes of "a compelling definition of quality and the cost of quality; quality as habit; quality trilogy; and universal (breakthrough) sequences" (Khoja 2016: 66). From the list of Juran's contributions to quality management and philosophy, Deming (1988) highlighted the legendary concepts of the Quality Trilogy and the Quality Planning Roadmap; which the researcher finds significant for this study.

The quality trilogy, famously known as Juran's Trilogy® (Figure 3.2) is referred to by Godfrey and Kenett (2007: 656) as "possibly the most simple, complete, and pure representation of managing for quality ever devised". It suggests that any effective quality management model requires three core components considered by Juran as fundamental processes: "quality planning, quality control, and quality improvement" (Al-Ibrahim 2014: 142; Juran 1993; Khoja 2016: 65).

**Figure 3.2:** The Juran Trilogy®



Source: Adapted from Juran (1995)

According to Godfrey and Kenett (2007: 656) the Juran Trilogy typifies the crux or the soul of quality in that its objectives are wholly achievable with the requisite efficiency and effectivity. Juran contends that for the intended effective implementation of organisational quality management systems, the organisation is to mandate quality processes alongside its planning, improvement and control.

Juran (1995 cited in Al-Ibrahim 2014: 142) states that:

- (i) “quality planning requires the creation of a strategy to enable the company to realise its quality standards;
- (ii) quality control relates to the set of measures used to monitor their quality; and
- (iii) quality improvement concerns the various techniques and strategies devised and implemented to respond to feedback from all stakeholders and to enhance the quality of products and or services”.

Juran further emphasises a general categorisation of activities for the three quality management processes, as summarised in table 3.6 that follows (Juran 1999: 2.6):

**Table 3.6:** The three universal processes of managing for quality

Quality planning	Quality control	Quality improvement
<ul style="list-style-type: none"><li>• Establish quality goals</li><li>• Identify who the customers are</li><li>• Determine the needs of the customers</li><li>• Develop product features that respond to customers' needs</li><li>• Develop adequate processes to produce the product features</li><li>• Establish process controls; transfer the plans to the operating forces</li></ul>	<ul style="list-style-type: none"><li>• Evaluate actual performance</li><li>• Compare actual performance with quality goals</li><li>• Act on the difference</li></ul>	<ul style="list-style-type: none"><li>• Prove the need</li><li>• Establish the infrastructure: identify the improvement projects</li><li>• Establish project teams</li><li>• Provide the teams with resources, training and motivation to:<ul style="list-style-type: none"><li>○ (diagnose) the causes</li><li>○ stimulate remedies</li><li>○ (establish) controls to hold the gains</li></ul></li></ul>

Source: Juran (1999: 2.6)

Juran's programmes, as articulated by Khoja (2016: 65) were devised to fit into organisational current strategic business planning with least rejection risk. The intention was to improve quality within the system to which managers are already accustomed. Hence, according to Sallis (2014: 43) and Bendell *et al.* (1995: 45) Juran accentuates the need for planning and prioritisation of actions through the use of a road map for quality planning. The eight-step roadmap pinpoints elements essential to the implementation of an organisation-wide strategic quality plan. These elements include the identification and determination of the customer needs and making them understandable the organisation so that the it develops optimal processes to produce responsive product with features to meet both the organisation's as well as customer needs (Bendell *et al.* 1995: 45).

It is shown in the three universal processes of managing for quality (Table 3.6) that inspection allows for determination or identification of defects and deviations from quality standards. Thereafter the daily activities of individuals and teams can focus on quality improvement. Emphasising the importance of continuous quality improvement, Al-Ibrahim (2014) notes that Juran generated ten requirements, which are as follows:

- (i) “awareness training in connection with quality improvement for all employees;
- (ii) the setting of clear attainable objectives in recognition of the need for improvement;
- (iii) reorganisation of internal structures to meet these objectives;
- (iv) the establishment of training programmes in accordance with point three;
- (v) the creation of projects to tackle existing problems;
- (vi) the monitoring and recording of progress in tackling identified problems;
- (vii) appreciation and recognition of staff successes and achievements;
- (viii) wide promotion (internally and externally) of all quality-related developmental success;
- (ix) statistical recording and analysis of improvements to inform future implementation and further development; and
- (x) a quality focus with a continual and upward momentum” (Al-Ibrahim 2014: 133).

Furthermore, quality planning should be integrated into all components of the organisational activities, such as strategic planning, the design, product, service and processes, operations, and delivery to the customer. These component are particularly important aspects of the higher education support services as planning is key for all support units as they endeavour to continually improve on the quality of services that they render.

#### **3.4.1.3 Armand Feigenbaum's systematic approach ideology**

Armand V Feigenbaum is the originator of Total Quality Control (TQC) (Kumar *et al.* 2016: 145; Chandrupatla 2009: 6; Watson 2005: 54). According to Butler (2009: 16), the Feigenbaum definition expands quality into a system and approach of managing an organisation, underlining the necessity of whole system (all the departments) involvement to achieve quality. This, Feigenbaum called “total quality control” (TQC), and began to emphasise what would later be termed Total Quality Management (TQM). Watson (2005: 54) notes that across all of Feigenbaum’s intellectual contributions, the systems approach to quality has been a central and consistent theme. The tenets in the list that follows sum up the essential aspects of Feigenbaum’s ideology, which postulates that:

- (i) “Quality is (an organisation)-wide process.
- (ii) Quality is what the customer says it is.
- (iii) Quality and cost are a sum, not a difference.
- (iv) Quality requires both individual and team-work zealotry.
- (v) Quality is a way of managing.
- (vi) Quality and innovation are mutually dependent.
- (vii) Quality is an ethic.
- (viii) Quality requires continuous improvement.
- (ix) Quality is the most cost effective, least capital intensive route to productivity.
- (x) Quality is implemented (as) a total system connected (to both) customers and suppliers” (Watson 2005: 52).

Feigenbaum’s TQC ideology is a fusion of “the quality improvement, development and maintenance of different associations or groups in an organisation in order to equip the bond of service and production at the most efficient and economical grades that satisfies the customers” (Kumar *et al.* 2016: 145). For quality improvement, Feigenbaum suggested a three-step process of quality leadership, technology, and organisational commitment (Chandrupatla 2009: 6). Kumar *et al.* (2016: 145) throw further light on the phrase “total quality control” by considering each word definition in the context of TQC. They offer the brief descriptions presented in Table 3.7:

**Table 3.7:** Feigenbaum's Description of TQC

Term in TQC	Outline of Feigenbaum's Description
Total:	<ul style="list-style-type: none"><li>• Feigenbaum opined that every individual in the organisation maintain total attention and involvement to ensure quality.</li><li>• All stages of the organisation's work and all departments and sub-departments should ensure quality-based work and service in order to provide a satisfactory product to the customers.</li></ul>
Quality:	<ul style="list-style-type: none"><li>• Feigenbaum cryptically commented that "Quality is, in its essence, a way of managing the organisation."</li><li>• In Feigenbaum's view, quality is a customer-based activity of the organisation and requires highly defined practices that are systematically conducted, so that the quality outcome is upheld at the extremities of customer possibilities.</li></ul>
Control	<ul style="list-style-type: none"><li>• Feigenbaum perceived control as devolution of responsibility.</li><li>• "Feigenbaum defined control as a process for delegating responsibility and authority in a management activity while retaining the means of assuring satisfactory results".</li></ul>

Source: Kumar *et al.* (2016: 145)

Oschman (2009: 33) affirms the value of Feigenbaum's essential points by pointing out that they reflect that quality is a multi-dimensional and dynamic phenomenon that must be comprehensively defined by the level of satisfaction of the customers' needs and expectations that are continually changing. This is supported by Kumar *et al.* (2016: 145), as they observe that Feigenbaum's contention about the initial point of the quality chain is that it should be the analysis of all customer needs and requirements, and that the end point ought to be the customer's satisfaction on receipt of the product or service. Feigenbaum (1983) argues that "a crucial quality role of top management is to recognise this evolution in the customer's definition of quality at different stages of product growth" (Oschman 2009: 33).

Likewise, in higher education support services, the level of satisfaction and expectation of customers – primarily the students – should determine the definitions of quality for the institution and thereby influence quality of services rendered, as quality is appreciated to have become a significant 'force' behind the success of organisations and in essence, as means of organisational management.

#### **3.4.1.4 Phillip B. Crosby's 14 steps to quality improvement**

Philip Crosby, a globally recognised leader in the domain of quality improvement invented the famous outstanding concept of 'Zero Defects' (Khoja 2016: 66; Kumar 2016: 146; Al-Ibrahim 2014: 133; Zairi 2013: 666; Oschman 2009: 33). As noted by Kehoe (1996 cited in Oschman 2009: 33) "Zero Defects" is a quality improvement process that is based on these four principles:

- (i) complete clarity of the organisation's requirements to every employee;
- (ii) disciplined workforce through resilient leadership idyllically anticipates problems beforehand – "prevention is better than cure";
- (iii) zero defects insinuates that any product or service imperfection must be eradicated; and
- (iv) quality measurement to attain guaranteed conformity standards in products and in reliability of service.

In advancing his concept of 'Zero Defects', Crosby (1995) described quality as conformity to requirements. His philosophy is embodied in what he refers to as "Absolutes of Quality Management" and the "Basic Elements of Improvement".

Oschman (2009: 56) points out that Crosby's accentuation is not on Deming's statistical process control nor on Juran's techniques of problem-solving. Instead he emphasises motivation and planning. This, Oschman sees as a pragmatic approach, presented as action-steps to be practiced by institutions, which could also be helpful in the implementation of quality management.

Crosby's action steps are thus a management tool emanating from the principle that the "Absolutes of Quality Management" should be defined, understood, and communicated sensibly to every member of the institution. In this regard Crosby's fourteen points are listed next (Butler 2009: 13; Oschman 2009: 57; Zairi 2013: 666; Zhang 2000: 12):

- (i) Management commitment through written policy must be clearly communicated to the entire institution thus exhibiting top management's conviction on the need for quality.



- (ii) Quality improvement teams should be formulated out of the departmental heads to oversee both their departments' improvements and those of the institution as a whole.
- (iii) Quality measurement mechanisms appropriate for each institutional activity should be established for identifying areas that need improvement.
- (iv) Cost of quality should be projected through mechanisms for the identification of areas that will result in the profitability of improvements.
- (v) Quality awareness to quality should be raised amongst all employees.
- (vi) Corrective action should be taken as a result of step 3 and step 4.
- (vii) Zero defect planning and zero defects days (error-free work-days) – a programme committee should be established to formulate an appropriate plan that is relevant to the institution's culture.
- (viii) Supervisor training on how to implement the quality improvement plans should be conducted for all levels of management.
- (ix) Employee education encompasses identifying specific employee training needs relevant to their role in the quality improvement processes; this includes training for all levels of management on how to implement quality improvement programmes.
- (x) Goal setting entails establishment of improvement goals for both individuals and their teams.
- (xi) Error cause removal entails encouraging employees to be proactive in informing management of any problems that may be a deterrence in the performance of error-free work.
- (xii) Recognition refers to employee appreciation (public, non-financial) given to those who have met their quality goals or have exceptionally performed.
- (xiii) Quality councils should be established comprising of the chairpersons team and quality professionals, and should regularly meet to impart problems, experiences and ideas.
- (xiv) Steps 1 to 13 should be repeated thus emphasising the continuous quality improvement – do it all over again process.

Crosby argues that for institutions to maintain a zero-defect product or a service they should go through a process referred to as 6 C's:

- (i) The first C stands for comprehension, which means each employee must understand what quality is;
- (ii) The second C is for commitment, implying that each representative in the organisation, from labourer to manager should establish a quality policy and must be committed to their work;
- (iii) The next C is for competence: education and training is necessary to implement quality improvement;
- (iv) The fourth C is for communication: this suggests that an understanding of quality by all the people can be achieved;
- (v) The fifth C is for correction: this centres on “prevention and performance”; and
- (vi) The sixth C is for continuation: this advises that processes must turn into an organisation's way of life. These points are noted by Kumar (2016: 146-147).

Although it had been mentioned earlier (Watty 2003: 215) that there are doubts on the applicability of the notion of Zero Defect in the higher education contexts, the nature of Crosby's action steps suggests that they are applicable to the activities and processes of support services aspects of higher education that this study seeks to address, for example administrative processes such as registration, and can thus lead to quality continuous improvement.

#### **3.4.1.5 Kaoru Ishikawa's Principles**

Kaoru Ishikawa, also recognised as one of the quality experts, opines that “quality improvement is a continuous process (which) can be taken a step further” (Kumar 2016: 144). In a similar vein Ishikawa (1985) contends that quality management spreads outside the product as it incorporates the quality of the institution, after-sales service, the quality of management and that of individuals within the institution (Zhang 2000: 14).

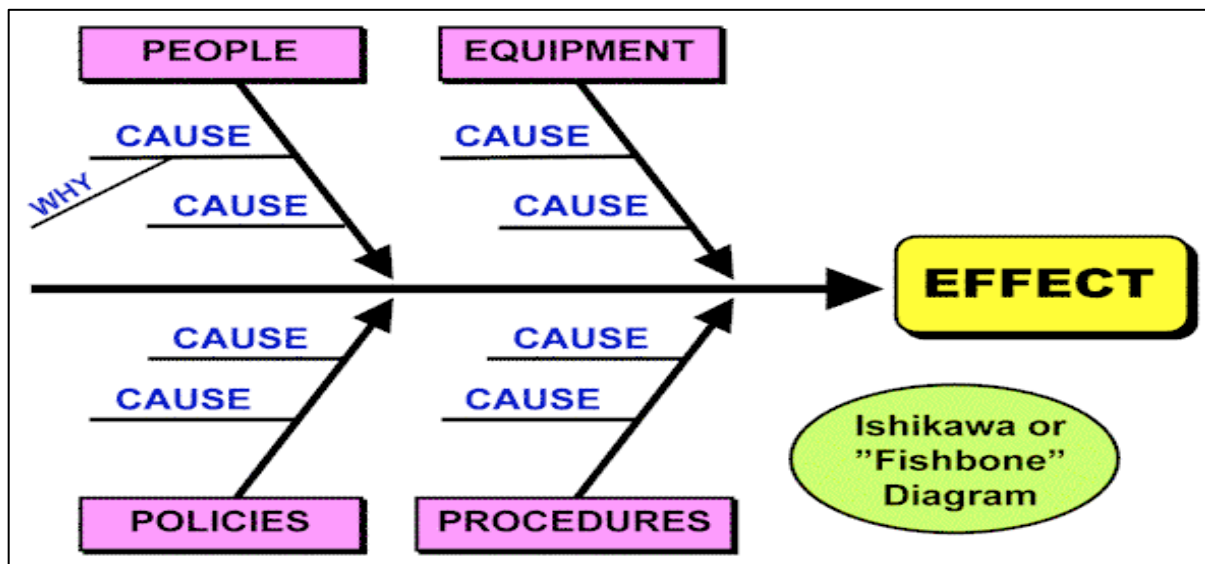
According to Bendell *et al.* (1995: 48) Ishikawa was actually advocating for broader employee participation and motivation through the formation of quality circles. It was

hoped these would lead to better institutional awareness and ever-increasing goals. In this regard, for employee participation in the improvement process to be realised, skills coaching on how to use some simple tools and on problem solving techniques is required.

Indeed Ishikawa's seven tools of quality control might develop such capacity and are suitable for use throughout the institution at all levels. These tools are: "Pareto chart; Cause and effect diagram (Ishikawa diagram); Stratification chart; Scatter diagram; Check sheet; Histogram; and Control chart" (Bendell *et al.* 1995: 48; Zairi 2013: 669; Zhang 2000: 14).

The most popularised commonly used quality tool is the Ishikawa diagram or Fishbone Diagram, universally known as the "Cause and Effect diagram" (Figure: 3.3).

**Figure 3.3:** Cause and Effect Diagram



Source: Al-Ibrahim (2014: 134)

The cause and effect diagram is aimed at locating and uncovering the fundamental causes of observed defects, and their effects on the system and so to assist in solving the problem. Following the cause and effect analysis, institutions are thus potentially empowered to think of eradicating the causes.

Kumar (2016: 144) notes that Ishikawa became the first quality expert to stress the significance of “total quality control” in an organisation instead of simply focusing on products and services. With Ishikawa came the progressive concept of the importance of the institutional “internal customer” that is, “the next person in the production process”.

The philosophy behind this is that the institutional vision and goals are shared by all institutional employees. This is what is understood to enhance the standard and the unity amongst them. Furthermore, Ishikawa saw the implementation of “quality circles”, which are small teams of volunteer employees who are directed to debate and disentangle problems related to quality. The rationale is that these are the people best situated to know about such problems.

Zairi (2013) outlines the key elements of Ishikawa’s quality philosophy that follow:

- (i) “quality begins and ends with education;
- (ii) the first step towards achieving quality is to know the requirements of customers;
- (iii) the ideal state of quality control occurs when inspection is no longer necessary;
- (iv) remove the root cause, not the symptoms;
- (v) quality control is the responsibility of all workers and all divisions;
- (vi) do not confuse the means with the objectives;
- (vii) put quality first and set your sights on long-term profits;
- (viii) markets are the entrance and exit points of quality assessment/recognition;
- (ix) top management must not show anger when facts are presented by subordinates;
- (x) regarding problems in a company: 95% can be solved with simple tools for analysis and problem-solving; and
- (xi) data without dispersion information (that is, variability) is false data” (Zairi 2013: 669).

The philosophies of Kaoru Ishikawa are significantly relevant to this study because of their “Company-wide Quality Control movement” and considering that they introduce the idea of internal customers within the institution.

### 3.4.1.6 Genichi Taguchi Methods

According to Genichi Taguchi, a Japanese quality expert, “quality and reliability should be built in from the design stage”, as this is the best time to eliminate potential problems in the production and manufacturing process. Taguchi believes that quality improvement is achieved by looking ‘upstream’ at the design stage where quality begins to have an impact. He refers to this as quality ‘designed in’ not ‘inspected later’ (Brits 2010: 57; Khoja 2016: 67).

Concurring with this view Mândru *et al.* (2011: 124) observe that Taguchi’s insight implies that quality can be achieved by variance reduction, or by assessing quality and reliability as early as the design stage, thus allowing the design of a product or process to incorporate quality. In this regard Taguchi identified three phases of quality design as presented in Table 3.8 (Mândru *et al.* 2011: 124):

**Table 3.8:** Genichi Taguchi’s three phases of quality design

Phase	Description
System design	The development of the basic system presumes experimentation with materials and feasibility testing using prototypes.
Parameter design	This begins with the establishment of optimum levels for control factors so that the product or process is least sensitive to the effect of changes in conditions.
Tolerance design	This is based on setting numerical values (factors) for upper service levels and lower acceptable service levels, reconciling the choice of factors in product design.

Source: Mândru *et al.* (2011: 124)

Taguchi also conceptualised a “loss function” that pulls together into one metric the costs, targets and variations. This assists in estimating the exact cost of quality while simultaneously and efficiently improving it. According to Khoja (2016: 67), Taguchi’s methods are mainly contingent on three conceptual features, as follows:

- (i) Quality loss function (QLF) or Taguchi loss function (TLF) – the cost of customer dissatisfaction, with the probability of the organisation losing its reputation and goodwill; also the increased efforts needed to overcome the loss;
- (ii) Quality robust design (QRD) through design of experiments (DoEx) – encompasses classification and control of product design boundaries that have a

probable effect on performance and reliability, including that of the output of a process; the objective is achieving a variation resistant system performance;

- (iii) Noise and signal-to-noise ratio (SNR) – refers to an unsolicited component or factor that causes loss of useful energy; or it may be what undesirably affects quality; it is generally assumed to be caused by an external source.

Bendell *et al.* (1995:47) comment that Taguchi's methods have "simplified complex statistical methods and (have made) them comprehensible to non-specialists in the design of new processes and products". Also they can be used for trouble-shooting.

Although the Genichi Taguchi Methods are industry/manufacturing biased the principles of systems and parameter design with the Quality loss function feature are relevant and may be considered for the development of support services quality management systems wherein quality are built-in into the design and development of the HEIs' support services processes.

#### **3.4.1.7 Shiego Shingo's Poka Yoke**

Shigeo Shingo founded the area of "zero quality control" (ZQC), also known as Poka-Yoke (Fool Proofing in Japanese) systems – which literally means the use of strategies or work-methods that avert defects from occurring, ideally handling errors as they occur (Kumar 2016: 146; Zairi 2013: 672; Bendell *et al.* 1995: 48). The fundamental idea here "is that control must occur at the problem's source, not after the problem emerges". Shingo's guidelines are (Zairi 2013):

- (i) "Control upstream, close to the source of problem by incorporating devices to warn of defects in materials or abnormalities within the process, for example.
- (ii) Establish control mechanisms to deal with different problems so that operators know which problem to cure and how to cure it with minimal disruption to the operating system.
- (iii) Take a step-by-step approach by simplifying control systems and having economic viability in mind. Efficiency, technological sophistication, available skills, work methods all have to be carefully studied for effective usage of Poka Yoke.

- (iv) Do not delay improvements by over-analysing: although many manufacturers' main objective is to narrow the gap between design and manufacturability, many of Poka Yoke's elements can be implemented as soon as the problems have been identified, with no cost to the companies concerned (Zairi 2013: 672)."

Poka Yoke incites interdepartmental collaboration and remains central in continuous improvement since it promotes continuous problem-solving activity. Bendell *et al.* (1995: 48) note that while Poka Yoke was advanced for manufacturing systems, it is clearly appropriate for customer service, administrative and other non-manufacturing systems. Likewise in higher education support services which have since become technology and efficiency driven, Poka Yoke elements may be implemented for real time handling of problems and errors in the system.

#### 3.4.1.8 Common Themes of the Quality Experts

Having briefly reviewed the QM approaches of the six quality experts who have contributed significantly to an understanding of the substance and nature of quality management, it has become evident that each has their own distinguishing approach. Noticeable differences emerged between approaches, definitions, opinions and perceptions on what constitutes the management of quality. " illustrates some differences in the approaches of Deming, Juran, Crosby, Feigenbaum and Ishikawa, as summarised by Neyestani (2017: 15).

**Table 3.9:** A comparison of expert's approaches

Expert	Definition	Emphasis	Dominant Factors
Deming	Customer led	Process	Control of variation
Juran	Customer led	People	Fitness for purpose
Crosby	Supply led	Performance	Zero defects
Feigenbaum	Customer led	Process	Total quality control
Ishikawa	Value led	People	Company-wide quality control/circles

Source: Neyestani (2017: 15)

Mândru *et al.* (2011) present a more comprehensive comparison (Table 3.10) of the quality theorists' philosophies.

**Table 3.10:** Comparisons: Deming, Juran, Crosby, Feigenbaum, Taguchi, Shingo

Area of comparison	W. Deming	J. M. Juran	P. Crosby	A. Feigenbaum	G. Taguchi	S. Shingo
Basic orientation towards quality	technical	process	motivational	total, systemic	technical, proactive	technical
Quality definition	a predictable degree of uniformity and dependability at low cost and suited to the market	fitness for use	conformance to requirements	best for the customer use and selling price	costs of non-quality	No defects in production
Who is responsible for quality?	management	management	management	everyone	engineers	management
Importance of customer requirements as standard	very important	very important at each step of product life cycle	very important	very important	very important	very important from the source of the problem
Goal of quality	meet/exceed customer needs	please customer	zero defects	meet customer needs	meet customer requirements	meet customer needs
Methods by which to achieve quality	statistical; minimize total cost; continuous improvement	statistical; quality trilogy; continuous improvement	translate requirements into measurable characteristics; continuous improvement	statistical and engineering methods; total quality control; continuous improvement	statistical design of experiments; loss function; continuous improvement	Poka-yoke; system of cause detection
Key elements of implementation	14-point programme; quality improvement teams	ten steps for continuous quality improvement	14 steps to quality improvement; quality is free	ten benchmarks of total quality control	minimize variance; three phases/stages of quality design and development	JIT (Just-In-Time); SMED (Single Minute of Die); Zero Quality Control
Role of training	very important for managers and workers	very important for managers and employees	very important for managers and employees	very important for managers and supervisors	important but not defined	Important

Source: Mândru *et al.* (2011: 125) modified.

Although there are differences between the approaches to quality management within organisations, quality improvement of the products and services is a common principle in their messaging and aims. Aole and Gorantiwar (2013: 51), and Neyestani (2017: 15) impart some common points amongst the approaches which are summarised as outlined next.



- (i) It is the responsibility of management to show commitment, to provide leadership, confidence-building opportunities and encouragement, also providing proper support for both human and technical processes.
- (ii) Prioritisation of strategy, policy, control and organisation-wide evaluation endeavours.
- (iii) Employee education and training is very important.
- (iv) Employee recognition and reward for their quality improvement endeavours.
- (v) Improvement of product design, process control, and quality system is vital.
- (vi) Designing a system based on prevention is a necessity. In other words, focus should fall on quality improvement instead of inspection; emphases should be on prevention of product defects, rather than examination after the event.
- (vii) Customer orientation is vital.
- (viii) Quality comes first whilst schedules are secondary.

In essence continuous improvement of the organisation's quality performance is of common emphasis amongst all the quality experts. This is based on ascertaining that there are suitable systems for effectively leading the whole organisation in the endeavour to meet customer requirements.

Each of quality specialist's messages, tools and technique in the promotion of service quality improvement are unique. Combined together they can be summarised by following main points:

- (i) Management commitment and employee awareness are essential. All levels of personnel need to participate in the improvement process. Deming's fourteen points provide an effective starting-point for encouraging the necessary attributes.
- (ii) Juran emphasises the need to plan and prioritise actions with the quality planning road map. Quality costing can be used to prioritise and monitor improvement and to measure the progress of improvement. Service quality can be measured once qualitative and quantitative research has defined what matters to the customer.
- (iii) Teamwork plays an important part in the process of continuous improvement. Indeed problem-solving and improved communication are extremely difficult to

achieve without it. Ishikawa advocates quality circles, which create greater worker involvement and motivation, leading to greater commercial awareness and the aim to keep extending goals.

- (iv) If all employees are to be involved in the improvement process, then simple tools and techniques need to be taught. Ishikawa's seven tools of quality control can be used by all levels within an organisation.
- (v) Both Taguchi and Shingo provide additional technical tools to control areas, including industrial design and manufacturing. Taguchi's quality loss function includes the costs to the customer resulting from poor product performance and reliability.
- (vi) For the achievement of quality, management tools should be studied. Feigenbaum's concept of total quality control stresses the need for top-to-bottom commitment to quality. Ishikawa also promotes the concept of company-wide quality control.
- (vii) In today's competitive markets, 'quality as perceived by the customer' has become a key aim for many companies. Deming's message to 'delight your customers' is seen by many as the way to be competitive in today's markets (Bendell *et al.* 1995: 48).

The insights of the experts on the principles and practices of quality management offer the researcher a better understanding of quality management from the perspective of the quality 'Gurus' and how their aspects can be applicable to or at least influence the development and implementation of higher education support services quality management systems and thus being a solid foundation for conducting this study.

### **3.4.2 Modern approaches to Quality Improvement**

The sections which follow highlight quality improvement modern approaches which institute an important background to the development of this study. The views on systems thinking, TQM, Business Process Improvement/Re-engineering, service delivery improvement and excellence, and the Six Sigma-rated service excellence model are explored.

### **3.4.2.1 Views on Total Quality Management (TQM)**

The concept of quality improvement has seen the rise of numerous frameworks and approaches that seek to capture its essence. These include Continuous Quality Improvement (CQI), Strategic Quality Management (SQM) or Total Quality Management (TQM), with the latter considered universal in its representation of the substance of quality improvement (Venkatraman 2007: 90).

There are many definitions of TQM. Oakland (1989) defines TQM as:

“an approach to improving the effectiveness and flexibility of organisations as a whole. It is essentially a way of organising and involving the whole organisation, every department, every activity, every single person at every level. For an organisation to be truly effective, each part of it must work well together, recognising that every person and every activity affects, and in turn is affected by, others” (Oakland 1989: 14-15).

Lian (2002) cites Brocka and Brocka (1992) defining TQM as:

“a way to continuously improve performance at every level of operation, in every functional area of an organisation, using all available human and capital resources. Improvement is addressed toward satisfying broad goals such as cost, quality, market share, schedule and growth. Quality management combines fundamental management techniques, existing and innovative improvement efforts and specialised technical skills in a structure focused on continuously improving all processes. It demands commitment and discipline, and an ongoing effort” (Lian 2002: 14).

Corrigan’s (1995) definition (cited in Venkatraman 2007: 90) amplifies the importance of customer satisfaction where TQM is viewed as:

“a management philosophy that builds a customer-driven, learning organisation dedicated to total customer satisfaction through continuous improvement in the effectiveness and efficiency of the organisation and its processes” (Venkatraman 2007: 90).

Töremen *et al* (2009: 30) concur that TQM is a management process involving the coordination and management of a set of disciplines to ensure that the organisation engages all divisions, departments and levels of its work. This entails consistently and continuously meeting or surpassing customer requirements.

The 'total' approach in TQM is emphasised in Berry's (1997) definition (cited in De Bruyn 2003:15), which states that TQM is a:

“long-term, large-scale and all-embracing approach to management, incorporating all organisational members and activities into the quality improvement process, rather than being focused on limited aspects of the organisation. This includes the internal interrelationships among the various components of the organisation as well as its relationships with customers. TQM is about developing a new culture in the form of quality based decision making permeating all aspects of the organisation” (De Bruyn 2003: 15).

De Bruyn's (2003: 15) view is that the overall concept of TQM is encapsulated in its three principles – customer focus, process improvement and total involvement. When efficiently administered, organisational continuous improvement will be stimulated. Furthermore, the 'totalness' of the TQM approach is advanced by De Bruyn (2003: 15) who shares the perspective of Samuel K Ho (cited in Kachar 1996). Both argue that the TQM philosophy concerns an organisation-wide, systematic, integrated, consistent approach that involves everyone and everything. The primary focus of TQM is total satisfaction for both internal and external customers within a management environment that pursues continuous improvement of all systems and processes.

Some of the basic tenets of TQM as described by Neves and Nakhai (1993) are represented in the key phrases: “long-term perspective; customer-focus; top management commitment; systems thinking; training and tools in quality; increased employee participation; development of a measure and reporting system; improvement of communication between management and labour; and continuous improvement” (Venkatraman 2007: 90). These characteristics of TQM suggest management and business philosophies whose focus can be appropriated as required, hence whatever the

industry, TQM philosophies remain germane. Further down in this chapter the TQM philosophy is discussed as it applies as a model in the management of quality in the higher education support services sector.

#### **3.4.2.2 Business Process Re-engineering (BPR) versus Business Process Improvement (BPI)**

The focus and ultimate goal of most organisational operations' initiatives in recent years has been on increasing overall value to both internal and external customers. This is according to Buavaraporn (2010: 15) who claims that this focus includes the organisational processes or activities which add value to goods or services, in other words, the value chain. According to Slack *et al.* (2010, cited in Buavaraporn 2010: 15), these process improvement initiatives include TQM and BPR.

BPR is "an improvement initiative that provides radical change of the business processes in an organisation" (Hammer 1990).

There are various definitions of BPR all of which firstly, have as their goal the radical improvement of organisational processes, and secondly, emphasise the redesigning of business processes using an organisational change enabled approach (Buavaraporn 2010; Radnor 2010; O'Neill and Sohal 1999; Al-Mashari and Zairi 2000). Oakland (2003: 194) defines BPR as "the fundamental rethink and radical redesign of a business process, its structure and associated management systems, to deliver major or step improvements in performance".

Building on this definition, Hammer and Champy (2009: 2) contend that BPR has to "achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service and speed". BPR can therefore be considered as a management approach. This approach is aimed at the promotion of effectiveness and efficiency of the processes that will ensure improvement throughout the organisation. Four keywords are critical in this approach – they are: fundamental; radical; dramatic; and processes (Buavaraporn 2010: 16; De Coning 2009: 34).

With regard to organisational performance, De Coning 2009: 33) explains BPI as "a systematic methodology developed to help an organisation make significant advances in the way its business processes operate". It is a systematic approach that seeks to outline and define the strategic goals and purpose of the organisation, to establish who its customers are, and to align the business processes for the fulfilment of the goals of the organisation.

Since the goal of BPI is to activate a deep-seated and change in the organisation's performance, to radically redesign and improve a business process, there are no significant differences between these terminologies for the purposes this study. In sum BPI is meant to achieve desired results through effective processes; minimise the use of resources through efficient processes; and adapt to varying customer and business needs through flexible processes as its three major objectives (De Coning 2009: 33). The focus is no longer on organisational structures, control and cost cutting measures; instead it is on customers, and improved quality, improved customer care and creative innovation. In other words, the focus is on the improvement of output through processes that control customer interfaces (De Coning 2009: 33; Radnor 2010: 21).

The terms BPR and BPI can be, and are used interchangeably. While Adesola and Baines (2005: 40) argue that BPI is less radical than BPR, they do agree that across both BPR and BPI the key principles involved are to:

“understand the business needs and the processes; model and (analyse) processes; benchmark business processes and their outcomes; use the information to redesign and implement the new processes; and review and assess new process performance to (give) feedback ...(for) further redesigns” (Radnor 2010: 21).

Radnor (2010: 21) and Buavaraporn (2010: 16) concur that the application of business process improvement approaches in the public sector is still in its embryonic stage, thus presenting a challenge to both the researchers and practitioners concerning the application of BPI methodologies in this sector. However, higher education support services are process driven and BPR promises radical redesign and improvement of

processes, thus suggesting to the researcher the significance of the application of the BPR/BPI principles in this study.

#### **3.4.2.3 Views on Six Sigma**

Literature provides a number of definitions for Six Sigma. In their study, Lifvergren and Bergman (2012: 25) present definitions that find resonance in the service industry. Antony *et al.* (2007) define Six Sigma as “a process-focused data driven methodology aimed at (the) near elimination of defects in all processes which are critical to customers”.

According to Harry and Schroeder (2005), “Six Sigma is a disciplined method of using extremely rigorous data gathering and statistical analysis to pinpoint sources of errors and ways of eliminating them”. To this end recent research by Schroeder *et al.* (2008: 540) and Zu *et al.* (2008: 644) points to the parallel organisational structure that supports improvements within Six Sigma. Furthermore, built on the data obtained from literature and a case study, Schroeder *et al.* (2008) take the definition of Six Sigma forward and describe it as “an organised, parallel-meso structure to reduce variation in organisational processes by using improvement specialists, a structured method, and performance metrics with the aim of achieving strategic objectives” (Schroeder *et al.* 2008: 540).

The Six Sigma approach is thought to have emanated from earlier quality management approaches. It bears the features of an assortment of ideas that originated from these initial perspectives, notwithstanding the fact that its focus is on results-based strategic and monetary terms. Also, it integrates learnt behaviour that is fundamental to the alignment of quality improvement and the organisation’s profit (Bisgaard and De Mast 2006: 30).

Six Sigma provides two improvement methodologies, mainly for both existing and new processes. The first methodology, commonly known as “DMAIC”, is used for performance improvement for existing processes separable into five fundamental phases that include:

- (i) Defining the improvement project scope and goals. Define the processes or products that need improvement and identify the most appropriate project team

members. Map the process that should be improved according to the defined needs and requirements of the customers or beneficiaries to the process.

- (ii) Measure the current input/output in progress and calculate the sigma value, that is the short and longer term process capability. Identify important factors that are most influential on the process, and decide on how these should be measured.
- (iii) Analyse the gap between the present and anticipated performance and benchmark it against documented standards. The organisation phase analyses the factors that need improvements by evaluating the current operational processes in order to determine the potential sources of critical performance variations.
- (iv) Improve the process by generating solutions. Design and implement the most effective solutions. Analyse costs/benefits in order to find the most appropriate solution in the improvement phase.
- (v) Control: through statistical process control improve the process by implementing standards of performance which are established and measured accordingly. Confirm successful implementation while ensuring that the improvement is sustainable. Document and monitor the solutions through statistical process control methods (Andersson 2006: 287; Lifvergren and Bergman 2012: 25; Oakland 2003: 246).

As asserted by Henderson and Evans (2000: 262), the main elements of the successful implementation of Six Sigma “are management involvement, organisation, infrastructure, training and statistical tools”. Further, Oakland (2003: 247) expounds on the successful implementation of Six Sigma strategies to address “leadership involvement and sponsorship, complete organisation training, project selection tools and analysis, improvement methods and tools for implementation, measurement of financial benefits, communication, control and sustained improvement” (Oakland 2003: 247). The emphasis in Six Sigma is that the organisation has to focus on customers' requirements. Six Sigma is a quality management method with a programme that is aimed at reducing or eliminating defective products and processes, whether in the industrial or the service sector (Andersson 2006: 287; Mohammed 2016: 10).



A recent study conducted by Bargerstock and Richards (2015: 32), “Case study: application of DMAIC to academic assessment in higher education”, reveals that a business case was made by Simons (2013) for the use of “Lean Six Sigma to support a systems-thinking and project-based approach for the improvement of higher education”. By comparison Emiliani (2015) opted to focus on various ways of implementing Lean with methods of instruction in teaching and learning. Whilst Ramanan and Ramanakumar (2014) found that the DMAIC method has increasingly been utilised for solving problems in higher education administration (Bargerstock and Richards 2015: 32). Giving further substance to this observation, Utecht and Jenicke (2009) note that this method “has been applied in administrative practices to improve process consistency and to reduce cycle time in salary calculations in higher education institutions.”

Put together, these focal points capture the relevance of the use of Six Sigma within the higher education support services sector in this study.

#### **3.4.2.4 Service Delivery Improvement and Excellence**

As a philosophy of continuous improvement, quality management provides the ideal foundation for the improvement of service delivery. This is because it leads institutions to higher performance commitment and thus to customer satisfaction. Kruger (2012: 2) is an advocate of this idea as he argues that quality management provides a set of practical tools and frameworks pertinent to institutions in their endeavour to meet and exceed current and prospective customer needs and expectations.

Kruger (2012) explains how this philosophy may enable institutional managers to develop strategies for high performance quality service delivery in public institutions to the satisfaction of citizens’ expectations. Kruger’s view is that service delivery is an endless process of striving for continuous improvement in standards and products/services (Kruger 2012: 2). In other words, continuous improvement in service delivery is attainable through excellence in service.

Fukey *et al.* (2014: 344) contend that in the past few decades service delivery has increasingly featured in documented studies. They state that it has become a: “major area

of attention due to its strong (impact) on business performance, customer loyalty, customer satisfaction, profitability and lower costs” (Fukey *et al.* 2014: 344).

In her review on *The road to Service Excellence*, Bishop (2004: 12) asserts that the design and implementation of a quality system that is wholly efficient in satisfying customer and organisational needs is a prolonged process that requires transformation to an organisational culture wherein “excellence is the norm”. Bishop further states that “(it) is a progressive program that consists of a series of hierarchical milestones that culminate in a truly ‘best in class’ service. One term for this program is Service Excellence” (Bishop 2004: 12).

In defining service excellence Shonhiwa (2001 cited in De Coning 2009: 33) states that service excellence as an “all-round overwhelming phenomenon incorporating the time taken to serve, the quality of the product or service, the form and speed of delivery as well as the perception of value for money elicited in the customer”. De Coning (2009: 33) and Kruger (2012: 2) note that the “White Paper on Transforming Public Service Delivery”, or the “Batho Pele White Paper of 1997” (Notice No. 1459 of 1997), serves as the foundation for efforts to transform public service delivery in South Africa. They point out that it tackles a common objective of aligning government's determination to develop service delivery improvement programmes with effective excellent service. Hence, the intention behind the Batho Pele principles as outlined in the White Paper is to bring into alignment the re-orientation of systems, procedures and attitudes in favour of service delivery.

Service delivery improvement as explained by Van der Waldt (2007), “is a continuous, incremental and progressive process” that involves: well-structured identification of customers; setting of standards starts with the establishment of customer needs and priorities; deciding on where and how to make improvements by firstly establishing the status of the present service baseline; identifying the improvement gap between what the customer requirements and the current quality levels of service delivered; setting and gradually raising the standards of service in an attempt to close the improvement gap; gearing up for service delivery and introducing systems for monitoring, evaluation

and reporting on progress and implement necessary corrective action; announcing service standards and launching the service delivery programmes; monitoring delivery against service standards; and publishing the results thus providing invaluable insights for improvement opportunities (Van der Waldt 2007: 2-4). Pursuing high performance has benefits not only embedded in operational excellence routine activities, but additionally in the purposeful improvement of strong competences and in the conception of a formidable “long-term strategic vision” De Coning (2009: 36).

Performance improvement comes along with operational and service excellence. Oakland (2003: 76-77) suggests that in pursuit of service excellence it is essential for organisations to engage in radical creation and innovative design of novel products and services, together with the continuous development and improvement of the current products and services. This means periodically updating their products, processes and services and in so doing, enhancing their performance and quality, thus optimising the system’s full potential.

Organisations desiring to apply Service Excellence should develop a systematic way of assuring quality (quality “system”). This must encompass not only service delivery but all aspects of the organisation, comprising the optimisation, documentation and continuous improvement of all strategic business processes. In addition it involves the constant monitoring and evaluation of the quality system in ascertaining its on-going appropriateness and effectiveness (Bishop 2004: 13). This should become a basic framework within which all activities, processes, programs and services are to be managed and quality assured within the higher education support services sector.

#### **3.4.2.5 Systems Thinking**

Cusins (1994: 25), in viewing quality management as a system suggests that it can be thought of as the “servo-mechanism of an organisation”. Conceptually, the quality management system’s movements run against the principal management and production systems, where the purpose is to guarantee that every system or sub-system’s output is the exact input requirement of the next system or subsystem in the chain. Four main quality management systems (QMS) activities are involved in this regard:

- (i) “to collect information on systems and subsystems, focusing particularly on user requirements, outputs and the system processes which produce them (the inputs to the QMS);
- (ii) to involve those who can inspire a change in the inputs or production process for quality evaluation on the information collected (the transformation process of the QMS);
- (iii) to determine with them, modifications necessary to the operational processes which will improve the quality of their outputs and the efficiency of their processes (the outputs of the QMS);
- (iv) to ensure that the planned modifications are implemented, and to extend continued improvements throughout the organisation (the outcomes of the QMS)” (Cusins 1994: 25).

Conti (2010: 360) argues that managing for quality should first be defined at the systems level, then progressively towards the lower concentrations of subsystems, techniques and tools. Further, the systems perspective of quality management Conti adopted reverses the present fragmented view that makes TQM a mere combination of specific approaches and tools. The emergence of the notion of systems thinking in quality management is thus a product of the observation of factors captured by Conti.

Conti’s discourse is in line with the teachings of Peter Senge of the ‘Five Disciplines’. Senge (1990: 266) indicates that the prime tasks of management teams are of mammoth complexity in relation to developing strategy, shaping vision, designing policy and conceptualising organisational structures. Hence he opines that the systems thinking perspective and tools are of importance for grappling with these complexities. Senge’s (1990) philosophy, which diverge from the well-known management disciplines, present essential dimensions for building learning organisations, addressing the reality that organisations cannot be said to be "excellent". His rationale is that organisations are continually in a state of learning and this is why permanent excellence cannot be arrived at (Senge 1990: 7,11).

A system view should be incorporated into quality management, thus making both quality and systems thinking pertinent in organisational value generation (both economic and sociocultural value). According to Conti (2010: 360), this is an integrative approach that seeks to circumvent the current (total) quality management tools and approaches which seem to present a fragmented perspective to quality management. As TQM evolves into an organisational quality management system, the value generation perspective, according to Conti (2006: 360), is to be further explored. This implies that TQM models aim at highlighting and reinforcing the value generating elements (clusters) within the organisation so that synergies amongst them may be forged. The rationale is that their sum values are more significant in the generation of the systems' expected value, which allows for the integration of quality management concepts of value generation with systems thinking (Conti 2006: 302–303).

### **3.4.3 Summary**

In this section, a summary of the literature relating to quality management themes that are drawn from quality experts. This section went on to give insight into the delineations of quality management approaches and principles advanced by these specialists. It presented a brief account of their philosophical contribution to our present day understanding of quality management and how this thinking has led to modern approaches, principles and practices.

It has been shown in this review that researchers have all emphasised the continuous improvement of the organisation's quality performance, and that they have all based this on establishing the existence of suitable systems for effectively leading the whole organisation towards meeting customer requirements. Thus all noted that the key feature by which to identify quality is the satisfaction of predetermined customer requirements made possible by all units' institutional activities.

An examination of the underpinnings of quality management highlighted modern approaches to quality improvement, and from the basic tenets of TQM focussed on the improvement of output through processes that control customer interfaces. These include the use of Six Sigma to support a systems-thinking and project-based approach for

improvement in higher education, to promotion of service excellence through constant monitoring and evaluation of the quality system. The underlying objective is to ascertain continuing suitability and effectiveness, and to facilitate the integration of quality management concepts into systems thinking or vice versa.

### **3.5 Models and Measures of Service Quality in Higher Education**

The purpose of this study is to examine existing quality management models and measures that are applied in the strategic, operational, administrative and behavioural aspects of the higher education system. It is to investigate whether these institutions create an all-encompassing, integrated and continuous management system for quality service. To this end Total Quality Management (TQM) is a particularly useful model as it captures key elements of this enquiry.

#### **3.5.1 Total Quality Management (TQM)**

Total Quality Management is a model from which most support service and service models and measures take their cue. This research is assisted by a broad definition of the term TQM, derived and assimilated from a number of studies as will be shown in the section that follows.

A study by Oschman (2009) provides various definitions of TQM, by different authors and presents the TQM classifications in Table 3.11. The latter are validated by the TQM definitions drawn from higher education quality management literature. TQM can be categorised “as a culture; a management and institutional-wide process; a management philosophy with guiding principles; a strategy; and a system” (Oschman 2009: 69).

**Table 3.11: TQM Classifications and Definitions**

<b>TQM Classifications and Authors</b>	<b>TQM definitions</b>
<p><b>TQM as a culture</b></p> <p>Ghobadian and Gallear 1996: 83; Kanji and Wallace 2000: 979; Kreitner and Kinicki 1998: 14; Sashkin and Kiser 1993: 39.</p>	<ul style="list-style-type: none"> <li>• TQM is the culture of an institution committed to customer satisfaction through continuous improvement.” The two researchers also use the following definition: “TQM is a corporate culture characterized by increased customer satisfaction through continuous improvements, in which all employees in the firm actively participate” Kanji and Wallace (2000: 979).</li> <li>• “TQM means that the institution’s culture is defined by and supports the constant attainment of customer satisfaction through an integrated system of tools, techniques and training. This involves the continuous improvement of institutional processes, resulting in high quality products and services” Sashkin and Kiser (1993: 39).</li> </ul>
<p><b>TQM as a management and institutional-wide process</b></p> <p>Capezio and Morehouse 1993: 1; Edgeman 1999: 49; Ross 1994: 3; Parzinger and Nath 2000: 355; Selladurai 2002: 615; Senthil, Devadasan, Selladurai and Baladhandayutham 2001:682; Stevenson 1996: 101; Wicks 2001: 511.</p>	<ul style="list-style-type: none"> <li>• Parzinger and Nath (2000: 355) define TQM as “a management and institutional-wide process set up to instil a culture of continuous improvement in an institution to ensure that the institution consistently meets and exceeds customer requirements”.</li> <li>• Senthil <i>et al.</i> (2001: 682) and Selladurai (2002: 615) define TQM as “a continuous management process that aims at quality improvement in all processes and activities in institutions. The ultimate goal of TQM is to establish a management system and institutional culture that ensures customer satisfaction (both internal and external) and never-ending continuous improvement of all institutional processes”.</li> </ul>
<p><b>TQM as a management philosophy with guiding principles</b></p>	<ul style="list-style-type: none"> <li>• Djerdjour and Patel (2000: 26) define TQM as “a management philosophy which seeks continuous improvement in the quality of all processes, people, products and services of an</li> </ul>

<p>Aksu 2003: 592; BS 4778, Part 2 1991; Clauson 1995:45; Djerdjour and Patel 2000:26; Elmuti and Kathawala 1999:68; Elshennawy and McCarthy 1992: 34; Eng and Yusof 2003: 64; Hansson 2001: 989; Perigod 1990: 54; Pun 2002: 760; Yong and Wilkinson 2001: 252.</p>	<p>institution. Continuous improvement can be achieved through internal and external quality improvements”.</p> <ul style="list-style-type: none"> <li>• Pun (2002: 760) defines TQM as “an integrated management philosophy and set of practices that emphasise continuous improvement, meeting customers’ requirements, reducing re-work, involving long-range thinking, increased employee involvement and teamwork, process redesign, competitive benchmarking, team-based problem-solving, constant measurement of results and closer relationships with suppliers”.</li> </ul>
<p><b>TQM as a strategy</b></p> <p>Dean and Evans 1994: 7; Jones 1994:98.</p>	<ul style="list-style-type: none"> <li>• Dean and Evans (1994: 7) define TQM as “an integrated, systematic, institution-wide strategy for improving product and service quality”.</li> <li>• Jones (1994: 98) defines TQM as “a strategy for improving institutional performance through the commitment of all employees to fully satisfying agreed customer requirements at the lowest overall cost through the continuous improvement of products and services, business processes and the people involved”.</li> </ul>
<p><b>TQM as a system</b></p> <p>Evans and Dean 2003: 16; Hansson 2001: 990; Lindsay and Petrick 1998:20; Scharitzer and Korunka 2000: S942; Stahl 1995: 4; Yong and Wilkinson 2001:249.</p>	<ul style="list-style-type: none"> <li>• Evans and Dean (2003: 16) define TQM as “a total system approach (not a separate area or programme) and an integral part of high-level strategy. It works horizontally and vertically across all functions and departments, involves all employees, top to bottom, and extends backwards and forwards to include the supply chain and the customer chain”.</li> <li>• Hansson (2001: 990) defines TQM as “a management system in continuous flux, which comprises values, techniques and tools, and that the overall goal of the system is increased customer satisfaction with decreasing resources.</li> </ul>

Source: Adapted from Oschman (2009: 69-70)



Having analysed the TQM definitions provided by different authors, Oschman (2009) crystallized the key concepts to develop the following definition of TQM that the author finds comprehensive and significant to the study:

“TQM is a strategy and process to manage institutions as an integrated system of principles, methods and best practices that provide a framework for institutions to strive for excellence in everything they do under the leadership and commitment of top management, supported by education and training, open communication, change management, regular self-assessment, support structures, systems and resources, which empower employees through investing in them to improve their performance as teams to deliver continuously improved quality products and services. Through this approach a corporate TQM culture will be established, to satisfy and exceed agreed internal and external customer requirements at the lowest overall cost to increase institutional performance in all areas such as service results, financial results, marketing results, operational results, society results, customer results and employee results to obtain world-class quality” (Oschman 2009: 70).

Oschman’s definition, though unordinary lengthy, makes it conceivable to locate TQM principles and pillars, its approaches, core values and benefits as they relate to higher education support services.

There are crucial principles that TQM generates to guide any quality management system towards success. Venkatraman (2007: 100) outlined these principles as follows:

- (i) customer focus and customer-driven quality;
- (ii) role players’ involvement by leadership; embracing a systems and process approach to management; dedication to continuous improvement;
- (iii) embracing a fact-based decision-making approach; and
- (iv) establishing mutually beneficial relationships, with partnership development, internally and externally.

Furthermore, Eagle and Brennan (2007) advocate basic TQM principles, which though generic, are found to be of great significance when applied in higher education. These are listed in the section that follows.

- (i) Delighting customers: by being finest at what matters the most to customers, and by being able to continuously evolve so as to maintain the ever-changing requirements for customer satisfaction.
- (ii) People-based management: Know what and how to do it, and how to get performance feedback. Involvement with and dedication to customer satisfaction are important means to generate this.
- (iii) Continuous improvement: those desiring to move towards quality focus on incremental change and continuous improvement.
- (iv) Management by fact: the first stage in being able to improve is to be aware of the current service performance levels in the customers' minds, and also of all workers (Eagle and Brennan 2007: 45).

The relevance of these principles is founded on the intangibility of higher education as a service, in that there is no tangible end-product in higher education. Nevertheless, constant compliance with the basic principles of quality is required (Muslim 2014: 35). Institutions have to develop a TQM culture that embraces, adopts and subscribes to a set of values. In agreement with this, Najafabadi *et al.* (2008: 23) purport that this culture should be founded on core values which involve “customer focus, decisions based on facts, process focus, continuous improvement, (the) commitment of everybody”. These core values are described in detail in the section that follows.

- (i) Customer focus – means that the higher education institution must be conversant with both internal and external customer requirements and expectations and endeavour to fulfil these needs by delivering the appropriate and expected service. Regarded as internal customers, employees are essential to the effectiveness and efficiency in other customer services delivery. They play a critical role in institutional success or failure, hence their wellness, happiness and motivation is important.

- (ii) Decisions based on fact – top management decisions are to be based on relevant factual knowledge gathered from systematically collected data on stakeholder needs, requirements and reactions, including internal and external customer views and opinions of the society. The information obtained will be useful for deciding what quality control tools to employ for quality improvement purposes.
- (iii) Process – in satisfying customers' needs an institution always has inter-related activity assemblages that are repeatedly performed over time. These are characterised by certain well-defined inputs that are transformed into outputs in the form of goods and/or services through allocation and efficient utilisation of resources. Three kinds of processes have been identified by Najafabadi *et al.* (2008). They are:
  - a. Main processes – where the focus is on the fulfilment of external customer requirements, through developing the product, producing and distributing it. In view of the higher education stakeholder approach, this would include meeting society's needs and governmental demands.
  - b. Support processes – where the focus is on satisfying internal customers by providing adequate resources for the main processes. In the case of higher education this will entail the provision of appropriate support services for internal customers.
  - c. Management processes – where the focus is on decision making with regard to institutional goals attainment with the objective of improving other process aspects. In the case of higher education, decisions made should be directed at quality improvement of the higher education institution's processes.
- (iv) Continuous improvement – internal and external customer satisfaction is contingent on the quality of goods and services provided, therefore products, services, processes and methodologies need to be continuously improved with fewer and fewer resources, thus incrementally improving the quality of goods, services and education on a continuous basis.

- (v) Commitment of everybody – the commitment and participation of all interested parties is integral to customer satisfaction and continuous quality improvement. Focus should be on proper and effective designation of responsibility and delegation of authority. This entails the inclusive, coordinated and integrated participation of all employees at all institutional levels. It should occur within a working environment conducive to satisfied employees who are committed to the satisfaction of both internal and external customer requirements (Muslim 2014: 34-35; Najafabadi *et al.* 2008: 24-25).

The principles and core values of TQM are significant to institutional effectiveness and continuous quality improvement when implemented. For the successful implementation of the TQM model in higher education institutions, a study by Osseo-Asare and Longbottom (2002) harvests a proposition grounded on criteria which are focused on organisational performance and organisational excellence. These are enabler and results criteria.

The "enabler" criteria advocated include leadership, policy and strategy, people management, resources, partnership and processes, whilst the "result" criteria include customer satisfaction, people satisfaction, societal impact and key performance results for measuring the effectiveness of TQM implementation (Ali and Shastri 2010:11-12; Zabadi 2013: 51).

Regarding the implementation of TQM in higher education Srivanci (2004) highlights critical issues that could be viewed as impediments. These include those listed in the next section.

- (i) Leadership: Where there is a deficiency in leadership authority, the application of the principles, values and goals of TQM throughout institutional levels of higher education is challenging. An absence of team work and academic staff autonomy adversely affects the effectiveness of leadership.
- (ii) Cultural and Organisational Transformation: TQM transformation is difficult in the presence of inflexible department models, interdepartmental contestation for

resources and a dearth of market focus. TQM culture creates a shift from product focus to market focus. However higher education institutions are 'infested' with individualism amongst academic staff and faculties whose loyalties are primarily – or naturally – skewed towards the academic enterprise resulting in students' market requirements being of secondary importance and independent of market issues.

- (iii) Customer Identification: The lack of consensus amongst higher education institutions' stakeholders on the identity of the customer as well as ambiguities in customer identification generates problems for the implementation of TQM. Without well-defined customers and a customer focus, quality efforts may be easily dispersed (Ali and Shastri 2010: 14; Zabadi 2013: 54).

Pratasavitskaya and Stensaker (2010) identify factors that sum up the foregoing critical issues and challenges. They see change resistance, lack of commitment, lack of investment in training, difficulty in the application of TQM tools in the HEI, and lack of experience in team work as causes for unsuccessfully applying TQM in higher education (Zabadi 2013: 54). TQM is achieved in higher education institutions when the organisation is able to provide high levels of service quality excellence so that the needs of students, staff members, parents, employers, society and other stakeholders are met in accordance with their requirements and expectations and to their satisfaction and happiness (Zabadi 2013: 51).

The implementation of TQM can yield great improvements and benefits for higher education institutions (Houston 2007). Improved team building and teamwork, improved customer and stakeholder satisfaction, focus and improved role player involvement including interdisciplinary teams with faculty and administration, improved organisation-wide congruence, accountability and involvement, improved employee commitment, morale and motivation, continuous organisational improvements are amongst these (De Jager and Nieuwenenhuis 2005: 258; Venkatraman 2007: 97). Venkatraman (2007: 92) asserts that evidence is sufficient to indicate that the latter leads to an enhanced work-

ethic and improved academic and support staff morale of which the general outcome is quality improvement.

Sarrico *et al.* (2010) point to illustrations in the literature that reports on the application of institutional quality assessment models. The authors show that these provide an cohesive outlook on higher education quality, serve as frameworks for the betterment of institutional management, and facilitate continuous improvement in higher education quality. Their study advocates whole institution assessment that not only includes teaching and research models, but all activities that qualify as support services, particularly those of institutional management.

A number of Higher Education institutions have tested the use of quality management models that were initially advanced for use in industry. The major benefit of all the models is stated to have been the condition for the acceptance by institutions or departments of a strategic approach to quality measurement and management. The sections which follow briefly discuss some of the models relevant to this study.

### **3.5.2 The International Organisation for Standardisation (ISO)**

The International Organisation for Standardisation (ISO) is a non-governmental organisation established in 1947 with the mission to:

“promote the development of standardisation and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity”. (Kaissi *et al.* 2008: 22)

Lewis and Smith (1994 cited in McMillan 1998: 38) explain that "the ISO 9000's standards are a single system originally designed to cover all manufacturing, later extended to the service industries, and now being used experimentally in training and education". Hence it relevance to this study.

ISO's work is focused on international agreements resulting in published International Standards, with the ISO 9000 series that began in 1979 focusing on conformity. (see Table 3.12)

**Table 3.12:** History of ISO 9000

ISO Standards Version	Focus
Pre-ISO 9000	During World War II, there were quality problems in many technologically advanced British' industries such as munitions environments, where bombs were exploding in factories during assembly. The solution adopted was to require that factories document their manufacturing procedures and by means of record-keeping prove that the procedures were being followed.
1979 BS 5750 Standard	The United Kingdom published a generic standard known as a management standard because it did not specify what to manufacture but rather how to manage the manufacturing process.
ISO 9000, 1987 version	ISO 9000 was almost a direct copy of the British standard, with the same structure as the UK standard BS 5750.
1. ISO 9001:1987	A model for quality assurance in design, development, production, installation, and servicing was made available to companies and organisations whose activities included the creation of new products.
2. ISO 9002:1987	A model for quality assurance in production, installation and servicing had basically the same coverage as ISO 9001 but did not cover the creation of new products.
3. ISO 9003:1987	A model for quality assurance in final inspection and testing covered only the final inspection of the finished product, with no concern for how the product was produced.
1994 version	This version emphasized quality assurance through preventive actions instead of checking only the final product, and continued to require evidence of compliance with documented procedures. As with the first version, the downside was that companies tended to implement its requirements by creating shelf-loads of procedure manuals, thus becoming burdened with an ISO bureaucracy.
2000 version  ISO 9000:2000 (definitions), ISO 9001:2000 (requirements), and	The standards underwent major revision This version combines ISO 9001, 9002, and 9003 into one (now called 9001). Design and development procedures are required only if a company does in fact engage in the creation of new products. The 2000 version sought to make a radical change in thinking by actually placing the concept of process management front and center. The 2000 version demands

ISO 9004:2000 (continuous improvement)	involvement by upper executives in order to integrate quality into the business system and to avert the delegation of quality functions to junior administrators.
2008 ISO 9001:2008	The ISO 9001 technical committee (TC 176) started its review on the next version of ISO 9001, which was later termed the ISO 9001:2008, assuming its planned release date of 2008 was to have been met. Earlier reports were that the standard would not have been substantially changed from its 2000 version.
2015 ISO 9001:2015	A new version of the standard, ISO 9001:2015, has recently been launched, replacing the previous version (ISO 9001:2008).  ISO 9001 builds on seven quality management principles. Following these principles will ensure the organisation or business is set up to consistently create value for its customers. With these seven pillars firmly in place, implementing a quality management system will be much easier.

Source: Adapted from Kaissi *et al.* (2008) and Oschman (2009)

ISO characterises a system as a common denominator for what organisational quality involves internationally. ISO 9000:2000 is referred to by Quazi *et al.* (2002), Gordon (2002) and Russell (2000) – as “a family of standards that provides a series of creatively applicable guidelines” to assist institutions in establishing, implementing and operating effective quality management systems (QMS). The goal is to manage the processes that affect its product or services towards the continuous improvement in institutional performance (Oschman 2009: 86).

Kirchner (1996 cited in McMillan 1998: 38) states that the ISO series is a set of guidelines and standards that defines the requirements for an effective quality management system, wherein both ISO 9000 and 9004 are guidelines to the certification standards (ISO 9001, 9002, and 9003). The standards establishes a simple inexpensive quality management system that facilitates consistent quality that does not prescribe how things should be done but rather specifies on uniquely designed processes that have to be in place and implemented; it is a process standard, not a product standard that is actually not necessarily a TQM process but does contain many TQM elements; it also requires



instructions' documentation, and documentation of what has been done; and necessitates ongoing audits (internal and external), plus recertification (McMillan 1998: 38).

Oschman's (2009: 86) contention is that from the commencement of ISO efforts to develop quality standards, the intention had been "to integrate (and harmonise) similar existing quality management standards into a single body of international quality standards, which could apply to world trade and commerce". According to Vavra (2002: 69), the ISO standard is the integration of data on customer satisfaction after the value of processes adopted by an institution has been indicated.

Four key areas of ISO 9000:2000 "are (i) management responsibility, (ii) resource management, (iii) process management, and (iv) measurement, analysis and improvement" (Oschman 2009: 86). These areas are a summation of the ISO 9000 eight principles which will be discussed later. However, for the appreciation of these principles, it is important to harness the philosophies on which ISO 9000:2000 is based. According to Evans and Dean (2003), Hradesky (1995) and Wright (2001), these philosophies entail the following features:

- (i) a global trend towards increased product and service quality expectations of customers;
- (ii) conformity with customer requirements not guaranteed by technical specifications alone;
- (iii) consistent customer satisfaction ensured only when technical specifications are complemented by international quality system standards;
- (iv) the mission, vision and values, management style, culture, industry, product and service of an institution influence its quality system; leaving each institution with a different quality system; and
- (v) quality systems implemented to achieve continuous improvement are not to be standardised by the quality standards; rather standards are to provide guidelines for the development of the quality systems (Oschman 2009: 86).

Tricker and Lucas (2001: 97) record that though business organisations were becoming ISO 9000 accredited in the 1990s, there were identified limitations in the standard

because of its manufacturing industry bias it became problematic for use in service industries; it was confining to those organisations that wanted to implement Total Quality management (TQM); its ambiguous language could easily be misinterpreted; its rigidity meant it could not be tailored for use in certain industries; and it lacked provision for continuous improvement (Tricker and Lucas 2001: 97). In view of these limitations a revision of the standard was needed.

The year 2000 version of ISO 9000 (Dale *et al.* 2007; Foster 2010) is based on eight quality management principles that include “customer focus, leadership, a process approach, the involvement of people, a systems approach to management, continual improvement, a factual approach to decision making and mutual beneficial supplier relationships”. The eight principles that form the basis of the ISO standard are described as follows:

- (i) Customer focus: organisations survive because of their customers, and consequently should cognisant of their customer current and future needs and should endeavour to meet customer requirements while exceeding their expectations.
- (ii) Leadership: leaders determine institutional direction and unity of purpose, and therefore must build and preserve an internal environment that stimulates employee participation in achieving organisational objectives.
- (iii) Involvement of people: all employees at every level are the substance of the organisation; therefore, their total involvement unleashes the abilities of every employee to the benefit of the organisation.
- (iv) Process approach: efficiency of activities and related resources yields desired result when they are managed as processes.
- (v) Systems approach to management: the organisation's efficiency and effectiveness in realising its objectives is attained through identifying, understanding and managing the interdependent processes as a system.
- (vi) Continual improvement: the overall performance of the organisation in relation to continual improvement should be the sustained objective aimed at helping the organisation to respond to the changing customer requirements.

- (vii) Factual approach to decision making: organisational effectiveness requires that decisions be based on data and information analysis.
- (viii) Mutually beneficial supplier relationships: the organisation and its suppliers are interdependent; therefore, interrelationships enhance the ability of both to benefit from working together thus creating value (Kaissi *et al.* 2008: 22-23; Ramlagan 2009: 47; van Schalkwyk 2011: 146).

Oschman (2009) draws from a number of studies (Evans and Dean 2003; Hooper 2001; Ketola and Roberts 2001; Stahan 2002; Zuckerman 1999), and provides a synopsis that sums up what ISO 9000:2000 is as a tool, a system and a model (Oschman 2009: 88-89). This summary is presented in the section that follows.

- (i) It is a tool for interpersonal communication encouraging information sharing as a key to internal auditing. Its purpose is to eradicate communication barriers that may exist in a number of institutions. It encourages employee communication about their concerns relating to work processes and also encourages them to promote changes in ways that elicit a response from management. It can offer a basis for interpersonal communication improvement on which institutions' operations may be built.
- (ii) It is a tool that customers require because it reflects a well-organised operation as evidenced by certification where acquired.
- (iii) It is a team-building tool which involves all employee-created teams that facilitate information flow from documented work procedures and continued auditing processes of the quality system.
- (iv) It is an information-sharing tool for teams, departments and the institution – the heart of the ISO 9000:2000 internal auditing process. It facilitates the dissemination of the knowledge necessary to improve quality and to enhance performance.
- (v) It forms the basis for monitoring information flow by means of a sustained, long-term, free flowing documentation system that will act as an internal auditor without creating bureaucratic hurdles.

- (vi) It is a training tool for information management skills – since it is a written process it automatically promotes reading and writing skills.
- (vii) It forms the basis for continued information management, alleviating information overload problems that many institutions face during systems documentation. It is management's responsibility to communicate to employees the importance of information management to the institution's operation.
- (viii) It is a value-creation mechanism which functions horizontally across departments. It directly serves the management, and reduction of quality problems that arise from departmental operations in silos; thus it helps to break down departmental boundaries.
- (ix) It directly links the *measures* of performance with customer needs and supplier performance, thereby focusing process performance on customer requirements.
- (x) It is a strong model for continual improvement, which allows gaps to be identified between customer requirements and process performance. Thus it is a model that provides an ideal platform for improvement.
- (xi) It is a model that wholly supports the systems approach to management that involves everyone and every level of the institution.

The foregoing summary by Oschman (2009) presents ISO 9000:2000 as a model for success that is relevant and applicable to higher education institutions as systems and as a service.

Concurring with Oschman (2009), Ramlagan (2009: 48) notes that although the quality management principle may not be entirely applicable to higher education, it is important to realise that “customer focus, leadership, involvement of people, a systems approach to management and continual improvement principles” are those most applicable to higher education. This is plausible because the pertinent activities performed under these principles may be carried out in a support services environment in public higher education.

Kaissi *et al.* (2008) further advance four types of arguments as to why higher education institutions should pursue improving or maintaining the quality of their educational

processes, and foreseeably seek ISO 9001 certification. These are proposed in the list that follows.

- (i) The promotion of a high-quality image, high visibility and credibility: Image has influence on the number of enrolments and consequently on the survival of the organisation in the long term hence, it is essential for all types of higher education institutions. The image perceived is largely dependent on the quality of services provided, as well as on the effectiveness of communicating quality performance. ISO 9001 certification signals the institution's commitment to quality thus communicating to the outside world that it has been subjected to independent external examination.
- (ii) A response to external factors: As the society's concern for quality and performance mounts so are the stakeholders expectations for the institutions to be accountable. Likewise, higher education customers require evidence of the quality promised. ISO 9001 certification is one proof to respond to such demands.
- (iii) Development of a full quality assurance system: ISO 9001 principles provide for a comprehensive quality assurance approach for higher education institutions. Certified higher education institutions list benefits to include: the focus for internal quality improvement is made visible, understandable and verifiable backed by the presentation of a certificate. These are important ingredients for staff motivation. Such initiatives represent higher education activities not as isolated processes, but as situated within the context of the organisation's quality objectives.
- (iv) Improvement of specific activities of the organisation: ISO 9001 has been introduced by some higher education institutions which aimed at improving specific activities or functions. In some cases it is as a result of general customer satisfaction concerns, or some motivation to accomplish specific levels of quality. Some examples comprise the improvement of support processes and quality assurance of the student assessments and evaluations (Kaissi *et al.* 2008: 24-25).

The foregoing reasons can also be viewed as the benefits of implementation of ISO 9001.

ISO 9001 has been revised to allow for the diverse challenges and changes that organisations are now facing and to reflect these changes in an endeavour to remain relevant. Currently, the latest available version is the Quality Management System ISO 9001:2015 standard which was launched in September 2015 (Bernik *et al.* 2017: 237; Concettina *et al.* 2016: 377). Certain significant specialists in the field consider the moment of the release of ISO 9001:2015 as the “beginning of a new era in the development of quality management systems” (Concettina *et al.* 2016: 377). At present versions of ISO 9001:2008 and ISO 9001:2015 are both in use, with those organisations currently implementing ISO 9001:2008 having been given three years for the transition to the new version (Othman *et al.* 2017: 41).

Zabadi (2013) argues that the challenges confronted by higher education institutions, such as low productivity, escalating costs and diminishing financial resources, decreasing job satisfaction levels, mounting demands for enrolment, and the development of technologies constitute some of the reasons for the production of the new version of ISO 9001 (Othman *et al.* 2017: 41). Furthermore, it could help employees manage and advance the quality of higher education as it can be applied in both academic and non-academic units (Bernik *et al.* 2017: 236).

The ISO 9001:2015 standard is meant to support the goals and objectives in the QMS of the organisation. Due to the performance focus of this standard, the value of its support would go beyond improving the effectiveness of the QMS. Reformulations and a less prescriptive tone (see Table 3.13) distinguish it from the ISO 9001:2008 version, though it retains most of the requirements in the former. However, it is more flexible for those organisations that seek certification (ISO, 2017).

ISO 9001:2015 is based on seven quality management principles which include, “customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision-making, (and) relationship management” (Othman *et al.* 2017: 41).

**Table 3.13:** Changes in Quality Management Principles for ISO/DIS 9001:2015

ISO 9000:2005/ISO 9001:2008	Proposed ISO 9001:2015
1. Customer Focus	1. Customer Focus
2. Leadership	2. Leadership
3. Involvement of People	3. Engagement of People
4. Process Approach	4. Process Approach
5. System Approach to Management	5. Improvement
6. Continual Improvement	6. Evidence-based Decision Making
7. <u>Factual Approach to Decision Making</u>	7. <u>Relationship Management</u>
8. Mutually Beneficial Supplier Relationships	

Source: 2014, ISO /TC 176/SC 2/WG 24/N 112, adapted from Fonseca 2015: 173.

This latest revision has more clauses than ISO 9001: 2008, and these additional clauses are represented in the context of the PDCA cycle (Concettina *et al.* 2016: 377; Fonseca 2015: 172; Othman *et al.* 2017: 45). A comparison between the clauses of ISO 9001: 2008 and ISO 9001: 2015 is presented in Table 3.14. Othman *et al.* (2017) suggest that clauses 4, 5, 6 and 7 represent the “Plan” phase in the cycle, and clauses 8, 9, 10 represent the “Do” “Check” and “Act” phases of the cycle respectively (Othman 2017: 45). At some variance with Othman *et al.*, Fonseca *et al.* (2015) explain the PDCA cycle in clauses 6, 8, 9 and 10 as follows:

- (i) “Clause 4 = The organisation’s business environment and management system’s scope
- (ii) Clause 5 = Leadership and organisational structure
- (iii) Clause 6 = (PLAN) Planning
- (iv) Clause 7 = Support processes and capability
- (v) Clause 8 = (DO) Operational processes
- (vi) Clause 9 = (CHECK) Performance evaluation
- (vii) Clause 10 = (ACT) Improvement” (Fonseca 2015: 172).

**Table 3.14:** A comparison between ISO 9001:2008 and ISO 9001:2015

ISO 9001:2008	ISO 9001:2015
1. Scope	1. Scope
2. Normative Reference	2. Normative Reference
3. Terms and Definitions	3. Terms and Definitions
4. Quality Management System	4. Context Of Organisation
5. Management Responsibility	5. Leadership
6. Resources Management	6. Planning
7. Product Realization	7. Support
8. Measurement, Analysis, and Improvement	8. Operation
	9. Performance Evaluation
	10. Improvement

Source: Bernik *et al.* (2017: 237)

The ISO revisions of the 2000 and the 2008 versions reveal a shift aimed at closing the gap between ISO and TQM. The clauses in ISO 9001:2015 which appear in the preceding list reflect the presence of the basic core principles of TQM and are indicative of the aims to close this gap in the future (Fonseca 2015: 170,172).

According to Concettina *et al.* (2016) and Othman *et al.* (2017), in addition to the PDCA view, the standard also comes with many QMS injunctions for implementation, challenges regarding transition and maintenance, and opportunities that include new technological advancements faced by institutions. Furthermore, the standard advocates key changes, viewed as the enhancement of a well-defined process approach, decentralisation of the system and a broader spread of QMS responsibilities throughout the organisation. These involve greater participation of top management, the introduction of risk-based thinking and a greater emphasis on performance monitoring in the QMS (Concettina *et al.* 2016: 377; Othman *et al.* 2017: 45).

Arulraj *et al.* (2015) highlight the substitution of the term “product” with “goods and services” as a significant change proposed in the new version of the standard. It makes the standard more nonspecific and more applicable to service industries. They observe that “the use of the single term ‘product’ to cover the physical products and services had been a hindrance to service organisations understanding and applying the standard”



(Arulraj *et al.* 2015: 32). This makes the standard more significant for application in the higher education support services.

According to Bernik *et al.* (2017: 241), the application and implementation of the ISO 9001:2015 standard in HEIs suggests that firstly, the improvement of HEIs' quality management systems has to be implemented in both the academic and non-academic units, secondly, the most important factor for improving the current systems the awareness for necessity of continuous quality improvement, thirdly, the HEI management must own the commitment to the development and improvement of QMS and each supporting activity reflecting such (Han and Linh 2014), fourthly, the similarity of goals and objectives to be achieved should inform the formation of working teams, and lastly that it is imperative to keep the required information database that support the QMS (Bernik *et al.* 2017: 241).

With the implementation of the model of Quality Management System ISO 9001:2015, higher education quality management will continuously be improved, thus increasing competitiveness both at national and international levels.

### **3.5.3 The Malcolm Baldrige National Quality Award (MBNQA)**

The acknowledgement of TQM as a vehicle for an all-encompassing institutional culture change encouraged the development of one of the most well-known and currently extensively used frameworks, the Malcolm Baldrige National Quality Award (MBNQA) (Oakland 2003: 23). This is because it focused on internal and external behavioural and service issues, including process control and quality assurance.

The MBNQA was developed in the United States in the late 1980s and introduced in the USA in 1987. It – the Malcolm Baldrige National Quality Improvement Act – was named after the then Secretary of Commerce, Malcolm Baldrige (Oakland 2003: 23).

The intention behind the programme was to promote US business excellence and effectiveness and improve the competitiveness of local firms for the advancement of the national economy by offering a systems approach for organisational assessment and improvement (Ruben *et al.* 2007: 231; Stauss, 1995: 452; Yang 2012: 159). It also

envisioned the stimulation of quality initiatives, at the same time recognising and rewarding those companies that establish and demonstrate high quality standards. (Yang 2012: 159).

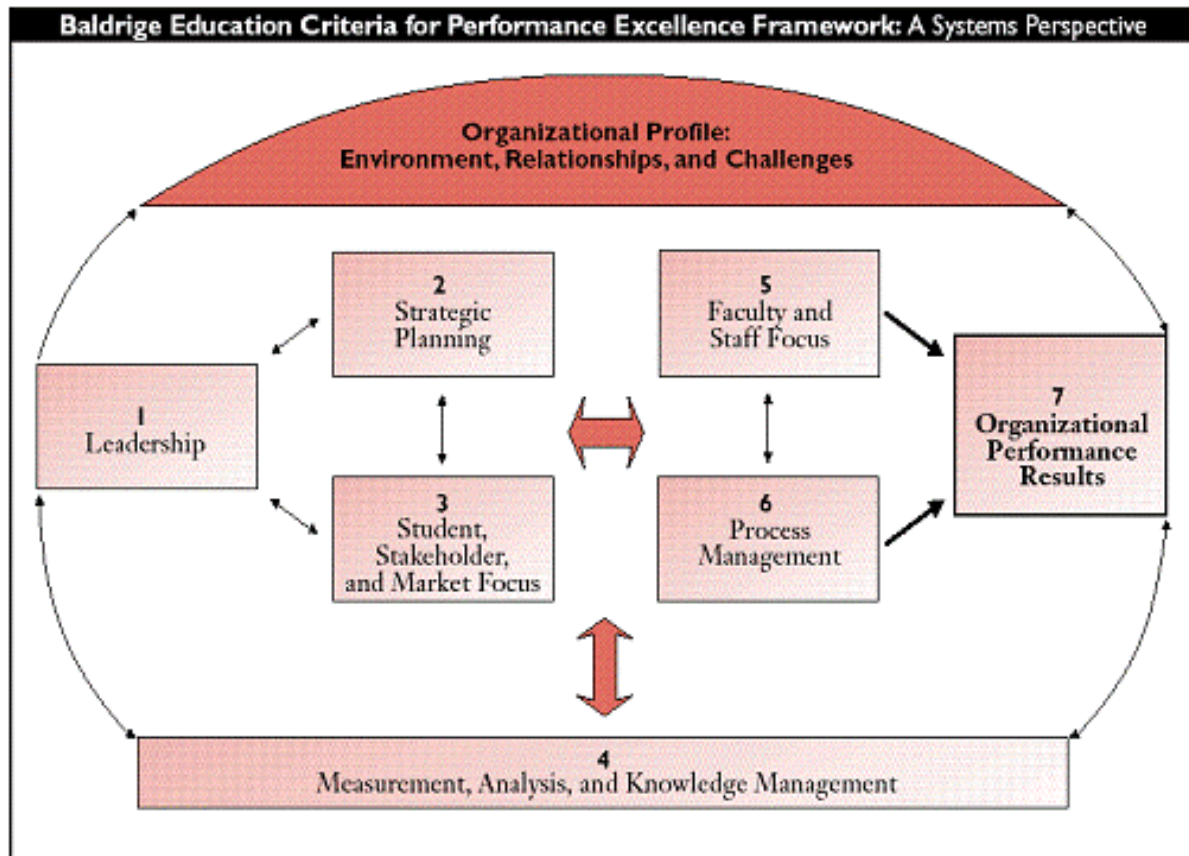
The MBNQA, now known as “The Baldrige National Quality Program (BNQP) Criteria for Performance Excellence” was created with specific goals. These are to promote quality awareness, identify the essential components and requirements for quality excellence, acknowledge organisations that demonstrate these characteristics, and promote the sharing of information about the successful quality strategies and benefits generated by exemplary organisations. It was hoped these goals would promote the implementation of effective organisational principles and practices (Ruben *et al.* 2007: 231; Oschman 2009: 80).

The BNQP is a customer oriented quality management programme based on well-known TQM principles that have proved to be successful. It employs criteria built upon a set of interrelated core values and concepts (Oakland 2003: 23). According to the National Institute of Standard and Technology (NIST 1993), the MBNQA concept is commonly accepted for concretely shaping the understanding of quality through its core values of customer-driven quality/excellence; visionary leadership; continuous improvement; employee participation and development that includes organisational and personal; learning; agility/fast response; design quality and prevention failures; long-range outlook/focus on the future; management by fact; partnership development/valuing employees and partners; corporate responsibility and citizenship/public responsibility and citizenship; managing for innovation; focus on results and creating value; and systems developments (Oakland 2003: 23; Strauss 1995: 64).

The application of these principles to internal services is significant and finds resonance in higher education support services. The core values are expressed in the “Baldrige National Education Criteria for Performance Excellence Framework” (Figure 3.4) and are personified in its seven classifications used for organisational assessment. Rube *et al.* (2007) acknowledge the changes in definitions and language employed in describing the

framework over the years, and the variations within sectors but state that the basic themes remain constant.

**Figure 3.4:** National Education Criteria for Performance Excellence Framework



Source: US NIST (2004)

The themes are briefly discussed in the section that follows.

- (i) Leadership: organisational leadership; public responsibility and citizenship – This category requires effective leadership that provides guidance towards a clear and shared mission and vision, ensuring that there is commitment to continuous review and improvement in leadership practice, including social and environmental consciousness. Examined in this category are the senior leaders' ability to address organisational values, directions, and performance expectations, customers' and other stakeholders' focus, empowerment,

innovation, and learning. Governance practices and organisational public responsiveness are also assessed.

- (ii) Strategic planning: strategy development; strategy deployment – This category requires the development of coherent organisational plans through an inclusive planning process that transposes the organisation's mission, vision, and values into clear, yet assertive, measurable and communicable goals. The goals should be organisationally comprehensible and effectively implemented at all levels. In this category the developed strategic objectives and the deployment of action plans are examined, including the measurement of progress in implementation.
- (iii) Customer and market focus: customer and market knowledge; customer relationships and satisfaction – This category requires knowledge of the needs, expectations and preferences of customers and all groups served. It also requires an appreciation of the levels of their contentment/discontent, knowledge of operating practices that are responsive to these needs and expectations, and assessment processes for staying abreast with current and anticipated thinking of all groups involved. This category examines how an organisation fares in relation to these foci.
- (iv) Information and analysis: measurement and analysis of organisational performance; information management – This category requires the development and use of organisational performance indicators that capture the organisation's mission, vision, values and goals and provides data-based comparisons with peer and leading organisations widely sharing this and other information within the organisation to focus and stimulate improvement. This category examines how an organisation selects, gathers, analyses, manages, and improves its data, information and knowledge assets.

- (v) Human resource focus: work systems; employee education training and development; employee well-being and satisfaction – This category requires the development of a workplace culture that inspires, recognises, and rewards excellence, professional development, employee engagement, commitment and pride, employee satisfaction, and synchronises individual and organisational goals. This category scrutinises how organisational work systems, employee learning and motivation empower employees to develop and utilise their full potential congruent to overall organisational objectives and action plans.
- (vi) Process management: product and service processes; business processes; support processes – This focus is on mission-critical support programmes and services, including related operational processes that ensure effectiveness, efficiency, proper documentation and standardisation, and systematic evaluation and improvement. It has end-users in mind. In this category the crucial aspects of process management are examined. This includes key products, services, and business processes that create customer and organisational value, and key support processes that involve all operational units.
- (vii) Business results: customer-focused results; financial and market results; human resource results; organisational effectiveness results – These relate to documented, sustained positive outcomes relative to the organisational mission, vision and goals. They include the perspectives of groups served and those of employees, considered in light of comparisons with the accomplishments of peers, competitors and leaders. In this category the performance and improvement in key business areas is examined. This includes product and service performance, customer satisfaction, financial and marketplace performance, operational performance and governance, human resource results, and social responsibility. Also, performance levels relative to competitors are examined (Kaissi *et al.* 2008: 29; Oakland 2003: 24; Rube *et al.* 2007: 231-232).

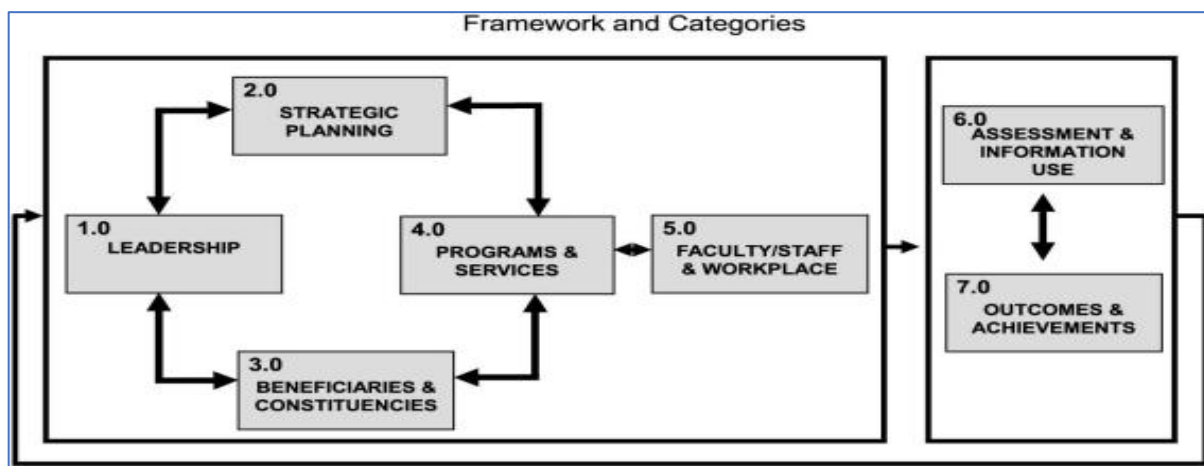
The Baldrige Framework had been found to be relevant to higher education institutions and their respective departments, in both the academic enterprise and the support

services sector. The Rutgers University further contextualised the framework by developing the Excellence in Higher Education (EHE) model specifically for use in higher education institutions (Rube *et al.* 2007: 234). According to Rube *et al.* (2007) the primary emphasis of the 2005 education version of the Baldrige Education framework was on teaching and learning outcomes. By contrast, the EHE model addressed and emphasised mission specifics, including scholarship and research, teaching and instruction and public services and outreach.

Furthermore, and most significantly for this study, the EHE model was intended to be appropriate for use also by individual institutional departments and units in their assessment of, and planning for administrative recognizes service and student life. The themes that follow are addressed in these EHE Framework (Fig. 4.3) categories:

- (i) 1.0 Leadership
- (ii) 2.0 Strategic planning
- (iii) 3.0 Beneficiaries and constituencies (stakeholders)
- (iv) 4.0 Programmes, services (process effectiveness)
- (v) 5.0 Faculty/staff and workplace
- (vi) 6.0 Assessment and information use (measurement and knowledge utilisation)  
and
- (vii) 7.0 Outcomes and achievements (Ruben *et al.* 2007: 234-235).

**Figure 3.5:** Excellence in Higher Education Framework



Source: Ruben *et al.* (2007: 235)

The new MBNQA education criteria for performance excellence were released in 2007 with specific goals aimed at continuous improvement of students and stakeholders value which contributes to the quality of education and organisational stability; continuous improvement of organisational capabilities and effectiveness; and organisational and personal learning (Kaissi *et al.* 2008: 30). It is based on the interrelated core values and concepts outlined in the subsection that follows.

- (i) Visionary leadership: HEIs' senior leaders should set well-defined and perceptible values, create a student-focused, learning-oriented climate; and inspire high expectations.
- (ii) Learning-centred education: HEIs should place the focus of educational activities on learning and on the real needs of students – with the intention of developing the fullest potential of all students, and with the prospect of them pursuing a variety of avenues to success.
- (iii) Organisational and personal learning: HEIs should have a well-executed approach to organisational and personal learning so as to achieve the highest levels of organisational performance possible.
- (iv) Valuing faculty, staff, and partners: HEIs should place value on people by committing to their satisfaction, development, and well-being.
- (v) Agility: HEIs should develop a capacity for faster and more flexible responses to the needs of students and stakeholders in order to remain relevant and responsive to the ever-changing, globally competitive environment.
- (vi) Focus on the future: HEIs should be future-oriented and be willing to make long-term commitments to students and key stakeholders in pursuit of educational excellence.
- (vii) Managing for innovation: HEIs should make meaningful change to improve an institution's programmes, services, processes and operations and to create new value for the organisation's stakeholders.
- (viii) Management by fact: HEIs should provide critical data and information about key processes as well as results derived from the institution's needs, strategy analysis and measurement of performance.

- (ix) Social responsibility: HEI leaders should demonstrate responsibility to the public, display ethical behavior and stress the need to practise good citizenship.
- (x) Focus on results and creating value: HEIs should measure performance by focusing on key results and using these to create and balance value for students and stakeholders.
- (xi) Systems perspective: HEIs' senior leaders should focus on strategic directions as well as students and stakeholders by monitoring, responding to, and managing performance based on results. A systems perspective includes measures, indicators, and organisational knowledge that will build key processes and align resources to improve overall performance and satisfy students and stakeholders. Thus, to achieve success a systems perspective requires managing the whole institution, including its components (Kaissi *et al.* 2008: 30-31).

The aforementioned core values and concepts are personified in seven classifications of MBNQA education criteria as follows: “leadership; strategic planning; student, stakeholder and market focus; measurement, analysis, and knowledge management; workforce focus; process management; and results”, with key areas focused on outcomes of student learning, employee and stakeholder outcomes, process effectiveness and operational performance outcomes, leadership and governance outcomes, and social responsibility results (Kaissi *et al.* 2008: 30-31).

#### **3.5.4 The European Foundation for Quality Management (EFQM)**

The Baldrige Award, an organisation-wide approach to quality that could actually be integrated into the business strategy, attracted enormous attention for its stipulations on institutional self-assessment, and created an interest in quality award frameworks around the world (Yang 2004: 24). The success of the MBNQA caused European organisations to create the European Foundation for Quality Management (EFQM) in 1988 followed by the official launch of the European Quality Award (EQA) in 1991, done in partnership with the European Commission (EC) and the European Organisation for Quality (EOQ). This was in acknowledgement of the fact that for Europe to compete in the world market, changes were necessary, the principal determination being to support, encourage and



recognise the development of effective TQM by European companies (Kaissi 2008: 31; van Schalkwyk 2011: 143; Williams 2004: 26; Yang 2004: 24).

Ghobadian and Woo, (1996) state that the objective of the EFQM model is to improve the efficiency and effectiveness of European organisations through promoting its use by firstly, aiming at advancing the acceptance of quality improvement as a strategy for gaining international competitive advantage and secondly, “stimulating and assisting the development of quality improvement activities” (Williams 2004: 26).

The EQA is the European equivalent of the MBNQA (Williams 2004: 26). Yang (2004:24) claims that the EFQM “framework was the first one to include ‘Business Results’ and to really represent the whole business model”. According to Foster (2010 cited in van Schalkwyk 2011: 143), the Baldrige criteria focus on customer service and improved products, while the EQA focuses on employee satisfaction as an outcome of the quality system. Both the Baldrige and the EFQM models recognise processes to be the means by which the organisational personnel talents are exploited and discharged to produce performance results (Yang 2004: 24).

The EFQM (1999) outlines eight fundamental concepts on which the EQA model is based. These include “results orientation, customer focus, leadership and constancy of purpose, management by process and facts, people development and involvement, continuous learning, innovation and improvement, partnership development and corporate social responsibility” EFQM (1999: 4).

These fundamental concepts support the EFQM definition of excellence which expresses excellence as “outstanding practice in managing the organisation and achieving results, all based on these principles” (EFQM 1999: 4). Such excellence requires total commitment and acceptance of these principles by management.

The fundamental concepts of excellence as defined by the EFQM, are wide-ranging, yet since the Baldrige Award two further fundamental concepts or values have been identified. These have since been beneficial in the higher education sector, thus adding to the agility and future focus in developing a HE version of the Excellence Model (HEFCE

2003: 10). The fundamental concepts are therefore further defined (HEFCE 2003) in the context of higher education to widen the scope and give depth of understanding. After having been widely used and applied in higher education they have since been interpreted in context as shown in Table 3.15.

**Table 3.15:** The Fundamental Concepts of Excellence

<b>Concept</b>	<b>EFQM Excellence Model® Definitions (2003)</b>	<b>Interpretation for Further and Higher Education</b>
Results Orientation	Excellence is achieving results that delight all the organisation's stakeholders.	– clearly focused on an understanding of students' and other customers' needs, expectations and values; taking into account and valuing their contribution, and the contribution of other stakeholder groups
Customer Focus	Excellence is creating sustainable customer value.	– anticipating, balancing and meeting the current and future needs of students, staff and others, through developing and setting a balanced range of appropriate indicators or targets, tracking performance, benchmarking, and taking appropriate action based on this holistic range of information
Leadership and Constancy of Purpose	Excellence is visionary and inspirational leadership, coupled with constancy of purpose.	– clearly demonstrating visionary and inspirational leadership which is transparent and open, with a constancy and unity of purpose which is shared by everyone in the institution
Management by Processes and Facts	Excellence is managing the organisation through a set of interdependent and interrelated systems, processes and facts.	– understanding and systematically managing all activities through a set of interdependent and interrelated systems and processes, with decisions based on sound and reliably acquired information

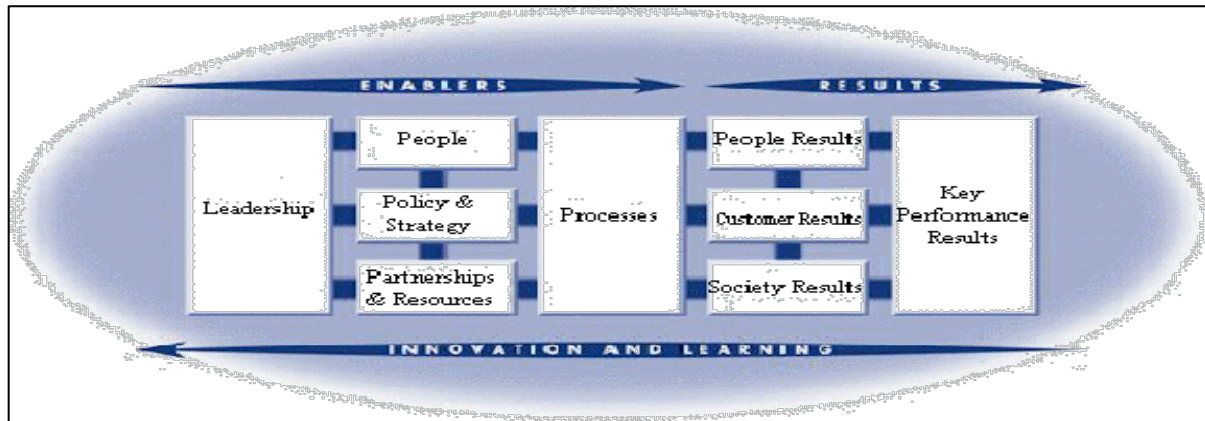
People Development and Involvement	Excellence is maximising the contribution of employees through their development and involvement.	– developing, involving and engaging staff, maximising their contribution in a positive and encouraging way, through emphasising shared values and a culture of trust, openness and empowerment
Partnership Development	Excellence is developing and maintaining value-adding partnerships.	– developing meaningful and mutually beneficial relationships, both internally and externally, in order to gain added value for partners, and to support the achievement of both strategic and operational objectives
Corporate Social Responsibility	Excellence is exceeding the minimum regulatory framework in which the organisation operates and striving to understand and respond to the expectations of their stakeholders in society.	– understanding, appreciating and considering positively the way in which the institution interacts with and impacts on the local and wider society, from both a practical and ethical perspective
Continuous Learning, Innovation and Improvement	Excellence is challenging the status quo and effecting change by using learning to create innovation and improvement opportunities.	– stimulating, encouraging, managing, sharing and acting on learning and experiences, making changes using innovation and creativity, and enabling continuous improvement to add value in a consistent way
Agility		– the ability to react quickly to the changing demands of students and stakeholders; to deliver with flexibility
Future Focus		– understanding the short- and longer-term factors that affect the organisation and the education market and planning to take these into account

Source: Adapted from HEFCE (2003: 8-9)

The EFQM framework is non-prescriptive and is founded on nine criteria that are separated into two categories, the ‘Enabler’ criteria which encompass what is done by the organisation, and the ‘Results’ criteria which encompass what is achieved by the organisation (Ferreira 2003: 83; Oschman, 2009: 81; Williams 2004: 27). Figure 3.6

depicts the 'Enablers' –'Results' relationship, showing that 'Results' are caused by 'Enablers' and feedback from 'Results' helps to improve 'Enablers'.

**Figure 3.6:** The EFQM framework



Source: EFQM (1999)

The Enablers categories for quality improvement include “leadership, people management, policy and strategy, resources and processes”. When effectively implemented, the enablers impact on the result categories, which include “people satisfaction, customer satisfaction, and impact on society and business results” (Oschman 2009: 81).

As depicted in Figure 3.6, the model comprises nine criteria:

- (i) Leadership: The mission and vision is develop by and achieved through excellent leadership. This includes the development of the organisation’s values and systems that are required for sustainable success. Excellent leaders implement these through their actions and behaviours. They maintain constancy of purpose during times of change, thus being able to change the organisation’s while and inspiring others to follow.
- (ii) People: Exceptional organisations are determined to release the full potential of their people. Development initiatives that empower people are aimed at individual, team and organisational levels while promoting equality and fairness.

This involves caring for, communicating, recognising and rewarding staff in a manner aimed at building commitment and motivating them to use their knowledge and skills for the organisation's benefit.

- (iii) Policy and strategy: Exceptional organisations develop stakeholder focused strategy that considers the sector and market within which the organisation operates as a vehicle to implement their mission and vision. In order to deliver on the strategy, policies, plans, objectives and processes are developed and deployed.
- (iv) Partnerships and resources: In order to support policy and strategy and for effective operation of processes, exceptional organisations plan and manage their internal resources, suppliers and external partnerships by balancing the current and future needs of the organisation, the community and the environment.
- (v) Processes: Exceptional organisations design, manage and improve processes in a manner that satisfies, and generates increased value for customers and other stakeholders.
- (vi) People results: Exceptional organisations systematically measure and achieve exceptional results with regard to their people.
- (vii) Customer results: Exceptional organisations systematically measure and achieve exceptional results with regard to their customers.
- (viii) Society results: Exceptional organisations systematically measure and achieve exceptional results with regard to society.
- (ix) Key performance results: The organisation policy and strategies define the key results to be measured (Ferreira 2003: 85-86).

Ruben (2007) briefly discusses the categories and associated concepts in the Excellence in Higher Education framework (Table 3.16). The seven specific assessment categories in the EHE are described in the section that follows.

- (i) Leadership focuses on the effectiveness, engagement, innovativeness and responsiveness of the institution, department and/or programme and related services governance systems for the purposes of review and improvement.
- (ii) Purposes and plans category centers on the HEI's direction, goals and plans through institutional, departmental/unit or programme reviews, including faculty and staff engaged in associated activities, for the purpose of refining, and/or reaffirming its mission, vision, and broader institutional goals.
- (iii) The beneficiaries and constituencies category centers around the needs, perceptions and priorities of the groups that benefit from, influence or are influenced by the HEIs programmes and services, its departments/units or programme under review in order to enhance working relationships and reputation with its constituencies.
- (iv) The programmes and services category focuses on the quality and effectiveness of the institution's mission-critical programmes and services, including important operational and support services.
- (v) The faculty/staff and workplace category focuses on the recruitment and retention of faculty and staff practices, encouraging excellence, engagement, a positive workplace culture and climate whilst also promoting and facilitating both personal and professional development.
- (vi) The Assessment and Information Use category centers on the review and monitoring of progress in relation to intended purposes and plans, leadership effectiveness, relations with beneficiaries and constituencies, programmes and services quality, faculty/staff relations and workplace climate, and assessment

processes. This category also considers how the organisation maintains its internal assessment and peer review system and how it uses both for continuous improvement.

- (vii) The Outcomes and Achievements category is set up to enable the procurement of information and evidence, to document or demonstrate the quality and effectiveness of the institution, department or programme trends over time, and to assess the HEI's standing in relation to peers and leaders in the field (Ruben 2007: 17-18).

**Table 3.16:** Components of Excellence in the Higher Education Model

Categories	Items
Institution, Department, or Programme Overview	0.1 Mission, structure, and personnel 0.2 Programmes, services, and constituencies 0.3 Peers and comparisons 0.4 Challenges and opportunities
1.0 Leadership	1.1 Organisational leadership 1.2 Public and professional leadership 1.3 Ethics and social responsibility
2.0 Purposes and Plans	2.1 Plan development 2.2 Plan implementation
3.0 Beneficiaries and Constituencies	3.1 Needs and expectations 3.2 Relationship enhancement
4.0 Programmes and Services	4.1 Mission-critical programmes, services, and processes 4.2 Operational and support services and processes
5.0 Faculty, Staff, and Workplace	5.1 Faculty and staff 5.2 Workplace
6.0 Assessment and Information Use	6.1 Assessment approach and methods 6.2 Comparative analysis 6.3 Information sharing and use
7.0 Outcomes and Achievements	7.1 Leadership 7.2 Purposes and plans 7.3 Beneficiaries and constituency groups 7.4 Mission-critical programmes, services, and processes 7.5 Operational and support services and processes 7.6 Faculty, staff, and workplace 7.7 Assessment and information sharing

Source: Adapted from Ruben (2007: 19)

The Higher Education Funding Council for England (HEFCE) EFQM Excellence Model Higher Education Version (2003: 3) summarises the benefits of the model by claiming

that it offers the development of (i) a strategic tool to enhance communication and understanding of the overall direction while aligning leadership, policies and strategies with the desired results; (ii) a methodology for the measurement of actual performance against desired performance and the achievement of value-for-money services; (iii) a rigorous and structured self-assessment approach to organisational improvement that is based on facts and evidence in order to achieve consistency of direction through the integration of various quality-related initiatives; (iv) a methodology that stimulates multi-disciplined team work, good project management practice and innovation for application at all levels in an institution; and (v) an application of a value-driven customer-focused methodology that is predicated on the concept of enhancing cross-institutional working.

The Model also engages organisations in an analysis of stakeholders, and particularly endorses recognition of the needs and expectations of customers and customer groups. Furthermore the all-encompassing approach and the benefits that the model presents renders it worth considering in the development and implementation of support services QM systems in this study.

### **3.5.5 The South African Excellence Model (SAEM)**

The South African Excellence Model (SAEM), adopted throughout the Southern African Development Community (SADC), was developed by the South African Excellence Foundation (SAEF) and launched in 1997. It builds on the experiences of the EFQA and the MBNQA both of whom recognise the model today (Ferreira 2003:92; Oschman 2009: 82; Williams 2008: 39). According to the SAEF (2001), the SAEM provides a non-prescriptive “approach to the achievement of sustainable organisational excellence (through its) framework for management education, organisational self-assessment and continuous performance improvement” (Williams 2008: 39). The objectives of the model include the points that follow.

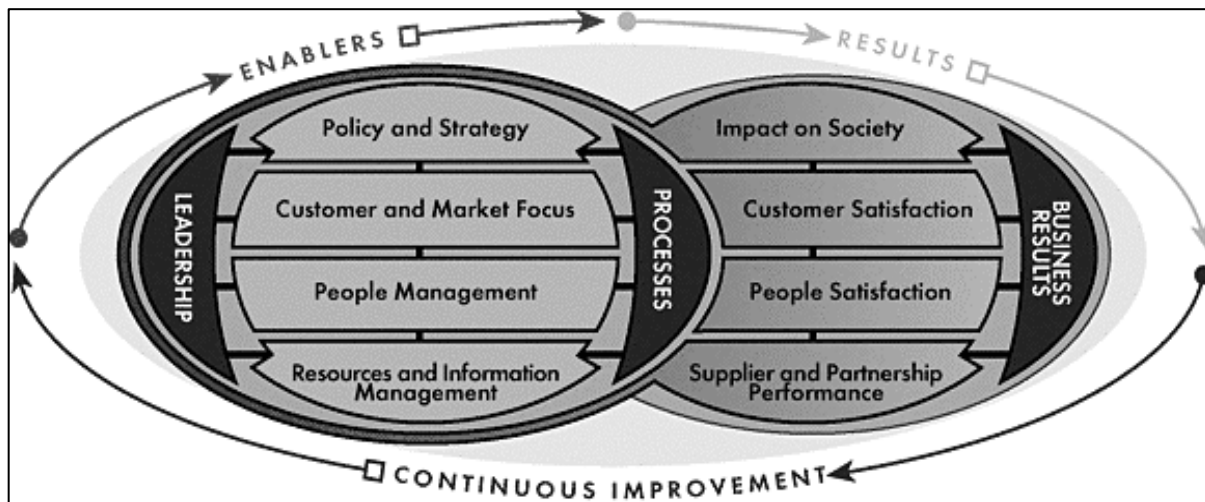
The framework forms the basis of the South African Excellence Award and helps organisations in the developing tangible, measurable vision and goals that are based on understanding of the linkages and cause and effect relationships (systematic nature) of the organisation, and it allows for a diagnostic self-assessment of the organisation ‘health’



(Williams 2008: 39). As a tool, Ferreira (2003: 93) suggests that the SAEF aims at maintaining and promoting the SAEM in support of national economic competitiveness and good governance, in support of training assessors in the use of the model and managing the national awards process.

The South African Excellence Award (SAEA), which focuses on results while emphasising customer satisfaction, is regarded as the highest level of national recognition for performance excellence in the delivery of products and/or services that can be awarded to a South African institution (Oschman 2009: 83). Similar to the EFQM, the award criteria involve enablers and results, consisting of eleven criteria (Figure 3.7), categorised as improvement enablers. These include leadership, policy and strategy, customer and stakeholder focus, people management, resources and information management and processes; and results categories which include impact on society, customer and stakeholder satisfaction, people satisfaction, supplier and partnership performance and institutional results (Oschman 2009: 83-84).

**Figure 3.7:** The South African Excellence Model (SAEM)



Source: SAEF (2000: 2)

According to the Business Excellence Southern Africa (BESA) (BESA 1998), the SAEM is based on the fundamental concepts itemised in the section that follows.

- (i) Results orientation: Excellence depends on harmonising and fulfilling all stakeholder requirements, that is customers, employees, suppliers and society including those that have financial interests in the organisation.
- (ii) Customer focus: The customer is the ultimate arbiter of the quality products and services. A clear focus on current and potential customer needs enhances loyalty and retention of customers including an increase in market share.
- (iii) Leadership and constancy of purpose: Leadership behaviour ascertains clarity and unity of purpose within an organisational environment thus promoting excellence.
- (iv) Management by processes and facts: Organisational effectiveness is achieved when there is an understanding and systematic management of all interconnected activities. Operational decisions and improvement plans are based on dependable information that incorporates perceptions of stakeholders.
- (v) People development and involvement: The values and a culture of trust, people involvement and empowerment encourages the realisation of the employees' full potential.
- (vi) Continuous learning, innovation and improvement: The management and knowledge sharing within a culture of innovation, continuous improvement and learning maximises organisational performance.
- (vii) Partner development: Organisational effectiveness is also attained when mutually beneficial relationships are built on trust, knowledge sharing and partner integration.
- (viii) Social responsibility: The organisation and its people's long-term interest are served best through embracing an ethical approach and surpassing the community's expectations and regulations relating to its social responsibility (Ramlagan 2009: 59-60).

According to Ferreira (2003: 93), the SAEM maintains that "leadership, driving policy and strategy, people management, customer and market focus, resources and information management and processes" are enablers. Through these enablers "customer satisfaction, people (employee) satisfaction, impact on society, supplier and partnership performance are achieved", thus ultimately leading to excellence in business results.

These form the eleven principles on which the SAEM criteria are built, described by BESA (1998) in outline in the section that follows.

- (i) Leadership – entails exemplary behavioural leadership style that inspires continuous improvement culture at all levels. Leaders are visibly involved in setting and supporting goals that are customer-orientated, while displaying a clear understanding of their clients and stakeholders' requirements and demonstrate strong commitment to staff.
- (ii) Policy and strategy – entails translation of the policies, strategies, vision, values and its mission into plans and actions: Policy and strategy will concentrate on internal culture, organisational structures and operations as they relate to the priorities, direction and customer requirements and those of other stakeholders.
- (iii) Customer and market focus – entails how the institution determines the clients and stakeholders needs, requirements and expectations. The organisation should gather information on clients and stakeholders satisfaction and determine how it may enhance relationships.
- (iv) People management – entails all people within the institution who directly or indirectly serve customers: It is about people development and empowerment to release their full potential people.
- (v) Resources and information management – entails reporting on the effective and efficient management and use of resources and information.
- (vi) Processes – entails identification, designing, management, evaluation and improvement of processes: This includes the provision of key services and the support processes necessary to organisational operations. Key to processes is their contribution and effectiveness relative to the mission of the institution;

- (vii) Impact on society – entails the institution's achievement in relation to local, national and international society: This includes the institution's discernment on its approach to quality of life, environment and the preservation of resources. This also involves its internal measures for effectiveness and how it relates with other regulatory bodies and authorities.
- (viii) Customer satisfaction – entails the levels of external clients and stakeholders satisfaction: This includes levels of client satisfaction a higher education institution achieves in terms of, for example, student feedback, students perceptions on the image of the institution.
- (ix) People satisfaction – entails demonstrated institutional performance in fulfilling the needs, requirements and expectations of its people: This includes presentation of results, targets, trends and benchmarks with other institutions.
- (x) Supplier and partnership performance: entails the institution's activities towards ensuring that suppliers and partners are providing optimal service.
- (xi) Organisational results – entails the institution's reports on the achievement of planned objectives and on how the needs and expectations of all stakeholders including those with financial interest, have been fulfilled (Ferreira 2003: 93-96).

The basis for the criteria are that they were developed from expert knowledge of private and public sector organisations that aim at achieving organisational quality and performance excellence, and thus represent validated, cutting-edge practices for achieving performance excellence (Ferreira 2003:94).

There is no evidence in the literature found by the author thus far that indicates adoption or use of the South African Excellence Model in HEIs.

### **3.5.6 Measuring Service Quality Tools**

Service Quality plays a vital role in the success of the higher education sector and has become one of the instrument models for quality management that has drawn the attention of researchers and practitioners in the management field (Al-Otaibi *et al.* 2016: 46; Jelena 2010: 632; Raju and Bhaskar 2017: 114). Raju and Bhaskar (2017:114) assert that among all service sectors, the higher education sector has direct influence on society's socio-economic development. Hence, quality in this sector is of general concern. Consequently there is pressure to improve the quality in education by maintaining a high standard of education and a good institutional image.

In this regard, higher education institutional services encounters are to be managed with the intention to enhance quality as perceived by customers (Jelena 2010: 632). While there has been consensus on the significance of service quality issues in higher education, the identification, implementation and applicability of the right instrument with which to measure service quality remains a challenge. Researchers and practitioners are constantly grappling with this to find a suitable instrument to measure or gauge how the services are perceived, and to better understand the quality issues that impact on students' educational experiences (Jelena 2010: 632).

Service quality measurement instruments have been studied from various angles and at different levels of analysis, covering a wide range of organisations including small, large, more advanced and sophisticated organisations (Al-Otaibi *et al.* 2016: 46). In their review of service quality in higher education, Raju and Bhaskar (2017: 114) found a considerable body of literature on the measurement of service quality and the dimensions that the instruments seek to measure when applied in higher education. Table 3.17 presents the service quality dimensions.

**Table 3.17: Service Quality Dimensions**

<b>Author</b>	<b>Dimensions</b>
Grönroos (1984)	– reputational quality, institutional image, student expectations, perceived quality of non-human resources
Parasuraman, Zeithamal and Bery (1985)	– tangibility, reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, standards of organisations, assessment and feedback
Grönroos (1988)	– professionalism and skill, attitudes and behaviour, access and flexibility, reliability and trustworthiness, recovery, reputation and credibility
Grönroos (1990)	– technical quality, functional quality, corporate image
Entwistle and Tait 1990	– teacher's enthusiasm and methodology, relevance and interest of the material to students, teacher's interest in individual students, explanation of study material, difficulty, pace and quantity of workload, willingness for class involvement, physical quality, interactive quality
Lehtinen and Lehtinen 1991	– physical quality, interactive quality, corporate quality
Parasuraman <i>et al.</i> 1991 Service Quality Model (SERVQUAL)	– reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer
Parasuraman and Berry 1991; Zeithaml <i>et al.</i> 1990 Service Quality Model (SERVQUAL)	– tangibles, reliability, responsiveness, assurance, empathy
Cronin and Taylor 1992 Performance Only; Service Quality Performance Model (SERVPERF)	– tangibles, reliability, responsiveness, assurance, empathy
Hampton 1993	– social life – personal, campus facilities, effort to pass courses, – social life – campus, student advising, faculty, reputation
Carney 1994	– student qualification (academic), student qualities (personal), faculty-student interaction, quality instruction (faculty), variety of courses, academic reputation, class size, career preparation, athletic programmes, student activities (social life), community service, facilities and equipment, location, physical appearance (campus), on campus residence, friendly

	and caring atmosphere, religious atmosphere, safe campus, cost/financial aid
Owlia and Aspinwall 1996	<ul style="list-style-type: none"> <li>– tangibles: sufficient equipment/facilities, modern equipment/facilities, ease of access, visually appealing environment, support services (accommodation, sports);</li> <li>– competence: sufficient (academic) staff, theoretical knowledge, qualifications; practical knowledge, up to date, teaching expertise, communication;</li> <li>– attitude: understanding student's need, willingness to help, availability for guidance and advisory, giving personal attention, emotion, courtesy;</li> <li>– content: relevance of curriculum to the future jobs of students, effectiveness, containing primary knowledge skills, completeness, use of computer, communication skills and team working, flexibility of knowledge, being cross-disciplinary;</li> <li>– delivery: effective presentation, sequencing, timeliness, consistency; – fairness of examinations: feedback from students, encouraging students,</li> <li>– reliability: trustworthiness, giving valid award, keeping promises, meeting the goals, handling complaints and solving problems</li> </ul>
Ho and Wearn 1996, Higher education TQM model of excellence; (HETQMEX)	<ul style="list-style-type: none"> <li>– leadership, commitment, total customer satisfaction, total involvement;</li> <li>– training education, ownership of problem, reward and recognition, error prevention</li> <li>– teamwork</li> </ul>
Athiyaman 1997	– teaching students well, availability of staff for student consultation, library services, computing facilities, recreational facilities, class size level and difficulty of subject content, student workload
Leblanc and Nguyen 2001	– physical evidence, administration, curriculum, responsiveness access to facilities, technical quality, functional quality
Sangeeta <i>et al.</i> 2004	<ul style="list-style-type: none"> <li>– competence: appropriate physical facilities/infrastructure, faculty's expertise, faculty's teaching ability and skills, sufficient faculty/support staff;</li> <li>– attitude: effective problem solving, orientation towards achievement, healthy competitive and collegial environment;</li> <li>– content: learn to apply, clarity of course objectives, relevance of curriculum to future needs, flexibility of knowledge being cross disciplinary;</li> <li>– delivery: ease of contract/access to teachers and administrative staff, effective classroom management, adequate and appropriate classroom space;</li> </ul>

	<ul style="list-style-type: none"> <li>– reliability: clearly specified values and aims, consistency of practice, clearly specified policies/guidelines, fairly and firmly-enforced rules and regulations, adherence to course objectives;</li> </ul>
Brooks 2005	<ul style="list-style-type: none"> <li>– reputation, faculty research productivity, student educational experiences and outcomes;</li> <li>– programme characteristics: records of degree issued, financial support, fellowship grant support, teaching assistantship;</li> <li>– programme effectiveness: timeline of their programme, proportion of students, completing their intended degree programme;</li> <li>– student satisfaction: classroom, co-curricular activities, interaction with faculty and peers, instructions, campus life; and</li> <li>– student outcome: assessment of learning and career outcomes of educational programmes</li> </ul>
Firdaus Abdullah 2006; Higher education performance model; (HEdPERF)	<ul style="list-style-type: none"> <li>– academic aspect, non-academic aspect, reputation, access, program issue, understanding</li> </ul>
Voon 2006; Service driven market orientation model; (SERVMO)	<ul style="list-style-type: none"> <li>– customer orientation, competitor orientation, inter-functional orientation, performance orientation, employee orientation, long term orientation</li> </ul>
Pereda, Airey and Bennett 2007	<ul style="list-style-type: none"> <li>– sufficiency of resources, quality of faculty, tangibility, reliability</li> </ul>
Landrum <i>et al.</i> 2008; Service quality and information system success model (SERVCESS)	<ul style="list-style-type: none"> <li>– service quality, information quality, system quality, users' involvement</li> </ul>
Brochado 2009	responsiveness, assurance, empathy
Sangeeta Sahney 2010 Application of QFD on SERVQUAL	<ul style="list-style-type: none"> <li>– customer focussed/need-based, channels of communication, instructional competence, specific policies and procedures, evaluation and control system, curriculum design, effective leadership, periodic review, resource allocation (as in contingencies), operational planning</li> </ul>

Source: Raju and Bhaskar (2017: 117-120)



### 3.5.6.1 SERVQUAL (Service Quality Model)

Most of the research on service quality has concentrated on dimensions that cut across industries, cultures and organisations leading to the development of several measuring instruments and scales for measuring service quality (Al-Otaibi *et al.* 2016:46). Parasuraman *et al.* (1985) developed a service quality (SERVQUAL) model to measure quality in the service sector that became one of the most significant and widely accepted measurement instruments. It defines service quality as the difference between the perception and expectation of the experience (Al-Otaibi *et al.* 2016: 46; Raju and Bhaskar (2017: 116). It was developed for quantifying customers' assessment of service quality performance and has developed to be the most generally used instrument for service quality measurement in higher education.

SERVQUAL identifies the area where improvement on service quality is required (Abdullah 2005, 2006; Parasuraman *et al.* 1988). The major dimensions considered for measuring the service quality gap in the SERVQUAL scale are as follows:

- (i) "Tangibles: physical facilities, equipment and appearance of personnel;
- (ii) Reliability: ability to perform the promised service dependably and accurately;
- (iii) Responsiveness: willingness to help customers and provide prompt service;
- (iv) Assurance: knowledge and courtesy of employees and their ability to engender trust and confidence and
- (v) Empathy: caring (about the individualised) attention the (organisation) provides to its customers" (Raju and Bhaskar 2017: 120).

Literature (Parasuraman *et al.* 1985; Curry 1999; Luk and Layton 2002) indicates that the model is based on gaps between the actual performance and expectations of customers (Vazirova 2016: 15-16). These gaps are listed in the points that follow.

- (i) "Gap 1: Discrepancy between customers' expectations and managers' perceptions of those expectations;
- (ii) Gap 2: Discrepancy between management perceptions of consumer's experience and the latter's;
- (iii) Gap3: Discrepancy between service quality specifications and service itself;

- (iv) Gap 4: Discrepancy between delivery of service and the communications to consumers about service delivery;
- (v) Gap 5: Discrepancy between consumer's expectation and actual perceived service" (Vazirova 2016: 15-16).

SERVQUAL is one initiative representative of the fact that service quality research has been extended to the province of higher education. As its work concerns an exploration of the gaps in service quality in this domain, it is referred to in this study as part of the conceptual framework of this research. There are several reasons for this.

The SERVQUAL instrument, according to Cuthbert (1996), despite receiving criticisms from a variety of authors is the most widely accepted, applied and practical model for the measurement of service quality presented in literature. Notwithstanding the difference in the level of balance between the elements of service quality from industry to industry, the relations of elements must stay the same. Therefore managers should be cognisant of the fact that the model is general, and attention should be on industry-specific factors. Thus, if applied in measuring service quality in HE, expectations should be considered (Brochado 2012: 176, Vazirova 2016: 16).

Further to this point, Sohail and Shaikh (2004) contend that monitoring service quality is crucial for all organisations including those responsible for higher education. They recognise the rationalisation that quality in higher education is the concern of institutions across the world, which confront very tough competition amongst themselves. They argue that this is why high levels in service quality are expected of higher education whose focus is on the physical, institutional and psychological development of its students (Green 2014: 131, Sheeja *et al.* 2014: 263).

According to Parasuraman *et al.* (1985) service quality dimensions applied in evaluating higher education institutions include "reliability, responsiveness, customisation, credibility, competence, access, courtesy, communication, tangibles and understanding customers' needs" (Al-Otaibi *et al.* 2016: 46).

### **3.5.6.2 SERVPERF (Service Performance Model)**

Sultan and Wong (2012) note that recent efforts to measure educational services in relation to their functional performances appear limited to following either the SERVQUAL or the SERVPERF. SERVPERF, proposed by Cronin and Taylor (1992), is “an improved version of the service quality measurement model known as Service Performance” (Raju and Bhaskar 2017: 116). Brochado (2009: 176) states that with the apparent inadequacies identified at both conceptual and operational levels of the SERVQUAL approach, a performance-based approach for measuring service quality called SERVPERF was introduced.

Service Performance is a variant of the SERVQUAL scale that focuses only on the perception component. However, in the context of higher education, the SERVPERF paradigm is less common than the SERVQUAL paradigm. Therefore Abdullah (2005a:306) describes SERVPERF as an inadequate service quality measuring model in the HEI environment. His argument is that this is because it is a performance-only based model.

### **3.5.6.3 Higher Education TQM Excellence Model (HETQMEX)**

Ho and Wearn (1996: 41) founded a model for quality measurement called the Higher Education TQM Model of Excellence (HETQMEX), particularly for the Higher education institutions. Concurring with Sohail and Shaikh (2004), Ho and Wearn state that quality is required equally in higher education institutions as it is in other organisations.

According to Le Roux (2011) HETQMEX is a slightly older model based on the fundamental Service Quality-concepts, including the five-s model, marketing and educational quality control, quality circles, ISO 9000 and total preventative maintenance. The process in its application: requires senior management involvement depicted by the provision of staff training and their commitment. It encompasses the assessment of the current quality system, the design of a documented implementation plan in line with TQM and ISO principles and facilitates with progress monitoring (Le Roux 2011: 144).

Ho and Wearn (1996: 41) further state that HETQMEX ought to be used for the formulation of the mission statement for the services that the higher education institutions provide.

#### **3.5.6.4 Higher Education PERFORMANCE-only Model (HEdPERF)**

The Higher Education PERFORMANCE-only Model (HEdPERF) was developed by Abdullah (2005b: 33) for the further improvement of Service Quality Measurement specifically for higher education institutions. Abdullah (2005b: 33) describes HEdPERF as a “new and more comprehensive performance based measuring scale that attempts to capture the authentic determinants of service quality within the higher education sector”.

Like Abdullah, Brochado (2009: 177) presents HEdPERF as an HEI specific instrument that aims at reflecting not only the academic components. However, Brochado focuses on all facets of the total service environment of the student. Thus HEdPERF advances strengths and weaknesses of service quality dimensions and can serve for HEIs as a tool for the correct allocation of its resources (Vazirova 2016: 21). According to the conceptual model (Abdullah 2005b) five dimensions form the determinants of service quality in the HE sector. These are as follows:

- (i) Non-academic aspects: aspects related to administrative staff to show respect, provide equal treatment along with confidentiality of information, including aspects related to willingness and capability for rendering support services to students;
- (ii) Academic aspects: aspects related to academic staff and the responsibilities of academics highlight key points like, educated and experienced academic staff with a positive attitude, and characteristics like good communication skills and regularity in providing feedback to students;
- (iii) Reputation: items in terms of their importance to HE Institutions such as the professional image of the institution;
- (iv) Access: ease of contact, approachability, availability and expediency of academic and non-academic staffs;

- (v) Programme issues: issues related to offering a wide range of programmes or specialisation, counselling service and different quality programmes.

Abdullah (2005b: 33) proposed a forty-one item measurement instrument which has been empirically tested for uni-dimensionality, reliability and validity, using both exploratory and confirmatory factor analysis. According to Abdullah (2006b) thirteen of the forty-one items were adapted from SERVPERF while twenty-eight were generated from several qualitative research and literature studies, including focus groups and pilot tests. HEdPERF is “based on six determinants, namely academic aspects, reputation, non-academic aspects, access, programme issues and clear understanding” (Abdullah 2006b: 78).

#### **3.5.6.5 Higher Education Service Quality (HiEdQUAL)**

Annamdevula and Bellamkonda (2012) developed a new measuring tool for use in measuring service quality in the higher education sector called Higher Education Service Quality (HiEdQUAL). The final version of the HiEdQUAL scale lists twenty-seven items under five (relational) factors that have an overall meaningful and positive influence on students’ perceived service quality. These dimensions include “teaching and course content, administrative services, academic facilities, campus infrastructure and support services” (Annamdevula and Ballamkonda 2012: 415).

According to Al-Otaibi *et al.* (2016: 51) the new instrument covers various service quality dimensions which could be used with both qualitative and quantitative data. Numerous factors that influence service quality at higher education institutions may thus be investigated with the aid of this instrument. These include the following categories:

- (i) Physical: infrastructure, modern equipment and support services;
- (ii) Reliability: accuracy, consistency, trustworthiness and punctuality;
- (iii) Competence: knowledge, expertise, communication, method and experience;
- (iv) Personal interaction: friendliness, concern, caring, impartiality and career counselling;
- (v) Course structure: relevance, adequate coverage, conceptual knowledge and content;

- (vi) Policy: fee structure, training, placement, courtesy, financial support and reward (Prasad and Jha 2013: 25).

The study by Annamdevula and Bellamkonda (2012) which led to the development of HiEdQUAL concentrated only on students as customers. The rationale for this was that they are perceived to be the primary customer in the higher education sector. However, it was necessary to recognise that the higher education sector has other potential customers who form part of a whole education process whose needs and requirements must all be satisfied.

It would therefore be advisable to develop a measurement instrument to evaluate service quality from the internal and external customers perspective, particularly internal customers, which would thus include academics, support and administrative staff (Annamdevula and Bellamkonda 2012: 415).

#### **3.5.6.6 Hierarchical Model of Higher Educational Service Quality (HESQUAL)**

In developing a measurement instrument to evaluate service quality from the perspective of all internal and external customers – a holistic approach – Teeroovengadum *et al.* (2016) undertook a study that culminated in the development of a Hierarchical Model of Higher Educational Service Quality (HESQUAL). They note that the concept of quality in higher education is not uni-dimensional, but can best be described as a set of dimensions (Teeroovengadum *et al.* 2016: 3).

A number of other studies also seeking to measure service quality in the context of higher education arrived at findings that suggest the dimensions of higher education service quality vary widely. This is due to the context of culture in university departments and even in schools (Sultan and Wong 2012: 782).

Table 3.18 shows fifteen research studies published over fourteen years that seek to find the key aspects or dimensions of service quality in higher education in various national contexts.

**Table 3.18:** Service quality dimensions in higher education

<b>Author (date)</b>	<b>Items</b>	<b>Dimensions</b>	<b>Country/University</b>
Sultan and Wong 2010	67	Dependability, effectiveness, capability, efficiency, competencies, assurance, unusual situation management and semester-syllabus	Japan
Rojas-Méndez <i>et al.</i> 2009	18	Instructors, program director, secretaries, service attitude and competence development	Chilean university
Stodnick and Rogers 2008	18	Reliability, assurance, tangibles, empathy and responsiveness	One course, Southwestern University, USA
Angell <i>et al.</i> 2008	18	Academic, leisure, industry links and cost	One university, UK
Smith <i>et al.</i> 2007	22	Reliability, assurance, tangibles, empathy and responsiveness	IT department, one university, UK
Abdullah 2006	41	Non-academic, academic, reputation, access, program and understanding	Malaysia
Abdullah 2005, 2006	35	Non-academic, academic, reliability and empathy	Malaysia
Oldfield and Baron 2000	21	Requisite, acceptable and functional	Business and Management Faculty, one university, UK
Garfield <i>et al.</i> (1999)	26	Academic instruction, campus life, guidance, recognition	One Australian university
Kwan and Ng 1999	31	Course content, concern for students, facilities, assessment, medium of instruction, social activities and people	China and Hong Kong
Li and Kaye 1998	27	Reliability, assurance, tangibles, empathy and responsiveness	One university, UK
Joseph and Joseph 1997	–	Program, academic reputation, physical aspects, career opportunities, location, time and other	New Zealand
LeBlanc and Nguyen 1997	38	Contact personnel/faculty, contact personnel/administration, responsiveness, reputation, curriculum, physical evidence and access to facilities	Business school, one university, Canada

Source: Sultan and Wong (2012: 782)

The HESQUAL model was developed on the basis of a review of the extant literature and qualitative data collection and analysis, as shown in Table 3.19.

**Table 3.19:** Literature sources and service quality dimensions identified

<b>Dimensions Identified</b>	<b>Sub-Dimensions</b>	<b>Literature Source</b>
Administrative Quality	Attitude and Behaviour of Administrative Staff; and Administrative Processes	Leblanc and Nguyen 1997; Kwan and Nguyen 1999; Oldfield and Baron 2000; Holford and Reinders 2001; Joseph <i>et al.</i> 2005; Abdullah 2006; Zachariah 2007; Trivellas and Dargenidou 2009; Kwek <i>et al.</i> 2010; Sultan and Wong 2011; Narang 2012
Physical Environment Quality	Support Infrastructure; Learning Setting; and General Infrastructure	Cuthbert 1996; Owlia and Aspinwall 1996; Soutar and McNeill 1996; Leblanc and Nguyen 1997; Joseph and Joseph 1997; Kwan and Ng 1999; Hill <i>et al.</i> 2003; Lagrosen <i>et al.</i> 2004; O'Neill and Palmer 2004; Sohail and Shaik 2004; Telford and Masson 2005; Angell <i>et al.</i> 2008; Narang 2012; Wong <i>et al.</i> 2012
Core Educational Quality	Attitude and Behaviour; Curriculum; Competency; and Pedagogy	Owlia and Aspinwall 1996; Leblanc and Nguyen 1997; Kwan and Ng 1999; Holford and Reinders 2001; Telford and Masson 2005; Abdullah 2006; Zachariah 2007; Trivellas and Dargenidou (2009); Kwek <i>et al.</i> 2010; Shekarchizadeh <i>et al.</i> 2011; Sultan and Wong 2011; Narang (2012)
Support Facilities Quality	Unidimensional	Leblanc and Nguyen 1997; Kwan and Nguyen 1999; Hill <i>et al.</i> 2003; Lagrosen <i>et al.</i> 2004; Sohail and Shaik 2004; Tan and Kek 2004; Joseph <i>et al.</i> 2005; Kwek <i>et al.</i> 2010; Sultan and Wong 2011
Transformative Quality	Unidimensional	Harvey and Green 1993; Harvey and Knight 1996; Lomas 2007; Watty 2005; Srikanthan and Dalrymple (2003, 2005, 2007)

Source: Teeroovengadum *et al.* (2016: 14) modified

Five dimensions of Higher Educational Service Quality (HESQUAL) have been identified consisting of three primary dimensions. These are comprised of “sub-dimensions, namely, administrative quality, physical environment quality, core educational quality and two other primary dimensions, namely, support facilities quality and transformative quality which were found to be unidimensional” (Teeroovengadum *et al.* 2016: 7).



HESQUAL presents a hierarchical model consisting of five primary dimensions, nine sub-dimensions, and forty-eight items which provide a holistic approach that takes into account both the functional and technical aspects of service quality. The model highlights the successful integration of its transformative quality construct – neither previously used nor operationalised. Teeroovengadum *et al.* (2016: 8) emphasise the usefulness of this tool to university management, who could deploy it to measure service quality in a holistic manner and in their pursuit of continuous service quality improvement.

### **3.5.7 Summary**

The available, tested and used models and measures of service quality in higher education have also been presented, and the benefits associated with them highlighted. It has been suggested that these models are generally based on TQM approaches.

The measurement/assessment of support services quality relies on standards and/or criteria – certification and/or awards – centred on continuous performance improvement, customer satisfaction, and exceeding expectations. Customer focused leadership is at the center/nucleus of the driving processes. The measuring instruments available and the dimensions to be focused on when measuring higher education service quality have been highlighted. Through the similarities and commonalities presented by the models and instruments, the evidence of their implementation presents prospects for adaptation to the SAPHEIs support services quality improvement that this study seeks to address.

### 3.6 Service Quality and Service Excellence

For many years quality management has focused primarily on product quality (Levitt 1972: 41). By contrast, service quality (SQ) is a more recent concept which, according to Gi-Du Kang *et al.* (2004: 266) spans over three decades. Efforts to classify and understand the concept have nonetheless been broadly accepted and implemented. Clewes (2003: 70) draws attention to the point that as a sub-discipline, service quality became relevant during the mid-1980s, evolving into a key area of scholarly research in recent decades (Armstrong and Kotler 2005; Arussy 2005; Christopher *et al.* 2002).

Service quality has been associated with the themes of “relationship marketing, customer relationship and customer experience management” (Le Roux and Van Ransburg 2014:232). In the nineteenth century economists classified services as “miscellaneous”, but according to Hill (1995: 9), this has significantly changed. Today both academics and business corporations recognise the significance and importance of services to the organisations’ competitiveness, hence the significance of service quality. According to Meštrović (2017), the delivery of high level service quality is thought to be the most powerful competitive weapon for most service organisations in the services sector, consequently becoming a success factor and a fundamental determinant of competitiveness (Meštrović 2017: 67).

As service quality is considered as a critical dimension of competitiveness, it developed a theme of interest amongst scholars in the past two decades (Meštrović 2017: 67). However, as a relatively new concept, there are still several challenges and disagreements on service quality. Attesting to this, Garvin (1988) sees service quality as an intricate subject that is propelled, to a greater extent, by its contextual unpredictability and complexity wherein collective mindsets and efforts are required for its improvement (Le Roux (2009: 115). Therefore the understanding and comprehension of the concept of service quality is much greater in the context of developing a quality management system for support services in HE.

To understand service quality, it is imperative to have an appreciation of what services are. Hill (1995: 10) explains that services are rather behavioural than being physical units.

Some researchers describe them “as deeds, performances or effort” (Rathmell 1966); others as “acts” (Berry 1980). They are also explained as activities or processes (Grönroos 1991). These interpretations are elucidated through reference to distinct elements that comprise the service “package” as recognised by Sasser *et al.* (1978 cited in Dotchin and Oakland 1994: 14). They include:

- (i) “physical elements – (both support) goods and facilitating goods
- (ii) explicit service – sensual benefits and
- (iii) implicit service – psychological benefits” (Dotchin and Oakland 1994: 14).

Sasser *et al.* (1978 cited in Oschman 2009: 42) went on to specify service delivery system characteristics which differentiate services from goods. This work has been expanded by further research conducted by Parasuraman *et al.* (1988), Dimitriadis (2006: 784) and Brochado (2009: 175). The characteristics include those listed here:

- (i) intangibility: service is intangible; it is not an object; it recounts performance; mostly services neither seen nor touched, neither “counted, measured, tested, stored or verified before being rendered”;
- (ii) perishability: a service disappears if it is not consumed;
- (iii) simultaneity: separating the service consumer from the service provider is impossible; it is only during the rendering of the service that quality can be determined, typically at the interaction point between the customer and the service provider’s contact person; and
- (iv) heterogeneity: the needs of customers are heterogeneous; consumers priorities of the same services are not all the same; services are dissimilar every time they are performed (Oschman 2009: 42).

There have been differences in thought and contestation in literature related to these characteristics. Oldfield *et al.* (2000: 87) believe that there are associated palpable elements in service environments that can be identified, arguing that service experience can be realistic or tangible.

In a different vein, Le Roux (2011: 117) suggests that services are processes – their consumption cannot be disconnected from process. He further argues that the consumers' participation in the service process influences its development and process outcome. This approach demonstrates that customer involvement has an impact all through the service interaction. Sasser *et al.* (1978) have associated these characteristics with the elements of the service package as summarised in Table 3.20, showing how the characteristics of service delivery relate in different segments of the service package (Dotchin and Oakland 1994: 16).

**Table 3.20:** Relation of Each Service Delivery System Characteristic to Elements of the Service Package

<b>Characteristics</b>	<b>Support goods</b>	<b>Facilitating goods</b>	<b>Explicit services</b>	<b>Implicit services</b>
<b>Intangible</b>	Tangible	Tangible	Intangible	Intangible
<b>Perishable</b>	Permanent Physical	Permanent Physical	Impermanent Social	Impermanent Psychological
<b>Simultaneous</b>	Consumer often on the premises	Simultaneous	Simultaneous	Simultaneous
<b>Heterogeneous</b>	Variety under firm's control	Variety under firm's control	Variety under firm's control but not easily specified or measured	Variety not easily controlled

Source: Dotchin and Oakland (1994: 16)

Based on these characteristics the term intangibility, according to Hill (1995: 10), encapsulates the idea that “a fairly stable generalisation...can be made about services”. Liechty and Churchill (1979 cited in Hill 1995: 10) perceive services as particularly intangible because they are imperceptible and cannot be mentally grasped. The abstract nature of services thus poses a challenge to both providers and consumers. In the case of higher education institutions as service providers, there is difficulty in differentiating between their own offerings and those of competitors.

The evaluation of a service is similarly difficult for consumers before the service is acquired and expended, thus making service quality measurement a complex issue (Hill 1995: 10). The environment within which HEIs find themselves requires of them to understand the role of service quality and its importance (Shank *et al.* 1995: 72) in fulfilling their mandate and for the attainment of their goals.

### 3.6.1 Higher Education as Service

The word “service” has significant importance yet the value ascribed to it is varied (Abdullah 2006a: 571). To delineate its features thus poses challenges when attempting a general description of service quality.

Higher education institutions are considered part of the service industry since they primarily focus on providing students with quality learning experiences. Students are thus the primary customers of the HEIs’ services. Indeed they are direct recipients of the service provided (Sheeja *et al.* 2014; Brochado 2009: 175; Yeo 2008: 267). HEIs are generally understood to cover teaching and learning, research and community engagement, all of which are services.

In the education sector no tangible products are involved, thus implying that the quality of the services that HEIs provide determines the competitive edge that the institution would seek to gain. It is based on how the learning experience they create is perceived by its recipients.

Hence the teaching they provide is a service, and the learning that occurs constitutes the experience. It is for this reason that Brochado (2009: 175) observes that “student-perceived service quality has turned out to be an extremely important issue for universities and their management”. As such, HEIs are continuously under pressure of providing distinctive student learning experience so as to “capture” the educational market share by striving to retain students and to increase student numbers (Yeo 2008: 267; Sheeja *et al.* 2014: 3). It is reasoned therefore that HEIs share similar complexities to those found in the service sector; hence the importance of higher education service quality.

The role of higher education is continuously expanding due to the dictates of socio-economic development. As a result HEIs are now considered to be sources of lifelong learning that provide opportunities for continuing skills development and knowledge advancement based on societal needs. This has impelled institutions to provide higher education of a quality standard (Raju and Bhaskar 2017: 892). This places higher education service quality at the center of HEIs’ mandate.

There are several studies on service quality in a variety of service sectors, however only a few relate to the service quality of higher educational institutions (De Jager and Gbadamosi 2010: 252). In a study on “Measuring Service Quality in South African Higher Education”, De Jager and Gbadamosi (2010: 252,253) commend the world-wide recognition of the subject of HE service quality in recent literature (for example, Chua 2004; Hill 1995; Oliveira-Brochado and Marques 2007; Pareda *et al.* 2007; Rowley 1996; Srikanthan and Dalrymple 2007; Tan and Kek 2004; Telford and Masson 2005; Voss *et al.* 2007; Wright and O’Neil 2002).

Whilst certain studies have been global in their coverage, others are country-specific. These include Australia, the UK, Portugal, Singapore, China and Hong Kong, Lebanon and South Africa. Various other studies representing different factors affecting service quality in higher education have been conducted.

As alluded to in the preceding chapters, whilst the theme of service quality in HE has become trendy in literature (Brochado 2009: 175; De Jager and Gbadamosi 2010:252), the difficulty in defining quality remains a challenge. As a result, the measure for service quality has turned out to be a controversial issue. Parasuraman *et al.* (1988) suggest the concept of service quality be understood in terms of a contrast between performance perceptions and expectations, whilst Cronin and Taylor, (1992) suggest that service quality is derived only from perceptions of performance. The latter argue against the relevance of expectations, contending that these provide misleading information in the evaluation of perceived service quality.

Despite not taking the controversy further Yeo’s (2008b: 154) view on educational quality finds resonance in this study where quality in education “is defined as the exclusivity of experiences students engage in as part of their whole-person development” (what the researcher refers to as the whole student learning experience within the higher education system). Yeo (2008b: 154) argues that the emphasis on students’ inner satisfaction alone is insufficient as such “quality excellence should encompass the outer performance of an inner quest to satisfy a wider experience”. This means that the level of social and professional satisfaction should be considered to complement intellectual satisfaction.

Earlier research on service quality and student satisfaction does not cover all service quality aspects (Raju and Bhaskar 2017: 892), hence the present study tries to fill the research gap and broaden the scope to include HEIs support services.

By way of achieving long-term competitive advantage Yeo (2008b: 154) suggests a multiple-method approach for HEIs as a necessary strategic framework, as shown in Fig. 3.4.

**Figure 3.8:** A strategic service quality framework



Source: Yeo (2008b: 154)

The strategic framework incorporates satisfaction of customers, design and delivery of courses and support services measures. These measures are clarified in the contexts listed in the section that follows.

- (i) Customer focus: There are three interdependent yet distinct groups of customer categorises, namely employers of graduates, current students and their parents. For this strategic objective employer and student satisfaction surveys together with employer and parent feedback are used to evaluate performance.
- (ii) Quality course design and delivery: Student satisfaction and graduate employment surveys are largely employed to determine the level of performance. Feedback received is used base information for curricula refinement, whilst the later survey

offers a “double-feedback” passage by which to consider more wider industry-relevant perceptions.

- (iii) Quality support services: Feedback in form of commendations and criticisms received pertaining support services provided is used to evaluate satisfaction. Expectations normally evaluated include the accessibility of facilities, for example “computer and technical laboratories, printing and internet facilities as well as administrative and technical support” (Yeo 2008b: 154).

A study conducted by Yeo (2008b) in which these measures were utilised, found that “the wider spaces of learning and social interaction contribute towards the service quality of any institution”. These spaces include physical facilities and equipment such as laboratories, libraries, information and communication technologies, sports and recreation centres, healthcare and wellness centres, and cafeterias. Results show that university students who are high-achievers have had wide-ranging use of such support services. According to Zeithaml *et al.* (1990 cited in Yeo (2008b:155), the combined use of ‘tangibles’ such as equipment, physical facilities and professional staff are of significant importance to a whole educational experience. This suggests the importance of viewing service quality evaluation “from a broad-based perspective”.

In this regard Yeo (2008b: 155) advocates that non-academics in HEIs be service oriented rather than focussed on administrative efficiencies, and that they encourage the optimal utilisation of institutional resources in order to increase institutional competitiveness. This would constitute quality management of the support services. The inference here is that the employees’ conceptualisation of quality is to be transformed. This implies that where changes are to be made, the strategic influence of leadership and senior management might be expressed through a flexible approach, and through giving clear direction.

As discussed in the previous chapter, in instances such as these the systems thinking tools are important. They promote a shared vision of the ethos of the institution. Hence,



the development of collective approaches and a collective understanding of the institution's philosophy of quality are essential in influencing its overall performance.

According to Yeo (2008b: 267), higher education institutions are confronted with challenges in identifying and implementing appropriate measures that will determine service quality sustainability. Service quality entails setting up, monitoring and measuring of performance standards, and may be made difficult by the intangibility of such services. Difficult as this may be, Brochado (2009: 175) points out that the literature on service quality still lays emphasis on the importance of the institutions' obligation of monitoring the quality of services that they provide. They have to commit themselves to continuous improvements if they are to sustain quality of service.

### **3.6.2 Customers in Higher Education**

In order to grasp the concept of service and services quality in higher education, it is fundamental to understand who the customer is. On the strength of studies undertaken with university customers, Sax (2004), and Svensson and Wood (2007) contend that in higher education the concept of a customer is the same as in other businesses, where the name "customer" given by a supplier of a product refers to a person or entity who acquires that product (Marzo *et al*, 2007: 66; Rahayu 2011: 115).

However, in higher education, the concept of a customer cannot be generalised because educational service is not the same as services in general. In some instances there are indirect payments to institutions, which also receive a number of services from persons and/or organisations indirectly (Marzo *et al*, 2007: 66). Thus, a more narrow definition of a customer is useful. Cliff (1994 cited in Marzo *et al*, 2007: 66) explains that a customer is/customers are "a person and/or organisations that make payments directly to the university as a form of exchange in the provision of educational services, either in the form of classroom education ...(or in) research".

As already alluded to, in general, numerous authors find difficulty in defining 'the customer' in higher education. Thus this in itself constitutes a major barrier to quality improvement efforts. The quality techniques adopted from industry classically centre on customer requirements, yet the context for quality in higher education makes 'focusing on

the customer' challenging (Quinn *et al.* 2009: 140). And while students constitute the most evident customer, likewise various additional stakeholders serve as customers for the numerous parts of operation.

Table 3.21 is a presentation of commonly recognised customers in a higher education institution.

**Table 3.21:** Commonly-recognised customers of a higher education institution

Group	Customer Attributes
Students	pay for service; receive educational instruction (service); utilise administrative functions; purchase auxiliary services (lodging, food, and so on)
Parents	select (or assist in the selection of) service provider; pay for service; may be primary points of contact during certain service interactions
Research	sponsors provide funds in exchange for information, service, or activities; often have contractual arrangements
State	provides funds for university to engage in service; exercises some influence over service/product design
Society	benefits from the services provided; pays (through taxes) for a proportion of the service
Future Employers of Students	'Purchase' the end-product of the service process; sometimes provide funding and advice in service design
Disciplinary Academic Communities	benefit from scholarly activity of faculty members
Accreditation Bodies	exercise control over product/service design
Staff/Faculty Members	control some of product/service design, consume certain services

Source: Quinn *et al.* (2009: 141)

All these stakeholders are involved in institutional processes in some way and so may also be referred to as customers. Hammer and Champy (1993) define process as “a conjunct of activities with one or more species of input ...(that) creates an output of value to the customer” (Antonio 2003: 1). Svensson and Wood (2007: 19) contend that in obtaining an academic degree as confirmation of an educational service acquired, there

has to be an institutional process that must be passed through. This involves multi-processes and multi-customers.

HEIs are traditionally acknowledged as having several customers and/or stakeholders. This is revealed by a variety of studies (Kotler and Fox 1985; Reavill 1997; Kanji and Tambi 1999; Hwarng and Teo 2001) on the application of distinct knowledge – from the fields of marketing, service operations, quality, strategic planning, and balance scorecard (Antonio 2003: 1).

In this study, the author uses ‘customer’ and ‘stakeholder’ interchangeably. Drawing on the notion of internal marketing as applied in higher education, Robinson and Long (1987 cited in Antonio 2003: 1) classify customers in three ways. In their terms, “students are the primary customers; education authorities and employers are secondary customers”; and stakeholders such as professional and certifying bodies, ex-students, families and society in general are tertiary customers.

Reavill (1998 cited in Antonio 2003: 2) expands on these categories and identifies twelve stakeholder groupings who contribute towards or benefit from the higher education system. These include: “students, employers, the family (and dependents) of the student, universities and their employees, the suppliers, the secondary education sector, other universities, commerce and industry, the nation, the government, taxpayers and finally, professional bodies” (Antonio 2003: 2).

By contrast, Kanji and Tambi (1999) view customers of higher education from an educational process perspective wherein they are divided into different groups of actors. These are the “current students, potential students, employees, employers, government and industry”. Like Juran (1988) they classify and divide customers into two further categories that is, internal and external customers. In this way they draw attention to the internal customer or those who work for the satisfaction of external customers (Antonio 2003: 2).

Marzo *et al.* (2007: 70) concur with this “customer concept” by positing a supplementary exposition (Table 3.22). They describe internal customers as those who have direct and

close interaction with HEIs. These would include institutional personnel – comprised of teaching and research personnel – the support service staff and the students. External customers' relationships with HEIs are of a more indirect nature than those of internal customers, despite the fact that they are also beneficiaries of the institutions' services and/or support its operating costs. External customers include other organisations, students' families, Public Administration, society, and the students intermittently (Marzo *et al.* 2007: 70).

**Table 3.22:** Groups of University Customers

<b>Authors/ references</b>	<b>Criteria</b>	<b>Agents</b>
Downey, Frase and Peters (1994)	<ul style="list-style-type: none"> <li>• Internal customers</li> <li>• External customers</li> </ul>	<ul style="list-style-type: none"> <li>• Personnel and students</li> <li>• Business, industry and students</li> </ul>
Lewis and Smith (1994)	<ul style="list-style-type: none"> <li>• Internal customers <ul style="list-style-type: none"> <li>○ Academic customers</li> <li>○ Administration customers</li> <li>○</li> </ul> </li> <li>• External customers <ul style="list-style-type: none"> <li>○ Direct customers</li> <li>○ Indirect customers</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Students, professors and programs/ departments</li> <li>• Students, administration and service personnel; units/divisions and departments</li> <li>• Employers and other universities</li> <li>• State, community, accreditation agencies, alumni and donors</li> </ul>
Lindsay (1994)	<ul style="list-style-type: none"> <li>• Internal customers</li> <li>• External customers</li> </ul>	<ul style="list-style-type: none"> <li>• Personnel and students</li> <li>• Society, Public Administration and organisations</li> </ul>
Madu, Kuei and Winokur (1994)	<ul style="list-style-type: none"> <li>• Resource customers</li> <li>• Transformation customers</li> <li>• Result customers</li> </ul>	<ul style="list-style-type: none"> <li>• Students and parents</li> <li>• University personnel</li> <li>• Organisations and society</li> </ul>
Dervitsiotis (1995)	<ul style="list-style-type: none"> <li>• Internal customers</li> <li>• External customers</li> </ul>	<ul style="list-style-type: none"> <li>• Teaching staff and administrative personnel</li> <li>• Students, employers, and society</li> </ul>
Spanbauer (1995)	<ul style="list-style-type: none"> <li>• Internal customers</li> <li>• External customers</li> </ul>	<ul style="list-style-type: none"> <li>• Teaching staff and administrative personnel</li> <li>• Students, employers, other education institutions and society</li> </ul>

Alvarez and Rodriguez (1997)	<ul style="list-style-type: none"> <li>• Internal environment</li> <li>• External environment</li> </ul>	<ul style="list-style-type: none"> <li>• Students, teachers and non-teaching personnel</li> <li>• Employers, alumni, families, sponsors, students, government and other centers of higher education</li> </ul>
Hewit and Clayton (1999)	<ul style="list-style-type: none"> <li>• Primary customers</li> <li>• Secondary customers</li> </ul>	<ul style="list-style-type: none"> <li>• Teachers and students</li> <li>• Employers, Public Administration and university managers</li> </ul>
Kanji and Tambi (1999)	<ul style="list-style-type: none"> <li>• Internal customers</li> <li>• External customers</li> </ul>	<ul style="list-style-type: none"> <li>• Student and university personnel</li> <li>• Employers, industrial sector, Public Administration, society and students</li> </ul>
Pereira and da Silva (2003)	<ul style="list-style-type: none"> <li>• Internal customers <ul style="list-style-type: none"> <li>○ Teaching process</li> <li>○ Research process</li> <li>○ Learning process</li> </ul> </li> <li>• External customer <ul style="list-style-type: none"> <li>○ Teaching process</li> <li>○ Research process</li> <li>○ Learning process</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Teaching and research personnel</li> <li>• Teaching and research personnel</li> <li>• Students</li> <li>• Students</li> <li>• Society and Public Administration</li> <li>• Employers</li> </ul>

Source: Marzo *et al.* (2007: 71)

In their analysis of the 'Customer Concept in University Services', Marzo *et al.* (2007:68) note that there is a universal dearth of consensus about the description of education services customers, but this applies to higher education in particular. Like others, they find that it is difficult to determine who precisely the customer is, owing to the diversity in HEI's responsibilities. Various customer groupings with different interests may have conflicting needs. As can be seen from the studies presented in Table 3.22 the support services personnel or administrative personnel (non-teaching staff) are classified as internal customers within the institutions' internal environment, hence the necessity to focus on the processes in which they are engaged.

Table 3.23 illustrates the prevailing lack of consensus on who the customer in higher education is. It is taken from the specialised literature reviewed by Marzo *et al.* (2007) featuring the main customer groupings defined in the list that follows (Marzo *et al.* 2007: 68). The groupings include:

- (i) Students: enrolled students who regularly attend, and study at a university;
- (ii) Employers: organisations that hire graduates as employees; they may belong to any sector (public/private; primary/secondary/tertiary);
- (iii) Teaching and research personnel: members of the university teaching staff who work in different capacities;
- (iv) Society: the set of citizens and organisations who comprise the environment where the university's activity is developed, including those citizens and organisations who, through their taxes, in part help carry the university's expenses;
- (v) Public Administration: governmental authorities in the environment where a university develops its activity. These authorities provide financing for universities, and they usually establish the legal framework for it;
- (vi) Families: parents and all other family members, who are mainly responsible for the financial support of students during their university period;
- (vii) Administrative and service personnel: managers of the university, and all other administrative and service personnel who take part in managing the university;
- (viii) Donors and/or sponsors: ex-students, organisations that donate money or even goods to universities – such as computers or laboratory equipment; and
- (ix) Others: groups of customers proposed by other authors, who are not included in any of the preceding categories, such as suppliers, future students, and so on.

**Table 3.23:** Customers of higher education service

Authors / references	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Weaver (1976)	v	v	v	v	v	v	v		
Kotler and Fox (1985)	v	v	v	v	v	v	v		v
Robinson and Long (1987)	v	v	v			v	v		
Christopher, Payne and Ballantyne (1991)	v					v			v
Berry (1992)	v		v	v		v			
Ermer (1993)	v	v	v						
Downey, Frase and Peters (1994)	v	v	v				v		
Madu, Kuei and Winokur (1994)	v	v	v	v		v	v		
Lewis and Smith (1994)	v	v	v	v	v		v	v	v
Lindsay (1994)	v	v	v	v	v		v		
Dervitsiotis (1995)	v	v	v	v	v			v	
EFQM (1995)		v		v		v			v
NIST (1995)		v		v		v			v
Spanbauber (1995)	v	v	v	v			v		v
Brocata and Potocki (1996)	v	v				v		v	
Owlia and Aspinwall (1996)	v	v	v	v	v	v			
Sallis (1996)	v	v	v	v	v	v	v		
Alvarez and Rodríguez (1997)	v	v	v	v	v	v	v	v	v
Karapetrovic and Willborn (1997)	v	v	v	v	v	v	v		v
Owlia and Aspinwall (1997)	v	v	v	v	v	v	v		v
Peña (1997)	v				v				
Rowley (1997)	v	v	v	v	v	v	v		v
Delannoy (1998)		v	v		v				
Reavill (1998)	v	v	v	v	v	v	v		v
Brennan and Bennington (1999)	v		v	v		v			
Hewitt and Clayton (1999)	v	v	v	v	v				
Johnson and Golomski (1999)	v	v		v		v			
Kanji and Tambi (1999)	v	v	v	v	v	v	v		
O'Neil et al. (1999)	v	v							
Hwang and Teo (2001)	v	v	v	v	v				
Prendergarst <i>et al.</i> (2001)	v	v		v	v	v			v
Pereira and da Silva (2003)	v	v	v	v	v				
Capelleras and Veciana (2004)	v	v		v	v	v	v	v	v
Nguyen, Yshinari and Shigeji (2004)	v	v							
Sirvanci (2004)	v		v						v
<b>KEY: (1) students; (2) employers; (3) teaching and research personnel; (4) society; (5) Public Administration; (6) families; (7) administrative and service personnel; (8) donors and/or sponsors; (9) others.</b>									

Source: Marzo *et al.* (2007: 69)

Whilst the lack of consensus is exposed in this literature, it can also be observed that administrative and service personnel have not been adequately represented in studies undertaken, yet remain significant. As stated earlier, they include HEI managers and all other administrative and service personnel.

Marzo *et al.* (2007: 71) proposed a method for classifying HEI customers based on process focused criteria. His approach takes into account firstly, the type of process being analysed and the result sought; and secondly, internal and external institutional processes. The type of process is relevant because HEIs have multiple customers each with specific needs, and because these processes produce diverse results to divergent customers thus necessitating the identification of recipients. Table 3.24 presents the proposed framework by Marzo *et al.* (2007).

**Table 3.24:** Suggested classification of university customers

Process	Internal customers	External customers
Teaching	<ul style="list-style-type: none"> <li>– Teaching staff</li> <li>– Administrative and service personnel</li> </ul>	<ul style="list-style-type: none"> <li>– Students</li> </ul>
Learning	<ul style="list-style-type: none"> <li>– Students</li> </ul>	<ul style="list-style-type: none"> <li>– Employers</li> <li>– Society</li> </ul>
Research	<ul style="list-style-type: none"> <li>– Teaching-research staff</li> <li>– Grant holders</li> <li>– Administrative and service personnel</li> </ul>	<ul style="list-style-type: none"> <li>– Society</li> <li>– Public Administration</li> <li>– Non-profit organisations</li> </ul>

Source: Marzo *et al.* (2007: 72)

The classification in Table 3.24 presents the administrative and service personnel as internal customers of the teaching and research processes. It is therefore necessary to identify and satisfy their needs as if they were the institution's external customers so that they become key factors in the quality of educational services delivered or rendered. The focus would fall on those aspects of customer satisfaction, experience and detection of customer expectations or perceived quality of the specific output, thus potentially satisfying their needs.



### **3.6.3 Internal Services and Internal Service Quality**

Gremler *et al.* (1994: 35) record that the notion of “internal customers” in service organisations has in recent years been presented and debated in marketing literature (Albrecht, 1990; Berry and Parasuraman, 1991; Grönroos, 1985; Gummesson, 1987). They show that this concept has found its way into internal services literature in higher education. For this reason it is pertinent to this study: it contributes to the customer-oriented approach in the discussion of internal services and internal service quality.

Customer satisfaction and institution-wide orientation towards customer needs and requirements form part of Total Quality Management’s primary goals. The TQM concept adopts the basic marketing maxim of customer orientation as promulgated by Internal Marketing Theory, and applies it within the institutional environment (Stauss 1995: 62).

In higher education, departments and units within the Institution, the employees and service consumers or users, are viewed as service providers and internal customers respectively. In other words, their activities are seen as internal services (Stauss 1995:62). Reynoso (1994) indicates that up to now the concept of internal customers and internal services has more frequently been a subject of discussion than of practical implementation. One reason for this opinion is that internal customer orientation does not sufficiently consider the diverse yet distinct interrelated internal services and intra-organisational relationships. Therefore, according to Stauss (1995: 62) the different internal service types should be identified because they either nurture or thwart the provision of customer oriented service and consequently affect customer focused quality management.

The TQM axiom, “the next process is your customer” finds resonance in the concept of internal customer orientation and is applicable in the design of cross-departmental business processes which, as a starting point, recognise external customer requirements. This means internal customer orientation is interlinked with external customer orientation and by virtue of this, with customer-oriented process management (Stauss 1995: 62). This view resonates with Grönroos’ (1981) idea that what lies behind internal service is the perception that everyone within the institution is a customer, and with Lovelock’s

(1996) assertion “that everyone in the organisation has a customer (whom) they serve” (Johnston 2008: 2).

Their views are premised on the belief that anyone in an organisation who is supplied with a product or service by any other in the organisation is an internal customer (Gremier *et al.* 1994: 34). The significance of this outlook is that every department in an organisation exists to serve someone, whether this is the external customer or another department (Farner *et al.* 2001: 350).

Likewise, internal services delivered eventually culminate in an improvement in the level of service delivered to the external customer (Kang *et al.* 2002). This notion puts the services process at the center of improved customer service. As stated by George (1990), the service production process is a network of systems comprised of interrelations and interdependencies between various sub-processes (internal service functions which support one another) (Dhurup 2012: 4186). Similarly, Paraskevas (2001: 281) asserts that an ideal working environment would reflect internal service encounters that result in successful interdepartmental relationships.

Slack *et al.* (2007 cited in Johnston 2008: 3) extend the concept of an internal customer to comprise any process and an individual within an institutions’ operation who is the customer for any other internal process or individual output. This implies that one can hardly find any individuals, processes and functions within an institution which could not be classified as an internal service provider and/or recipient (Johnston 2008:3). Hence Dhurup (2012: 4186) asserts that an organisation encompasses an independent chain of individuals and functional units that interact with one another, converting inputs into external customer service, thus, resulting in a chain reaction that sees internal quality filtering down to external customers. Since internal quality is viewed as a prerequisite to external quality (Bouranta *et al.* 2009: 226), it is important for managers to establish whether such internal service efforts are successful. Clearly, what is required is a means by which internal service quality can be measured.

According to Johnston (2008), considerable studies into internal service are located in literature on operations management. Research on operations management inclines to

be focused on either internal operational matters or inter-organisational operational matters. Many studies are concerned with the latter, and the various aspects relating to supply chain management. Internal operational issues, though not explicitly referred to as "internal service" in the literature, cover aspects relating to material and information flow, in other words aspects relating to the effectiveness between internal functions (Johnston 2008: 4).

Key themes concerning internal service in the operations and related literature include: the importance of internal service (Deming 1986; Feigenbaum 1986; Parente *et al.* 2002; Muhlemann *et al.* 1992; Heskett 1987; Heskett *et al.* 2003); developing internal capabilities (Heskett 1986); internal conflict and coordination (Parente *et al.* 2002); internal orientated strategic vision (Heskett 1987); internal service and organisational behaviour (George 1990); internal business processes (Quesada and Gazo 2007); the empowerment of employees (Bowen and Lawler 1995); internal service guarantees (Hart 1995); internal supply chains (Slack *et al.* 2007); the design of internal networks (Evans and Berman 2001); the need for consistency within internal processes (Galloway and White 1989); and lean service – the categorisation of services (Maleyeff 2006; Smart *et al.* 2003) (Johnston 2008: 4).

Internal services are concerned with internal customers and internal services delivery. However, Johnston (2008: 4) suggests that limited research has been done which focusses on customers and services in the services marketing and services management literature. Nonetheless, this literature indicates that there is a need to expand the definition of customers to include employees (Johnston 2008: 4). In this regard Johnston (2008) acknowledges a gap, or a prospect for the application of "an operation, internal-focused approach together with a service, customer-focused approach." It would engender an appreciation for the nature of internal service and inspire the development of tools and approaches from the standpoint of a customer (internal and external), in keeping with the requisite levels of efficiency. All this suggests a need for broader harmonised research into internal service design, delivery and assessment, to which this study seeks to contribute.

For Gustafsson *et al.* (2006: 356) a focused approach on internal operations and a customer focused approach on services highlights the importance of customer satisfaction. They argue that customer satisfaction has to be embedded within the institution's processes. Their rationale is that this will make it possible to identify any inhibitors that might limit the institution's ability to attain customer satisfaction, and to focus on quality improvements in relation to its processes, systems and tools. According to Gustafsson *et al.* (2006: 358) "a lack of customer-focus, poor priority setting, people issues and poorly implemented processes (are) four internal barriers or 'choke points' that impede quality improvements".

In addition to these points, a review of the literature (Becher and Chassin 2001; Chiang 2001; Gustafsson *et al.* 2006; Huq 2005; McFadden *et al.* 2006; Maleyeff 2006; Uribe *et al.* 2002; Zabada *et al.* 1998) has brought to light a summation of six main internal barriers affecting internal quality (Table 3.25). These are: inappropriate organisational culture characterised by issues such as no learning culture, culture of blame and complacency, resistance to empowerment, command and control styles of; lack of customer focus; lack of resources, for example staff, money or time; management issues that include issues such as poor planning, control, internal coordination and communication, and decision-making, lack of commitment or failure to change; people issues that could include resistance to change, lack of or poor training and knowledge, lack of teamwork; and poor processes (Johnston 2008: 8-9, 17).

**Table 3.25:** Summary of the Barriers to Improving Internal Service

<b>Barrier</b>	<b>Elements</b>	<b>Key sources</b>
Inappropriate culture	- a culture of blame, not a learning culture; a general lack of safety; resistance to empowerment, complacency, organisational philosophy manifest in command and control leadership styles	Huq 2005 McFadden <i>et al.</i> 2006 Zabada <i>et al.</i> 1998 Whalen and Rahim 1994
Lack of customer focus	- lack of customer focus, inward-looking, failure to pay attention to the customer	Gustafsson <i>et al.</i> 2006 Zabada <i>et al.</i> 1998
Lack of resources	- lack of staff, money or time	Becher and Chassin 2001 Chiang 2001 McFadden <i>et al.</i> 2006 Uribe <i>et al.</i> 2002 Whalen and Rahim 1994
Management issues	- poor planning and decision-making; weak control; lack of support or commitment, failure to change, poor priority-setting, lack of internal coordination and communication; departmental silos; communication breakdowns	Becher and Chassin 2001 Chiang 2001 Gustafsson <i>et al.</i> 2006 Huq 2005 Maleyeff 2006 Uribe <i>et al.</i> 2002 Whalen and Rahim 1994 Zabada <i>et al.</i> 1998
People issues	- lack of training or knowledge, resistance, poor recruitment or teamwork, limited empowerment	Becher and Chassin 2001 Chiang 2001 Gustafsson <i>et al.</i> 2006 Huq 2005 McFadden <i>et al.</i> 2006 Uribe <i>et al.</i> 2002 Whalen and Rahim 1994
Poor processes	- poorly designed, implemented or operating processes, inappropriate processes/programmes, lack of standard procedures	Gustafsson <i>et al.</i> 2006 Huq 2005 Maleyeff 2006 Whalen and Rahim 1994

Source: Johnston (2008: 8-9)

Although the literature is not specifically focused on HEIs, a better understanding of these internal barriers has the potential to generate deeper insights on the improvement of the quality of higher education internal services. Reynoso and Moores (1995) reveal that internal services have an impact on the overall institutional performance as they strive to satisfy both internal and external customers while responding to organisational goals. If internal service is improved, the good effects will extend to external customers.

### **3.6.4 Summary**

This section highlighted the characteristics of service quality and the elements of the service 'package'. In recognition of the Higher Education sector as a service sector, complexities similar to those found in the general service sector have been noted.

In addition, the necessity for HEIs to understand the environment within which they exist has been delineated, as well as the necessity to comprehend the role and importance of service quality in the attainment of goals. Set on a course for achieving long-term competitive advantage these goals would be given due coverage along with simultaneous fulfilment of their mandate. Thus this is an outline of the importance of service quality evaluation and assessment in higher education support services characterised by multi-processes and multi-customers. This spread of customers incorporates those internal to the organisation, as well as those external to it. The commonly recognised customers are also referred to as stakeholders. They have been identified in the HEI sector, with reference to the inherent inter-relationships that arise in such organisations, as well as the importance of their interconnectedness.

Emphasis has been placed on the internal customers where the support services sector is located that is, administrative and service personnel who render internal services and are consequently responsible for internal service quality. An internal focused approach on operations and a customer focused approach on services surfaces as the institution's enabler to the attainment of customer satisfaction. This goes some way towards empowering the institution to focus on quality improvements in relation to its processes, systems and tools, whilst taking note of the barriers.

### **3.7 Quality Management at Higher Education Institutions**

Quality management in higher education has become an area of focus receiving attention both at national and at institutional levels. The environment within which the HE sector operates is becoming increasingly dynamic and turbulent, and is characterised by a quest for the achievement of quality improvement within the confines and limitations of resource allocation. This is the current character of a sector which is expected to meet the rising and competing demands upon institutions while facing financial constraints imposed by shrinking government funding (Tari and Dick 2016; Manatos *et al.* 2015; O'Mahony and Garavan 2012; Becket and Brookes 2006, 2008).

Likewise governments are required to increase public sector spending with the intention of creating economic growth and wealth through university graduates (Becket and Brookes 2008: 41). Borahan and Ziarati (2002) state that there is generally a social demand for higher education to produce the knowledge and skills stipulated by the national development plans that seek to address socio-economic needs. However, the demand is counterpoised by both a shortage of graduates who possess the required capabilities and have the capacity to meet the challenge, and a shrinkage in material resources (Borahan and Ziarati 2002: 913). Thus, governments are compelled to ensure that their limited resources are used effectively and efficiently.

Squeezed funding, institutional sustainability and accountability, competition for improved rankings, internationalisation of higher education and other pressures, have increasingly compelled the higher education sector to consider the implementation of quality management systems. This is because there is potential in quality management systems and practices that have served well in industry's efforts of costs reduction and of internal and external quality improvement (Tari and Dick 2016, Manatos *et al.* 2015, Becket and Brookes 2008).

This suggests therefore that there is a convincing connection between a country's competitiveness and the quality of the higher education provided within that country. Consequently, institutions consider quality management systems as a vehicle for enhancing their effectiveness and competitiveness through increasing the state of

effective performance across all institutional functions and processes (O'Mahony and Garavan 2012: 184).

Several studies (Becket and Brookes 2006, 2008; Brennan and Shah 2000; Manatos *et al.* 2015; O'Mahony and Garavan 2012; Tari and Dick 2016), indicate that the challenges faced by higher education today turn out to be drivers for the prioritisation of quality management in the higher education sector. In this regard, Dumond and Johnson (2013: 127) and O'Mahony and Garavan (2012: 184) also concur that notwithstanding the complexity and the challenging environment within which HEIs operate, they still aim at meeting and/or surpassing the expectations of their customers whilst likewise focusing on reducing costs and increasing efficiency. This is so, despite them facing increased competition and a reduction in government funding.

It can be inferred that the higher education context is particularly a challenging one for the implementation of quality management systems; it has a unique set of external drivers for change to be taken into consideration. A number of challenges common to higher education systems internationally have been identified in several research studies conducted on higher education quality management.

The following section outlines some of the challenges that constitute the driving forces in higher education management as these impact upon the SAHE systems. It examines the manner in which the system responds to them.

### **3.7.1 Driving forces in higher education quality management**

A study on “Quality management in higher education: A review of international issues and practice” undertaken by Brookes and Becket (2007) illuminates three broad categories of drivers of change in the international higher education environment. These have been identified as political, economic and socio-cultural forces. Of importance in the study is the analysis of the impact of these driving forces on higher education quality management, which is summarised in the section that follows.

- (i) Political Forces: involve initiatives by governments to widen access, develop more public HEIs, and exercise more stringent control over the HE curriculum and



management especially in cases where there is no cohesive or consolidated government control system.

- (ii) Economic Forces: are exerted by the shrinking funding per student, dependence on private sector funding, dependence on tuition or international students' fees, mounting costs per student, proliferation of private HEIs, and the prominence of internationalisation.
- (iii) Socio-Cultural Forces: are represented by a rising demand for student spaces, the multiplicity of student populations, a wide assortment of provisioning, and accountability or value for money pressure from consumers (Brookes and Becket 2007: 4-6).

Subsequent studies congruent to the latter, though not necessarily of the same nature and purpose, highlight recurring drivers in the future of higher education that are generally under debate. These drivers include: “globalization, information and communication technology (ICT) and virtualization, demographic changes, time spent in education, access, teaching, funding, institutional design, the student experience, and the knowledge economy” Beynaghi *et al.* (2016: 3466). In a similar vein specific to the higher education quality management and assessment movement, Liu (2016: 16) summarises the main drivers revealed by a range of researchers in the section that follows.

#### **3.7.1.1 Massification and diversification in higher education**

Traditionally, the principal mechanisms for achieving quality in higher education had been exclusiveness or selectivity. These, according Liu (2016: 17) have since been superseded by the need for expansion and diversity. Hence the growing trend of diversification in higher education, along with associated changes.

Brennan and Shah (2000), Trow (1996), Morley (2003) and Dill (2010) suggest that growth of higher education has increasingly captivated interest on the subject of quality (Liu 2016: 17). Consequently quality management mechanisms have become necessary in an endeavour to control and regulate the quality of higher education in various institutions. This has been the impetus behind the publication – and dissemination – of information about institutions' quality to stakeholders (Liu 2016: 17). According to Wit and

Knight (1999: 18), the rapid increase in the massification of higher education has cultivated a strong interest on the part of countries large and small, in making foreign policy adjustments that include the export of education products and services in a major way.

However, in relation to South Africa, The Organisation For Economic Co-Operation And Development (2008) reports that the White Paper 3 on the Transformation of Higher Education did not accept the proposals on increased participation through massification as suggested by NCHE. Instead it argued that a policy was required for the planned expansion of higher education.

This is in line with the South African higher education system's social purpose that promotes 'actors' to observe and promote within the system the values of "equity and redress; quality; development; democratisation; academic freedom; institutional autonomy; effectiveness and efficiency, and public accountability" (Organisation for Economic Co-operation and Development 2008: 331).

### **3.7.1.2 Contraction in unit funding**

Brennan and Shah (2000: 23) argue that around the world expansion has made higher education costlier. Where funding levels have not kept pace with expansion, higher education managers feel that they are being asked to do "more with not enough" (Brennan and Shah 2000: 23). The notion of expansion in higher education and squeezed resources has increasingly brought to the fore doubts about the quality of the higher education (Barnett 1992 and Vroeijenstijn 1995 cited in Liu 2016: 18). This has resulted in the introduction of quality management systems to assist in maintaining and improving institutional quality.

Within the South African policy framework the role of planning, funding and governance in a single, coordinated higher education system that covers the whole array of HEIs is explicated. This is to ensure that planned HE system expansion is "linked to sustainability (wherein) a goal-oriented, performance-related funding system is put in place to allow resource allocation to be in line with policy goals and objectives" (Organisation for Economic Co-operation and Development 2008: 331).

### **3.7.1.3 Relationship changes between governments and the higher education sector**

There has been a change of shape in the relationship between the state and higher education. It is signalled in a shift from the state control model to the state supervision model. This implies that the state is to drive the higher education system from a distance and desist from making a detailed scrutiny of the institution's daily life (Liu 2016:17).

This scenario raises vital questions about the extent of the autonomy institutions enjoy. Liu (2016: 17) points to tensions relating to the behavior of autonomous institutions in a market-like higher education competitive environment and the compliance, required by current and incipient governmental policies. It is in this regard that Amaral *et al.* (2007: 1) argue that in an attempt to regain some degree of control over institutions and to ensure that institutions behave well, governments are inclined to introduce certain compliance measures, hence the emergence of quality management mechanisms. Blackmur (2004: 107) comments interestingly on issues relating to academic freedom and institutional autonomy. Tellingly, he points out that of the numerous models of higher education quality assurance on offer, self-regulation is the one most often preferred by higher education institutions.

In the South African context, since the dawn of democracy in 1994 the relationship between the state and higher education institutions has been pronounced and defined in terms of “co-operative governance” and “conditional autonomy” where “the state would play a steering and supervisory role, rather than a role of direct control and interference”, with emphasis on accountability and responsiveness (Organisation for Economic Co-operation and Development 2008: 353).

Coughlan *et al.* (2007 cited in the Organisation for Economic Co-operation and Development 2008: 354) argue that whether the co-operative governance outcomes have been consistent with policy formulations is a matter of dispute and remains a controversial issue. They point out the tension between the intense values of institutional autonomy and academic freedom on the one hand, and the requirements of accountability and responsiveness on the other.

#### **3.7.1.4 The New Public Management theories**

Over the past two decades higher education has been influenced by new managerial thinking in the form of “New Public Management”. The latter has dominated the restructuring of the public sector in general, charging it to be results-oriented and service-outcomes focused while maintaining core public service values (Liu 2016: 17).

The assumption according to Meek (2003: 1) is that the use of private sector management techniques will be a means to the achievement of efficiency and effectiveness in service delivery. Furthermore, if implemented in higher education institutions New Public Management will influence quality mechanisms by enhancing efficiency and improving academic services, thus meeting the needs of students and other stakeholders alike (Liu 2016: 17).

According to the Organisation for Economic Co-operation and Development (2008: 353), the scientific literature on public services and management is dominated by the “new public management” approach. It advocates the delegation of some powers, particularly implementation powers, to provincial or local establishments and/or to task specific specialised agencies. These have greater autonomy and flexibility than traditional public services.

In this regard, as articulated by the Council on Higher Education (Council on Higher Education 2007: 17), the South African policy framework makes some provision for professional bodies, prospective employers, government departments and local communities to participate in verifying that the programmes are relevant for employment purposes (Hénard and Mitterle 2010: 104).

#### **3.7.1.5 Higher education globalisation and internationalisation**

The past two decades have witnessed higher education programmes, courses and students becoming far more mobile due to the ‘borderless world’. This has implications for national education systems and their regulatory processes (Blackmur 2004: 113). Liu (2016: 18) argues that the global space “requires condensed and reliable information about the quality provided by higher education institutions”, and about the exchange of students and staff, as well as the cooperation of institutions and programmes, with quality

management. She avers that the results thereof would be used as an information repository that supports international cooperation and communication. In the light of this the traditional internal quality arrangements to assure academic standards, such as external examining and governance structures have since become an area of interest for external quality assessments. The focus is on maintaining and improving the HEIs performance quality, improving accountability for the use of public funds and compliance governments regulations (Liu 2016: 18).

The response to these emergent new forces of globalisation and internationalisation in South Africa has been tempered by the necessity to properly address the challenges thereto whilst at the same time remaining responsive to the complex needs of South African higher education. Hence, in the South African context, the expectation is that HEIs shift from:

“the traditional, discipline-based knowledge-production model in universities to ...interdisciplinary or ‘transdisciplinary’ knowledge production, carried out by teams of researchers both from within and outside universities” (Organisation for Economic Co-operation and Development 2008: 348).

As the higher education policy framework has been evolving since democracy, it has been endeavouring to balance concurrent challenges of the “higher education curriculum – social and economic transformation and globalisation – through the application of specific principles and practices” (Organisation for Economic Co-operation and Development 2008: 349). This implies that the South African higher education system has and is in some way responding to the general higher education sector’s challenges and drivers of change.

The section that follows seeks to explain how the South African higher education quality management policy framework informs the current approach to institutional quality arrangements that aim at responding to international, regional and national imperatives.

### **3.7.2 The South African Higher Education Quality System**

In their policy formulation and planning, governments have placed quality management at the epicentre of their undertakings. The intention is to have an impact on institutions' efficiencies and capabilities so that they become customer-centric; and to improve outcomes by gaining a competitive edge (Sahney *et al.* 2008: 503). It is expected the policy would exert pressure on institutions to improve on their service offerings and attain enhanced customer satisfaction for both survival and growth (Sahney *et al.* 2008: 503).

The South African national quality assurance system is coordinated by the HEQC, which is a permanent sub-committee of the Council on Higher Education. Generally the system has characteristics equivalent to other international national systems, save for a few approaches that are unique to the South African context. For instance, an exception is that the HEQC's activities are not linked to funding (Council on Higher Education 2004b: 10), as would be the case in other countries. The "generic attributes" that the HEQC shares with other national quality agencies include:

- (i) consideration of developments promulgated by the state;
- (ii) a significant amount of operational autonomy enjoyed by the national agency; and
- (iii) the use of peer reviews as the main method (Brennan and Shah 2000: 331).

Whilst the focus of the study is on the development of QM systems for the support sector and not necessarily on the role of external quality assurance agencies, the requirements of the HEQC on the development of an institutional quality management system remain relevant. The goals and principles on which the HEQC is founded are clearly articulated in the HEQC Founding Document (Council on Higher Education 2001), and the criteria document on the HEQC's Framework for institutional Audits (Council on Higher Education 2004b).

The HEQC is aimed at creating a systemwide mission-specific framework that supports quality of provisioning across the differentiated SAPHEIs; secondly creating partnerships and benchmarking with other quality assurance bodies in an attempt to develop comprehensive quality assurance accountability framework; thirdly, establishing threshold levels of quality for the SAHE system in order to level the historically divided

and uneven higher education quality landscape; fourthly, ensuring the quality, integrity and appropriateness of HE qualifications across the sector; and finally it is aimed at deepening and extending the higher education transformation processes (Council on Higher Education 2001; 2004b).

The HEQC was established to provide a framework for quality improvement of the whole educational system, developing an accountability system for providers and QA bodies that coordinate QA activities of numerous agencies. Its purpose is to establish threshold levels within a common national framework that is responsive to the understanding and expectations of quality. It also serves to guarantee national and international credibility of SA qualifications and develop a QA framework that is in line with the process of HE transformation (Council on Higher Education 2001: 7-9).

The HEQC's institutional audit system is intended to be a mechanism set up towards the attainment of the goals outlined earlier, and so it employs particular principles as a guide. A few of the latter are presented in the section that follows.

- (i) A key principle is linking the attainment of quality to transformation objectives, and encouraging innovation and diversity in higher education.
- (ii) The primary purpose of institutional audits is to facilitate systematic and continuous quality development and improvement in higher education. This involves enhancing institutional planning capacity and capabilities, acting on the plans, and reporting on quality-related objectives and achievements.
- (iii) Quality and quality management rests with HEIs as their primary responsibility. Institutions should endeavour to establish and maintain effective internal quality management systems that enhance quality and generate reliable information for internal quality-related planning, external audits and public reporting.
- (iv) The HEQC's responsibility is to establish a value-adding external evaluation system for validating the effectiveness of the HEIs information on its internal quality arrangements, particularly those which pertain to the development, enhancement and monitoring of quality in teaching and learning, research and community engagement.

- (v) The use of a system of peer and expert review should ensure informed and constructive evaluations (The Council on Higher Education 2004b: 5).

The guiding principles for this system have as their primary focus the systematic development, implementation and improvement of holistic institutional internal quality management systems in relation to HEIs mission in teaching and learning, research and community engagement. The support to this mission afforded by the support services sector is not explicit in these principles. However, the broader framework and the criteria used for institutional audits to some extent perform the role of the support sector. This is because in its focus the HEQC includes “relevant academic support services”.

Thus, guided by the principles and the criteria of institutional audits, institutions may be able to develop their QM systems for all their processes and activities, including those of the services sector. This is facilitated also because the HEQC audit focuses “on an institution’s policies, systems, strategies and resources for quality management of the core functions of teaching and learning, research and community engagement, including the relevant academic support services” (The Council on Higher Education 2004a: 1).

According to the HEQC, quality management entails policies, systems, strategies and resources used by the institution, covering the aspects of input and process as well as outcomes for the institutional quality assurance, quality support, quality development and enhancement, and quality monitoring arrangements. Subsequently satisfying itself that its quality requirements and standards are being met, supported, enhanced, and monitored and evaluated listed here (The Council on Higher Education 2004a: 1).

The HEQC therefore assesses the extent to which these policies, systems and strategies have been developed and implemented. It establishes whether these have been used effectively in promoting, developing and improving quality. This assessment therefore also serves to evaluate the scope and level of institutional knowledge and engagement with quality arrangements (The Council on Higher Education 2004a: 1).

The HEQC’s interpretation of quality is expressed in two broad areas. (i) The first of these is the Mission of the institution, which establishes links between planning, resource



allocation and quality management. (ii) The second is present in the programmes for teaching and learning, research and community engagement (The Council on Higher Education 2004a: 1). In a third, though less overt area, the support functions of the services sector finds resonance with the conceptual framework of this study. In this regard, Fourie (2000: 51), notes the TQM's notion of customer satisfaction in the HEQC's description of value for money and transformation.

Also noted are the systems approach to quality management, and continuous improvement at all the various levels in a range of institutional areas as they relate to the broader system. According to Fourie (2000: 51), the culture of quality and self-evaluation must be accepted and implemented at each institutional level, with different stakeholders working synergistically to produce the envisioned outcomes.

### **3.7.3 Institutional Quality Management and Quality Assurance in Higher Education**

O'Mahony and Garavan (2012: 184) acknowledge a significant deficit of knowledge of the context and the challenges it presents. This is especially noticeable when implementing quality management systems, where issues such as context, the nature of work processes, structural characteristics and the strategic objectives of the organisation are ignored in quality management literature. This may be related to the implementation challenges associated with service quality, despite its being acknowledged and accepted as an important strategic imperative for HE.

Wiklund *et al.* (2003) and Welsh and Dey (2002) conclude in their respective studies that the implementation process of quality management in HE is colossal yet potentially valuable when effectively embarked on. Their rationale is that it could lead to increased accountability and better resource allocation as espoused by senior management in HE (O'Mahony and Garavan 2012: 184). However, O'Mahony and Garavan (2012: 184) note that skeptics like Houston (2010) argue that quality management systems have not achieved the creation of a culture of continuous improvement in a HE context.

Calvo-Mora *et al.* (2006: 100) analysed studies that form a body of work which seeks to clarify and justify how the use of quality management principles and practices contributes

to institutional improvement (Biehl 2000; Kanji *et al.* 1999; Montano and Glenn 1999; Spanbauer 1995; Weller 2000). Based on their analysis, Calvo-Mora *et al.* (2006) consider it feasible for quality management approaches to be used in the higher education context, specifically towards the improvement of institutional areas in the support services sector. These support services sector areas include planning, human resources, resource management, and educational and administrative process management (Calvo-Mora *et al.* 2006: 100).

Manatos *et al.* (2015) undertook a systematic literature review with the intention to understand how quality management literature has advanced in the higher education sector. They looked at how the main quality management principles are being adopted and, more importantly, how these were being integrated into all organisational processes and at organisational levels of HEIs. In this review, the typical trend in the evolution of the quality management literature is observed, and pragmatically it depicts a trend for quality management practices and principles in the governance and management systems of HEIs.

Scholars have noticed a trend towards the development of holistic and comprehensive quality management approaches. In these approaches integration is seen as the process whereby organisations develop quality management methods which are part of their aggregate management systems (Manatos *et al.* 2015: 12). A matter of concern arising from their study is the development of quality management frameworks in a holistic manner, ones combining different aspects of quality, and ultimately reflecting a high level of integration for the practices that they have analysed.

Furthermore, the outcomes of their study indicate that the quality management field is still often treated as a separate field, run by a separate department within HEIs. In other words, it is not yet an integrated part of the organisation. It is for this reason that Manatos *et al.* (2015: 13) conclude by suggesting that discussion on the concept of integration of quality management principles could impact positively on the field of quality management in HEIs. Their point is relevant to this study as it seeks to investigate the adaptation and

infusion of quality principles into the institutions' support services processes, and beyond this, the integration of these into all organisational processes at all institutional levels.

Tari and Dick (2016) go a step further in studying the trends in quality management research in HEIs. Their study supplements and extends previous literature reviews on quality management in HEIs conducted by Manatos *et al.* (2014, 2015). By verifying the quality management practices/dimensions identified in earlier research, the authors (Tari and Dick 2016), bring to light other trends and issues in quality management research.

The quality management dimensions referred to by Tari and Dick are the six most important and most commonly mentioned in the literature. These are: "people management, information and analysis, process management, stakeholder focus, planning, leadership", including three additional dimensions that are less frequently mentioned, namely, continuous improvement, programme design, and supplier management (Tari and Dick 2016: 14,15). These dimensions are presented in Table 3.26 that follows.

**Table 3.26:** Common QM dimensions in HEIs

Dimensions	Authors/Researchers*															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
People management	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	15
Information and analysis		x	x	x	x	x	x	x	x	x	x	x	x	x	x	13
Process management		x	x	x	x	x	x	x	x	x	x	x	x	x	x	13
Stakeholder focus	x	x	x	x	x	x	x	x	x			x	x	x	x	13
Planning	x	x	x		x	x	x	x	x		x	x	x	x		12
Leadership		x	x	x		x	x	x		x	x		x	x		10
Continuous improvement	x	x	x	x					x					x		6
Programme design		x										x			x	3
Supplier management							x	x					x			3
* 1. Ali <i>et al.</i> (2010); 2. Barrater <i>et al.</i> (2008); 3. Sahney <i>et al.</i> (2008); 4. Tambi <i>et al.</i> (2008); 5. Osseo-Asare <i>et al.</i> (2007); 6. Badri <i>et al.</i> (2006); 7. Clavo-Mora <i>et al.</i> (2006); 8. Clavo-Mora <i>et al.</i> (2005); 9. Detert <i>et al.</i> (2003); 10. Sakthivel <i>et al.</i> (2005); 11. Rosa <i>et al.</i> (2003); 12. Borahan and Ziarati (2002); 13. Hill and Steward-David (2001); 14. Kanji and Tambi (1999); 15. Owlia and Aspinwall (1998)																

Source: Adapted from Tari and Dick (2016: 14)

All eight dimensions represent critical issues that HEIs should consider when developing their QM systems, particularly for the support services sector. These dimensions may be used by managers in the development and evaluation of the QM systems in their

institutions and are useful for instilling a culture of continuous improvement, one that enhances the institution's performance in attaining its educational outcomes. People management encompasses staff training and professional development, staff involvement and recognition; information and analysis issues include data obtained from student learning, assessment results, user complaints, and operational data; process management involves the design and mapping of processes for resources processing; stakeholder focus entails issues linked to students, staff, society and other stakeholders' relationships; planning is about defining, communicating and reviewing the set objectives and plans; leadership dimension addresses the issue top management commitment; continuous improvement should engage all units affected by reviews; programme design' emphasis should be on quality; and supplier management involves interpersonal practices related to suppliers. The consideration of these dimensions makes it possible to plan for: management and improvement in quality management practices and for the directions for future research into quality management in HEIs (Tari and Dick 2016: 14, 15).

Tari and Dick (2016: 24,25) contend that their findings indicate that HEIs aimed at overall institutional quality improvement must develop a number of actions for each proposed dimension and for the QM models that are already in use as operational frameworks for QM. Frameworks, such as MBNQA, EFQM or ISO 9001 may then serve to improve each of these dimensions. This means they can be used as the foundation for quality improvement determinations. Thus, a route opens up by which efficiencies in HEIs are improved while at the same time improving quality for stakeholders (Tari and Dick 2016: 27).

The application of these dimensions to all facets of higher education including the support sector will enable continuous improvement and performance improvement (Tari and Dick 2016: 15). Indeed this is the ultimate intention behind this study. The successful application required in these dimensions is recognition of the interrelatedness and interconnectedness of the institution's operations and processes, in other words, an integrated approach to quality management.

### **3.7.4 The Integrated approach to Quality Management at Institutional Level**

As part of a wider system of management practice, QM research indicates that an integrative approach to quality management practices is being proposed and implemented (Manatos *et al.* 2015, Rosa and Amaral 2007; Sousa and Voss 2002; Srikanthan and Dalrymple 2002, 2007). In relation to this HEIs appear to be on course with activities aiming at stronger integration of their quality management practices.

According to Manatos *et al.* (2017: 342) integration refers to the development of QM methods within wider organisational management systems. Integration encompasses diverse processes at different levels of the organisation whilst incorporating the implementation of a set of principles underlying the broader definition of QM. In fact, Rosa and Amaral (2007) notice a shift from measurement-based quality models' approaches to a total and holistic management approach which supports quality within the organisation (Manatos *et al.* (2015: 4).

A vast range of literature, as reviewed by Manatos *et al.* (2015: 4), reveals that HEIs are increasingly interested in integrating their main processes of research and scholarship, teaching and learning, third mission and support processes (Duque 2013; Rodman *et al.* 2013; Rosa *et al.* 2001, 2003; Van Vught and Westerheijden 2010). Consequently, their management practices through holistic approaches in the development of their QM frameworks (Rosa *et al.* 2001, 2003; Srikanthan and Dalrymple 2002, 2007) are derived from those frameworks adopted from industry and also influenced by national, internal and external quality models, including accreditation systems (Doherty 2008; Rosa *et al.* 2011).

According to Horine and Hailey (1995 cited in Manatos *et al.* 2015: 2), quality management should be driven, planned and managed by clearly defined goals and strategic plans, and thoroughly implemented as with any other organisational strategy. Cruickshank (2003) concurs when arguing that HEIs' quality assurance initiatives should be deliberately interwoven into institutional strategic plans.

In their literature review Manatos *et al.* (2015: 3) find three different levels where integration is practicable within an institution. These include processes, organisation, and

QM principles. They are considered significant for the understanding of different approaches to QM in HEIs, and for assessing and assuming the level of integration of QM within the general management and governance systems of HEIs. Manatos *et al.* (2015: 3; 2017: 346, 347) present dimensions found in the different levels. To do this they draw on literature in higher education studies (Barnett 1990), quality in higher education (Brennan and Shah 2000), and literature on quality management (Evans and Lindsay 2004). These are the three main HEI operations:

- (i) Teaching and learning, research and scholarship, third mission, and support processes (fourth process) at the process level;
- (ii) Programme, unit, and departments at the organisational level;
- (iii) Customer focus, leadership, involvement of people, process approach, system approach, continual improvement, information-based approach to decision-making and mutually beneficial supplier relationships at the QM principles level.

Most relevant to this study is the latest addition to the three main HEI operations at the process level namely, the fourth process that encapsulates all categories and classes of institutional services and processes. These include administrative services, other support activities, and the other three main institutional operations referred to by Yeo and Li (2014) as support processes.

The support service units are considered to be at the organisational level where the focus is broadly on the organisational structure (Manatos *et al.* (2017: 346). Such services and their processes within the services sector are to be integrated for the development and implementation of quality management systems.

Manatos *et al.* (2017: 351) further deduce from literature (Melo *et al.* 2010; Rodman *et al.* 2013; Rosa *et al.* 2001; Srikanthan and Dalrymple 2002, 2007) that HEIs are translating the integration of quality management practices into the development of quality management frameworks, internal quality management systems and into the accreditation and assessment systems at national levels. However, the study by Manatos *et al.* (2015: 13) suggests that the notion of holistic integration of QM in HEIs does not

seem to have become a reality yet precisely because the QM function itself appears not to be an integral part of the institution; it is frequently treated as a separated function run by a separate department within HEIs.

Thus, the integration of the QM function itself is paramount and is a prerequisite to the integration of quality management practices in all institutional activities and processes, subsequently attaining the implementation of quality management systems even within the support services sector.

### **3.7.5 The Implementation of Quality Management at Institutional Level**

Kaissi *et al.* (2008) argue that irrespective of the terminology for the quality management approach and processes, the *practice* in a higher education institution remains focused on quality improvement. HEIs are primarily concerned with a continuous “cycle of agreeing on a set of standards and/or goals, gathering relevant information, evaluating feedback and ensuring the implementation of change”. This process is characterised by (Kaissi *et al.* 2008: 16):

- (i) “an institutional culture that is open to constructive evaluation and to change;
- (ii) a high level of satisfaction from students, employees and external customers;
- (iii) institution-wide adoption of the concept of quality improvement, including a commitment to participate in institutional improvement and growth;
- (iv) evidence of ongoing measurable improvement in institutional performance in agreed areas of need;
- (v) open communication within and between different areas of operation;
- (vi) self-confidence in the institution’s capacity to manage its own future, with current evidence of success reflecting this potential, particularly in relation to any external accreditation bodies.”

The principles suggested by Kaissi *et al.* (2008) for the development of QM lay the basis for a framework on which all institutional quality improvement processes may be founded. The principles they propose include the points listed in the section that follows (Kaissi *et al.* 2008: 16-18).

- (i) Internal quality management systems complement external quality arrangements such as the accreditation expectations of external quality agencies. In this instance, the external process helps guide the institutional internal processes, providing assistance by developing guidelines for acceptable standards and by monitoring the institution's effectiveness in responding to the set standards. The HEQCs Institutional Audit framework (Council on Higher Education 2004b) provides for this arrangement and is useful for self-assessment of the institutional support services.
- (ii) Quality management decisions, especially the identification of quality objectives should be linked to the institutional strategic plan thus averting unnecessary duplication of effort through effective coordination between the two. The HEQCs Institutional Audit criteria (Council on Higher Education 2004a) advocate a link between institutional planning, resource allocation and quality management.
- (iii) A cultural shift towards quality improvement will be most successful if the HEI is amenable to change and improvement. It would show this by adopting the QM principles of transparency, openness, responsiveness and creativity, in short, by replacing strong independent departmental traditions characterised as silos. This would involve adopting an integrated approach to quality management.
- (iv) The HEIs quality management plan should be comprehensive, and thus include institution-wide quality improvement strategies or initiatives in relation to physical facilities. It should take into account the quality of total student life, attitudes and satisfaction levels of both academic and non-academic staff, including the interface and the service to external stakeholders.
- (v) A quality management plan has to be supported by accurate factual information, communicated institutionally by those individuals responsible for leading institutional quality management initiatives. It also has to have feedback mechanisms in place.



- (vi) Quality management procedures should be concerned with both formative and summative evaluation and establish the correct balance between these for institutional quality improvement. Thus, the institution is rendered capable of dealing with major recommendations for change and improvement. It would have the capacity to absorb any feedback that might lead to re-evaluation and change.
- (vii) The HEI's senior management is responsible for the development and operationalisation of a strong and effective quality management plan. However, managing the process of quality improvement is the responsibility of all academic and non-academic staff. The planning includes developing effective and efficient quality management structures which are predominantly dependent on other institutional structures.
- (viii) The quality improvement cycle is a continuous process that begins with the evaluation of the current situation and which culminates with the setting of future goals and plans. After a reasonable period of time, the implementation of such plans is evaluated for effectiveness wherein appropriate conclusions are drawn and fitting actions proposed and/or taken. At this point the cycle recommences, hence the description of it as a continuous process.
- (ix) Excessive formalisation and the creation of bureaucracies should be avoided in the process of quality improvement. Nevertheless, effective coordination of the process and full integration of the ideals of quality improvement into the institutional culture will enhance the total stakeholder experience.

These principles provide guidance for the development and implementation of the QM systems in support services. They are particularly useful because they emphasise an institutionalised, customer-centric approach to QM that clarifies the nature of an internal quality management system and the quality improvement process. These principles explain the responsibilities of the role players which include all stakeholders who are customers of the support services sector in HEIs.

### **3.7.6 Summary**

This section highlighted the challenges that form the driving forces in higher education management as they impact upon the SAHE systems. It examines how these systems have responded through the higher education policy framework. The framework has been evolving since the dawn of democracy in 1994. Its purpose has been to strategise ways of balancing concurrent demands for socio-economic transformation on the one hand, and tertiary curricula on the other, whilst asserting the necessity for accountability, relevance and responsiveness.

The roles of planning, funding and governance within a single, coordinated higher education system covering the full range of HEIs is highlighted alongside the roles and responsibilities of the HEQC and its relevance to the institutional support sector.

The necessity for a holistic and integrated approach to the development of QM in HEIs has been emphasised. It pointed to common QM dimensions that are pertinent to an integrated approach to quality management. In the process it warned that their successful application compels those involved to recognise the interrelatedness and interconnectedness of the institution's operations and processes. The level of QM integration is therefore to be assumed and assessed within the general governance and management systems of HEIs.

Finally, the principles on which a framework for all institutional quality improvement processes may be founded were suggested. If adopted, these principles could provide guidance for the development and the implementation of the QM systems in the support services sector within HEIs.

### **3.8 Conclusion**

This chapter constituted a literature review that serves as a basis for this study. It has been shown from this review that there are particular messages, tools and techniques which can be employed in the promotion of service quality improvement. introduced higher education services and service quality in this sector from the examination of quality

management models and measures of service as well as service quality as this applies in higher education institutions. discussed the development and implementation of quality management in HEIs. It highlighted the challenges and drivers that contribute to the necessity for HEIs to embrace and embed quality management systems in the overall institutional management systems that include the support services sector units.

The next chapter presents the research design and methodology used in the study.

## **Chapter 4 Research Methodology**

### **4.1 Introduction**

This chapter presents the research design and methodology of this study. It begins by laying out the epistemological basis on which the entire study is premised. In this chapter the approach adopted for the study is explained together with its design, data collection methods and data analysis techniques. This chapter argues that the investigative strategy employed is the most appropriate one for addressing the research questions posed at the beginning of the study.

The rationale for the choice of research design is explained and its appropriateness justified. The research design includes the unit of analysis, population and sampling, instrument development, data collection and data analysis. Also clarified is the rationale for the selection of cases used in the study, the multiple methods of data collection, measures employed towards ensuring both the validity and reliability of the results, and the processes undertaken in the data analysis. A detailed description is outlined of the steps followed by the researcher in the execution of the field study to ensure the authenticity of data, and the validity and reliability of the results.

The ethical dimensions that were considered while undertaking the study are also explicated. Besides the methodological dimensions of the study, the researcher's learning experiences are reflected upon in a brief discussion of the researcher's role in the study.

### **4.2 Research Paradigm**

This research study was grounded on pragmatism. In this paradigm, the research outcomes were the central focus rather than the existing circumstances prior to the outcomes (Creswell and Plano-Clark 2007: 16).

Ngulube and Ngulube (2015: 4) explore pragmatism as a philosophical tradition that promotes the development of theory directly from practice (praxis), that is, "a process

where theory is extracted from actions, and applied back to practice in an iterative process". Within a similar framework, this study attempts to uncover and determine:

- (i) the extent to which the support services sector at South African HEIs has adopted, developed, implemented and monitored service quality principles, policies and management practices;
- (ii) the reasons for any similarities or differences in the manner and extent to which service quality has been embraced, adopted, implemented and monitored by support services at South African HEIs;
- (iii) the extent to which models of good service quality practice might be applied in the support sector in South African HEIs; and
- (iv) the drivers and barriers to the implementation of a quality management system for support services at South African HEIs.

Pragmatism is a paradigm not prescriptive of a strict alignment between the research methods and the research problem. For this reason, researchers subscribing to this philosophy enjoy the freedom to choose any appropriate research methods, practices and procedures that are suitable to their purposes or requirements. Hence, the research design of this study was guided by the problem under investigation and the research questions being asked about that problem (Cresswell and Plano-Clark 2007: 27).

While pragmatism is usually associated with a mixture of qualitative and quantitative methods, it does not automatically require mixed methods or a specific method, but rather the most suitable research method. This is because its main orientation is to allow the scholar to interrogate and probe a particular question, theory, or phenomenon (Feilzer 2010: 3).

This study employed the qualitative research method for an in-depth investigation into participants' opinions and perceptions on the development and implementation of quality management systems in the support services sector of HEIs. Instead of relying on survey questionnaires completed by participants, the researcher thought it best to speak directly to participants as a means of gathering information within their different contexts (Cresswell 2007: 37). Quantitative methods are inclined to level all individual participants

to a statistical mean, and thus tend to gloss over the distinctiveness of contexts and of individual participants (Cresswell 2007: 37). At the same time qualitative research seeks a profound comprehension of the uniqueness of settings within a specific context (Merriam 2002).

In this study, the different institutional contexts presented by the six HEIs certainly necessitated a deeper engagement with the participants. Thus, in keeping with the qualitative nature of the study, it was feasible for the interviewer to become responsive and adaptive, to clarify questions for participants, to explore unusual or unexpected responses, and to process information instantly (Merriam 2002). Therefore, it may be said that the inductive and qualitative nature of this study is consonant with the pragmatic paradigm (Creemers *et al.* 2010).

In this paradigm, the epistemology is that through reason or experience, knowledge may be established but it is always provisional (Tashakkori and Teddlie 2003). Hence, pragmatists do not advocate the possibility of realising certainty, and assert that all knowledge is fallible and that there is always an element of subjectivity where natural and social facts are both open to review. In educational research therefore, results should not be perceived as absolute, but as representative of conceivable connections between actions and consequences (Floden 2009: 493). This view differs from the post-positivist worldview, which is grounded in quantitative methods that are meant to establish objective truths generalisable to the whole 'universe' (Mertens 2014: 26). This study, however, in alignment with the pragmatic paradigm permits the opinions or perceptions of participants to be considered as presenting a possible link with the development and implementation of quality management systems in the support services sector within the public higher education institutions in South Africa.

### 4.3 Research Approach and Design

While it is the case that any research entails the collection of data, research studies may still be characterised into two general categories depending on how the data is acquired. References to qualitative and quantitative studies thus invoke the type of data acquired by the researcher. It may be in either numerical or narrative form, thus representing a particular research methodology whose features may generally be assumed. However, in all forms of research whether qualitative or quantitative, approaches employed in the process of investigating things must be disciplined, unambiguous and systematic; the most appropriate method to finding answers to the research questions should be applied (Aspers and Corte 2019: 143; Hammarberg *et al.* 2016: 499; Hancock 2002: 12).

If the intention is to determine frequency, or the number of people who behave in a particular manner, the responses to such enquiries will be of a measurable nature. However, these measurements may not yield answers to the question 'Why?' In research, different approaches are deployed to elicit responses to different types of questions. The quantitative research approach uses experimental techniques and quantitative methods for testing hypothetical postulations, whilst the qualitative approach uses naturalistic inquiry (or real-life examination) for understanding phenomena in their context-specific conditions (Austin and Sutton 2014: 436; Kadhila 2012: 162). By contrast, simply defined, qualitative research is research that involves interpreting non-numerical data (Bezuidenhout 2005: 234).

Qualitative studies came to be recognised as such when social sciences researchers became interested in studying human behaviour and the social world that human beings inhabited. They found it limiting to explicate human behaviour in merely measurable terms as they attempted to broaden the understanding of why things are the way they are and why people act the way they do (Austin and Sutton 2014: 436; Hancock 1998: 1). Hence in its most basic terms, qualitative research is defined as “a form of systematic empirical enquiry into meaning” Shank (2002: 5). Accordingly, it relates to developing explanations of social phenomena.

Creswell (2007: 15) defines qualitative research as, “an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem”. The researcher conducted the study in a natural setting, shaping a complex holistic picture through an analysis of words, giving a detailed report of informants’ views (Creswell 2007: 15). Aspers and Corte (2019: 142, 148) and Denzin and Lincoln (2011: 2) concur that the emphasis is on making sense of phenomena in their “natural settings”. This is achieved through the interpretation of the meaning people attach to their experience, perceptions, aspirations, intentions, and behaviour; it is founded on observation and description.

Patton’s (2002) definition expounds on the subject that the purpose of qualitative research is an attempt to grasp, in a specific setting the inimitable interactions, to comprehend the condition’s characteristic features, and to access the significance participants give to things. It incorporates what is currently occurring to them; and essentially proceeds with no intention to prognosticate what may emerge.

Accordingly, qualitative research may be viewed as a means by which to gain insight through discovery. It is grounded on an understanding of the whole, which entails exploring how rich, complex and deep the phenomenon studied is. Primarily, it is concerned with sense making of people’s experiences and the constructs of their ‘world’ (Aspers and Corte 2019: 146; Daher *et al.* 2017: 2; Hammarberg *et al.* 2016: 498; Shank 2002: 5).

There are two major philosophical traditions or paradigms that have induced the quest for knowledge, namely the scientific or positivist approach, and the humanist or post-positivist approach (Harris 2002: 50). The positivist approach is also identified as objectivist or quantitative, while the post-positivist approach is described as interpretive, subjectivist, hermeneutic or qualitative (Aspers and Corte 2019: 144; Daher *et al.* 2017: 3; Fouché and Delport 2002: 79; Harris 2002: 50; Leedy and Ormrod 2014: 101).

It is with this distinction in mind that the development of qualitative methods in social sciences and educational research should be considered. However, it is also important to note that in the 1970s educational researchers began to react against the



predominance of quantitative methods in educational research, and stressed the importance of using alternative methods to gain a better understanding of the complex problems that could be associated with the field of education (Harris 2002: 53).

Qualitative research was found to be appropriate to the study of everyday behaviours and attitudes in contrast to the rather unnatural approaches of experimental and surveys study (Austin and Sutton 2014: 436; Creswell 2007: 203; Hammarberg *et al.* 2016: 499). Babbie *et al.* (2001) explain that not only does the qualitative research approach seek to make sense of social actions and processes, it also offers an 'insider perspective' since it seeks to understand the world through the "eyes of (the) actors themselves" (Babbie *et al.* 2001: 309; Hammarberg *et al.* 2016: 498).

Qualitative research methodology was chosen because this study asks how do SAPHEIs assure quality of their support services as the qualitative enquiry permits the researcher to deeply explore and gain in-depth insight on this phenomenon within its individual context where it is located (Ortagus and Derreth 2020: 6). In this study, multiple HEIs were studied using comparable enquiry to better understand the extent to which their support services quality management systems and practices have been developed and implemented (Merriam and Tisdell 2016). The intent was to understand the participants practices and experiences (Aspers and Corte 2019: 142; Ortagus and Derreth 2020: 6). Secondly, qualitative methodology was adopted as the preferred mode of enquiry as it is deemed to be most suitable in the conduct of in-depth interviews (Iqbal and Bhatti 2020: 4; Qu and Dumay 2011: 240). In this study, semi-structured interviews were conducted for the better qualitative understanding of HEIs as complex phenomenon, particularly the quality management systems (Qu and Dumay 2011: 240).

One fundamental characteristic of qualitative research outlined by Creswell (2007: 179) is the researcher's focus on studying the participants' responses in relation to the problem or issue. In other words, participants' responses take precedence over the researcher's assumptions or projections, or those expressed by other scholars in the literature. The responsibility of a qualitative researcher therefore, is to interpret encounters experienced in the act of research thus making qualitative research a form of interpretive inquiry. It

results in an interpretation of what the researchers see, hear and understand (Creswell 2007: 176).

It is also true that the researcher's contexts, prior understanding, and own history cannot be separated from these interpretations. Thus, throughout the study, the researcher is tasked with consistently maintaining an objective cause (Creswell 2007: 176).

The researcher's focus in this study was on the meaning the selected participants assigned to the development and implementation of quality management systems in the support services sector of their respective HEIs. The researcher actively and decisively made an effort not to let his own experiences in quality management systems development have any influence on the study. He worked through 'the lenses' of the participants (social actors) without manipulating the situation, as the latter is normally the case with experimental studies (Austin and Sutton 2014: 436; Johnson *et al.* 2020: 141; Hammarberg *et al.* 2016: 498; Hancock 1998: 2).

#### **4.3.1 Qualitative designs in social science and educational research**

Mouton (2001) refers to a research design as a blueprint or a plan for how a research study will be conducted (Mouton 2001: 55). McMillan and Schumacher (2010) concur by suggesting that research design is the study's blueprint that outlines a plan on how subjects, research locations, and procedures for data collection will be chosen, with the purpose of answering research questions. This includes describing when, where, from whom, and what the circumstances are in which the data will be acquired. These elements are all aimed at providing sound results that may be considered as credible.

Results are said to be credible to the extent that they approximate reality and in relation to their level of accuracy (McMillan and Schumacher 2010: 102). According to McMillan and Schumacher (2010), several research designs may be employed in qualitative research. Thus this type of scholarship may be categorised as ethnographic research; critical social research; ethical inquiry; foundational research; historical research; grounded theory; phenomenological research; and philosophical research.

However, these diverse terminologies used by different authors may sometimes be confusing. For what is herein described as designs (Hancock 1998: 4; Leedy and Ormrod 2001: 149), other authors refer to as approaches (Brink 2003: 59; Huysamen 1994: 165-168); whilst yet others categorise the same as strategies (Fouché 2002: 272-276). Harris (2002: 59) classifies them as methods, while Creswell (2007: 64-65) suggests these are to be referred to as traditions or types of qualitative research. In this study, the researcher refers to these as types of qualitative research design.

According to the literature (Creswell 2007; Fouché 2002; Hancock 1998; Harris 2002; Huysamen 1994; Leedy and Ormrod 2001), it can be deduced that five major types of qualitative research design are most frequently referred to. These may be streamed through instruments or theoretical frames such as biography, case study, ethnography, grounded theory and phenomenology. Biography and case study are two major types not listed by McMillan and Schumacher (see 2010: 102).

A biography involves an expansive study investigating the life of an individual, and his/her experiences as conveyed to the researcher or discovered in documented and/or archived material (Creswell 2007: 65; Fouché 2002: 272-3).

Case study research characterises an object or entity that comprises a distinct unit like a person, an institution or an organisation (Hancock 1998: 6). It may be considered as an exploration or an in-depth analysis of a system delineated by time or place, or a single or multiple cases across a period of time (Creswell 2007: 61; Fouché 2002: 18).

An ethnographic instrument denotes a “portrait of a people” and is contextualised in anthropology (Hancock 1998: 4). Creswell (2007: 246) describes ethnography as a study that is primarily based on observations over a protracted period of time that the researcher spends in the field analysing an integral cultural or social group (or an individual or individuals in that group).

In a grounded theory study, the abstract analytical scheme of a phenomenon is generated by the researcher, producing a theory that explicates an action, interaction or a process (Creswell 2007: 241). According to Harris (2002: 59), it entails an inductive process of

originating theories through the analysis of empirical data collected through observation, interviewing and document analysis. Although grounded theory is not the type of design employed in this study, some of its elements come into play in that the participants' observations together with relevant documentary analysis made significant contributions.

The phenomenological approach is designated for qualitative research (Burns and Grove 1997: 67). According to Pietkiewicz and Smith (2014), phenomenology was developed by Edmund Husserl as an eidetic method that focuses on the way things appear in individuals' experience. It aimed at isolating unique and distinguishable elements of phenomena or experiences.

In an attempt to answer the research questions in this study – the phenomenological type of qualitative research design was used. Langdridge (2007:10) defines phenomenology as the “study of human experience and the way in which things are perceived as they appear to consciousness”. Hence, phenomenology concerns understanding and interpreting the meaning that subjects give to their experience of the phenomenon (Fouché 2002: 273). Phenomenologists are concerned with uncovering meaning by concentrating on ‘streams’ in participants’ perceptions in an endeavour to gain access to their inner life ‘worlds’ through their thoughts, feelings, and memories.

This is normally done by translating these into a collection of ‘deep’ information and perceptions using inductive qualitative methods. This approach culminates in information representing the perspective of the research participants (Lester 1999: 1; Noon 2018: 75). Methods used in phenomenologically based research generally include interviews, conversations and discussions, focus meetings, observation of participants, action research, and analysis of personal texts. Epistemologically, these approaches are founded “in a paradigm of personal knowledge and subjectivity”, and accentuate the significance placed on personal perspectives and the interpretation thereof (Lester 1999: 1).

In the interpretive discourse, it is conceded that the researcher may not directly access the research participants’ ‘reality’. Consequently, the researcher’s emphasis is on neither the participants nor the phenomenon, but instead on the ‘dialogue’ between parties and

their contextual spaces (McConville 1978 in Van der Mescht 2004: 2). Van der Mescht (2004) expounds on this by arguing that attention is directed at the concrete, through a focus on 'lived experience'. Verbal data is probed and interrogated in an endeavour to establish how participants 'package' their physical, emotional and intellectual view of their 'world'.

Furthermore, Van der Mescht (2004) insists on description rather than interpretation. Whilst acknowledging the thin and probably contestable line between description and interpretation, Van der Mescht (2004) argues that in phenomenological research the "drive is to stay with description until a holistic picture of the issue emerges", whilst guarding against the propensity to allow preconceived ideas to influence the making of early judgment calls (Van der Mescht 2004: 2-3). However, according to Noon (2018) it is obligatory for the researcher to provide an interpretive account of respondents' narrated experiences read within their specific context, rather than to consider them as being 'simply descriptive' (Noon 2018: 75).

Manifested in this study were a number of features that characterise qualitative research (Hancock 1998: 2). These include the items in the list of correlations that follows.

- (i) There is a focus on the opinions, experiences and feelings of the individuals generating the idiosyncratic data – the participants' opinions, experiences and feelings were sought and consequently emerged in semi-structured individual interviews.
- (ii) Phenomena are defined as they naturally occur – the situation under investigation was explored as it is, without manipulation.
- (iii) The situation is understood from a whole perspective – no variables were identified for inclusion or consideration.
- (iv) The data is utilised to generate conceptions and theories for the promotion of understanding – this study aimed at developing new knowledge through use of inductive approaches.
- (v) Qualitative data is gathered from individual meetings, one-person or group interviews, and/or through observations – in this study semi-structured individual

interviews were conducted; and information was obtained by conducting interviews in the participants' natural setting.

- (vi) Qualitative sampling techniques are aimed at obtaining information from specific groups – purposive sampling was used in selecting study participants with consideration given to their proficiency and practice in the areas in which information was sought.
- (vii) Reliability and validity assessment criteria in qualitative studies differ from those employed in quantitative studies. In this regard, validity is explained in terms of the report's contextual completeness and truth, whilst reliability is concerned with accuracy in understanding, interpretation and in conveyance of the participants' perception of what has been said. In this study, trustworthiness was the main criterion in assessing the value of the research process (see section 4.8).

Two more characteristics of qualitative research applicable to this study are those revealed by Babbie *et al.* (2001: 309) and assented to by Shank (2002: 58, 74-75). These are noted next.

- (i) There is an emphasis on the actor's perspective ('insider' or 'emic' view). In this study both the researcher and the participants are 'insiders' since they are directly involved in the phenomenon. They are actively involved in the SAHE sector.
- (ii) The main aim is thorough or 'thick' narratives and interpretation of actions and events, where participants' views and opinions are provided and described in much detail. This study elicited such responses.

In qualitative studies data is also used to develop theories and concepts, wherein an inductive approach is applied and a theory constructed, not verified (Johnson *et al.* 2020: 143; Hammarberg *et al.* 2016: 500; Leedy and Ormrod 2001: 102). The conception of new theory begins with the recognition of new ideas (Aspers and Corte 2019: 149). It extends to the emergence of arguments based on what participants say and what has been observed by the researcher (Hancock 1998: 6). This study considered as valid Crowson's (1987), procedural principles of qualitative research in higher education. These are underpinned by the propositions that the principal research objective is

understanding instead of offering explanations or predictions where the researcher becomes the key instrument for data collection, and that the research process is intensely value laden and its emphasises is on analytical induction instead of hypothesis testing (Crowson 1987: 10-11).

The precepts applied in this study were that, firstly, the researcher endeavoured to obtain an understanding of the participants' views on what mechanisms, processes and practices were deemed essential to the development and implementation of quality management systems in the HE support services sector. These included procedures, which could serve as a guide for future use by HEIs.; Secondly, the researcher achieved a true understanding through being the key or principal instrument in data collection, which comprised the literature review, document analysis, and the individual interviews. Thirdly, the researcher applied analytical induction, although some descriptive analysis was also performed on a baseline study of participants. Lastly, the researcher approached the task aware that the search for understanding is value laden – the researcher thus strove to identify what was “good and desirable” (Strydom 2002: 63) in the support service quality management processes. This manifested in recognising participants' values when these became exposed in the ‘field notes’, documents, and in the interviews.

Having provided a broad overview of the way in which the qualitative approach and design have been applied in this study, the researcher will now detail the process.

#### **4.4 Unit of analysis**

The main unit of analysis for this study is a higher education institution (a university). In the context of this study a university may be classified as a traditional university, a university of technology, and a comprehensive university. In investigating this unit of analysis the researcher sought the opinions and perceptions of senior HEI support services managers, quality directors/managers, and heads of academic departments (as recipients of services).

#### **4.5 Population and Sampling**

The South African public higher education landscape is characterised by three institutional types, namely, a traditional university (twelve universities), a comprehensive university (six universities) and a university of technology (eight universities) – all spread across rural and urban areas of South Africa. While the population of the study represents all twenty-six South African public higher education institutions, the sample itself consists of a selection of two public higher education institutions from each of the three institutional types, as case institutions.

The selection of these institutions was purposive rather than random, and was based on the Hopkin's (2004: 182) frame factor concept for the classification and selection of the universities. The varied nature of the institutional contexts and their supposedly different levels of development is the primary focus of Hopkin's frame factor concept (Hopkin 2004: 182). The factors included in the concept are the country's population size, the size of the institution, the size of the national market, and the expectations of the government and society. These factors have policy implications, notably for practices in higher education institutions.

Hopkins (2004: 182) identified three frame factor categories of university – classifications that can be applied at a national level that is, mature, evolving, and embryonic. At an institutional level, particularly in terms of the conceptualisation, development and implementation of quality assurance systems, there are other frame factors such as organisational age, size and scope of activities; the quantity and quality of the personnel – including its influence on the quality assurance policy and practice in the institution (Hopkin 2004: 182).

In this study, the sample covers the three SAPHE institutional types, namely traditional universities, universities of technology, and comprehensive universities which are drawn from rural and urban-based institutions. Also taken into account is the unique SAPHEIs' characterisation/ classification of whether an institution may be described as historically advantaged or disadvantaged. The characterisation/ classification of universities for this study is based on the classifications of the institutional audits conducted by the CHE (The



Council on Higher Education 2008, 2009a, 2009b, 2011a, 2011b, 2012) and from *Statistics on Post-School Education and Training in South Africa* (South Africa. Department of Higher Education and Training 2019).

The sample cases were perceived as being different from one another in terms of the criteria listed in the points that follow:

- (i) the levels to which their integrated quality management systems have been developed and implemented; institutional size, availability of resources and the broad spectrum of socio-political environments within which they operate;
- (ii) identities that mainly derive from their unique historical legacies (that is, historically advantaged and disadvantaged institutions);
- (iii) the local societal needs and expectations of these institutions that significantly influence how the institutions ultimately position themselves within their own local economic environments and within the global higher education market.

This study used purposive maximum variation sampling (Hoepfl 1997: 51) based on the variations outlined in the previous section to select the six case institutions which are a representation of the South African public higher education landscape. A purposive sample is one which a researcher selects based on their knowledge of the study's population, the participants' context and the purpose of the sample itself (Neuman 2003: 310).

The sample covered the twenty-six HEIs thus providing for information-rich cases that could be studied at some depth (Patton 2002), thereby allowing for a potential yield of detailed descriptions in each case, with the prospect of the emergence of identifiable patterns across cases. It was hoped that varied cases would provide information on the widest possible range of factors that impinge on quality management policies and practices within the SAPHEIs' developing quality management systems context. In addition, the choice of this sampling strategy was aimed at capturing and describing the key factors that arise in all six participating case institutions and, possibly present in similar SAPHEIs not included in this study.

#### **4.5.1 Description of the Case Institutions**

##### **University A**

University A is a medium-sized comprehensive university classified as a previously advantaged urban institution. It is predominantly a contact institution spread across six campuses in the Eastern Cape with one campus located in the Western Cape. It was officially established on 1 January 2005 as a result, firstly, of the incorporation of one campus of a University (Vista) into a traditional university in January 2004; and secondly, through a merger with a technikon in January 2005, making it one of six comprehensive universities in the SAHE landscape (The Council on Higher Education 2009a). It is mandated with a primary mission to provide both vocational and formative post-secondary education at undergraduate and postgraduate levels (The Council on Higher Education 2009a).

University A is composed of seven faculties that offer programme qualifications ranging from undergraduate certificates to doctoral degrees. Though classified as previously advantaged, it draws the majority of its students from disadvantaged communities of which the majority are enrolled at undergraduate level, with significant numbers enrolled for diplomas. However, this balance is gradually changing (The Council on Higher Education 2009a).

The total student enrolment in 2017 was 27,621. In 2017, University A had a complement of 2,111 permanent staff of which 607 (29%) comprised instruction/research staff and 1504 (71%) administrative and professional support staff (South Africa. Department of Higher Education and Training 2019). In the CHE's first quality assurance cycle the institution was audited in September 2008 and its audit report was subsequently made public in 2009 (The Council on Higher Education 2009a).

##### **University B**

University B is predominantly an undergraduate medium-sized comprehensive university classified as a previously disadvantaged rural institution extending beyond the divides of the rural and peri-urban Eastern Cape Province. However, its catchment area – from which the majority of students come – is characterised by poverty, illiteracy,

unemployment and inadequate access to basic services (The Council on Higher Education 2011a). In this context University B pronounces itself as “a developmental university that is scientific, technological, innovative and responsive” (SER: 4 cited in The Council on Higher Education 2011a). It is predominantly a contact institution, spread across four campuses with eleven delivery sites on the eastern side of the Eastern Cape.

University B was established in 2005 through a merger of two former technikons and a traditional university, forming one of the six comprehensive universities. University B is composed of eleven faculties that offer programme qualifications ranging from undergraduate certificates to doctoral degrees (The Council on Higher Education 2011a). It is however mainly attended by undergraduates with large numbers enrolled for diplomas, in accordance with the mandate of the Department of Higher Education and Training (DHET) (The Council on Higher Education 2011a).

The total student enrolment in 2017 was 30,517. In 2017, University B had a complement of 1355 permanent staff, 580 (43%) of whom comprised instruction/research staff, and 775 (57%) administrative and professional support staff (South Africa. Department of Higher Education and Training 2019). In the CHE's first quality assurance cycle, the institution was audited in April 2011 (The Council on Higher Education 2011a).

### **University C**

University C is a large traditional, predominantly contact university classified as a previously advantaged urban institution that is organised into four colleges spread over five campuses in the Province of Kwa-Zulu Natal (The Council on Higher Education 2011b). It is characterised by its origins as a combination of previously advantaged and disadvantaged institutions, which was formed from a merger of two traditional institutions in the Province of KwaZulu Natal in 2004 (The Council on Higher Education 2011b).

The total student enrolment of University C in 2017 was 49,096, with a permanent staff complement of 4,283; of this number 1,341 (31%) comprised instruction/research staff, and 2,942 (69%) administrative and professional support staff (South Africa. Department of Higher Education and Training 2019).

### **University D**

University D is a small traditional predominantly undergraduate university classified as a previously disadvantaged rural institution. It bestrides the divides of the rural and peri-urban Amathole District Municipality of the Eastern Cape, one of the mostly economically depressed provinces of South Africa. It is a predominantly contact institution, spread across three campuses with five faculties that house a number of strategic units, institutes and centres (The Council on Higher Education 2009b). Established in 1916, University D incorporated a campus of one previously advantaged traditional university as part of the restructuring of the higher education landscape in South Africa in 2004, thus adding an urban dimension to its historical rural base (The Council on Higher Education 2009b).

In 2017, University D had a total enrolment of 15,426 students with a permanent staff complement of 943; of this number 365 (39%) comprised instruction/research staff, and 578 (61%) administrative and professional support staff (South Africa. Department of Higher Education and Training 2019). In the CHE's first quality assurance cycle, the institution was audited in May 2008 and its audit report was subsequently made public in 2009 (The Council on Higher Education 2009b).

### **University E**

University E is a predominantly undergraduate medium-sized university of technology classified as a previously disadvantaged urban institution located in the Kwa-Zulu Natal Province. It is a contact institution made up of four faculties with six campuses spread over Durban and the Midlands, including two other delivery sites in the Durban area (The Council on Higher Education 2008). University E was established in 2002 through a voluntary merger of two former technikons, one a historically disadvantaged institution with mainly "Indian" enrolments, and the other, a historically advantaged institution with mainly "white" enrolments (The Council on Higher Education 2008).

In 2017, University E had a total enrolment of 29,787 students with a permanent staff complement of 1,471; of this number, 581 (39%) comprised instruction/research staff and 890 (61%), administrative and professional support staff (South Africa. Department of Higher Education and Training 2019). In the CHE's first quality assurance cycle, the

institution was audited in 2007 and its audit report was subsequently made public in October 2009 (The Council on Higher Education 2008).

### **University F**

University F is a small predominantly undergraduate university of technology, classified as a previously disadvantaged rural institution located in the Kwa-Zulu Natal Province in one of its biggest townships (the researcher considers this university to be peri-urban). University F was established in 1977 as a technikon, and was designated as a university of technology in 2007 following the national transformation of higher education. It was thus repositioned in the provision of undergraduate professional and vocational education to students from KwaZulu-Natal and further afield (The Council on Higher Education. 2012). It is a single campus contact institution organised mainly to offer a limited range of undergraduate degree and diploma programmes predominantly in the fields of science, engineering and technology, and in business and management (The Council on Higher Education. 2012).

In 2017, University F had a total enrolment of 12,665 with a permanent staff complement of 579; of this number 205 (35%) comprised instruction/research staff, and 374 (65%) administrative and professional support staff (South Africa. Department of Higher Education and Training 2019). In the CHE's first quality assurance cycle, the institution was audited in May 2011 and its audit report was subsequently made public in January 2012 (The Council on Higher Education. 2012).

Table 4.1 presents a description of the case institutions and participants. The statistics presented are based on the 2017 declared and audited information available from the DHET (South Africa. Department of Higher Education and Training 2019).

**Table 4.1:** Description of Case Institutions and Participants

Institution Category	Selected Case Institution & Location	Classification	Quick Fact & Demographics			Targeted Informants	Data Collection Tools & Sources Used
			Students	Staff			
				Academic	Non-academic		
Comprehensive University	NMU (University A) Urban	Previously Advantaged	27,621	607	27,621	<ul style="list-style-type: none"><li>Chief Information Officer (<i>SnrMngA1</i>)</li><li>Dean of Students (<i>SnrMngA2</i>)</li><li>Director Quality Enhancement (<i>SnrMngA3</i>)</li><li>Executive Dean (<i>SnrMngA4</i>)</li></ul>	Archival documents Interviews CHE Audit Reports
	WSU (University B) Rural	Previously Disadvantaged	30,517	580	30,517	<ul style="list-style-type: none"><li>Campus Rector (<i>SnrMngB1</i>)</li><li>Director of Human Resources (<i>SnrMngB2</i>)</li><li>Director Special Projects (<i>SnrMngB3</i>)</li><li>Manager Quality Assurance (<i>SnrMngB4</i>)</li><li>Faculty Dean (<i>SnrMngB4</i>)</li></ul>	Archival documents Interviews CHE Audit Reports
Traditional University	UKZN (University C) Urban	Combination of both Previously Advantaged and Disadvantaged	49,096	1,341	49,096	<ul style="list-style-type: none"><li>Director Teaching and Learning (<i>SnrMngC1</i>)</li><li>Director Quality Assurance (<i>SnrMngC2</i>)</li><li>Faculty Dean (<i>SnrMngC3</i>)</li></ul>	Archival documents Interviews CHE Audit Reports
	UFH (University D) Rural	Previously Disadvantaged	15,426	365	15,426	<ul style="list-style-type: none"><li>Deputy Registrar (<i>SnrMngD1</i>)</li><li>Manager Quality Assurance (<i>SnrMngD2</i>)</li><li>Disability Unit (<i>SnrMngD3</i>)</li><li>Faculty Dean (<i>SnrMngD4</i>)</li></ul>	Archival documents Interviews CHE Audit Reports
University of Technology	DUT (University E) Urban	Combination of both Previously Advantaged and Disadvantaged	29,787	581	29,787	<ul style="list-style-type: none"><li>Director Quality Promotion &amp; Assurance (<i>SnrMngE1</i>)</li><li>Director Planning (<i>SnrMngE2</i>)</li><li>Director Learning and Teaching (<i>SnrMngE3</i>)</li><li>Executive Dean (<i>SnrMngE4</i>)</li></ul>	Archival documents Interviews CHE Audit Reports
	MUT (University F) Peri-urban	Previously Disadvantaged	12,665	205	12,665	<ul style="list-style-type: none"><li>Registrar (<i>SnrMngF1</i>)</li><li>Senior Director Teaching and Learning (<i>SnrMngF2</i>)</li><li>Director Quality Management (<i>SnrMngF3</i>)</li><li>Faculty Dean (<i>SnrMngF3</i>)</li></ul>	Archival documents Interviews CHE Audit Reports

Source: Author

#### **4.5.2 Selection of Participants**

Purposive sampling, as a non-probabilistic sampling method, was used to select a sample from whom the researcher hoped to discover, gain insights and learn most. Therefore the participant were selected based on their assumed knowledge based on the portfolios they occupied. The intention was to interview participants who had an in-depth knowledge of and engaged in the conceptualisation and/ or operationalisation of the quality management systems. Participants selection was determined by their knowledge and/ or experience on the subject studied so as to unearth their multiple realities (Etikan *et al.* 2016: 3; Moon 2016: 5; Patton 2015: 659; Tongco 2007: 147). A list of senior management from each of the participating institutions was obtained. By use of email, an invitation to participate was extended to those managers responsible of support services units.

Based on the responses received and the availability of the respondents during the field work period, twenty-four participants were selected from across the six identified South African public higher education institutions. The intention was to include four to five senior managers, of which quality assurance/management managers were to be part. The respondents (population) comprised senior management personnel from both the support sector and the academic enterprise who occupy the following portfolios: registry, faculty deans, student deans, support units directors and directors of quality assurance (see Table 4.1).

The intention was to source their opinions, thoughts and perceptions in an attempt to generate in-depth information on the quality management systems, policies and practices at their respective institutions. This was done in order to present variant perspectives on important issues central to this study.

## **4.6 Data Collection**

### **4.6.1 Data Collection Plan**

In this study, qualitative data-collection methods were used to address the research questions. The rationale is that the design of the study is intended to allow the use of multiple sources of evidence. It is based on three main pillars, namely, a review of the literature, a document analysis and the field study. The study commenced with a review of the literature, which presented insights into quality management systems, practices contestations and trends, particularly in higher education service quality management.

Although the study was predominantly qualitative, survey questionnaires were also used only to collect baseline data that would later be used to guide the design and development of the interview instrument.

Baseline data is derived from baseline studies in which a descriptive cross-sectional survey – typically used – provides a systematic presentation of quantitative information. Irrespective of the topic under investigation baseline data emanates from the current status of a given setting and is used with the aim of enumerating the distribution of particular variables, thereby giving a depiction of a particular situation (Anyaegbunam *et.al.* 2004: 72).

Hammarberg *et al.* (2016: 499) suggest that the combination of quantitative and qualitative methods is possible where they can be sequentially used starting with “a quantitative then (followed by) a qualitative study or vice versa, where the first approach is used to facilitate the design of the second... or a dominant method may be enriched with a small component of an alternative method”. This notion is in line with the dominant less-dominant model espoused by Schulze (2003: 13), which suggests that a study may be conducted within single, dominant paradigm with only a small component of the overall study undertaken from the alternative paradigm”.

In this study the baseline survey constituted data collected before the commencement of the field study – which was performed through the conduct of semi-structured interviews. It was based on what was prevalent at case institutions insofar as quality management systems were concerned. It was also used to source information on the respondents’



opinions on the subject with the primary intention of using the survey outcomes in the design of the interview the schedules. As Anyaegbunam *et.al.* (2004) indicate, a baseline survey is traditionally done at the commencement of a project or study to collect information on the status of a subject or phenomenon (Anyaegbunam *et.al.* 2004: 72). The baseline survey provided direction to the issues the interviews were to focus on, and in some cases to target participants for the interviews.

For the document analysis phase, the researcher secured institutional mission statements, strategic plans, explicit quality management policy documents, and institutional audit reports from the participating case institutions. Where some of these documents were not publicly accessible, access was formally requested from the case institutions through the responsible unit.

An important dimension of document analysis is to analyse the degree of congruence between policy text and policy in practice in the case institutions being studied (Mhlanga 2008: 77). These documents were conscientiously and prudently studied to gain an understanding of institutional plans and prospects in terms of support services quality management systems. The documents were useful in providing some impression of the conceptions of quality held by various case institutions, the specific areas of focus, and the mechanisms and measures used in the assessment and evaluation of quality.

An interview guide/schedule was developed based on the research questions, document analysis and the participant responses from the themes/dimensions covered by the baseline survey questionnaire. Soon after the development of the interview schedule, semi-structured interviews were conducted with senior HEI managers, quality directors/managers, support service sector personnel and practitioners (unit heads), as well as academics (faculty heads, as recipients of support services).

Interviews constituted the main data collection method for the study. The interviews use a general interview guide approach to ensure that information from each interviewee is collected from the same general areas; they are more focused than the conversational approach, yet still allow a degree of freedom and flexibility for acquiring information from the interviewee (Turner 2010: 755). Two sets of schedules (see Appendix B and C) were

prepared, each customised for the interviewee category (that is, Interview Schedule – Management (ISM), Interview Schedule – Quality Management Director (ISQM)). The prepared interview schedules were done to ensure that the same basic lines of inquiry are pursued with each person interviewed.

The researcher used a sound recording device for the purposes of recording interviews, transcription and analysis. These qualitative interviews with various stakeholders were predominantly meant to get the views of the relevant people on their perceptions of quality management practices in their institutions. In particular, the interviews were set up to find out about how the systems in place were developed, their implementation and the constraints therein. The interview transcripts were validated with the interviewees by providing them with copies through email to ensure data accuracy (see 4.8).

#### **4.6.2 Data Collection Methods**

##### **4.6.2.1 Document Analysis**

In a qualitative framework researchers must be clear about what they anticipate from the document data they collect. This includes the principles of selectivity and the researcher's perspective in their handling of documents (Hakim 1982: 64). Hakim (1982) points out that 'an important means of increasing the available information for comparison is to utilise document analysis or the re-analysis of data collected for other purposes' (Hakim 1982: 64).

In a similar vein Lincoln and Guba (1985: 23), state that documents are a balanced and stable source of rich information and are easy to analyse. Yin (2009: 102) concurs by stating that documents serve as a reliable source of data because they are deemed to be stable, inconspicuous, exact and have a broad coverage. Where the researcher does not have a record of activity that could be observed directly, documents serve as substitutes (Stake 1995: 68).

According to Krippendorff (1980: 7), in social sciences, content analysis is one of the most important research techniques for understanding data not merely as a collection of natural events but as symbolic phenomena whose analysis is to be unobtrusively approached. The researcher's role therefore is to identify and interpret the information contained within

the documents, and to uncover characteristics of the subject in question as well as the main concepts, contentions and considerations on the subject (Hakim 1982: 64).

In this study, documents were used to corroborate, substantiate and supplement information obtained from interviewees. According to Yin (2009: 103), “the most important use of documents is to corroborate and augment evidence from other sources”. In this study, three principles were employed as a rationale for the researcher’s selection of documents (Yin 2009: 103). These are listed next.

- (i) Firstly, the identification of documents was set up to acquire information – to confirm or refute the data generated in the interviews.
- (ii) Secondly, the research set out to gather as many documents as possible relating to quality management policies and practices in the case HEIs.
- (iii) Thirdly, clarity was sought about policies that form the guiding framework for whatever quality management structures and practices exist at the case HEIs. This is because institutional policies include explicit ways by which institutions show the emphasis placed on quality management of the support services sector.

Permission was obtained from the institutional gatekeepers (Appendix I) to obtain and analyse institutional documents with a condition of maintaining high degree of confidentiality. It was essential to establish that institutional documents relevant to the research questions do exist in the case institutions, and to analyse them, as to have not done so would have left a gap in the research findings. Fittingly, as institutional documents are a valuable source of information occurring in a natural setting, they were analysed, thus illuminating what the institutions actually do or did and what they perceive to be of value about the phenomenon being investigated. This enhanced the validity of the collected data (Byrne 2001: 4).

Gall *et al.*’s (2007: 292) steps were followed in the analysis of the institutional documents. They proposed:

- (i) firstly, identifying documents and records representative of the phenomenon under investigation (quality management mechanisms for the selected case institutions);

- (ii) secondly, determining the material which may be of relevance to the study;
- (iii) thirdly, determining how to collect the material for analysis in accordance with the guidelines for the ethical conduct of research.

The data from the document sources used in this study was collected through a search for the selected case HEI's websites; and hard and soft copies were obtained directly from the institutions. Qualitative content analysis was employed to investigate relevant documents such as quality management/assurance policy statements, institutional strategic plans, relevant quality management/assurance manuals, procedures and/or guidelines, institutional audits and self-evaluation documents, audit reports and other published materials related to each institution's quality management (Hoepfl 1997: 6).

According to Neuman (2003: 310), "content analysis is a technique for gathering and analysing the content of text". As alluded to earlier, the important dimension of the document analysis pillar in data collection was the degree of congruence between policy text and policy in practice in the case HEIs. It was thus important to examine whether any tensions existed within the various actors in the implementation process (see Mhlanga 2008: 77).

#### **4.6.2.2 Baseline Survey Questionnaire**

In each of the case HEIs, documentary analysis was followed by a survey questionnaire developed for and administered to collect data that was used to guide the development of the interview schedules.

The survey questionnaire is the most commonly used descriptive data-collection instrument in educational research. It is normally used to acquire data for identifying standards against which existing conditions may be measured, evaluated and compared (Cohen *et al.* 2007: 205), pertaining to what prevailed at institutions in terms of quality management systems in general, and support services quality in particular. This included a comparative assessment of participants' opinions on the subject at a particular point (Cohen *et al.* 2007: 317).

It is not uncommon in social science and educational research for baseline surveys to be administered to participants who subsequently participate in interviews. For example, in the field of Educational studies and Education Policy analysis Peersman acknowledges the use of this approach (Peersman 2014). Similarly, Geda, Kahsay, Mhlana and Saketa confirm adopting this method in studies in the field of Quality Assurance (Geda 2014; Kahsay 2012; Mhlana 2008; Saketa 2014). Likewise, research in the field of Monitoring and Evaluation has been undertaken using survey questionnaires prior to interviews (Appleton and Booth 2001; Gitomer *et al.* 2019; Roelen and Devereux 2014).

The baseline survey questionnaire was used to provide baseline information about participant demographics and their experience of and interaction with institutional quality management systems. Thus it provided a descriptive account of their understanding of how these systems are developed and implemented, particularly in relation to institutional support services (Mhlana 2008: 78; Saketa 2014: 194). Significantly the baseline survey feedback offered valuable insight into the participants' experience prior to the subsequent semi-structured interviews that were conducted (Geda 2014: 201; Saketa 2014: 194). However, as indicated above, the primary purpose was to guide the development of the interview schedules.

The survey instrument was intentionally closed-ended with the intention of encouraging respondents to complete it. Open-ended questionnaires are commonly ignored, and usually linked with low return rates (Mhlana 2008: 78). Aside from encouraging respondents' participation, the survey questionnaires were made closed-ended because related issues were being pursued through face-to-face interviews. An additional reason for having used closed-ended questions was to retrieve the maximum amount of information without imposing on the time and resources of the respondents. Respondents were requested to indicate whether they strongly agree, agree, disagree or strongly disagree with statements using a Likert scale.

The instrument developed by Bayraktar *et al.* (2008) to survey quality management systems was selected for the study. Although this instrument was originally used in previous studies (Bayraktar *et al.* 2008; Asif *et al.* 2011) and was found to be statistically

reliable for all constructs, it was retested for reliability in South Africa's context to ensure reliable analysis. Based on the information obtained in the literature review, the researcher favoured the instrument as it has been used in recent research due to its relevance in the study of quality management systems (Asif *et al.* 2011).

The form of the instrument was a structured survey questionnaire addressing some general concepts of quality and quality management, characteristics of quality management systems implementation and the impact of the quality management systems on the institutions' support services. It was self-administered by the researcher to purposefully selected participants (which included senior HEI managers, quality directors/managers, support service sector personnel and practitioners, as well as academics) who would later be the subject of interviews. Participants were contacted by email and in some instances followed up by telephone conversation, inviting them to participate in the study. After consent was confirmed, a letter of information and a consent form were emailed together with the survey questionnaire.

The forms of data collected from the survey questionnaires included electronically completed questionnaires and in some instances, hard copies of respondents' questionnaires that were later scanned to be stored electronically. The data collected through the questionnaires was coded, entered, cleaned and analysed using the Statistical Package for Social Sciences (SPSS 25) computer software. The quantitative data was analysed as shown below.

Since the survey questionnaire (which was used to gather baseline information to develop the interview schedule) was adapted and modified specifically for the purpose of this study, it was imperative to do a pilot test, as suggested by Cohen et al. (2007: 341). The questionnaire was piloted to identify any shortcomings in the instrument and to ascertain the clearness of questions and statements, appropriate choice of texts, the effectiveness of instructions, the comprehensiveness of response items, whether there were missing items, and the length of time required to complete.

The pilot study of the survey questionnaire was conducted using purposive sampling of senior managers in a single university (Rhodes University). The participants in the pilot study were different to the participants in the baseline quantitative study and were not to form part of the group to be surveyed in the case institutions. The baseline study was a separate study and the findings were limited to inform the development of the interview questions only and finds do not feed into the finds of this study which is a qualitative study. Only the baseline study was subjected to data analysis. The findings of the baseline study informed the development of specific interview questions as indicated in section 4.6.2.3 below.

Consent by email to partake in the pilot study was secured from the respondents. Respondents were requested to comment on the following: how much time it would require of them to complete the survey questionnaire, if they felt uneasy about responding to any of the questions, if there were any ambiguous or difficult questions and if they were confident in scoring the questions. Likewise respondents were given an the opportunity to provide comments (in writing) concerning the content of the survey questionnaire. The evaluation instrument (see Appendix F) was sent to five participants, and suggestions were received from three while the rest recommended the instrument remain as it was.

#### **4.6.2.3 Baseline Survey Questionnaire Analysis**

The baseline data collection involved self-administered survey questionnaires (see Appendix F) which were adopted and developed based on the conceptual and theoretical framework of the study. The baseline survey questionnaire proved to be an effective instrument for gathering baseline information as it allowed for the respondents to reflect on eleven dimensions of the implementation of quality management systems in their respective institutions (Bayraktar *et al.* 2008). These dimensions include leadership, vision, measurement and evaluation, process control and improvement, process design and resource allocation, quality system improvement, employee involvement, recognition and reward, education and training, student focus and other stakeholder focus (Bayraktar *et al.* 2008; Asif *et al.* 2011).

The baseline survey questionnaires were distributed to twenty-four participants from the six case institutions, from whom twenty were received back. What follows is the descriptive analysis of the survey questionnaires. Table 4.2 summarises the demographic information of the selected participants, obtained from the survey questionnaire.

**Table 4.2:** Demographic Information of Participants

n= 20		
Demographic information	f	%
<b>Gender</b>		
Female	7	35
Male	13	65
<b>Age</b>		
31-40	5	25
41-50	9	45
51-60	4	20
60+	2	10
<b>Position (level)</b>		
Top management	1	5
Senior management/senior specialist	5	25
Middle management/specialist	11	55
Junior management/supervisory	3	15
<b>Years of service</b>		
< 2 years	1	5
2 – 5 years	8	40
5 – 10 years	2	10
10 – 20 years	5	25
> 20 years	4	20

Where **n** is the total sample population and **f** is the frequency

Source: Primary Data

Further analysis of data was conducted to ascertain the extent to which the participants agree or disagree with the statements/notions presented in each dimension. Table 4.3 summarises the collective responses of participants (descriptive analysis) to the items that fall under each quality management systems' dimensions represented in baseline survey questionnaire.

Survey questionnaires presented as statements under each dimension (see Appendix F). These are referred to as Items in Table 4.3 Respondents were requested to indicate whether they strongly agree, agree, are uncertain, disagree or strongly disagree with statements on a Likert scale. From each item a median score was computed. Since the data presents many scores that are skewedly distributed, the median was more sensible to use because of its robustness as it gives a more realistic picture of the data (Cohen *et*



a/. 2007: 515). For the median scores, the Likert scale was ranked from 1 to 5 where 1 signifies strongly disagree and 5 signifies strongly agree.

**Table 4.3: Quality Management Dimensions: Item Analysis**

<i>Dimension</i>	<i>Item No. Median</i>													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Leadership</i>	4.0	4.0	4.0	4.0	3.5	3.5	3.0	4.0	4.0	3.5	3.0	3.0	2.0	3.0
<i>Vision</i>	5.0	3.5	4.0	4.0	4.0	4.0								
<i>Measurement and evaluation</i>	4.0	4.0	4.0	4.0	3.5	3.0	2.0	4.0						
<i>Process control and improvement</i>	3.0	4.0	3.5	2.0	3.0									
<i>Process design and resource allocation</i>	3.0	3.0	3.0	3.0	4.0									
<i>Quality system improvement</i>	3.5	3.0	3.0											
<i>Employee involvement</i>	2.5	3.0	3.0	2.0	2.0	3.0								
<i>Recognition and reward</i>	2.0	2.0	2.0	4.0										
<i>Education and training</i>	4.0	4.0	3.0	4.0	4.0									
<i>Student focus</i>	3.0	2.0	4.0	3.0										
<i>Other stakeholders' focus</i>	2.0	4.0	2.0	4.0	3.0	2.0								

Source: Primary Data

Median score for each construct or dimension (for example, leadership) was computed, as presented in Table 4.4. Each represents the respondent's opinion on the items addressed under each dimension. The closer the median is to 5, the higher the agreement to the construct.

**Table 4.4: Quality Management Dimensions: Scores (Median)**

<i>Dimension (Construct)</i>	<i>Median</i>
<i>Leadership</i>	3.00
<i>Vision</i>	4.00
<i>Measurement and evaluation</i>	3.50
<i>Process control and improvement</i>	3.00
<i>Process design and resource allocation</i>	3.00
<i>Quality system improvement</i>	3.00
<i>Employee involvement</i>	2.75
<i>Recognition and reward</i>	2.00
<i>Education and training</i>	4.00
<i>Student focus</i>	3.00
<i>Other stakeholders' focus</i>	2.75

Source: Primary Data

The quality management dimensions used in the baseline survey questionnaire are a representation of service quality dimensions discussed in a range of literature on the

measurement of service quality (see Raju and Bhaskar 2017: 117-120). This includes the nine common quality management dimensions and issues in HEIs that involve people management, information and analysis, process management, stakeholder focus, planning, leadership, continuous improvement, programme design, and supplier management (see Manatos et al. 2016:14; Tari and Dick 2015:3). A brief discussion of these results is presented.

### **(i) Leadership**

The importance of leadership in the development, implementation and improvement of quality management systems has been a common area of emphasis since the concept of quality was first mooted. In this survey, the dimension of leadership had fourteen items assigned to it for evaluation (more than all other dimensions).

The results showed a median score of three (3), suggesting mixed opinions with regard to the leadership role of top management. A closer look revealed that top management had knowledge of the quality-related concepts (L1). They actively participated in quality management (L2) and supported the improvement processes (L3). However, they fell short in relation to planning, resource allocation (L13), implementation and monitoring of quality management systems (L12).

This dimension prompted the researcher to include in the interview schedule questions on the role played by institutional leadership in assuring quality in its support service units and as well as finding out what leadership challenges do exist if any.

### **(ii) Vision**

The HEI's vision serves as a public declaration of what an organisation endeavours to become in the future.

The results of the baseline study revealed that HEIs had clearly written into their code an institutional vision (V1) which effectively encouraged performance improvement (V3), promoted the alignment of processes and institutional values (V4) and well-defined academic and administrative processes (V5). However, participants exposed a deficit on the vision being widely known and shared by all staff (V2).

The result of this dimension led to the development of interview questions about the institution's quality management/assurance policy/ies and procedures, and for support services units in particular, including the level of stakeholder involvement in their development.

### **(iii) Measurement and evaluation**

The results of the survey indicated some level of participant agreement to the institutions' employment of measurement and evaluation practices, reflecting a median of 3.5. However, on closer inspection, it was clear that there was lack of standard performance measures to evaluate the performance of non-academic units such as administration, student services, facilities and estate, academic support services, and staff in general (ME6, ME7).

In relation to this dimension, the researcher was keen to find out whether was there any measurement and evaluation mechanisms of quality in support services by asking what areas (scope) were covered by the institutions quality management systems and whether were there any specific system for the support sector employed by case institutions.

### **(iv) Process control and improvement**

According to the outcomes of the survey, there was general satisfaction with the facilities set up to enhance the effectiveness of education and to ensure that they satisfactorily met the expectations of students and employees (CE2, CE3). However, the results also indicated a lack of process controls and evaluation mechanisms for process improvement (CE4, CE5).

This dimension led to the enquiry on quality management processes and structures that institutions had in place for assuring the quality of support services provided and whether these led to any improvements and were in compliance with the requirements of external quality agencies.

#### **(v) Process design and resource allocation**

The survey results indicated a level of uncertainty in respondents' feedback on institution-wide stakeholder requirements in the design and evaluation of support services processes (PD1, PD3). However, they agreed that institutions with limited resources at their disposal, for example, in finance and human resources, were challenged in the development and improvement of the support processes (PD5).

As a result of this dimension, a question on challenges on resource allocation for the quality management system and to support the performance activities of the support sector formed part of the interview schedule.

#### **(vi) Quality system improvement**

The survey results showed that to some extent, the HEIs' quality management systems were continuously being improved (QSI1). However, much attention was given to the academic enterprise while there was still an indication of a lack of established support services quality systems (QSI2) with no clear service quality manuals, quality system documentation and working instructions (QSI3).

The level of the institutions' commitment to establish service quality systems was thus uncertain at the median score of 3. Motivated by the result of this dimension, the question on the availability of a dedicated quality management system, policies and procedures for the support sector formed part of the interview schedule.

#### **(vii) Employee involvement**

The results of the survey showed a median of 2.75 as indicative of the fact that participants considered their respective institutions to be lagging behind in QMS-related activities involving of employees. This deficit included a lack of cross-functional teams (EI1), collaboration (EI2), team-work (EI3) and employee feedback (EI5).

The dimension led to an enquiry, in the interview schedule, on the level of employee involvement and participation in the development of quality management systems and policies.

#### **(viii) Recognition and reward**

Survey results indicated a lack or absence of reward programmes (RR1) or clear procedures for the recognition of employee QMS efforts (RR2), and lagged behind on employee participation in activities relating to goal attainment (RR3). The results showed a median of 2 in response to how well the HEIs performed in terms of employee recognition and reward. As a result, questions on staff motivation and working conditions were included in the interview schedule in an endeavour to find out whether these had an impact on employee performance and on the quality of services delivered.

#### **(ix) Education and training**

According to the results, showing a median of 4, participants surveyed seemed to be content with the level of education and training provided by the institutions. However, they indicated a lack of employee participation in QMS training (ET3).

Similarly to the dimension of recognition and reward, the enquiry on motivation and working conditions prompted interviews to clarify the level of contentment denoted in the survey since there was also an indication of lack of training particularly in QMS.

#### **(x) Student focus**

The median of 3 in the survey results had revealed that HEIs support student extra-curricular activities (SF3), yet it had also exposed a serious lack of services-evaluation surveys of support services units and student feedback thereto (SF2).

Questions on whether students participated in quality related activities, processes and structures and on whether there were any satisfaction surveys conducted by the case institutions were included in the interview schedule in an attempt to examine the extent to which the current QM system (practice) related to the quality of the whole student learning experience.

#### **(xi) Other stakeholders' focus**

Survey results disclosed that HEIs considered the changing needs of the industry (OSF2) and the effort required to understand the expectations of industry regarding the graduates

they produce (OSF4). However, the median of 2.75 in the results was indicative of a lack of constructive engagement with stakeholders. It was characterised by insufficient or absent feedback on the job satisfaction of employees (OSF6), with little effort to collect and evaluate employee feedback (OSF1) or follow up on the career paths of alumni (OSF5).

This dimension prompted the researcher to question whether HEIs ever engaged in any kind of customer satisfaction surveys as form of feedback on the support services provided.

As indicated earlier, the foregoing analysis was subsequently used to inform the conduct of semi-structured interviews: it was used as a guide in the development of the interview schedules and in the interview process itself. As indicated, the interview questions contained in the interview schedules were primarily based on aspects of the dimensions covered in the baseline survey questionnaire and the information acquired from the foregoing analysis.

#### **4.6.2.4 Interviews**

The conduct of Interviews followed the institutional document analysis. Data collected from the institutional documents was analysed prior to the interviews. The resultant analysis of this data offered invaluable direction to the development of the interview schedule (see Appendix B and C) and to the interview process itself.

Interviews formed the main data-collection method of the study and the researcher used them to gather rich information from the sampled participants.

The strength of the interview as a data-collection instrument is found in its capability “to access the perspectives, attitudes and opinions of the interviewees” (Babbie *et al.* 2001: 288). The literature indicates that interviews are an important data gathering research instrument in cases where it is challenging to observe the appropriate behaviours, or when one has undertaken to understand implicit factors such as the participants’ beliefs, feelings and interpretations of their environments (Geda 2014: 201).

In this study, face-to-face semi-structured interviews were used to elicit relevant information on the attitudes and perceptions of the participants regarding the development and implementation of the existing quality management systems in general, and the policies and practices in particular. The uniqueness of interviews rests on the opportunity that they present the researcher with to “employ a multi-sensory approach to obtain meaning from the verbal responses of subjects” (Mhlanga 2008: 80). In interviews, the participants became informants more than respondents, as they were allowed to give their own insights into certain occurrences, and in some instances these are used as the basis for further clarification of the issues under consideration.

Hancock (1998: 14) suggests that during the interviews the researcher has a choice as to whether to take notes or use a tape recorder. In this study, both methods were used. The researcher captured all the interviews on a recording device and so relied on the tape recordings supplemented by notes, which were made as soon as possible after each interview.

Groenewald (2004: 13) refers to the process of note-taking, of reflecting on what the researcher heard, as ‘memo-ing’; it includes impressions and experiences captured soon after the interview. In this research, each interview was recorded separately, saved in a separate file, dated and labelled with the interviewee’s name. Transcripts were subsequently generated from the recordings. Due to the volume of interviews, the services of a transcriber were sought and thus a data management system was critical to track data, to allow for its reliable and easy usage (Harris 2002: 62). The interview transcripts and notes were clearly labelled and filed in one folder on a computer’s Microsoft Word programme.

#### **4.7 Data Analysis**

Qualitative research broadly encompasses a variety of data collection strategies and analytical approaches aimed at providing a contextual description and interpretation of a social phenomenon (Vaismoradi and Snelgrove 2019: 1). According to Neuendorf (2019: 211), content analysis and thematic analysis are two popular methods applied in the

analysis of message content in relation to a wide range of phenomena. Vaismoradi and Snelgrove (2019: 2) point out that content analysis has received much criticism and objection from scholars (Ritsert 1972; Mostyn 1985; Wittkowski 1994; Altheide 1996) citing its superficial analysis and disregard for latent content and contexts. This has led to the introduction of a qualitative approach to content analysis referred to as qualitative content analysis.

In this study two data analysis approaches were used, namely, qualitative content analysis (QCA) and thematic analysis (TA). This was done in the light of the insight acquired from Vaismoradi and Snelgrove's (2019: 2) observations. They offer much food for thought with their philosophical backgrounds, absorption in data, attentiveness to both description and interpretation of data analysis, consideration of context during data analysis, and the fact that they cut across data in seeking themes.

Through data analysis the researcher is able to establish categories and to extract themes. The researcher thus seeks to present an overall data narrative in several steps. The first involves engaging in the unit of analysis selection, subjectively reflecting on the realities of the phenomenon. This becomes the data analysis instrument, through which multiple realities are sought that may be hidden in the data. This process is facilitated through accessing analytical insights (Cho and Lee 2014: 1; Connelly and Peltzer 2016: 54).

The researcher also helps to construct new insights into the phenomena through their to and fro movements between data, previous experience and prior knowledge. This is enriched by their having read prior research on the phenomenon under scrutiny (Erlingsson and Brysiewicz 2013: 93).

In both approaches – qualitative content analysis (QCA) and thematic analysis (TA) – the researcher is afforded a contextual framework. In the TA approach, the final products of data analysis are described as themes or patterns (Braun and Clarke 2006: 78); while for QCA the analytical products of data analysis are categories, themes and their subdivisions, subcategories and subthemes. These arise as a result of 'sensemaking'

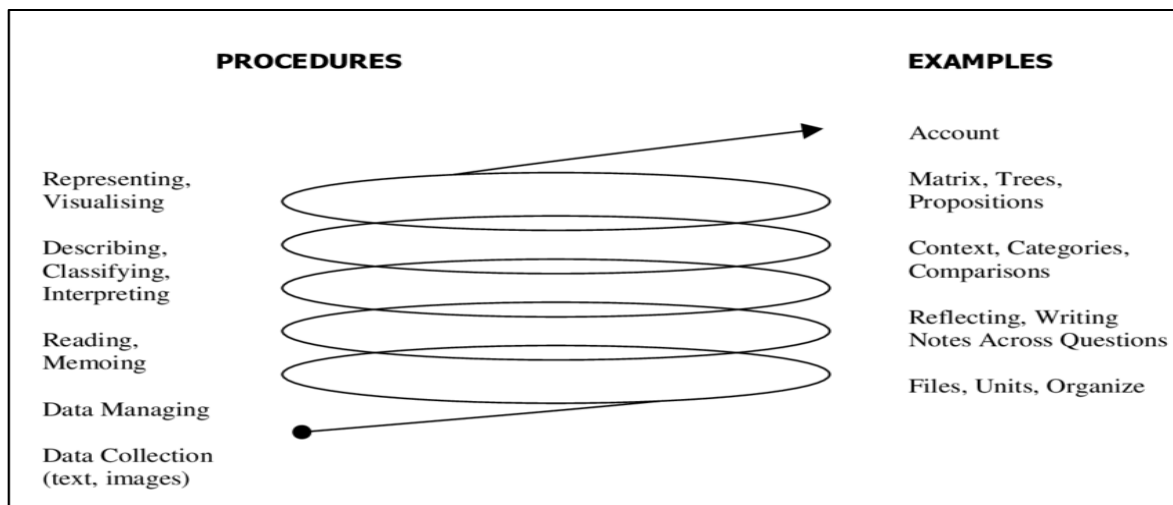


from interaction with people, information, texts, messages, symbols, mass media content and technology aided social interactions (Vaismoradi *et al.* 2013: 401).

TA however, according to Loffe and Yardley (2004), offers the researcher a systematic structure characteristic of content analysis, and an opportunity to merge the analysis of meaning and context. The researcher's aim to reach particular levels of analysis, either descriptive (manifest content) or interpretive (latent content), determines their choice of analytical product. The choice is important as it allows the researcher to develop, depending on the researcher's impetus in the analytical process itself (Vaismoradi *et al.* 2013: 401).

According to Creswell (1998: 143), the main aim of content analysis is to create order and structure, thus allowing for meaning to emerge from the data collected. Generally, during data analysis the researcher in this study used Creswell's (1998: 143) data analysis spiral (see Figure 4.1).

**Figure 4.1:** Data Analysis Spiral

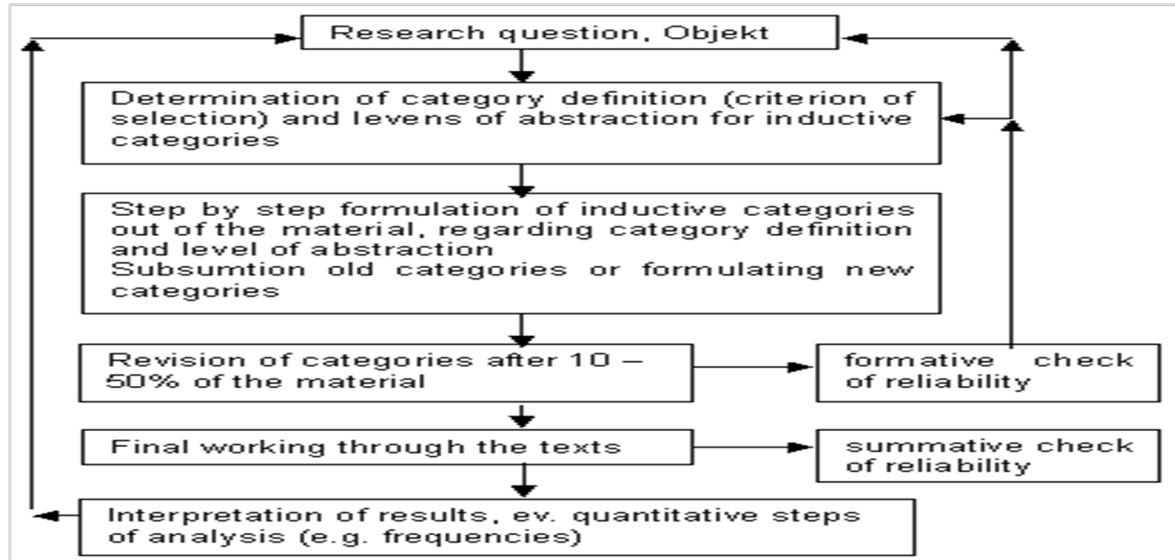


Source: Creswell (2007:143)

The data management referred to in 4.6.2.4 is represented in the first loop of the spiral. This was followed by the reading and meaning-making of the whole transcribed text before it was broken up into meaningful parts. Following this was the process of coding, classification and categorisation of the data, accompanied by description and

interpretation. At this stage, the qualitative content analysis inductive process for category development advocated by Mayring (2004) was found to be appropriate (see Figure 4.2).

**Figure 4.2:** Step model of inductive category development



Source: Mayring (2004)

Mayring (2004) explains the main idea for this procedure is the use of the theoretical background and research question in determining which aspects of the textual material the researcher should consider when formulating a criterion of definition. Working through the textual material, tentative categories are developed, reviewed, ultimately reduced to main categories and checked for their reliability (Mayring 2004: 161).

In this study, the analysis of institutional documents encompassed finding factual statements about: how each internal quality system was introduced; existing internal and external quality review systems; accreditation; support services activities covered by internal quality management systems; contents of manuals; standards set, including the opinions and findings of internal and external reviews as well as those of audit evaluators.

The researcher used the institutional document analysis as a triangulation mechanism, in that documentary sources were cross-correlated with the interviews. This culminated in an integrated interpretation and analysis of data from all sources. The process of

triangulation thus served to verify and validate data collected – and recorded as evidence – via instruments used in this research project.

Furthermore, during the analysis of data the formulation of categories was facilitated by the use of NVivo Software as an ancillary tool. The researcher commenced by coding the data, and identifying themes and dimensions that were ultimately grouped into categories (Creswell 2007: 144-145; Katzenellenbogen *et al.* 1997: 180). It was at this stage that the researcher started to comprehend the data interpretatively: through views gained from the data collection – including those of participants – from document analysis and from the literature.

To verify and interpret the results, the data from these sources was compared and aligned to establish how, if at all, they complemented one another. Information was then condensed into minute, useful sets under themes to form the last written narrative (Creswell 2007: 145). The final phase of the spiral was the researcher's presentation of data.

As described, the qualitative data was transcribed, coded and interpreted thematically. The thematic approach was pursued to present the analyses and findings derived from the qualitative data. The interview transcripts and the data from the documents were analysed for descriptions and patterns related to these primary areas:

- (i) the concept of quality management as understood within HEIs
- (ii) the purpose of quality management within HEIs
- (iii) the scope of quality management within HEIs
- (iv) the structures supporting internal quality assurance processes for the support sector
- (v) the tools and processes for assessing quality of support services within HEIs
- (vi) the role of senior management in support services QA within HEIs
- (vii) the stakeholder involvement in internal QA processes
- (viii) the use of institutional information
- (ix) challenges to successful implementation of QA within HEIs
- (x) areas for further development

#### **4.8 Trustworthiness, Validity and Reliability**

In order to determine whether the research truly measures that which it was intended to measure, or how truthful the research results are, validity has to be considered.

According to Cohen *et al.* (2007), validity can be defined as a general appraisal leading to an evaluative judgement of the degree to which empirical evidence and/or the theoretical rationale supports the adequacy and appositeness of interpretations and actions on the basis of generated data by whichever means. Reliability can be defined as:

- (i) “the degree to which results are consistent over time;
- (ii) the degree to which a measurement, performed recurrently, remains the same; and,
- (iii) the constancy of a measurement over time” (Cohen *et al.* 2007: 135).

There are two kinds of validity: internal and external validity. According to Cohen *et al.* (2007: 135), internal validity seeks to demonstrate that the data can actually sustain a particular event explanation, issue or set of data which a researcher provides. This concerns the accurateness which may be applied to quantitative and qualitative research. External validity is the degree to which the results can be generalised to the wider population, other cases, or other situations (Cohen *et al.* 2007: 135).

In qualitative research there is no consonance over how to address the traditional issues of validity and reliability. However, there is general consensus that the credibility or worth of the findings in qualitative research must and can be ensured (Anney 2014: 277; Babbie *et al.* 2001: 274-275; Chowdhury 2015: 158; Cypress 2017: 257; Elo *et al.* 2014: 2; Harris 2002: 65; Shank 2002: 92-93; Treharne and Riggs 2014: 57).

In this study, Lincoln and Guba’s (1985) model of trustworthiness in relation to qualitative studies was used to put to the test the findings of this research. Their model is based on the notion that any inquirer must be able to convince the audience that the research findings are worth taking account of (Chowdhury 2015: 143). To increase the rigour of a

qualitative study four aspects of trustworthiness namely, truth value, transferability, consistency and neutrality are to be considered (Chowdhury 2015: 148; Elo *et al.* 2014: 2; Moon 2016: 5; Treharne and Riggs 2014: 57-58).

Strydom and Delport (2002: 351) refer to the truth value of a study as the credibility which can be obtained in a precise account or interpretation of the experience or phenomenon. In this study the researcher engaged in an extensive process that included documentary analysis, survey results, and individual interviews; accuracy of referencing in the form of all notes, transcripts and audio recordings (which are available as records); and member checks with participants (Babbie *et al.* 2001: 277; Chowdhury 2015: 148; Elo *et al.* 2014: 2). Table 4.5 depicts the criteria used in the qualitative research process, as compared to that of a quantitative process.

**Table 4.5:** Comparison of criteria by research approach

“Criterion	Qualitative approach	Quantitative approach
Truth value	Credibility	Internal validity
Applicability	Transferability	External validity
Consistency	Dependability	Reliability
Neutrality	Confirmability	Objectivity”

Source: Krefting (1991: 217)

According to Guba and Lincoln (1985), when transferability is realised the burden of proof does not lie with the original researcher, rather it rests with the one who wishes to apply the qualitative studies elsewhere. It should be possible for any reader to make similar judgements as made by the original researcher due to ‘thick’ descriptions that provide sufficient detail and allow judgements of transferability in qualitative studies. This is an important role that the original researcher plays and it is where the researcher’s responsibility ends (Anney 2014: 277; Cypress 2017: 257; Moon 2016: 10).

Moreover, the maximum ‘purposive sampling’ employed in this study allowed for a range of specific information to be obtained from and about the context. Transferability was facilitated as a result of the amount of data collected, thus increasing the possibility for comparative analysis (Cypress 2017: 257; 316; Babbie *et al.* 2001: 27).

Trustworthiness also considers the extent to which the findings would be consistent if the study were replicated. This is referred to as consistency or dependability of data, wherein single reality is assumed when something is invariable and can be used as a benchmark (Anney 2014: 278; Elo *et al.* 2014: 2). However, qualitative studies accentuate the uniqueness of the human setting, seeking variation by looking at the range of experiences instead of identical duplication and/or 'average' experience (Anney 2014: 278). Therefore researchers who want to conduct similar studies with the same set of considerations as the current study, will be able to decide whether this study's findings can be generalised for their own settings (De Vos 2002: 352).

The multiple data sources used in this study, including the different methods of collecting data and the use of multiple informants, contribute towards enhancing generalisability, thus strengthening the usefulness of the study for other settings. In establishing the dependability of the findings of this study the data, interpretations and recommendations were examined to confirm that all data is supported whilst being internally coherent.

In this study, interviewee responses were checked by the researcher firstly, through repeating responses to ensure that their responses were what the participant actually meant to convey. Secondly, responses were verified when the researcher listened to the recordings more than once, and lastly, the researcher checked the transcriptions against the recordings.

The applicable confirmability criterion is that of neutrality Chowdhury 2015: 159; Elo *et al.* 2014: 2). However, Lincoln and Guba (1985: 323) argue that instead of assigning the notion of neutrality to the researcher, emphasis should rather be placed on the data wherein the researcher leaves a 'trail'. This 'trail' would enable one (for example, an auditor) to ascertain whether the interpretations, conclusions and recommendations may be traced back to their sources (Anney 2014: 278). In this study the strategies employed in establishing trustworthiness are summarised in Table 4.6.

**Table 4.6:** Strategies through which trustworthiness was established

Qualitative approach criteria	Strategy used in study
Credibility	<ul style="list-style-type: none"><li>• Prolonged experience in the field</li><li>• Reflexivity (weighing literature and experience; field notes)</li><li>• Triangulation (experience, literature, semi structured interview)</li><li>• Member-checking</li><li>• Establishing authority of researcher (experienced in field)</li><li>• Structural coherence of the study</li><li>• Referential adequacy and proof</li></ul>
Transferability	<ul style="list-style-type: none"><li>• Purposive samples</li><li>• Thick description</li></ul>
Dependability	<ul style="list-style-type: none"><li>• Extensive description of research methods</li><li>• Triangulation</li><li>• Checking data</li><li>• Literature control</li><li>• Checking transcriptions</li></ul>
Confirmability	<ul style="list-style-type: none"><li>• Triangulation</li><li>• Reflexivity</li></ul>

Adapted from Krefting (1991: 217)

Strategies employed in establishing trustworthiness in this study are summarised in Table 4.6. According to Krefting (1991: 217) credibility is determined by sufficient submersion in the research field. This entails identifying and verifying recurrent patterns (Elo *et al.* 2014: 7). Hence, starting with the institutional documentary analysis, the researcher spent a considerable time collecting data. More time was spent conducting individual interviews which each took between forty-five minutes and one hour.

As a researcher who is no stranger to the field under investigation, and as an employee within the higher education sector in the field of quality management, the process was found to be rather dynamic, in the sense that the researcher was also a ‘participant’ and

reflected on the researcher's role in the study, as well as how this may have affected the data collection and analysis (Lincoln and Guba 1985: 327).

Establishing validity is addressed when “multiple sources of evidence essentially provide multiple measures of the same phenomenon” Yin (2009: 116-117). In this study the use of institutional documentation, survey questionnaires, and interviews allows for methodological triangulation in relation to the research questions. Triangulation was effected between different data sources – a variety of participants and a range of documents as source material, within the same method. It was applied in order to nuance and control the interpretations presented in the study.

To ensure that the participants' viewpoints had been translated accurately, member checking was performed through having participants check the data obtained from the interviews. The researcher perpetually checked the participants' responses during the interviews in an attempt to avert misinterpretation, whilst also rephrasing, repeating, recapitulating and expanding on questions, thus enhancing credibility (Anney 2014: 279 Moon 2016: 2).

Research authority was enhanced by a thorough literature review, and established due to the researcher's:

- (i) familiarity with the phenomenon under investigation
- (ii) standing as a higher education quality management practitioner
- (iii) interest in the theoretical knowledge in the field
- (iv) aptitude for looking at the subject from different theoretical perspectives, and
- (v) prior involvement with qualitative methods, including some coursework in research methodologies (Krefting 1991: 220).

The study's structural coherence was achieved as every effort was made to ensure that there were no unexplained inconsistencies between the data and the interpretation; and where any contradictions were apparent, these were explained by means of interpretation.



Purposive sampling employed in the study has satisfied the transferability criterion. The selection criteria of study participants and the dense description of the background to the study, its context and the participants offer adequate information for other researchers to make a determination on the transferability of the findings (Anney 2014: 279; Elo *et al.* 2014: 7). Dependability was ensured through the methods used in data gathering, analysis and interpretation – that have already been clearly described. As explained earlier, triangulation took place.

The checking of data included repeatedly listening to the audio recordings against transcriptions (Groenewald 2004: 18), and assistance was sought for the transcription of interviews. During and immediately after each interview the researcher also noted points for checking. The study supervisor checked the research plan and its implementation to ensure dependability (Elo *et al.* 2014: 6). Triangulating multiple methods, data sources and theoretical perspectives, aided in establishing confirmability. For every claim made and for the interpretation of the findings, sources and necessary documentation are provided. Reflexive analysis (reflexivity) is used to describe the researcher's awareness of possible influence on the data.

#### **4.9 Ethical Considerations**

In an attempt to honour a professional code of ethics, put forward by Leedy (1997: 116), the researcher determined *to*:

- (i) maintain scientific objectivity
- (ii) acknowledge the limitations of the researcher's competence
- (iii) acknowledge every individual's right to privacy and dignity in treatment
- (iv) honour confidentiality
- (v) present the findings of the study in honesty and without misrepresentations
- (vi) not use the researcher's privilege to acquire information for another purpose
- (vii) acknowledge all assistance and support, cooperation and sources.

Prior to the commencement of the study with case institutions, Gatekeeper's permission to conduct research was obtained from these participating institutions' relevant offices. This followed the issuing of the ethical clearance (see Appendix A) by the institutional research ethics committee within which the study is registered. Participants were provided with a letter containing information (see Appendix D) regarding the nature of the study, the research purpose, the use of research findings and the extent of participant involvement, including confidentiality, during the research. On receipt of confirmation from prospective interviewees of their willingness to participate, an appointment was arranged and an interview schedule was electronically forwarded to familiarise the interviewee with the anticipated lines of inquiry.

Mostly face-to-face interviews were conducted and a consent form was signed prior to the commencement of the interview. Of the twenty four interviews, three were conducted telephonically while being recorded, as was the case with the face-to-face interviews. It was made clear to the participants that in the course of the study, they might withdraw without penalty or any offense should they need to. It was also made clear to participants that all data obtained during the data collection phase would be confidentially kept and securely stored and would be accessible to the researcher only. The researcher gave participants the assurance that their identity would not be disclosed under any circumstances.

#### **4.10 Conclusion**

This chapter discussed the research design and methodologies adopted for this study. It expounded on the theoretical orientation of the qualitative methods approach within a pragmatist paradigm. The chapter outlined how qualitative and quantitative methods are used, and explained that the study was based on the qualitative epistemology.

The chapter also discussed the research strategy employed, which included the study design, data collection processes, data collection instruments and methods used for data analysis. In addition, it explained how the baseline survey was used to develop interview schedules that were used as the main data collection method. Interviews were used to

gain the views of participants on institutional background, major activities of internal quality management systems, their experiences of service quality, and issues that influenced their effective implementation within their respective higher education institutions.

The chapter explained how the data gathered through document review and interviews was analysed using qualitative content analysis and thematic analysis. Finally, strategies were explored through which the trustworthiness of the study could be established and the ethical issues considered.

In further discussion the following chapter presents the results of the study by delving into how data was analysed and interpreted.

## **Chapter 5 Data Analysis and Interpretation**

### **5.1 Introduction**

The aim of this study was to investigate the extent to which quality management has been adopted in the SAPHEIs' support services units by examining the mechanisms for the development and implementation of quality management systems. The study relied on information collected through document analysis and semi-structured interviews with selected participants.

The study sought to find responses to the research questions in four key lines of enquiry. Firstly, the questions seek to determine the extent to which the support sector at South African public HEIs has adopted, developed, implemented and monitored service quality principles, policies and management practices. Secondly, the research probes the reasons for any similarities or differences in the way in which, and the extent to which service quality has been embraced, adopted, implemented and monitored by support services at South African public HEIs. Thirdly, the study investigates the extent of practice in the models of good service quality that can be applied within the support sector in South African HEIs. And fourthly, the research seeks to isolate the drivers of and the barriers to the implementation of a quality management system for support services at South African HEIs. This chapter presents a thematic analysis of the results and findings derived from the qualitative data collected.

Key data was obtained in participants' views as expressed in interviews and by means of document analysis. The data centred on the introduction and use of support sector quality management mechanisms and instruments, the main support services activities encompassed in the internal quality management systems, the factors that impede implementation and the areas of the internal quality management systems that need further development.

This chapter triangulates data by combining the analysis and interpretation of the information gathered and the results of document analysis and participant interviews.

## **5.2 Data Analysis**

The main aim of data analysis and data interpretation was to bring order and structure by organising the assimilated data into categories, and to identify patterns in these categories. This was done through an inductive process, ultimately yielding meaning, with the assistance of Creswell's data analysis spiral (see Creswell 1998: 143).

### **5.2.1 Documentary Data Analysis**

In this study, documentary analysis was used to contextualise: how quality management policy frameworks are understood; as well as the practice environments that influence HEI's quality management systems. Documentary analysis enriched and enhanced the results obtained through the interviews.

The findings made it possible to understand the extent to which HEIs have developed and introduced strategies, policy guidelines and institutional arrangements for the implementation of their quality management systems, in particular those pertaining to service quality. Of interest to the researcher were documents containing quality management policy and declarations, rules and regulations, procedures and processes, manuals and frameworks, and published reports.

A checklist for institutional document analyses was useful for determining the extent to which the institutional documents represent the aspects of the internal quality management system developed and adapted from the standards criteria of the Commonwealth of Learning (CoL) for the successful implementation of quality management systems – particularly those of the support sector (Commonwealth of Learning 2009: 19–198).

Some of the institutions' documents used were publicly available on the institutions' websites, and the published public institutional reports were obtained from the CHE's website. Information not publicly available such as manuals, frameworks, procedures and processes, were obtained through the quality managers/directors and in one instance, by formal request to the governance custodian in the registrar's office.

The researcher did not have any difficulties in obtaining the required documentation. In conducting the content analysis, the researcher's role was to determine which institutional documentation contained evidence of their having addressed the CoL standards criteria; and which had documents that address CoL standards criteria as they relate to the support sector as shown in Appendix G.

The most common key words or themes found in the document sources of all case institutions included these: definitions of quality, quality management and quality assurance, the introduction of quality management systems, internal reviews, institutional audit (self-assessment report), external quality reviews, internal quality structures and practices, programme accreditation, students' feedback, curriculum development, program approval and revision, graduates survey.

When used in conjunction with interviews, documentary analysis provided deeper qualitative insights, which augmented the data.

### **5.2.2 Interview Data Analysis**

In this study the data analysis consisted of an inductive process, meaning that from various instances inferences were drawn to arrive at a general conclusion. This was brought about through qualitative content analysis which involved the organisation or classification of data into categories, and the subsequent identification of patterns from these categories (see Bezuidenhout 2005: 178; Lacey and Luff 2001: 15; Vaismoradi *et al.*, 2013: 401). As is characteristic of qualitative research, the qualitative enquiry resulted in substantial amounts of rich, comprehensive contextually-loaded yet subjective data from which representative themes or categories were derived.

As the researcher was familiar with the field of quality management, a conscientious attempt was made not to let personal preconceptions, presuppositions or assumptions contaminate the participants' communication or their opinions. As suggested by Gearing (2004: 20) and Groenewald (2004: 6), in this study, areas of potential bias were spotted and "bracketed" so that their influence on the research process was kept to a minimum. However, interpretation was guided by the researcher's prior knowledge of the

phenomenon under investigation and the insights gathered from literature (see Erlingsson and Brysiewicz 2013).

In the process of coding, the checklist for institutional document analyses and the interview schedule guided the classification of the data into themes for discussion. These are presented in the list that follows:

- (i) Quality management concept as understood within HEIs;
- (ii) Purpose of quality management within HEIs;
- (iii) Scope of quality management within HEIs;
- (iv) Structures supporting the internal quality assurance processes for the support sector;
- (v) Tools and processes for assessing quality of support services within HEIs;
- (vi) Role of senior management in support services QA within HEIs;
- (vii) Stakeholder involvement in internal QA processes;
- (viii) The use of institutional information;
- (ix) Challenges to successful implementation of QA within HEIs; and
- (x) Areas for further development.

Categories were created for each theme and as the analysis proceeded, patterns were identified. The themes, categories and patterns/sub-categories that emerged during the data analysis are summarised in Appendix H. Table 5.1 below presents the relate to and help respond to the research questions that the study seeks to address.

Table 5.1: Relationship between Themes and the Research Questions

Theme		Research Question
(i) the concept of quality management as understood within HEIs		What are the conceptual, theoretical and empirical underpinnings to the construct of service quality and models of good service quality practice?
(ii) the purpose of quality management within HEIs		To what extent has the support services sector at South African HEIs adopted, developed, implemented and monitored service quality principles, policies and management practices?
(iii) the scope of quality management within HEIs		What are the reasons for any similarities or differences in the manner and extent to which service quality has been embraced, adopted, implemented and monitored by support services at South African HEIs?
(iv) the structures supporting internal quality assurance processes for the support sector		To what extent can models of good service quality practice be applied to the support sector in South African HEIs?
(v) the tools and processes for assessing quality of support services within HEIs		What are the drivers, and what are the barriers to the implementation of a quality management system for support services at South African HEIs?
(vi) the role of senior management in support services QA within HEIs the stakeholder involvement in internal QA processes		How can service quality be improved in the support sector at South African HEIs?
(vii) the stakeholder involvement in internal QA processes		
(viii) the use of institutional information		
(ix) challenges to successful implementation of QA within HEIs		
(x) areas for further development		

Source: Author



Participants' comments were appraised in terms of what was found in the literature together with other participants' opinions. The same applied in instances where contributions were deemed rational, or where it was clear that the comment contained a recommendation for improvement. The study deals with them in the section on recommendations (see 6.2). This section that follows presents results obtained from the analysis of both documentary and interview data.

### **5.3 Results**

#### **(i) Quality management concept as appreciated within HEIs**

This theme represented two categories, that is, the academic enterprise quality management mechanisms and processes and the support services quality management mechanisms and processes, explicating how these were embedded in the HEI's philosophies as evidenced in institutional documents and collaborated by interview data. The institutional strategic plans became a significant source from which the researcher learnt how the concept of quality management was articulated and heard from participants about how the plans were understood by those for whom they were to guide.

#### **University A (NMU)**

University A is an urban comprehensive HEI that has a robust strategic plan that promotes integrated planning systems and processes. University A undertook to link planning and its quality management model at institutional and faculty levels. In the first instance, the university documentation signposted development in the design and implementation of a system for academic programme planning and review. It also indicated a focus on the areas of the quality of student learning experience, quality of facilities and services provided in the universities multi-purpose centres, and on the quality of inter-relationships. The strategic plan also provided for monitoring and evaluation to ensure continuous improvement of institutional processes, systems and infrastructure aimed at promoting a vibrant staff and student life in all of its campuses. One of the goals was mentioned was to design, implement and monitor an integrated institutional quality management system.

It was pointed out by senior management that the strategic plan was linked to national and provincial imperatives of transformation as espoused in the CHE frameworks. This supported what the strategic plan claimed. Interviewees also believed that the institutional leadership was committed to quality management hence the concept comes alive in the institutional strategic plan. However, the one senior manager of University A still felt that more could still be done in terms of management commitment as he has this to say:

*“I also think that leadership needs to be committed and walk the talk. It’s easy to say improve quality but it needs to be backed up by the commitment from the leadership and the resources must also be available because as it is that doesn’t always match.” (SnrMngA3)*

### **University B (WSU)**

The strategic plan for University B, also a comprehensive university but rural, promoted academic excellence, quality assurance and the quality of student experience. It promised to be moving towards the establishment of an increasingly integrated planning system and processes whereby there would be alignment between the institutional strategic plan and resource allocation and budgeting models, monitoring and evaluation mechanisms, quality advancement, and performance management systems. Senior management appreciated the direction the institution was promising to take, as articulated by the strategic plan, however casted some doubt on the commitment of leadership to the process. For example, one senior manager at University B shared the importance of leadership in the quality agenda by saying:

*“To me it’s always about leadership, if we’ve got people – not leadership in terms of position that they occupy (yes that’s very important because) – that influence the rest of the systems’ leadership in terms of distributed leadership, all of us in our own spaces – believing on issues of quality ... we will have our personalities as embodiment of the philosophies and principles of quality.” (SnrMngB2)*

### **University C (UKZN)**

University C is an urban traditional university with a student-centered strategic plan that was explicit on the quality of the student experience through service excellence/quality and transformation. To this end it promised to provide a transformative student experience by offering a quality, integrated, and holistic academic experience. Stakeholder service perceptions and student satisfaction were highlighted as a priority, with commitments to excellence in teaching and learning and the empowerment of people through effective (quality) leadership, governance and “*highest quality management principles*”, and through the provision of quality infrastructure and systems.

According to the strategic plan, service quality was one of the universities core values as they endeavored to ensure that professional quality support services were provided within a value-driven service environment and culture. Participants confirmed this conscious concerted focus on support services quality within the university stating that having established the quality assurance systems for teaching and learning “*the time has come of the support services sector*”, said SnrMngC2 of University C.

### **University D (UFH)**

University D is a rural traditional university with its strategic plan advocating for the development of a comprehensive quality assurance system. The focus was on quality of teaching and learning and the quality assurance of the university structures and systems that aimed at promoting optimal staff quality and at the improvement and enhancement of institutional governance. Another area of emphases was the internal processes for the three-year programme quality reviews cycle. Talent management and development of human resources was highlighted as a priority. The strategic plan advocated for the improvement of quality and quantity of delivery of basic student services such as accommodation, health care, etc. Due to the seniority of their position, the participants they were aware of the strategic plan, however they expressed concerns about stakeholder involvement and communication of the strategic plan to the university community.

### **University E (DUT)**

University E is an urban university of technology. The university's strategic plan incorporates a rigorous strategic integration of planning, resource allocation, risk assessment and quality assurance. It aims at improving the quality of life of its people and also promoting quality of its service to enhance quality of student experience, staff and other beneficiaries. The goal in this area was to build "*sustainable student communities of living and learning*" thus enhancing the quality of its graduates. This wholistic approach was intended on building "*the quality and quantity of systemic thinking*" across the university. Participants commended the university in its endeavors of seeking and gaining buying from all its stakeholders through consultative processes and awareness campaigns that were conducted university wide.

### **University F (MUT)**

University F is a peri-urban university of technology (classified by the CHE as rural). Its strategic plan was founded on principles of good governance and management linked to the legislative framework and compliance to CHE quality requirements. It made reference to its quality management system which focused on quality student experience, academic excellence through quality of teaching and learning, and the achievement of educational outputs. It promoted attracting, developing and retaining quality people resources. University F undertook to communicate the plan to the entire university community however participation of staff at lower levels in the development of the strategic plan was deemed by the participants to be lacking.

### **Cross-university summary**

Senior managers of all the six institutions indicated that their strategic plans addressed the issues of quality management. This confirmed what institutional documentation revealed. A clear biased consensus, transpired from both document analysis and from interview data was an emphasis on the mechanisms and processes required to assure the quality of the academic enterprise as opposed to those of the support sector. There were common quality themes across all institutions' documentation particularly on academic excellence or quality of teaching and learning and the quality of student

experience. Universities A, D, F and E strategic plans had goals aimed at assuring the quality of their human resources/ staff that the senior managers confirmed to be aware of. Universities B and E emphasised on striving to align or integrate planning, resource allocation and quality management/ assurance. Universities A and B strategic plans promoted monitoring and evaluation however participants would not confirm as to whether there were adequate mechanisms to perform such exercise leaving the researcher summing up that there was a lack in this area. Universities A, C and D, (all urban universities), document analysis showed more explicit commitment to the quality of support services with University C placing much more emphases than any other university.

Institutional document analysis revealed an overlap between the different interpretations of the concept of quality management judging by the quality management themes that the strategic plans address. However, when *participants* were asked about their understanding of the concept of quality management, various descriptions emerged with some common understanding particularly in relation to the quality of the academic enterprise. The researcher observed this to be the case between and within institutions. The description of HEIs in terms of institutional type and size did not seem to have any bearing on the similarities identified between and within institutions. It seemed though that the level of embeddedness of the support services quality management mechanisms and processes and the implementation thereof differed dependent on the maturity of the system. Universities that were classified as previously advantaged and those that were a combination of both previously advantaged and previously disadvantaged and urbanely located had a more mature systems than their counterparts.

## **(ii) Purpose of quality management within HEIs**

The purpose of quality management within the case institutions was to be expressed on the quality assurance/ management policies and/ or frameworks and collaborated by the interviewees. There were two categories identified in this theme, that is improvement-oriented purposes and compliance-oriented purposes.

### **University A (NMU)**

The purpose of quality management was to provide a framework for institutional quality advancement including the quality of the student learning and staff experience. The interviewees understood the purpose of quality management be more for the continuous improvement of institutional systems and processes.

### **University B (WSU)**

The purpose as stated in the policy documents was to provide broad guidelines on quality management systems for continuous improvement purposes. This was understood to be as such by two interviewees including the senior manager from quality management directorate (SnrMngB4) whilst other senior managers viewed quality management to be for compliance purposes.

### **University C (UKZN)**

According to the institutional documentation, the purpose of quality management was for the development of an institutional quality management system that covered all areas of the University with an emphases on service excellence. The director of quality assurance confirmed (SnrMngC2) the emphases on service excellence while the other interviewees seemed not to be aware of this area emphases as they knew it to focus on teaching and learning. She indicated that the policy had been recently reviewed and the other senior managers (also interviewed) were involved in the approval processes.

### **University D (UFH)**

The purpose of quality management was to provide for the development of quality assurance policies, guidelines and procedures to improve and enhance institutional governance. Only the Manager of Quality Assurance (SnrMngD2) seemed to be articulate of the purpose of quality management at University D. Other interviewees provided their own personal understanding of the phenomenon which included the improvement of teaching and learning and also mentioned compliance with institutional internal policies and external regulations.

### **University E (DUT)**

The institutional documentation indicated that purpose of quality management was for the promotion of continuous improvement and quality advancement across academic and professional support functions to enhance the quality of graduates. Senior managers interviewed confirmed quality advancement endeavours within the academic sector of the university however they seemed to be unfamiliar with the institutional approach to professional support functions' quality management activities. Some interviewees felt that the approaches used by the quality management unit at University E were sometimes viewed as enforcement of compliance.

### **University F (MUT)**

The purpose as stated in the policy documents of University F was to provide for the improvement of quality in teaching and learning activities and the quality of educational outputs. Also to enhance the institutional governance and management structures. Interviewees from the support services units had a perception that quality management was mainly meant for the academic enterprise, however indicated that they had been made aware of some quality assurance activities that were soon to be introduced within the support services sector of the university.

### **Cross-university summary**

All six case institutions had a quality management/assurance policy which in all cases focused on academic enterprise with some aspects of institutional operations mentioned. All institutional documentation was clear about achieving institution-wide quality improvement as the primary purpose of their institution's quality management systems. Respective institutional policies referred to, and were informed by, the CHE/HEQC frameworks. The procedures and guidelines for institutional internal academic and programme reviews were linked to national trends and to the HEQC criteria for institutional audits, accreditation and national reviews. Relationships with the national milieu were generally explicated.

Participants response to the question on the purpose of quality management within their respective institutions yielded diverse views and responses which however, could be differentiated as leaning towards either an improvement-oriented purpose or a compliance-oriented purpose particularly for the academic enterprise. It was nevertheless found that most participants' – in their personal opinion – also aligned quality management with continuous improvement of institutional processes and systems associated with service excellence, yet they believed that it was a 'nice-to-have' notion that still had to be realised in their respective support services units. To illustrate this a senior manager of University B said:

*“So it is actually about time that universities begin to focus more rigorously on quality-assuring the services that ... provided by the support structures in the university. Support services are never taken through reviews like other programmes and that needs to be done.” (SnrMngB3)*

Even so, there was another strong 'voice': some participants expressed serious concerns about quality management coming down as a compliance exercise and the *“bureaucratisation of academic spaces” (SnrMngE2)*.

There were some disagreements noted between participants of the same institution, and contradictions, where one participant would give contradicting views of the same issue



(for example, enhancement versus compliance). When probed, it could be surmised that participants were not particularly familiar with the concepts probed. However, for the purpose of this study, it would not have added much value to further pursue such issues. Therefore, it was found that while the institutional documentation promotes continuous improvement for all institutional activities, participants on the ground generally viewed quality management to be compliance oriented.

### **(iii) Scope of quality management within HEIs**

This theme examined the scope that the institutions quality management systems covered as contained in institutional documents and as per interview data. The scope uncovered categories in the areas of quality of academic processes, quality of support services and transformation and areas where respondents were uncertain.

#### **University A (NMU)**

The scope for University A covered the academic processes which included the review of academic departments and programmes; developing and monitoring of the implementing improvement plans. While there was no separate quality assurance/management policy for support services sector, the quality unit of university A had developed and approved (a) service level agreements (SLAs) for all support service divisions/units; (b) three-year rolling plan for the review and improvement of cross-functional institutional business processes. A senior manager (SnrMngA2) from the student development unit of University A pointed out that there were Student Development and Support Programmes (SDSPs), aimed at the improvement of student services and activities. A senior manager (SnrMngA4) confirmed that the academic administration unit had once undergone an internal review.

#### **University B (WSU)**

The scope for University B included teaching and learning, research, community engagement, support services, transformation and total student experience. However according to the senior manager from quality management directorate (SnrMngB4), the

university practically addresses teaching and learning activities of programme registration and accreditation, internal programme reviews, academic departmental reviews (in a small scale). Support services self-assessment guidelines, processes procedures were still in draft form. Research, community engagement, and total student experience were only indicated on the policy as the scope of quality management. the senior manager from academic enterprise (SnrMngB4) pointed out that University B was rolling out a programme on transformation of teaching and learning.

### **University C (UKZN)**

The scope for University C included core activities pertaining to the provision of teaching and learning, research, community engagement and 'work' of the support divisions. The senior manager from quality management directorate (SnrMngC2) outlined the activities to include academic programmes reviews, academic reviews, programme registration and accreditation, developing and implementing improvement plans for the academic enterprise. The scope for support services sector University C included, service level agreements, service excellence reflection and continuous improvement, review of support services of core business (for example academic administration), satisfaction and other surveys on quality of services and benchmarking exercises. It could not be established what service excellence reflection actually entails and it seemed that this concept was still the quality management senior manager's idea as the other senior managers had no clue about the concept.

### **University D (UFH)**

The scope for University D covered the conduct of academic programme reviews, development and monitoring the implementation of improvement plans. the area of support services quality involved the review of some services within the domains of academic administration, student services, academic support services and customer satisfaction surveys. Senior managers pointed out that the support services activities mentioned were seldomly done and expressed concern that when surveys were done, results were never forthcoming, and when made available they were not interpreted to necessitate corrective measures. the senior manager from quality management

directorate (SnrMngD2) confirmed this claim citing shortage of personnel to perform the task.

### **University E (DUT)**

The scope of University E comprised of the annually monitoring of quality in all departments in both academic and support sectors of the university. This included programme evaluations and reviews, development and approval of new academic programmes, programme management, national reviews and accreditation of new programmes, student feedback and satisfaction surveys. The senior manager from quality management directorate (SnrMngE1) of University E pointed out that the scope was intended to cover the entire student life cycle however noted that the focus had been on the activities of the academic enterprise while the support services activities were mostly at a pilot stage.

### **University F (MUT)**

The scope for University D covered the conduct of departmental evaluations which include surveys, academic programme reviews and the development and implementation of improvement plans, incorporating the monitoring of quality assurance policies, strategies and systems. The scope included an oversight role on new programme applications submitted for programme qualification mix (PQM) clearance and for accreditation. Also, University F provided strategic support to support services departments. Senior management interviewed pointed out that they understood the focus of the quality unit to be that of reviewing academic programmes and not necessarily for the support units that they represented.

### **Cross-university summary**

The analysis of the scope of quality management covered by the six case institutions showed numerous similarities. Interviewee responses revealed three common areas they believed to comprise the main focus of their respective quality management systems, namely, academic processes, support services and to a lesser extent transformation. Academic review processes were addressed in a fair amount of detail whilst reference

was made to the necessity for support sector internal reviews. Similarly to Theme 1 as stated above, urban universities (Universities A, C and D), document showed a more detailed coverage of the support services sector management processes. The later was not explicit in institutional documentation of University D and University F. University B had a draft document which was still under consultation.

All the institutions predominantly focused on academic processes such as mechanisms for academic programme reviews, programme registration and accreditation, development and implementation of improvement plans. The focus was less on academic administration, human resources and finance; and much less on quality as transformation. What emerged as a common concern was that there seemed to be no link between the institutions' strategic planning and quality management, much less, with the concept of quality management on the part of the support sector units, despite the fact these are mentioned in institutional documentation. Senior managers also expressed a feeling that quality management was centralised at quality assurance/ management offices or units. For instance, a senior manager at University A said:

*"We still have your silo mentality, where there is no integration and as you might know varsities are notorious for the lack of planning, if you can perhaps look at budgets even within my division, they are not linked to projects." (SnrMngA2)*

In another interview, a senior manager at University E stated that:

*"... culture which is critical in quality assurance aspects is not yet there; it's happening even at an institutional level, the planning office's annual performance plan is not cascaded down but is at the central level, quality assurance unit at that level does what they think should be in place, ... yet the other stakeholders should be on board in terms of cascading the role of quality." (SnrMngE2)*

From the analysis it was found that although institutional documentation covered dimensions of the academic enterprise, support services quality and aspects of transformation, institutions practically and predominantly focused on the quality

management of the academic enterprise with plans in place for the implementation of quality management systems for the support services sector.

**(iv) Structures supporting the internal quality assurance processes for the support sector**

This theme examined institutional structures in place that support the internal quality assurance processes for the support sector

**University A (NMU)**

University A had an Academic Planning and Quality Committee (APQC), which was a subcommittee of Senate as its governance structure responsible for the institutional quality management as it *“assumes the responsibility for the development, implementation and oversight of the University's policies relating to the quality of its academic programmes and teaching and learning activities”*. Its mandate was executed through the Quality Management Unit (QMU) which was responsible for overseeing the performance of the activities outlined in the foregoing University A's scope section. The unit was located within the Centre for Planning and Institutional Development. The unit also reported to the Executive Management Committee (EMCOM) which has an oversight responsibility for the quality of academic affairs and support services. With regard to the support services sector the senior manager responsible for quality enhancement pointed out that there was no formal structure for support services nor were any dedicated staff within the unit for support services quality activities, however he indicated that there was a structure governance underway, as he said *“the Support Services Quality Committee (SSQC) is proposed as a new structure that will function as a sub-committee of EMCOM.”* (SnrMngA3)

**University B (WSU)**

The Quality Management Policy of University B provided for the establishment of the Institutional Quality Assurance Committee (IQAC) which was subcommittee of Senate. The Quality Management Directorate (QMD) that was located under the office of the DVC

Academic. At campus level there were Campus Quality Assurance Committees (CQAC) and Faculty Quality Assurance Sub-Committees. All these structures were focused on the academic enterprise as there were no structural arrangements in place for the support services. The QMD had representation in all institutional governance structures. The senior manager responsible for quality management pointed out that the appropriate administrative policies and procedures that would lay a foundation for the establishment of a structure for supporting the support services units were still under development.

### **University C (UKZN)**

Institutional documentation indicated that the Quality Promotion and Assurance (QPA) unit was charged with the establishment of *“a comprehensive system to monitor the quality of academic provision and the services offered by the support sector”*. Each Executive Management Committee set the quality agenda for its portfolio. The responsibility for the implementation and monitoring of quality assurance rested with the relevant university structure. The implementation of the policy was ultimately monitored by Senate. While acknowledging the policy, some senior managers (SnrmngC1 and SnrmngC2) pointed out that the policy was somewhat ambiguous as it was left to individual units for interpretation and implementation.

### **University D (UFH)**

University D had a Planning and Quality Assurance Unit led by a director. It had dual reporting lines to the Vice Chancellor and to the Deputy Vice Chancellor Academic. It was pointed out that the quality assurance segment of the unit was always represented by either the quality assurance officer, the manager or the director at all different levels of the university structures – from the faculty level to the Senate level. A newly approved Internal Review Policy provided for the internal review of support services units of the university, however no reviews had taken place as the senior manager responsible for quality assurance at University D indicated that *“it has not been possible for some years now to accommodate support services as much as we do for the academia, simply because we have been understaffed”* (SnrmngD2).

### **University E (DUT)**

The regulatory structure with the ultimate responsibility for quality was the senate which delegated this responsibility to relevant university structures for the implementation of quality assurance and enhancement policies and procedures at institutional, faculty/sectoral, and departmental/ unit levels. The different structures – academic, administrative, academic support – were responsible for the planning, quality assurance and enhancement of their units. It was pointed out that faculties were allocated dedicated quality promotion officer who worked closely with the Faculty Quality Committees and Programme Evaluation Committees. There was no dedicated personnel for the support services as the Quality Assurance Policy stated that

*“All support departments, both academic and administrative, will develop an information handbook of information and guidelines for procedures that are relevant to their respective scope of responsibility” (SnrMngE1).*

This, according to senior management, remained unclear as to how it was expected to unfold.

### **University F (MUT)**

The Quality Management Directorate (QMD) acted as the coordinator of both internal and external quality assurance activities of the university. In doing so, it collaborated with the university's statutory, management, committee and operational structures. These included the Executive Management Registry, Faculty Quality Assurance Committees (FQACs), Academic Departments, Administration and Support Departments (for example, Department of Student Affairs, Directorate of Institutional Planning and Research, Teaching and Learning Development Centre). It was pointed out that there were no particular structural arrangements dedicated for the support services sector of the university.

## Cross-university summary

All case institutions documentation collaborated by interviewee responses, revealed that there was some form of quality management framework and/or strategy accompanied by a suite of policies and related procedures and practices. These were supported by a dedicated quality management unit/ structure and an institutional quality management committee.

It was indicated that the quality management units or functions had representation in institutional governance structures. However, documentary evidence and interview data indicated that these structures primarily focused on the academic enterprise, as the scope had previously suggested. Participants highlighted a lack of support services units' dedicated policies and the absence of structural arrangements and systems for the support sector quality management (see ISM.3, ISQM.4). In this regard a senior manager who was chief information officer at University A responded by saying:

*“So it is actually about time that universities begin to focus more rigorously on quality assuring the services that (are) provided by the support structures in the university.... We need to be policy specific in the sense of processes would come from procedures in the sense of business processes that create the alignment and overflow and assist in policy realisation, however, there is little activity happening.”*  
(SnrMngA1)

Furthermore, common concerns surfaced, where participants lamented about policy ambiguity, whereby policies governing the operations of interrelated and interlinked support service units seemed to be blurred and vague, at times even contradictory. Also of concern was the duality of reporting lines, for example, a campus quality management functionary would report to both a Campus Rector and the Institutional Director of Quality Assurance, while in other instances they would report to both the Vice Chancellor and the Deputy Vice Chancellor Academic. This resulted in role conflict and lack of accountability.



#### **(v) Tools and processes for assessing quality of support services within HEIs**

This theme examined the tools/ mechanisms and processes employed by the case institutions for assessing quality of support services presented in institutional documentation and interview data.

##### **University A (NMU)**

University A had a quality advancement policy framework for its academic and professional support functions, however there were no formalised processes to quality assure support services. It was pointed out that support units had their own policies and procedures as quality management mechanisms specifically for their functional areas. Some support units had their own quality assurance tools, for example, a senior manager (SnrMngA1) who was an Information Officer pointed out they used SLA's and user experience feedback to assess the levels of service quality, performance and the satisfaction of their customers. While another senior manager of student services (SnrMngA2) indicated that they from time to time engage on student satisfaction surveys.

##### **University B (WSU)**

The quality assurance policy for University B makes provision for the review/ self-assessment of the support services units however there were no tools and processes for this exercise. The senior manager in the quality management directorate (SnrMngB4) pointed out that *Draft Guidelines for Self-Assessment of Support Services* were in the process of institutional approval. She further indicated that during the conduct of self-evaluation of academic departments there were some limited processes dedicated to organisational and departmental administrative support structures that would be assessed with use of tools such as student satisfaction surveys and staff satisfaction surveys.

##### **University C (UKZN)**

Assessing the quality of support services at University C formed part of the overall quality assurance policy aimed at achieving service excellence. It was pointed out that tools such as service level agreements, benchmarking, student and staff satisfaction and other

surveys on quality of services rendered were used for the purposes self-reflection and continuous improvement.

### **University D (UFH)**

The Internal Review Policy that provides for the review of support services units was recently approved during the time of the study. A senior manager from the quality assurance unit pointed out that there had been some delays in piloting the review of support services. When implemented, the process would include the completion of a self-assessment report. Interviewees pointed out that there was an annual standard student satisfaction survey about student life experience that was conducted, however it was not clear how the results of the survey would be used.

### **University E (DUT)**

The assessment of the quality of support services at University E was conducted through Annual Quality Monitoring. This process involved triangulation of information obtained from user feedback acquired from customer (students, staff and other stakeholders) satisfaction surveys and questionnaires, SWOT analysis compiled by the support service unit concerned and a unit's self-reflection report. It was pointed out that from this process an improvement plan would be drawn. The reports and the improvement plans were submitted to the executive management for approval and resource allocation where required.

### **University F (MUT)**

University F monitored the implementation of strategic priorities through the conduct of departmental evaluations for some support services units, for example, the student registration unit. As part of evaluations user surveys, student and staff satisfaction questionnaires were conducted. A senior manager from the quality management directorate pointed out that the QMD unit provided strategic support to the support service departments in the implementation of improvement plans. However, it was pointed out that these processes were not yet formalised in their implementation.

### **Cross-university summary**

The scope of activities, as previously reported, also included both the support sector and academic support divisions. The results of all case institutions documentation and interviewee data, revealed that internal quality management/assurance processes focused mostly on the academic enterprise, however there were some tools and processes that were either being developed, piloted and/or implemented within the case institutions. For example, in University A, C and E procedures had been developed and clearly articulated in quality management guidelines and handbooks and had indicated implementation on a limited scale. Two case institutions (University B and F) have draft guidelines for the support sector reviews.

Current frameworks did not provide mechanisms by which to constantly monitor and review the effectiveness of support sector quality management procedures that were being implemented. However, in isolated cases, the intention to monitor and evaluate was referred to in the quality management handbook (Universities C and E).

It was pointed out by participants that several tools and processes which were available at their respective institutions were mostly used within the academic enterprise and less for support services. These included internal reviews, self-evaluation, student and staff satisfaction surveys and graduation surveys. In some cases (Universities A and C) respondents revealed that some support units have Service Level Agreements (SLAs) with customer/user departments, which require a form of user experience feedback. Further enquiry into the reasons for the lack tools and processes for assessing quality of support services within the support sector produced a finding that the quality assurance agenda for the support sector was still unclear. Also mentioned was the absence of enabling structures for embedding quality, insufficient integration of functions and processes, and inadequate operating standards that could be used for measurement, monitoring and evaluation. Commenting on this aspect one senior manager respondent who was a director of special projects at University B said that:

*“Support services are never taken through reviews like other programmes and that need to be done...Rethink the role of the quality directorate, put systems in place*

*to quality assure what support services do, take quality services through review like they do with the programmes and write improvement plans for them, get them to submit their progress reports to faculty boards and to SENATE because those are the people that they support” (SnrMngB3).*

#### **(vi) Role of senior management in support services QM within HEIs**

This theme presents the role played by institutional leadership in the development and implementation of support services quality management within HEIs.

#### **Cross-university report**

All case institution participants generally agreed that their respective leadership structures have demonstrated a commitment to quality and have thus created a policy environment conducive to implementing quality initiatives (see ISM.10, ISM.12c, ISQM.11b). This was confirmed by the interview data and the policy frameworks found in document analysis which provided for the associated delegation of authority and responsibility. It was pointed out that top management actively participated in QMS and supported the improvement processes. However, that in some instances the centralised planning culture and lack of resources mobilisation were identified as impediments to the advancement of quality initiatives. In isolated cases, within different institutional leadership hierarchies, the level of leadership commitment was questionable (see ISM.12, ISQM.11). For example, one respondent who was the director of quality enhancement expressed this opinion:

*“I also think that leadership need to be committed and walk the talk. It’s easy to say improve quality but it needs to be backed up by the commitment from the leadership and the resources must also be available because as it is that doesn’t always match” (SnrMngA1).*

Furthermore, deducing from participants’ responses, it became apparent that institutional leadership lacked realising that the changing nature of the work required a robust and comprehensive quality management systems. Other senior managers raised concerns about the inconsistent levels of leadership motivation. Some senior managers confirmed

their unfamiliarity with the whole concept of support services quality management and of any requirements or standards which may have had to be met or used to measure the quality of their services.

#### **(vii) Stakeholder involvement in internal QM processes**

This theme presented the extent to which institutional stakeholders were involved in internal quality management processes.

#### **Cross-university results**

The researcher enquired about the involvement of stakeholders in internal support services quality management processes (see ISM.5, ISM.6, ISQM.4). A synthesis of interview responses revealed that this was found to be the greatest challenge that the institutions were confronting. There were three main reasons for this. Firstly, it was because the quality processes themselves were not clear, save for a few policies and operating procedures. Secondly, there was little evidence of internal stakeholder involvement in internal quality management processes in general, but particularly in support service quality processes. Thirdly, external stakeholder involvement in support service quality was entirely lacking.

It was revealed that participation in internal quality management processes was limited to stakeholder representation in institutional structures/ committees where some academic support quality-related issues would be discussed. Instead, as indicated earlier, planning tended to be centralised thus resulted in little or no consultation during policy development and policy rollout, hence participants also noted poor policy implementation.

Deduced from this phenomenon was a picture of disintegration and poor administration in planning and quality management of the support sector within institutions. Participants pointed out that student participation was limited to institutional structures/ committees where only a handful of student support services matters were normally shallowly and randomly discussed but endorsed. However, in two cases (University C and E) there was

acknowledgement of the existence of, or else partially functional student services council where certain quality-related matters were addressed.

Thus, all participating institutions cordially acknowledged stakeholder participation and involvement as their area of weakness not only in relation to quality management of support services but in their institutional quality management system as a whole, including the academic enterprise. Thus, clearly, this is a critical area for development and improvement.

#### **(viii) The use of institutional information**

This theme presented the extent to which institutional information was used as mechanism for the improvement of support services quality management systems.

#### **Cross-university results**

Participant institutions administered some form of survey that indicate student and staff satisfaction including minute sections on support services sector units' quality (see ISM.11). This activity was reported to be done at inconsistent intervals within and across institutions. Certain institutions (for example, University A) reported administering service-focused surveys to solicit customer feedback.

Almost all institutions confirmed conducting graduation surveys. However, there was little evidence regarding the use of the information obtained from feedback. There was thus general concern on the part the participants regarding the unsystematic manner of data collection and the uncertainty surrounding the use of results. It emerged from the interactions with the participants during the interviews that not one of the participating institutions had a framework on how information on the performance of the support service could be collated, analysed and used for decision-making.

Institutional documentation indicated a commitment to communicating pertinent policies and procedures to relevant stakeholders. In some instances, communication was limited

to the academic enterprise in relation to the conduct of quality reviews where there was consultation with the unit considered for review. In some instances communication was assumed because stakeholders participated in institutional quality assuring structures, and also participated in the institutions' quality management structure as prescribed by policy and/ or procedure manuals and handbooks. It was not clear how policies were communicated and rolled out save for them being published institutional documentation.

#### **(ix) Challenges to the successful implementation of QA within HEIs support services**

This theme presented the challenges that institutions have encountered or have experienced impediments to the successful implementation of their quality management systems within the support services sector.

#### **Cross-university results**

A number of interviewee responses were about the quality management systems of their institutions and about the current institutional quality management practices which were understandably biased towards the academic enterprise. However, a conscious attempt was made by the researcher to redirect the participants' attention to the support services quality.

The study found that the most common, yet significant factors limiting the HEIs in effective implementation of support services quality management systems were in two categories, namely internal influencing factors and external influencing factors.

Pointed out as internal influencing factors were, (i) inadequate resources: which included financial, infrastructural and human resources constraints that negatively impacted on policy implementation, lack of office space, resource allocation without promoting a culture of quality and financial control measures – positive intentions but negative impact; (ii) staffing constraints caused by high staff turnover, slow recruitment processes, skills mismatch and misalignment, work overload, lack of supervision capacity, lack of support

in staff training, and lack of management skills, low morale of support staff; (iii) leadership related issues where participants pointed out lack of leadership attention and focus to change of management initiatives, lack of buy-in resulting in lack of budget provision for support services reviews, and lack of capacity and complexity of work; (iv) lack of quality culture where in some cases participants pointed a lack of understanding of the cultural dynamics of problems, prevailing multiple organisational cultures and a culture of working in silos; (v) unchanged management initiatives; and (vi) a lack of student focus, a lack of policy and policy implementation, a lack of monitoring and evaluation. Included in this list were systems issues such as systems which were unresponsive to policy together with disintegrated student value chain systems.

Participants agreed that whilst these were internal systems problems, there were systemic challenges that were also common to all HEIs, such as growing student numbers, changing student population/profiles, student under-preparedness, a skewed HEI funding model, university rankings, rapid technology evolution and the fourth industrial revolution. These systemic challenges translated to institutional challenges which in turn influenced internal quality management systems.

#### **(x) Areas for further development**

This theme presented areas that the interviewees identified as areas that needed further development within their case institutions.

#### **Cross-university results**

Interview participants pinpointed out areas that they felt needed to be considered for development within their respective institution. There were commonalities within and across institutions in these areas. It was pointed out that (i) there was a need for more leadership commitment that could be seen through the role of leadership played in leading the promotion of an institutional quality culture; (ii) institutions should adopt a people-and-change management systems approach to quality management; (iii) institutional policies need to be implemented and supported by adequate allocation of resources; (iv) there



should be leadership commitment to the promotion of student-centred service delivery and student participation; (v) institutions should adopt the academic enterprise quality assurance strategies for the support services sector and thus develop collaborative support services sector strategy and policies; and that (vi) institutions need to have dedicated quality assurance personnel for support services' quality and for the promotion of service quality awareness.

Participants who were directly involved with support sector processes expressed a desire for the simplification of the concept/s of quality, the development of instruments and criteria for support sector quality management reviews, including the documentation processes for self-assessment of service units for continuous improvement.

#### **5.4 Conclusion**

This chapter has presented the results from the data gathered through documentary analysis and participants' interviews. The analysis has shown that most of the existing quality management systems and mechanisms employed at institutions are traditional methods and approaches directed at the academic enterprise. There appeared to be a very low usage of mechanisms such as stakeholder satisfaction surveys, graduate surveys, self-evaluation and benchmarking of instruments for continuous quality improvement of support services.

Whilst institutions were still endeavouring to strengthen their systems for the quality management of the academic enterprise, the study has found that the institutions were aware of the necessity and the importance of service quality in higher education. Hence the acknowledgement of the inevitability of the development and implementation of quality management systems for the support services sector. Whilst for most institutions, the formalisation of systems and structures for support service quality was at an embryonic stage, others were still in the process of laying a foundation for instituting such systems.

No evidence was forthcoming from a number of case institutions of internal reviews; nor was any formal and systematic self-evaluation exercise undertaken either in institutional areas or at different levels of support services. Additionally no evidence of any form of

reviews on a cyclical basis was found to exist. Furthermore, it was still not clear what exactly the quality management system of support services in higher education entailed, and how it would be developed and implemented.

The next chapter will present a discussion of the findings, and provide the summary and recommendations of the study.

## **Chapter 6 Discussion, recommendations and conclusions**

### **6.1 Introduction**

To conclude the study, this chapter summarises and reflects on the findings. This is followed by recommendations that emanate from the study regarding how HEIs may develop, introduce, advance, and improve on their support sector's quality management systems. The implications of the study are delineated and their significance is presented. The chapter also outlines elements, which were limitations to the study. Finally, the thesis is concluded with suggestions for further studies, which might arise from this one.

### **6.2 Summary of findings and Recommendations**

The study presented a general depiction of a relatively new paradigm for quality management in the South African Public HE sector. The study comprised an analyses of institutional level support services quality management systems and practices, and the quality of services rendered/delivered by the support service units and thus led to the following sub-questions:

- (i) What are the conceptual, theoretical and empirical underpinnings to the construct of service quality and models of good service quality practice? (RQ1)
- (ii) To what extent has the support services sector at South African HEIs adopted, developed, implemented and monitored service quality principles, policies and management practices? (RQ2)
- (iii) What are the reasons for any similarities or differences in the manner and extent to which service quality has been embraced, adopted, implemented and monitored by support services at South African HEIs? (RQ3)
- (iv) To what extent can models of good service quality practice be applied to the support sector in South African HEIs? (RQ4)
- (v) What are the drivers, and what are the barriers to the implementation of a quality management system for support services at South African HEIs? (RQ5)
- (vi) How can service quality be improved in the support sector at South African HEIs? (RQ6)

The picture that emerged in the investigation is that SAPHE sector's current arrangements at both national and institutional levels show a recent phenomenon that is progressing steadily in its development and implementation. In the course of conducting this research, it has become evident from the discussions and enquiries that levels of awareness, understanding or comprehension of the concept of quality management within HEIs varies amongst participants, and that the pace of implementation is uneven among the institutions.

The South African higher education quality management system was introduced by the CHE in 2001 and rolled out with institutional audits only from 2004. It comprised mainly programme accreditation and institutional audit sub-systems (Council on Higher Education 2017a: 3). The CHE has expressed a degree of satisfaction with institutions' development of their internal quality systems despite expressing concerns about the unevenness in its full implementation (Council on Higher Education 2017c: 11).

The findings of the study confirmed this phenomenon of variance in the development of internal quality management systems while it noted an absence of systematic approaches to the quality management of the support services sector. According to the results of the study, the institutional type and size did not seem to have had any bearing on this variance nor on the similarities identified amongst institutions. It seemed though that universities, which were classified as previously advantaged and those that were a combination of both previously advantaged and previously disadvantaged including urbanely located had more developed systems than their counterparts had. The level of embeddedness of the support services sector's quality management mechanisms and processes and the implementation thereof differed dependent on the level of development and maturity of the system. Evidence obtained from institutional documentation and discussions with participants revealed that there was insufficient attention given to the support services sector at different institutional levels. This, in fact also responds particularly to research questions two and three on the extent of and in the similarities HEI's support services sector adoption, development, implementation and monitoring of service quality principles, policies and management practices,

The research produced the following findings on practices in the development and implementation of quality management systems for the support services sector within the case institutions.

- (i) Quality management was commonly understood and generally viewed more as a quality assurance compliance exercise rather than as a continuous improvement exercise which was primarily meant for the academic enterprise and extended, to a certain extent, to some academic support activities.
- (ii) SAPHEIs internal quality management systems mainly focus on quality management of the academic enterprise as opposed to support services sector quality management.
- (iii) SAPHEIs quality management systems generally lacked focus for student and other stakeholder service quality.
- (iv) The findings indicate that current institutional leadership and governance structures within HE institutions were less effective in the enforcement of the actual development and/or implementation of internal quality management mechanisms for the support sector.
- (v) There were low standards in the quality culture within SAPHEIs due to lack of understanding and promotion of quality.
- (vi) There was a general lack of structural arrangements, systems, and policies dedicated to the quality management of the support services sector.
- (vii) There was a lack of systems, processes, tools, standards and/ or requirements for assessing and measuring quality of the support services sector ,as well as an absence of enabling structures for embedding quality.

- (viii) Poor stakeholder participation and involvement in the quality management of the support services sector and the institutional quality management system as a whole.
- (ix) Institutional information had not been optimally used for continuous improvement of the support services.
- (x) Inadequate resources for the development and implementation of quality management systems.

Following is the summary of findings and recommendations associated with each finding that relate, whilst simultaneously responding to the research questions raised in this study. The research question (RQ) that the finding and recommendation relates to is indicated in brackets at the end of each finding discussed hereafter.

## **Discussion**

- (i) **Quality management was commonly understood and generally viewed more as a quality assurance compliance exercise rather than as a continuous improvement exercise which was primarily meant for the academic enterprise and extended, to a certain extent, to some academic support activities. (RQ 1, 2 & 3)**

The quality management literature places the emphases on a common understanding of quality management, particularly for its successful implementation. The concept is explored in relation to the definition of quality, its associated terminology, and related models or systems in use (see Al-Ibrahim 2014: 142). Whilst the literature emphasises that there is no single definition of quality (see Shanahan and Bhindi 2004: 34), it became apparent in this study that there was a universal knowledge deficit pertaining to what quality management actually entailed. This limitation, coupled with ambiguity in definitions, mechanisms and processes left very little agreement on the concept of quality

management amongst those in a position to do anything about it. The effect was particularly unhelpful in the case of quality management of the support services.

The different understandings and interpretations of the concepts of quality management within and across institutions featured throughout the interactions with the members of senior management who perceived it to be a compliance exercise; while on the other hand institutional documentation revealed a conceptual understanding of the phenomenon.

The literature argues that defining, planning and implementing quality management becomes somewhat impossible where there is a lack of common understanding on the part of those who share the responsibility for quality (see Srivanci 2004).

Whilst accountability, improvement and compliance have been identified as necessary for this comprehensive quality management approach (see Liu 2016:18), the literature review has revealed that in higher education accountability and continuous improvement are the two main purposes for quality management (see The Organisation for Economic Co-operation and Development 2008: 353; Strydom 2001: 5-6). An attempt to achieve these is influenced by context-specific situations; hence the approaches differ from country to country and from institution to institution (see Strydom 2001: 5-6). The characteristics of a particular quality management system will thus be influenced by its purpose. What emerged from senior managers of support services units was the assumed purpose of quality management within their institutions rather than what it actually is.

Service quality literature underlines the importance of HEIs' monitoring of the quality of their services as well as their commitment to continuous improvement for the sustainability of service quality (see Brochado 2009: 175). Consequently, quality management systems are implemented to achieve continuous improvement in order to meet customer satisfaction consistently (see Oschman 2009: 86), with system standards made available to provide guidelines for the development of the quality systems (see

Wright 2001: 57). Therefore, a well-documented quality management system for support services is needed in order to guarantee the consistency in service quality related issues in SAPHEI.

### ***Recommendation***

- As quality is a relative concept and absolute quality does not exist, however, SAPHEIs in their individual contexts should clearly and comprehensively define their quality management approach as it relates to their unique support services. This recommendation is in line with Oschman's (2004: 32) who suggested that a comprehensive quality management approach to SAPHEIs as systems allows for a holistic perspective on both product and service quality management, and also involves the synergies that affect all stakeholder and, as such, appropriate attention must be given to a common understanding to necessitate systematic implementation.

### **(ii) SAPHEIs internal quality management systems mainly focus on quality management of the academic enterprise as opposed to support services quality management. (RQ 2, 3 & 4)**

From both documentary analysis and interview data it can be inferred that the concentration of effort within institutions was towards quality management of the academic enterprise systems and processes as opposed to support services quality management. This was confirmed when participants were asked to identify the focus of their internal quality management system (see ISM.4, ISQM.2). Within SAPHEIs, the scope of quality management finds expression in different forms expressed in the literature review. It begins with the definition of quality management, its themes, approaches, methodologies, frameworks, programmes, activities, practices, principles, guidelines, criteria, standards and models. The literature has indicated that the scope of quality management may differ from institution to institution, yet the effectiveness of the quality management system depends on the clarification of responsibilities and



accountability lines. This applies at all levels of the institutions' academic as well as support services procedures and processes (see Becket and Brookes 2006: 127; Teeroovengadum *et al.* 2016: 14).

The literature highlights the importance of aligning internal quality management systems with national quality assurance systems. The gain in this would be to ensure that both internal and external quality assurance requirements are met (The Organisation for Economic Co-operation and Development 2008: 312; Schmitz and Whitworth 2002: 134). It could be drawn from the study that there seemed to be alignment between institutional quality arrangements and the CHE's quality frameworks this perceived alignment extends largely to the academic enterprise. The reason appears to be that there is a limit in the provision made by national quality management systems. It relates to the fact that the national QA frameworks themselves make rather limited reference to the quality management of support services (see 1.7.3).

While the difference in scope of support services quality management could be seen to differ from institution to institution, these differences were so minimal as the scope itself was rather shallow and short of the aforementioned frameworks, programmes, activities, practices, principles, guidelines, criteria, standards and models. Furthermore, the literature emphasises that the scope should focus on the benefits and impact of the system, and should thus result in evident continuous improvement (see O'Mahony and Garavan 2012: 184).

### **Recommendation**

- SAPHEIs must be articulate about the purpose of internal quality management for the support services sector and be able to distinguish between the purpose, the approach, focus and methods in developing and implementing the chosen quality management system. This, in line with Teeroovengadum *et al.*'s. (2016: 14), proposition that the scope should give clarity to definition of support services quality management, its themes, approaches, methodologies, frameworks,

programmes, activities, practices, principles, guidelines, criteria, standards and adopted or designed models.

**(iii) SAPHEIs quality management systems generally lacked focus for student and stakeholder service quality. (RQ 1, 2, 3 & 4)**

The study found that the scope was short of student and stakeholder focus. Quality management terminology (see Sahney et al. 2004: 503) is developed within a set of interrelated core values and concepts for the successful implementation of quality systems. It centres on students as the main customers of SAPHEIs (see Antonio 2003: 2; Marzo *et al.* 2007: 71; Quinn *et al.* 2009: 141). Consequently, a student focus, within a learning-oriented climate is one of the quality management dimensions that SAPHEIs' senior leaders should emphasise. It forms part of the SAPHEIs' stakeholder focus agenda that recognises students' needs (see Kaissi et al. 2008: 30-31; Tari and Dick 2016: 14). Therefore, student evaluation and feedback including alumni follow-ups, are two key requirements for a successful quality management agenda to be considered as being student-focused. In this study it was pointed out that the quality management systems generally lacked student focus thus failing to respond to other student-related systemic challenges common to all SAPHEIs, such as growing student numbers, changing student population/profiles, student under-preparedness, and skewed HEI's and student funding models.

With regard to other stakeholders, there was no evidence to show that the quality management systems focused on the service quality to other stakeholders. Literature revealed that organisational excellence includes achieving results which satisfy all the organisation's stakeholders (see Ferreira 2003: 93-96; Ramlagan 2009: 59-60). This is achievable by designing, managing and continually improving processes to the full satisfaction of customers and other stakeholders, whilst at the same time, generating increasing values through efficiencies and effectiveness in service delivery (see Ferreira 2003: 85-86). A conscious stakeholder focus influences quality mechanisms so that these move towards enhancing competence and improving the provision of support services.

This enables high levels of service quality excellence to evolve, and responds to the requirements and expectations of students, staff members, parents, employers, society and other stakeholders (see Khoja, 2016: 77-76; Vlăsceanu et al. 2007: 72; Zabadi 2013: 51).

### **Recommendation**

- When complementing the foregoing recommendation on clarity of the scope, due care should be exercised in the development of quality management systems paying specific attention to student support services, both non-academic and academic support services by adopting a systems thinking approach and establishing performance indicators for total student learning experience. This recommendation is in line with Davis *et al.* (2015: 17) and Shukla (2018: 950) who advocated for the use of systems thinking as a tool applicable for the alignment and coordination of the institution's support services towards student success, thus eliminating operational silos of which SAPHEIs are commonly criticised for.

**(iv) The findings indicate that current institutional leadership and governance structures within HE institutions were less effective in the enforcement of the actual development and/or implementation of internal quality management mechanisms for the support services sector. (RQ 1, 2, 3, 4 & 5)**

The reason for this may be precisely due to the institutional leadership's lack of awareness, as well as the unfamiliarity with the concept of quality management for the support services sector and that the quality assurance agenda for the support services sector was still unclear. Some senior managers attested to this.

The results of the study also showed inconsistent levels of HEI leadership motivation and commitment – leadership was not always totally motivated and committed. This can have a negative impact on the capability of leadership in pioneering and inculcating the culture of quality within their HEIs.

The body of research includes Deming's profound knowledge and the current quality management principles and models, which have since emerged (see Aole and Gorantiwar 2013: 51; Neyestani 2017: 15). Deming (1986) advocates that organisational senior management become actively involved in their business' quality improvement programmes and activities. Whilst the latter emphasises management commitment, requiring leadership to have a connection with all parts of the organisation. Furthermore, the literature review suggests that senior management should provide strategic leadership that result in the comprehensive transformation of the institution's 'mental models' about quality (see Yeo 2008b: 155). The rationale is that management is equally responsible for the development and operationalisation of a strong and effective quality management plan (see Kaissi et al. 2008: 16-18). Here the role of senior management in support services quality management processes within HEIs was one of the researcher's specific interests.

Leadership has been identified as an enabler in all the quality models discussed in the literature review. It is an ingredient that provides guidance towards the creation of a clear and shared mission and vision, and a culture of quality in which all stakeholders contribute to the optimisation of quality (see Ferreira 2003: 85-86, 93; Kaissi et al. 2008: 32; Othman et al. 2017: 41). In most instances, vision is discussed in relation to leadership, policy and strategy (see Ferreira 2003: 93-96; Manatos et al. 2015: 3; Tari and Dick, 2016: 14). Both classifications and indicators of quality suggest that institutional culture, management style, products and services must conform to a stated mission, vision and set of values (see Oschman 2009: 86; Schindler et al. 2015: 5). In this study, no evidence of links between service quality and the institution's mission and shared vision to institutional planning existed. In addition, no link could be determined between the institutions' strategic planning and support services sector quality management, much less to the support sector units' familiarity with the concept itself.

Successful implementation strategies for organisational improvement include leadership involvement and sponsorship (see De Coning 2009: 33). However, it can be noted in the literature that leadership may be both an impediment and an enabler. Leadership

becomes an impediment when it fails to exert authority throughout institutional levels in the application of quality management principles, values and goals (see Ali and Shastri 2010: 14; Zabadi 2013: 54). The study revealed further impediments, when leadership lacks attention and focus to change management initiatives, lack of leadership buy-in resulting in lack of budget provision for support services quality improvement initiatives, and lack of leadership capacity to deal with complexities of work.

### ***Recommendations***

- Furnish institutional leadership and the members of the senior management structures with adequate training on a holistic management approach to support services quality. It is essential that training and information sessions should be conducted to ensure that all internal stakeholders, from top management to every staff member, understand the concept of service quality management.

This recommendation is in line with Shaked and Schechter (2020) who saw the holistic management approach as an opportunity to apply and implement a systems thinking approach to in various practical areas of the institution such as the support services units. This notion was supported by Mensah and Graham (2019: 409) and Shukla (2018: 950-1) who all contend that the HEIs leadership approach to the application of quality management approaches should be underpinned by the systems theory and approach.

### **(v) Low standard in the quality culture within HEIs. (RQ 1, 2, 3, 4 & 5)**

HEI leadership should not only be aware of the needs of quality management systems but also understand the importance of both internal and external stakeholders' involvement. They should concentrate on consistent performance measures while enacting their support for quality management practices. The results of the study pointed out that there was a need for more leadership commitment that could be seen through

leading the promotion of an institutional quality culture and through the promotion of student-centred service delivery and student participation.

Certain probes central to the study focused on issues relating to the promotion of quality culture within participating case institutions. The Organisation for Economic Co-operation and Development (2008: 312) upholds the view that a strong quality culture shared between the senior management, staff and students within HEIs contributes towards the reinforcement of the effectiveness of quality management systems. Effective quality management practices require a supportive professional culture that values service quality. However, this was seldom the practice in the case institutions, as the results of the study have shown. The participants, as noted by the researcher, acknowledged the challenge of a very low standard in the quality culture within their respective institutions.

The literature review is emphatic that quality management should prominently promote the creation and inculcation of an institution-wide quality culture in which all stakeholders contribute to the optimisation of quality (see Ramlagan 2009: 48). The issue of the institutional quality culture came out in the study results as one of the challenges where in some cases participants pointed to a lack of understanding of the cultural dynamics of problems, prevailing multiple organisational cultures and a culture of working in silos. Active employee participation and involvement in the institutions' quality 'agenda' helps alleviate the effects of negative attitudes and perceptions towards the implementation of quality management systems (see Kaissi et al. 2008: 22-23; van Schalkwyk 2011: 146).

### **Recommendations**

- Encourage the development of an institution-wide culture of quality and continuous improvement amongst all stakeholders. This recommendation is in line with Furst-Bowe's (2011: 2) observation that developing a systems perspective and a deep-rooted culture of continuous improvement is a pillar to achieving the desired levels of efficiencies and effectiveness in the midst of HEIs complexities. Leadership has been suggested by many scholars (see Ferreira 2003: 85-86, 93; Kaissi *et al.* 2008: 32; Othman *et al.* 2017: 41), as an enabler to the creation of a shared vision

and an institution-wide culture of quality in which all stakeholders contribute to the optimisation of quality.

- To achieve this recommendation, it is further recommended that HEIs consider the nine common quality dimensions found to be useful by Tari and Dick (2016) for instilling a culture of continuous improvement, one that enhances the institution's performance in attaining its educational outcomes. These dimensions include people management, information and analysis, process management, stakeholder focus, planning, leadership, continuous improvement, programme design, and supplier management (Tari and Dick 2016: 14,15). Quality management frameworks, such as MBNQA, EFQM or ISO 9001 and models such as SERVQUAL and HESQUAL, share these dimensions.

**(vi) General lack of structural arrangements, systems, and policies dedicated to the quality management of the support services sector. (RQ 3, 4 & 5)**

Institutions were characterised by an absence of enabling structures for embedding quality into their support services. They lacked integration and were marked by an absence of set operating standards by which to monitor and evaluate their processes and practices.

What emerged was that quality management units in all case institutions predominantly focused on academic processes such as mechanisms for academic programme reviews, programme development, programme registration and accreditation. However, there was a growing awareness of comprehensive internal quality management systems, which were inclusive of the support services sector in SAPHEIs. The HEIs acknowledged the need for further development the implementation of quality management systems for the support services sector. This includes, policies, procedures and processes, tools and mechanisms, and both governance and operational structural arrangements.

Quality improvement is a necessary, institution-wide activity not merely to be assigned to a special quality assurance select unit (Deming 1986). This implies the necessity to insist that senior management be actively involved in quality improvement activities by designing and developing systems for more effective performance of work by both management and non-management employees. The aim is to locate the responsibility for quality with everyone within the institution through coordinated and integrated participation of all employees at all institutional levels (see Muslim 2014: 34-35).

However, it remains the senior management's responsibility to develop and operationalise an effective quality management plan. This includes the development of quality management structures, which are primarily contingent on institutional structures (see Kaissi et al. 2008:16-18). Participants expressly pointed out that institutions need to have dedicated quality assurance personnel for support services' quality and for the promotion of service quality awareness. The literature shows that institutions that are successful in their quality management have systems and policies in place, which are supported by dedicated organisational structures (see Brennan and Shah 2000: 71).

### ***Recommendations***

- The results have shown that SAPHEIs do have some formalised quality management systems, yet they still lack such systems for their support services. The results also indicated that the development of these systems is well underway; therefore, SAPHEIs must continue to develop and strengthen these initiatives by adopting the principles of TQM and implementing quality management systems and models for the support sector, underpinned by systems thinking.

This recommendation can be achieved by aligning, coordinating and integrating all university services whilst also promoting faculty, staff, and administrator collaborations as suggested by Davis *et al.*'s (2015) use of systems thinking as an organisational intervention tool within an HEI setting.



- In developing these systems and mechanisms, SAPHEIs are urged to embrace an all-encompassing approach that is tailor-made, strategic, goal-driven and relevant to the distinctive description of the institution, whilst simultaneously meeting external requirements.
- Establish structures (offices, units or centres) within the broader institutional quality management structure to support the development and implementation of internal quality management systems and processes for the support sector. In having a structure of this nature will facilitate the coordination and alignment of institutional substructures' thinking processes thereby, in line with Mensah and Graham's (2019: 409) submission, optimise the whole system for institutional efficiencies and effectiveness whilst ensuring continuous improvement of institution wide quality.
- SAPHEIs should develop clear policy guidelines for the development and implementation of the support sector quality management systems underpinned by the principles of transformation, transparency, stakeholder involvement and continuous improvement.
- SAPHEIs might develop policy, procedures and guidelines for service quality in line with the institutional quality policy that must enjoy an institution-wide formal and official status, broadly dispersed and comprehensively disseminated to all stakeholders.

**(vii) There was a lack of formal systems, processes, tools, standards and/ or requirements for assessing and measuring quality of the support services sector including the absence of enabling structures for embedding quality. (RQ 1, 3, 4 & 5)**

Internal quality assurance mechanisms and procedures for reviews and self-evaluation had generally been confined to the academic enterprise, to the exclusion of quality management practices of the support sector within SAPHEIs.

The literature review reveals that an institution's focus on internal customers and operations becomes an enabler of efficient service delivery and attainment of customer satisfaction. These successes also empower the institution to focus on quality improvements of its processes, systems and tools. (see Najafabadi et al. 2008: 24-25). When asked which tools and processes the SAPHEIs employ in assessing the quality of support services (see ISM.14, ISQM.13), the participants disclosed that there was either a lack or shortage of mechanisms by which to assess service quality. Managers in SAPHEIs have a responsibility to design and create systems and processes that engender quality (see Deming 1986). This requires an integration of all aspects of the organisation's continuous improvement activities, including planning, policies and procedures, designing products and services, operations, processes and ultimately delivery to the customer (see Al-Ibrahim 2014: 133; Mohammed et al. 2016: 7,10).

From the literature we gather that poorly designed or inappropriate operating processes and programmes are barriers to improving internal service (see Johnston 2008: 8-9). Participants who were directly involved with the processes of the support services sector have expressed a desire for the simplification of the concept/s of quality, the development of instruments and criteria for the quality management of the support services sector, including the documentation processes for self-assessment of support service units for continuous improvement. Brilliant organisations are known to have designed and improved processes that fulfil and increase value for customers and other stakeholders (see Ferreira 2003: 85-86). Therefore SAPHEIs are implored such systems for their

support sector quality management in an endeavour to improve the quality of their services. In fact, participants suggested that institutions should adopt the quality assurance strategies of the academic enterprise towards the support services sector and thus develop collaborative support services sector strategy and policies supported by adequate allocation of resources.

The literature review has revealed that the general concept of TQM encapsulates three collaborative principles comprised of: customer focus, process improvement and total involvement (see De Bruyn 2003: 15). Process improvement is an innate consequence of measurement and evaluation (see Oakland 2003: 246). SAPHEIs are service organisations comprising several processes which may require a different type of organisational structure to reduce the tension on the application of quality management systems. (see Sahney et al. 2008; Bayraktar 2006). All HEI processes, both support services and academic, should be measured, evaluated, controlled and continually improved (see Kaissi et al. 2008: 32; Rube et al. 2007: 234; Yang 2004: 25). In citing their challenges, the study participants noted a lack of monitoring and evaluation as a tool for continuous improvement. They indicated that this manifested itself at policy implementation level and at systems level. It could be deduced that with the lack of measurement, monitoring and evaluation in SAPHEIs, the result would be systems which are unresponsive to policy, consequently resulting in disintegrated student value chain systems.

Measurement and evaluation feature prominently in TQM definitions and classifications. Experts recognize that common principles expressed in organisation-wide evaluation activities are key to monitoring the adequacy of the operation of the system as a whole (see Brits, 2011: 1292). The literature review indicated that the measurement and evaluation of quality in services has turned out to be a controversial and complex issue, especially in relation to determining its timing – whether it comes before or after the service is acquired and expended (see Brochado 2009: 175; De Jager and Gbadamosi 2010: 252). Nonetheless, service quality evaluation and assessment in higher education support services remains important for both internal and external customers (see Yeo

2008b: 155). Quality management procedures should thus be concerned with both formative and summative evaluation; and also with finding the correct balance between these for institutional quality improvement (see Council on Higher Education 2004b).

### **Recommendations**

- Establish adequate internal controls and evaluation mechanisms for support units' process improvement by developing strategic and operational plans, policies and procedures, design and document operational processes for all segments of services tendered.
- Develop and publish monitoring and evaluation performance indicators against which service quality may be assessed.
- Design tools/ instruments and processes for support sector quality to integrate multiple stakeholder perspectives through involvement and participation of everyone in the quality processes, particularly the primary stakeholder – the student. In this regard, the Higher Education Service Quality (HiEdQUAL) instrument recommended by Al-Otaibi *et al.* (2016: 51) is a new instrument that covers various service quality dimensions which could be used with both qualitative and quantitative data.
- Developing self-assessment systems
  - Develop cyclical processes for support services units/departments (functions, services, academic, administrative, student and/or general support units).
  - Develop comprehensive self-evaluation/ self-assessment criteria and minimum standards supported by guidelines for undertaking periodic reviews of support services comprised of a combination of self-reflection; peer evaluation and/or a soft/desktop review process.

- The deployment of the planned self-evaluation and review processes should necessitate adequate allocation of resources for the establishment of structures and the development and implementation of processes that will allow for interaction and synergy thus avoiding silo management.
- The self-evaluation and review of support services units must be followed by improvement plans outlining actions to be taken in response to the review findings/ results or weaknesses/ deficiencies identified and recommendations made during the evaluation process.
- Mechanisms should be developed to follow up on progress in the implementation of improvement plans.

**(viii) Poor stakeholder participation and involvement in quality management of support services and in institutional quality management system as a whole.  
(RQ 1, 3, 4 & 5)**

One of the basic tenets for successful implementation of quality management systems is the strong support and contribution of the employees. The literature reviewed advocates increased employee participation in the development and implementation of the quality management systems (see Oakland 2003: 23). The literature demonstrates that from the early development of quality systems stakeholder participation, or organisation-wide whole system involvement has always been advocated for the successful development and implementation of quality management systems (see Mândru et al. 2011: 125). This obtains especially in relation to the involvement of ‘customers’ in service processes (see Le Roux 2011: 117).

In this study, however, the concept of quality management of support services appeared to be limited on participation in the development and implementation of the quality management systems, despite the fact that it is meant to encompass the involvement of

key stakeholders such as students, employees and employers. By implication, the implementation of an internal quality management system unavoidably requires the capacity building for active participation, involvement and commitment of all stakeholders, including both staff and students. Conversely, the findings of this study reveal scenarios that run contrary to this.

All participating institutions cordially acknowledged the need for stakeholder participation and involvement as their area of weakness, not only in relation to quality management of support services but also in their institutional quality management system as a whole, including the academic enterprise. This presents a challenge to SAPHEIs, which aim to implement internal service quality management processes in circumstances where the involvement and commitment of staff is relatively rare. This lack of stakeholder involvement was coupled with traces of incompetence and incapacity at both management and staff levels.

HEIs can enhance employee involvement by creating cross-functional teams, fostering collaboration amongst employees, encouraging voluntary employee participation on quality management initiatives, and by being receptive to employee suggestions concerning the quality management systems (see Venkatraman 2007: 90). In this study, it seemed that these were rather impossible or at least difficult to achieve since participants pointed out some challenges the SAPHEIs are confronted with, in some instances and amongst others, staffing constraints caused by high staff turnover, slow recruitment processes, work overload, lack of support in staff training, and low morale of support staff.

The literature review suggested, though that excellent organisations manage, develop and release the full potential of their people in teams, as well as at an individual and at an organisational level. Such organisations achieve this by caring, communicating, recognising and rewarding their staff in a way that motivates and builds up the commitment to using their skills and knowledge for the benefit of the organisation (see Ferreira 2003: 85-86). Literature further suggests that to attain service quality, HEIs

should include financial support and reward (see Al-Otaibi et al. 2016: 51; Prasad and Jha 2013: 38). The recognition of service excellence in employee or departmental quality management-related efforts should be rewarded as a means of encouraging and supporting performance at a particular level (see Ferreira 2003: 85-86; Raju and Bhaskar 2017: 114). Thus, in stimulating employee commitment to service quality, systems and performance measures for SAPHEIs might require modification to accommodate and assess the quality efforts.

The literature review emphasised that employee competence is attained through education and training – which as a very important principle in the implementation of quality management systems (see Kumar 2016: 146-147). Furthermore, it infers that HEIs that strive for service excellence in everything they do, have top management who commit to supporting employees. They do this by providing quality management training through which open communication is enhanced and employee participation increased (see Oschman 2009: 70; Venkatraman 2007: 90). The study revealed that there were instances of skills mismatch and misalignment, lack of supervision capacity, and lack of management skills. Literature suggests that the training needs of support services staff should be identified, and missing skillsets determined and thus considered for new training as a component of both quality awareness and capacity building. Necessary financial resources should be made available for such efforts (see Kumar 2016: 146-147; Oyabade 2001: 39).

In promotion of student-centred service delivery, student participation is essential. The interaction with interview participants made it clear that the low level of student participation is undesirable and that it would be valuable to have students as the major stakeholders, involved and engaged with institutional quality management arrangements and processes. This should apply to those arrangements and processes that impact on the quality of support services in particular as these that are paramount to the overall student experience.

## **Recommendations**

- The training needs of support services staff should thus be identified and missing skill sets should be determined, to be considered for new training as a part of both institution-wide-based quality awareness and capacity building. Starting at senior management level training provided should be aimed at garnering the commitment of the institutional leaders as the drivers or ‘teamsters’ for the realisation of an internal support sector quality management system.

This recommendation is in line with Abdyrova *et al.*'s (2016: 11152) suggestion that institutions should conduct institution-wide special training based on the five disciplines of organisational learning: “professional training in team, personal skills, shared vision, mental models and systems thinking”.

- Create cross-functional teams, promoting teamwork and encouraging employee feedback in order to enhance quality management, SAPHEIs should establish structures that work across functional lines and improve cross -unctional collaboration. This recommendation is in line with the promotion of interdependency networks and collaborations as advocated by Davis *et al.* (2015: 5-8).
- Reward programmes should be established with clear procedures for the recognition of employee efforts and participation in service quality activities relating to attainment of institutional goals.

### **(ix) Institutional information had not been optimally used for continuous improvement of the support services. (RQ 2, 3, 4 & 5)**

It emerged from the interactions with the participants during the interviews that not one of the participating institutions had a framework on how information on the performance of the support service could be collated, analysed and used for decision-making. The CHE



emphasises that the HEIs' primary responsibility is to generate reliable information for internal quality management planning and public reporting (see Council on Higher Education 2004b: 5).

Participants alluded to weak information systems that are nonetheless expected to support decision-making. This challenge is coupled with an unsystematic approach to data collection and an uncertainty about how the results from the collected data are used. In this regard, the literature review exposed the point that organisational effectiveness requires that decisions be based on the analysis of data and information (see Kaissi et al. 2008: 29). Therefore amongst its other activities an organisation should collate information on how it enhances relationships and determines the satisfaction of clients and stakeholders (see Ferreira 2003: 93-96). Likewise, quality improvement practice in HEIs should also focus on gathering relevant information, evaluating feedback and ensuring that change initiatives are implemented (see Kaissi et al. 2008: 16).

The study demonstrated that generally there was acknowledgement of the importance of the generation and use of institutional information within the case institutions, particularly due to external statutory reporting requirements, and for internal data collection, analysis and feedback.

### **Recommendations**

- Design and develop a clear, structured and solid institution-wide information management system strategy and plan to support the support services sector quality management subsystem and to enhance the use of institutional information in support of planning, resource allocation and other decision-making processes at all institutional levels. This recommendation is in line with Davis *et al.*'s (2015) suggestion that universities should develop information systems that are centred both on functional and human needs. In implementing this recommendation SAPHEIs should:

- Integrate feedback on service quality into the institutional systems. This feedback should routinely be systematically collected.
- Develop flexible qualitative tools to be used in conjunction with adaptable quantitative instruments such as services satisfaction surveys of support services units, and student, staff and alumni feedback.
- Gather information on employee job satisfaction, employer feedback and on the career paths of alumni.
- Provide adequate and relevant training to the quality department staff with specific attention devoted to quality tools as these relate to the support services sector.
- Enhance the dissemination of information by developing interlinks and recurrent interaction between quality management structures that gather management information and the institution's management at strategic, tactical and operational levels.

**(x) Inadequate resources for the development and implementation of quality management systems. (RQ 3, 4 & 5)**

The abstract nature of services and the complexity of the evaluation and measurement of service quality pose challenges to those who wish to establish support services quality management systems (see Hill 1995: 10). The literature review shows that HEIs are faced with the challenge of identifying and implementing apposite instruments and measures for determining the applicability and sustainability of service quality in order to gain a better understanding of the quality issues that have influence on whole student experiences (see Jelena 2010: 632).

Besides the challenges mentioned in the foregoing discussions, there appears to be a lack of resource allocation for the development and implementation of support services quality management systems, thus rendering inadequate resourcing as one other factor that hinders the development and implementation of quality management initiatives within

the institutions. The inadequate resources revealed in this study were pointed out to have been as a result of financial, infrastructural and human resources constraints that, in turn, negatively impacted on policy implementation. Also mentioned were resource allocation practices that negated the promotion of a culture of quality coupled with financial control measures that had positive intentions but yielded negative impact.

### ***Recommendations***

- Empower all support sector units, including the quality management office responsible for service quality with the requisite decision-making authority, and must be adequately resourced (human, infrastructural/physical and financial), as they are unlikely to be effective if they remain under-resourced. The availability of resources should extend to all units within the support sector. This is a valuable prerequisite for the development and implementation of quality management systems as the quality of these resources impacts directly on the effectiveness of quality management systems. It is therefore necessary to provide an adequate yet robust mechanism by which to identify requisite resources and ensure funding is made available for quality service delivery.

This recommendation is in line with Davis *et al.* (2015: 17) and Shukla (2018: 950) who all suggest the use systems of thinking to align resources and support services in order to encourage collaborations and stakeholder value creation, resource determination and resource allocation.

- SAPHEIs should integrate into their institutional budgets the equipping of the system with human and sustainable financial resources to facilitate functionality and sustain stability and continuity of the system.

Through interactions with participants (see ISM.16, ISQM16) and data analysis, the study has revealed that a number of improvements are desired in the areas of support services quality management. Several key areas for development emerged. Noteworthy amongst these is the congruence between what participants identified, and what the literature

review revealed as issues in service quality, quality management dimensions in HEIs, and particularly service quality dimensions in higher education (see Raju and Bhaskar 2017: 117-120; Sultan and Wong 2012: 782; Tari and Dick 2016: 140). The literature advocates an inclusive organisational planning process that will yield communicable and measurable plans for effective implementation. Furthermore, the literature review suggests that commitment to such plans must be owned by the management of HEIs and reflected in each area of activity that supports the development and Improvement of quality management systems (see Kaissi et al. 2008: 29).

### **6.3 Generalisation**

In this study the sample covered the three SAPHE institutional types, namely traditional universities, universities of technology, and comprehensive universities which are drawn from rural and urban-based institutions. this was representative of the twenty-six South African public higher education institutions Also taken into account was the unique SAPHEIs' characterisation/ classification of whether an institution may be described as historically advantaged or disadvantaged. This is indicative of HEIs in Africa and world over.

The findings of the study gave a fair picture of the development and implementation of internal quality management systems and noted an absence of systematic approaches to the quality management of the support services sector. According to the results of the study, the institutional type and size did not seem to have had any visible impact on state the institutions service quality. However the identities derived from their unique historical legacies seemed influence the level of development and maturity of the system of support services quality management, the mechanisms in place and processes employed. A fairly stable generalisation can be made about services quality in the South African HE sector as whole because, as Twining *et al.* (2017: 11) suggest, the research setting of this study was deemed to be similar to other SAPHEIs and to wider similar HEIs in Africa and world over. Thus making it possible to transfer these findings to HEIs with similar phenomena and context.

## **6.4 Study Implications**

The findings of this study suggest that there are numerous previously unresearched and missing aspects or system deficiencies, practices and conditions which, if corrected or improved, may enable the development and implementation of the internal quality management systems in the context of the support sector in SA public HEIs. These include how HEI leadership can be capacitated in the understanding of the construct of support services quality so as to be able to inculcate the culture, principles, policies and management practices of service quality within their respective institutions.

The results of this study indicate that there is a gap between the intended and the actual quality management practices for service quality in SAPHEIs. The evidence from this study suggests that what is contained on institutional quality frameworks and policies is not always indicative of actual practices. Put together, this suggests a need for further development and/or adoption and systematic operationalisation or implementation of support services quality management policies and practices at institutional level.

The findings have significant implications for the understanding of how the systems thinking approach to HE leadership and strategic management may be applied in the implementation of a quality management system for the support sector enabled by an institution-wide quality culture, supported by institution-wide information management system strategy and adequate allocation of resources.

This study has raised important questions about the nature of stakeholder participation in the development and implementation of institutional support services quality management systems. It can be surmised that institutions may not have the requisite capacity to conduct institution-wide special training on quality management.

Although this study focuses on HEIs, the findings may well have a bearing on the national quality regulatory framework, thus stimulating the CHE to facilitate the development and implementation of institutional support services quality management systems within HEIs.

## **6.5 Significance of the Study**

The significance of the study is that it investigates the quality management systems for higher education support services so that the results may serve as a useful reference for all concerned with the higher education quality management systems, particularly the SAPHE support services sector quality. A comprehensive study of the literature clearly has attempted to put into perspective the concept of support service quality in higher education. The insights gained from this part of the study may serve as a useful point of reference for other studies in this subject. While the results add to the rapidly expanding field of quality management in higher education.

The study contributes to our understanding of the application of the systems thinking approach on the development and implementation in the support services sector quality management systems. This approach will prove useful in expanding our understanding of how leadership may apply and implement a systems thinking approach to support services quality for the purposes of (i) policy formulation and deployment, (ii) developing quality management processes and practices, and (iii) in inculcating an institution-wide culture of quality and continuous improvement.

The findings reported here shed new light on to the extent of development and implementation in the support services sector quality management systems and also provided insight into the level of maturity of service quality within the SA HEIs. The findings demonstrated to policy-makers/leadership and quality managers the level of general neglect of service quality policy formulation and deployment at the institutional level.

The SA public HEIs might benefit from an in-depth analysis of its support sector, notably because the results of this study provided a deeper insight into current challenges and problems for policy and systems development and implementation.

The analysis of challenges and problems may engender a better understanding that will assist in the development of more appropriate and more effective quality management

policies and systems. The necessary integration, presented in findings and recommendations, within the support sector is intended improve service quality both at all institutional levels, thus strengthening the current quality management systems.

The insights gained from this study may be of assistance in the generation of germane and well-designed systems-thinking-based support sector service quality models, policies and procedure guidelines as well as service quality standards for the national and institutional quality management systems.

## **6.6 Study Limitations**

Although literature on the support service sector quality management systems in higher education is recently on the rise, most of it focuses on customer satisfaction and mainly student satisfaction. This state of affairs is both represented by and captured in the literature. Therefore the researcher regularly encountered literature that is either content-insufficient or indecisive particularly relating to support service sector quality management systems.

One of the key limiting elements of this study was the resource constraints in conducting the study at a countrywide level covering all SA HEIs. It is unfortunate that there were constraints of time and funding which limited the scope of the study and confining it to six public HEIs.

This study was further limited by the absence of participation of a broader stakeholder representation including the student voice.

## **6.7 Suggestions for further study**

The subject of quality management systems for the support services sector has received little attention within SAPHEIs to date. So it is hoped that the findings of this study afford SAPHEIs and researchers of quality management systems usable baseline information on the development and implementation of quality management systems for the

SAPHEIs' support services sector. In concluding this study, the findings have culminated in the researcher's suggestions for further studies.

Firstly, the question raised by this study is the role of leadership in inculcating a culture of service quality in SAPHEIs, yet the findings also reveal that currently leadership lacks familiarity with the pertinent concept of support services quality management. These findings provide insights for future research to examine how quality literacies can be built to support institutional leadership and senior managers towards the institutionalisation of service quality within the SAPHEIs and HEIs in general, particularly at the level of support service units and departments. This would be fruitful in producing ideas of how a common and shared quality management vision can be promoted amongst all stakeholders.

Secondly, further studies need to be carried out in order to investigate efficient resource allocation models that may be useful for effective delivery of support services. These studies could assess the long-term effects of the systematic alignment of planning, resource allocation and quality management. This issue is an intriguing one to be usefully explored in further research as it promises to contribute towards the application of the much-needed systems approach to the SAPHEIs' delivery of support services.

Thirdly, the question as to how precisely the quality of support services can be assured and continually improved within institutional systems, especially at departmental levels remains to be unravelled. Considerably more work will need to be done to determine applicable tools and processes that can be employed for assessing the quality of support services within SAPHEIs. Such a study result in providing self-evaluation criteria and standards for the review of SAPHEIs' support service units.

Finally, further research needs to examine more closely the links between the institutions' academic enterprise and the support services sector to establish functional relationships, focusing on how synergies could be built, whose aim would be to develop integrated internal quality management systems and subsequently enhance the quality of the whole student learning experience.



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## Appendix A – Ethical Clearance



**Institutional Research Ethics Committee**  
Research and Postgraduate Support Directorate  
2<sup>nd</sup> Floor, Berwyn Court  
Gate 1, Steve Biko Campus  
Durban University of Technology  
P O Box 1334, Durban, South Africa, 4001  
Tel: 031 373 2375  
Email: [levishad@dut.ac.za](mailto:levishad@dut.ac.za)  
[http://www.dut.ac.za/research/institutional\\_research\\_ethics](http://www.dut.ac.za/research/institutional_research_ethics)  
[www.dut.ac.za](http://www.dut.ac.za)

3 December 2019

Mr A Makola  
PO Box 216  
Butterworth  
4960

Dear Mr Makola

**Development of Quality Management Systems for Support Services in the South African Public Higher Education Sector.**  
**Ethical Clearance number IREC 140/18**

The Institutional Research Ethics Committee acknowledges receipt of your gatekeeper permission letter from the Nelson Mandela University.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection from the above mentioned institute.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC Standard Operating Procedures (SOP's).

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

\_\_\_\_\_  
Professor J K Adam  
Chairperson: IREC



## Appendix B

### Interview Schedule – Management (ISM)

Interview Date \_\_\_\_\_

Name of Organization: \_\_\_\_\_

Name of Participant: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Position \ Title: \_\_\_\_\_

Introduction:

Good Morning \ Afternoon.

My name is Andrew Makola from Durban University of Technology and I am conducting this interview as a part of my PhD's thesis into **Development of Quality Management Systems for Support Services in South African Higher Education Sector**.

This interview is completely voluntary and confidential if at any time you would rather not answer a question please say so. The information will be used for my thesis but I will not include any personal details about you.

The interview should be taking about 30 – 45 minutes and with your permission will be taped. With your agreement, I will proceed with the interview.

1. How in your opinion is the SAHE quality management understood at your university?
2. Does your unit have any quality management/assurance policy/ies? Yes/No
  - a. How are these developed?
3. Is there a specific or separate quality management/assurance policy/ies and procedures for support services units? Yes/No
  - a. How are these developed?
4. What aspects of quality do you focus on?
  - a. Does your unit have some kind of monitoring its activities? Yes/No
  - b. How is this done?

5. Have you been consulted by your university during the development of the quality management policies and systems?
6. Do students have an opportunity to contribute?
7. To what extent is the current QM system (practice) in your university related to the quality of the whole student learning experience?
8. How does your unit/department demonstrate that it provides high quality services?
9. How would you describe the motivation of staff for improving the quality of support services? (High/Low/Moderate)
10. Are the working conditions of support staff (e.g. remuneration, workload, facilities and status) appropriate? How so?
11. Does the institution ever engage in any kind of customer (students and employees) satisfaction surveys for its support services? (Yes/No)
  - a. If yes, how are these conducted and how often?
12. What are the major challenges the unit/department face in assuring quality?
  - a. Do you have the 'space' to manage your own affairs?
  - b. What constrains or limits your efforts for QA/I/E?
  - c. What bureaucratic control do you experience in terms of the policy environment, governance and leadership, and resources for QM?
  - d. What control mechanisms affect your quality management processes – positively and negatively?
13. What, in your opinion are the greatest obstacles/challenges to improving the quality of services in your unit/department?
14. Is there a specific QM System for the support sector employed by your institution? (Yes/No)
  - a. If yes, which one is it?
15. What is your level of satisfaction with the current performance of your university in enhancing the quality of its support services? (High/Low/Moderate)
16. What would you suggest to strengthen the current quality management policies and/or practices at your institution?

## Appendix C

### Interview Schedule – Quality Management Director/Manager (ISQM)

Interview Date \_\_\_\_\_

Name of Organization: \_\_\_\_\_

Name of Participant: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Position \ Title: \_\_\_\_\_

Introduction:

Good Morning \ Afternoon.

My name is Andrew Makola from Durban University of Technology and I am conducting this interview as a part of my PhD's thesis into **Development of Quality Management Systems for Support Services in South African Higher Education Sector**.

This interview is completely voluntary and confidential if at any time you would rather not answer a question please say so. The information will be used for my thesis but I will not include any personal details about you.

The interview should be taking about 30 – 45 minutes and with your permission will be taped. With your agreement, I will proceed with the interview.

1. Can you please describe the composition, structure and functions of internal quality management/assurance unit?
2. Can you please describe the main processes and structures that you have in place for assuring the quality of support services provided?
3. Does your institution have quality management/assurance policy/ies and procedures? Yes/No
  - a. How are these developed?
4. Is there a specific or separate quality management/assurance policy/ies and procedures for support services units? Yes/No
  - a. How are these developed?
  - b. What aspects of quality do you focus on?
5. How does the institution demonstrate that it provides high quality services?

6. How would you describe the motivation of your line managers for improving the quality of support services? (High/Low/Moderate)
7. How would you describe the motivation of staff in general for improving the quality of support services? (High/Low/Moderate)
8. Are the working conditions of support staff (e.g. remuneration, workload, facilities and status) appropriate? How so?
9. Does the institution ever engage in any kind of customer (students and employees) satisfaction surveys for its support services? (Yes/No)
10. If yes, how are these conducted and how often?
11. What are the major challenges the institution face in assuring quality in its support service units?
  - a. What constrains or limits your efforts for QA/I/E?
  - b. Does the institution, in your experience, provide a conducive policy environment, governance and leadership, including resources for QM?
  - c. What control mechanisms affect the institutions' quality management processes – positively and negatively?
12. What, in your opinion are the greatest obstacles/challenges to improving the quality of services in your unit/department?
13. Is there a specific QM System for the support sector employed by your institution? (Yes/No)
  - a. If yes, which one is it?
14. What is your level of satisfaction with the current performance of your university in enhancing the quality of its support services? (High/Low/Moderate)
15. How compatible are your institutions internal quality assurance processes for meeting the external requirements of HEQC?
16. Do you think there is anything lacking in the present system of quality management/assurance in your institution? If so, what needs to be changed?

## Appendix D – Letter of Information



### LETTER OF INFORMATION

**Title of the Research Study:** Development of Quality Management Systems for Support Services in the South African Public Higher Education Sector.

**Principal Investigator/s/researcher:** Andrew Makola, MBA

**Co-Investigator/s/supervisor/s:** DR Manduth Ramchander, PhD

#### **Brief Introduction and Purpose of the Study:**

This project aims to provide a Framework for the Development and Implementation of Quality Management Systems of Support Services in the South African Higher Education Sector.

**Outline of the Procedures:** If you choose to take part in the project you will be sent a questionnaire by email, asked to complete an online questionnaire and asked to attend an interview/focus group. The questionnaire can be completed at a time and place convenient to you and should approximately take about thirty minutes of your time. Interviews will be conducted at a time and place agreed upon between the researcher and yourself. A sound recording device will be used to record your contribution to the study project.

**Risks or Discomforts to the Participant:** The data collected will be used purely for academic purposes. Please note that participation in this research is voluntary and participants can opt out of the study at any time. There are no risks associated with participating in this research project anticipated.

**Benefits:** The information will be presented in a written report, in which your identity will not be revealed. You may be sent a summary of the final report on request.

**Reason/s why the Participant May Be Withdrawn from the Study:** Participation in this project is voluntary and you are free to withdraw at any time and there will be no penalty nor adverse consequences for doing so. Should the participant suffer any illness or any unforeseen personal situation his/her participation may be withdrawn.

**Remuneration:** There will be no remuneration for participating in the research project and

**Costs of the Study:** No costs will be incurred by participants as a result of participation.



**Confidentiality:** I would like to inform you that the ethical aspect of the research ensures the preservation of the identity, including personal details regarding my sex, age, date of birth, and initials of the participants. All information collected during the research project will be treated confidentially and will be coded so that you remain anonymous.

**Research-related Injury:** There are no research-related injury or adverse reaction anticipated.

**Persons to Contact in the Event of Any Problems or Queries:**

If you have any questions about the research project or require further information you may contact the following:

Student Researcher: Andrew Makola

Telephone: 0824455988

Email: [21649474@dut4life.ac.za](mailto:21649474@dut4life.ac.za), or

Supervisor: Dr. Manduth Ramchander

Telephone: 0313735288

Email: [ManduthR@dut.ac.za](mailto:ManduthR@dut.ac.za), or the

Institutional Research Ethics Administrator on 031 373 2375.

Complaints can be reported to the Director: Research and Postgraduate Support, Prof S Moyo on 031 373 2577 or [moyos@dut.ac.za](mailto:moyos@dut.ac.za)

## Appendix E – Letter of Consent



### CONSENT

#### Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Andrew Makola, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: **IREC 140/18**
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_____	_____	_____	_____
<b>Full Name of Participant</b>	<b>Date</b>	<b>Time</b>	<b>Signature/Right Thumbprint</b>

I, Andrew Makola, herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

_____	_____	_____
<b>Full Name of Researcher</b>	<b>Date</b>	<b>Signature</b>
_____	_____	_____
<b>Full Name of Witness (If applicable)</b>	<b>Date</b>	<b>Signature</b>
_____	_____	_____
<b>Full Name of Legal Guardian (If applicable)</b>	<b>Date</b>	<b>Signature</b>

## Appendix F – Survey Questionnaire

### Baseline Survey Questionnaire

#### SECTION A: BIOGRAPHIC INFORMATION

Mark with an X in the appropriate block

1. **Age**

<21	
21-30	
31-40	
41-50	
51-60	
60+	

2. **To which gender identity do you most identify?**

Female	
Male	
Transgender Female	
Transgender Male	
Gender Variant/ Non-Conforming	
Not Listed	
Prefer not to say	

3. **Position (level)**

Indicate your current position according to one of the grading systems below:

1	Top management	
2	Senior management/senior specialist	
3	Middle management/specialist	
4	Junior management/supervisory	

4. **Years of service**

Years	< 2 years	2 – 5 years	5 – 10 years	10 – 20 years	> 20 years
Indicate the term of service with your present institution					

## SECTION B: QUALITY MANAGEMENT SYSTEMS

Please mention your level of agreement on the following statements about implementation of Quality Management Systems in your institution on five-point Likert scale (1=strongly disagree; 2=disagree; 3=uncertain; 4=agree; 5=strongly agree).

### LEADERSHIP

RANKING	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
L1. University top management has knowledge about Quality Management System (QMS) and its implementation.					
L2. University top management actively participates in QMS and supports the improvement process.					
L3. University top management is well aware of the quality related concepts, new work environment and new skills in the implementation of QMS.					
L4. University top management strongly encourages employee involvement in QMS.					
L5. University top management empowers employees to solve quality problems.					
L6. University top management allocates adequate resources on education and training of academic and administrative employee.					
L7. University top management discusses many quality-related issues on QMS in their management meetings.					
L8. University top management focuses on how to improve the performance of students and employees apart from relying on financial criteria.					
L9. University top management pursues long-term stable performance instead of short term temporary solutions.					
L10. University top management properly designs and documents short term and long term planning.					
L11. University top management has developed monitoring system for all the academic activities in the university.					
L12. University top management has developed monitoring system for all the non-academic activities in the university.					
L13. University top management provides all the necessary resources required to improve the quality of education in the University.					
L14. University top management formally assesses the requirement of market and other stakeholders before launching any program.					

### VISION

RANKING	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
V1. University has a clear written vision statement.					
V2. University vision is widely known and shared by our staff.					
V3. Our vision effectively encourages our staff to improve the performance of our students and our institution.					
V4. Academic and administrative processes in university are well aligned with our vision.					
V5. University has well defined academic and administrative processes and performance					
V6. Employees from different levels are involved in developing our policies and plans.					

## MEASUREMENT AND EVALUATION

RANKING	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
ME1. University regularly audits practices according to policies and strategies.					
ME2. University benchmarks our academic and administrative processes with other institutions.					
ME3. University has standard performance measures (e.g. number of publications, course/service evaluations, absenteeism, job satisfaction) to evaluate the performance of the institution and QMS implementation.					
ME4. Standard performance measures are used to evaluate the performance of university's top management.					
ME5. Standard performance measures are used to evaluate the performance of academic units such as colleges, institutes and departments.					
ME6. Standard performance measures are used to evaluate the performance of non-academic units such as administration, student services and facilities and estate.					
ME7. Standard performance measures are used to evaluate the performance of faculty members.					
ME8. The aim of the evaluation is for improvement not for criticism.					

## PROCESS CONTROL AND IMPROVEMENT

RANKING	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
PC1. University meets the expectations of our students and employees.					
PC2. University has modern facilities (e.g. laboratories, library, computers, internet) to enhance the effectiveness of education.					
PC3. Facilities of university (e.g. classrooms, laboratories, computers, heating systems and air conditioners) are maintained in good condition according to periodic maintenance plans.					
PC4. Our processes are designed to be "fool proof" to minimize the source of error.					
PC5. University collects statistical data (e.g. error rates on student records, course attendances, employee turnover rates) and evaluates them to control and improve the processes.					

## PROCESS DESIGN AND RESOURCE ALLOCATION

RANKING	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
PD1. Students' requirements are thoroughly considered in the design of support processes.					
PD2. The experienced academicians' suggestions are thoroughly considered in the design of support processes.					
PD3. The needs and suggestions from the business world are thoroughly considered in the design of support processes.					

PD4. Support processes are evaluated and updated periodically.					
PD5. University facilities (e.g. laboratories and hardware) and resources (e.g. Finance and human resources) are considered in the development and improvement of the support processes.					

#### QUALITY SYSTEM IMPROVEMENT

<b>RANKING</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Uncertain</b>	<b>Agree</b>	<b>Strongly Agree</b>
QSI1. QMS in university is continuously improved.					
QSI2. University is committed to QMS to establish our quality system to a level to be certified by ISO 9000.					
QSI3. University has a clear quality manual, quality system documents and working instructions.					

#### EMPLOYEE INVOLVEMENT

<b>RANKING</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Uncertain</b>	<b>Agree</b>	<b>Strongly Agree</b>
EI1. University has cross-functional team and supports team-work.					
EI2. As a result of quality efforts in university, coordination and collaboration among our employees has been enhanced.					
EI3. Our employees are actively involved in QMS-related activities.					
EI4. University has an established suggestion system to improve the process by the employees.					
EI5. Employees' suggestions are carefully evaluated and implemented if accepted.					
EI6. Employees are very committed to the success of university and its quality.					

#### RECOGNITION AND REWARD

<b>RANKING</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Uncertain</b>	<b>Agree</b>	<b>Strongly Agree</b>
RR1. University has a reward program to recognise employee QMS efforts and their participation to the activities related to the university's mission.					
RR2. University has clear procedures for employees' rewards and applies them transparently.					
RR3. Recognition and reward activities effectively stimulate employees' commitment to QMS efforts.					
RR4. Appointments to the administrative and academic positions are based on the necessary skills required by the positions.					

**EDUCATION AND TRAINING**

<b>RANKING</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Uncertain</b>	<b>Agree</b>	<b>Strongly Agree</b>
ET1. University encourages education and training activities of our employees for academic and service excellence.					
ET2. Special training for work-related skills is provided to all employees.					
ET3. University organises training on QMS for employees and encourages employees to participate.					
ET4. Financial resources are available for employee's education and training in our university.					
ET5. Employees, as the organisations most valuable and long-term resources, are worthy of receiving the necessary education and training in order to achieve the university's vision					

**STUDENT FOCUS**

<b>RANKING</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Uncertain</b>	<b>Agree</b>	<b>Strongly Agree</b>
SF1. University collects student complaints and evaluates them carefully.					
SF2. University conducts a services-evaluation survey for all support services units regularly.					
SF3. University supports the extra-curricular activities for students.					
SF4. University has some organised efforts on continuous education of our students for their business-life and personal development after graduation					

**OTHER STAKEHOLDERS FOCUS**

<b>RANKING</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Uncertain</b>	<b>Agree</b>	<b>Strongly Agree</b>
OSF1. University collects employee complaints and evaluates them carefully.					
OSF2. University takes into consideration the changing needs of the business world.					
OSF3. University regularly conducts surveys on job satisfaction of the employees.					
OSF4. University has some organised efforts to understand the expectation of industry regarding our graduates.					
OSF5. University follows up the career path of our graduates.					
OSF6. University has some organised efforts to identify the academic and administrative needs of our employees.					

Thank you very much for taking time to complete this questionnaire. Please take time to check that you have completed all the sections and that you have left no questions unanswered. Your assistance is much appreciated  
Again thank you

## Appendix G: Checklist for institutional document analyses

Criteria		Evidence	University					
			A	B	C	D	E	F
1	The institution has a stated policy with regard to quality management/assurance and monitoring as regards all aspects of its operations.	Strategic plan; quality framework, quality circles, internal quality assurance teams, quality management procedures	Yes	Yes	Yes	Yes	Yes	Yes
2	There are clearly stipulated internal quality management/management processes for support sector (administrative) activities.	Strategic plan; quality framework, quality circles, internal quality management teams, quality management procedures	No	No	Yes	No	Yes	No
3	Internal quality management mechanisms are aligned with the requirements of the relevant external quality assurance agencies (HEQC).	Quality management framework and policy documents and documents on external quality management agency	Yes	Yes	Yes	Yes	Yes	Yes
4	Quality management/assurance policies are effectively communicated to all the constituents of the institution.	Quality management framework and policy documents	No	Yes	No	No	Yes	No
5	The primary purpose of the institution's quality management/assurance policy and procedures is to achieve quality improvement.	Quality management framework and policy documents and quality improvement plans	Yes	Yes	Yes	Yes	Yes	Yes
6	There is a system for implementing and reviewing the quality management/assurance	Quality management framework and policy documents; quality management committee	Yes	No	Yes	No	No	No



	procedures for the support sector of the institution.	structure; committee meeting minutes						
7	The institution constantly monitors and reviews the effectiveness of its support sector quality management/ assurance procedures. The outcomes are used to improve implementation strategies.	Quality management framework and policy documents, quality management committee structure, planning and implementation of improvement plans	No	No	Yes	No	No	No
8	The institution provides training to its staff as regards the effective implementation of the quality/management assurance procedures.	Activity schedules, training modules, review documents, minutes and agendas of quality management committee and staff committees, performance appraisal forms	No	No	No	No	No	No

Source: Adapted from Commonwealth of Learning (2009: 19-198)

**Appendix H:** Themes, categories and patterns as identified in the analysis of the data collected by means of individual interviews and institutional document analysis

[illegible]

	Compliance-oriented purposes	<ul style="list-style-type: none"> <li>• Promoting of optimal staff quality/ Improving the quality of life of people</li> <li>• Enhancing the quality of graduates</li> <li>• Improvement and enhancement of Institutional Governance and Management</li> </ul>
<b>Theme 3</b> Scope of quality management within HEIs	Quality of academic processes	<ul style="list-style-type: none"> <li>• Academic programmes</li> <li>• Academic reviews</li> <li>• Programme registration and accreditation</li> <li>• Programme reviews</li> <li>• Developing and implementing improvement plans</li> </ul>
	Quality of support services	<ul style="list-style-type: none"> <li>• Academic administration</li> <li>• HR, finance</li> <li>• Support services of core business</li> <li>• Entire learning cycle</li> <li>• Interdependent functions and activities</li> </ul>
	Transformation	<ul style="list-style-type: none"> <li>• Transformation of teaching and learning</li> </ul>
	Uncertainties	<ul style="list-style-type: none"> <li>• Links with internal audit</li> <li>• Links with strategic planning</li> <li>• Support units not familiar with the concept</li> </ul>
<b>Theme 4</b> Structures supporting the internal quality assurance processes for support sector	Positive comments	<ul style="list-style-type: none"> <li>• Quality management unit structure</li> <li>• QA policy</li> <li>• Internal review policy</li> <li>• Support divisions/units' policies</li> <li>• Procedures and practices</li> <li>• Quality management framework/strategy</li> <li>• Institutional planning</li> <li>• Institutional QA committee</li> <li>• QM representation in governance structures</li> </ul>

	Uncertainties	<ul style="list-style-type: none"> <li>• No systems for support sector QM</li> <li>• No structural arrangements in QM units</li> <li>• No proper consultation on policies</li> <li>• Policy ambiguity</li> <li>• Dual reporting lines</li> <li>• Silo mentality</li> <li>• </li> </ul>
<b>Theme 5</b> Tools and processes for assessing quality of support services within HEIs	More positive comments	<ul style="list-style-type: none"> <li>• Quality dimensions</li> <li>• User experience feedback</li> <li>• Service Level Agreements</li> <li>• Student satisfaction surveys</li> <li>• Staff satisfaction surveys</li> <li>• Planning frameworks</li> <li>• Reporting</li> <li>• Constant engagements</li> <li>• Internal quality reviews</li> <li>• Student governance</li> <li>• Self-evaluation</li> </ul>
	Less positive comments	<ul style="list-style-type: none"> <li>• Enabling structures for embedding quality</li> <li>• Less Monitoring and evaluation</li> <li>• Quality assurance agenda</li> <li>• Operating standards and integration</li> <li>• Access to resources</li> <li>• Infrastructure improvement</li> </ul>
<b>Theme 6</b> Role of senior management in support services QA within HEIs	Positive comments	<ul style="list-style-type: none"> <li>• Creation of a conducive policy environment for implementing quality initiatives</li> <li>• Leadership commitment</li> <li>• Delegation of authority and responsibilities</li> </ul>

	Uncertainties	<ul style="list-style-type: none"> <li>• Inconsistent level of leadership motivation</li> <li>• Decision implementation</li> <li>• Leadership comprehension of the nature of work</li> <li>• Centralised Planning culture</li> <li>• No full commitment</li> <li>• Resources mobilisation</li> </ul>
<b>Theme 7</b> Stakeholder involvement in internal QA processes	Student consultation	<ul style="list-style-type: none"> <li>• Student representation in committees</li> <li>• Student services council</li> </ul>
	Staff consultation	<ul style="list-style-type: none"> <li>• Consultation during policy development</li> <li>• Policy rollout</li> <li>• Policy implementation</li> </ul>
<b>Theme 8</b> The use of institutional information	Positive comments	<ul style="list-style-type: none"> <li>• Collection, analysis and use of feedback</li> <li>• Information types: Graduation surveys; student/staff satisfaction surveys</li> </ul>
	Uncertainties	<ul style="list-style-type: none"> <li>• Uncertainty over use of results</li> <li>• Unsystematic manner of data collection and use</li> </ul>
<b>Theme 9</b> Challenges to successful implementation of QA within HEIs	Internal Influences on HEIs	<ul style="list-style-type: none"> <li>• Staffing <ul style="list-style-type: none"> <li>○ Staff-to-support ratio</li> <li>○ High staff turnover/slow recruitment processes</li> <li>○ Skills mismatch and Misalignment</li> <li>○ Work overload/HR under-resourced</li> <li>○ Lack of supervision capacity</li> <li>○ Lack of support staff training</li> <li>○ Lack of Management skills/un-trained in HR-related issues</li> <li>○ Low morale of support staff</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>○ Remuneration and recognition</li> <li>• Resources <ul style="list-style-type: none"> <li>○ Serious resource constraints</li> <li>○ Financial and HR constraints for policy implementation</li> <li>○ Constraining infrastructural resources</li> <li>○ Lack of office space</li> <li>○ Resource allocation without promoting a culture of quality</li> <li>○ Financial control measures – positive intentions but negative impact</li> </ul> </li> <li>• Leadership <ul style="list-style-type: none"> <li>○ Lack of focus – managing many things simultaneously</li> <li>○ Lack of leadership attention</li> <li>○ Lack of change of management – embracing new better innovative ways</li> <li>○ Lack of buy-in from support services</li> <li>○ Lack of budget-provision for Reviews</li> <li>○ Lack of monitoring and evaluation</li> </ul> </li> <li>• Capacity <ul style="list-style-type: none"> <li>○ Lack of management Capacity</li> <li>○ Poor planning</li> <li>○ QA capacity</li> <li>○ Lack of baseline capacity and competencies in support roles and responsibilities</li> </ul> </li> <li>• Student focus <ul style="list-style-type: none"> <li>○ Absence of student-centeredness</li> <li>○ Meeting user expectations and demands</li> <li>○ Lack of orientation; non-responsive or anticipative</li> <li>○ Student services disregarded by academics</li> </ul> </li> <li>• Systems <ul style="list-style-type: none"> <li>○ Lack of strong technical know-how to establish strong systems</li> <li>○ Systems very slow to adapt to the students' needs</li> </ul> </li> </ul>
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	External Influences to HEIs	<ul style="list-style-type: none"> <li>○ Systems not credible/reliable</li> <li>○ Systems not responding to policy</li> <li>○ Disintegrated student value-chain systems</li> <li>• Culture <ul style="list-style-type: none"> <li>○ Culture of working in silos</li> <li>○ Lack of understanding of the cultural dynamics of problems</li> <li>○ Multiple organisational cultures</li> </ul> </li> <li>• Policies <ul style="list-style-type: none"> <li>○ Good policies with no implementation</li> <li>○ Lack of proper planning at grassroots level</li> <li>○ Lack of operating procedures and standards</li> </ul> </li> <li>• Complexity of work</li> <li>• Growing student numbers</li> <li>• Size and shape;</li> <li>• Changing student population/profile</li> <li>• Political pressure</li> <li>• Skewed funding model; University rankings</li> <li>• Student under-preparedness</li> <li>• Rapid technology evolvement</li> <li>• Fourth industrial revolution</li> </ul>
<b>Theme 10</b> Areas for further development	Positive comments and suggestions	<ul style="list-style-type: none"> <li>• Promotion of a culture of quality assurance</li> <li>• Implementation of institutional policies</li> <li>• Allocation of resources for policy implementation</li> <li>• Large infrastructure injection</li> <li>• Third-stream income</li> <li>• Promotion of student-centred service delivery</li> <li>• Coordination of student support structures</li> <li>• Improvement of student recruitment and admissions systems</li> <li>• Attraction to competent competitive staff</li> <li>• Promotion of optimal use of technology</li> </ul>

		<ul style="list-style-type: none"> <li>• Senior management commitment</li> <li>• Promote distributed leadership</li> <li>• Change management</li> <li>• People management</li> <li>• Management systems through systems approach</li> <li>• Build capacity through training and skills development</li> <li>• Raise the level of professionalism</li> <li>• Employ dedicated quality assurance personnel for the support services</li> <li>• Adopt academic sector QA strategies for support sector</li> <li>• Develop Collaborative support sector strategy and policies</li> <li>• Promote Service Quality awareness</li> <li>• Simplify quality concepts</li> <li>• Develop instruments for support sector reviews</li> <li>• Document processes; self-assessment service units for continuous improvement</li> <li>• Monitor improvement plans/ Implement recommendations</li> <li>• Establish new criteria for support sector quality management</li> <li>• QA system for data integrity</li> <li>• Stakeholder consultation</li> <li>• Unpack the risk register</li> <li>• Develop and communicate new graduate attributes</li> </ul>
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Source: Author



## Appendix I – Gatekeepers Permission



PO Box 77000, Nelson Mandela University, Port Elizabeth, 6031, South Africa [mandela.ac.za](http://mandela.ac.za)

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**DIVISION OF ACADEMIC AFFAIRS AND RESEARCH  
DIRECTORATE OF RESEARCH DEVELOPMENT**

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Mthatha Campus  
Private Bag X1  
MTHATHA 5117  
Tel: + 27 47 502 2947/2647  
Fax: +27 47 502 2185

Web Fax: 0866 541 093  
E-mail: [ecishe@wsu.ac.za](mailto:ecishe@wsu.ac.za)  
[bandlac@gmail.com](mailto:bandlac@gmail.com)

Buffalo City  
Potsdam Campus  
EAST LONDON  
Tel: + 43 708 5444  
Fax: + 43 708 5458

05 September 2018

Mr Andrew Makola  
Durban University of Technology  
South Africa

Dear Sir

**Re: Request for Permission Letter to Conduct Research at WSU**

**Qualification:** Doctor of Philosophy in Quality Management

**Institution:** Durban University of Technology

Permission is hereby granted for the study entitled **Development of Quality Management Systems for Support Services in the South African Public Higher Education Sector**, provided that copies of your completed study will be submitted to the Campus Rector of the campus in which the study will be conducted and the Directorate of Research Development

All data pertaining to Walter Sisulu University will be treated confidentially and you are required to abide by ethical principles at all times. It is your responsibility to seek consent from the participants.

Regards

Dr. E.N. Cishe  
Acting Director: Research Development

Walter Sisulu University



15 August 2018

Mr Andrew Madoda Makola  
DUT  
Email: [amakola@yahoo.com](mailto:amakola@yahoo.com)

Dear Mr Makola

**RE: PERMISSION TO CONDUCT RESEARCH**

Gatekeeper's permission is hereby granted for you to conduct research at the University of KwaZulu-Natal (UKZN) towards your postgraduate studies, provided Ethical clearance has been obtained. We note the title of your research project is:

*"Development of Quality Management Systems for Support Services in the South African Public Higher Education Sector."*

It is noted that you will be constituting your sample as follows:

- By handing out questionnaires and/or conducting interviews with staff members dealing with Quality Management Systems
- Conducting focus group discussions with students at UKZN.

Please ensure that the following appears on your notice/questionnaire:

- Ethical clearance number;
- Research title and details of the research, the researcher and the supervisor;
- Consent form is attached to the notice/questionnaire and to be signed by user before he/she fills in questionnaire;
- gatekeepers approval by the Registrar.

You are not authorized to contact staff and students using 'Microsoft Outlook' address book. Identity numbers and email addresses of individuals are not a matter of public record and are protected according to Section 14 of the South African Constitution, as well as the Protection of Public Information Act. For the release of such information over to yourself for research purposes, the University of KwaZulu-Natal will need express consent from the relevant data subjects. Data collected must be treated with due confidentiality and anonymity.

Yours sincerely

**MR ŠS MOKOENA**  
**REGISTRAR**

**Office of the Registrar**

Postal Address: Private Bag X54001, Durban, South Africa

Telephone: +27 (0) 31 260 8005/2206 Facsimile: +27 (0) 31 260 7824/2204 Email: [registrar@ukzn.ac.za](mailto:registrar@ukzn.ac.za)

Website: [www.ukzn.ac.za](http://www.ukzn.ac.za)



Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

## University of Fort Hare

OFFICE OF UNIVERSITY REGISTRAR

**Alice (main) Campus:**

Private Bag X1314, King William's Town Road, Alice, 5700, RSA  
Tel: +27 (0) 40 602 - 2501 • Fax: +27 (0) 40 602 - 2577  
Email: nmabindisa@ufh.ac.za



17 August, 2018

Mr. Andrew Makola

[21649474@du4life.ac.za](mailto:21649474@du4life.ac.za) or [amakola@yahoo.com](mailto:amakola@yahoo.com)

Durban University of Technology

Dear Mr. Makola

Approval from the Registrar's Office to Conduct Research

Having consulted the Chairperson of the Research Ethics Committee, I hereby grant permission for Mr A Makola to conduct research relating to his thesis "Development of Quality Management Systems for Support Services in the South African Public Higher Education Sector".

We look forward to reading the research report.

Kind regards

Prof M Somniso

University Registrar

**Bhisho Campus:**

P. O Box 1153, KWT 5600, Independence Avenue , Bhisho, 5600, RSA  
Tel: +27 (0) 40 608 - 3407 • Fax: +27 (0) 40 608 - 3408

**East London Campus:**

Private Bag X9083, EL 5200, 50 Church Street, East London, 5201, RSA  
Tel: +27 (0) 43 704 - 7000 • Fax: +27 (0) 43 704 - 7095  
V/C Dial Up: +27 (0) 43 704 - 7143/ 7144

[www.ufh.ac.za](http://www.ufh.ac.za)



*Directorate for Research and Postgraduate Support  
Durban University of Technology  
Tromso Annexe, Steve Biko Campus  
P.O. Box 1334, Durban 4000  
Tel.: 031-3732576/7  
Fax: 031-3732946*

28<sup>th</sup> September 2018

Mr Andrew Makola  
c/o Operations and Quality Management  
Faculty of Management Sciences  
Durban University of Technology

Dear Mr Makola

**PERMISSION TO CONDUCT RESEARCH AT THE DUT**

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research and Innovation Committee (IRIC) has granted Provisional Permission for you to conduct your research "Development of Quality Management Systems for Support Services in the South African Public Higher Education Sector" at the Durban University of Technology.

The DUT may impose any other condition it deems appropriate in the circumstances having regard to nature and extent of access to and use of information requested.

We would be grateful if a summary of your key research findings can be submitted to the IRIC on completion of your studies.

Kindest regards.  
Yours sincerely

---

**PROF CARIN NAPIER**  
DIRECTOR (ACTING): RESEARCH AND POSTGRADUATE SUPPORT DIRECTORATE



10 September 2018

Dear Mr Makola

**Title: Development of Quality Management Systems for Support Services in the South African Public Higher Education Ref: M10/18/10**

The Interim MUT Ethics Committee considered and noted your application for the proposed study at their meeting held on 10<sup>th</sup> September 2018. The permission for the study was granted.

Your acceptance of this approval denotes your commitment to comply with the South African National Research Ethics Guidelines of 2004 as amended, South African Good Clinical Practice Guidelines (2006) as amended, and the MUT Research Ethics Policy, Procedures and Guidelines. The approval is valid for one year, (10<sup>th</sup> September 2018 to 10<sup>th</sup> September 2019).

Your reference is ME 10/18/10

Furthermore, permission to conduct the project is granted on the condition that any changes to the project must be brought to the attention of the MUT Research Ethics Committee as soon as possible.

Good luck with your research.

Yours faithfully,

Dr Z.L. Kwitshana  
Interim Chairperson  
Ethics Committee

## Appendix J – Turnitin summary report

<p>Turnitin Originality Report</p> <p>Processed on: 29-Nov-2020 20:54 SAST  ID: 1428559466  Word Count: 83515  Submitted: 3  chapter 1-6 Bv Andrew Makola</p>	
<p>Similarity Index</p> <p><b>16%</b></p>	<p><b>Similarity by Source</b></p> <p>Internet Sources: 13%  Publications: 6%  Student Papers: 5%</p>

<p>1% match (Internet from 25-Jul-2012)  <a href="http://etd.uovs.ac.za/ETD-db/theses/available/etd-06182007-074813/unrestricted/BezuidenhoutMJ.pdf">http://etd.uovs.ac.za/ETD-db/theses/available/etd-06182007-074813/unrestricted/BezuidenhoutMJ.pdf</a></p>
<p>1% match (student papers from 26-Jun-2019)  <a href="#">Submitted to University of Bath on 2019-06-26</a></p>
<p>1% match ()  <a href="http://hdl.handle.net/10500/18676">http://hdl.handle.net/10500/18676</a></p>
<p>&lt; 1% match (Internet from 09-Oct-2013)  <a href="http://uir.unisa.ac.za/bitstream/handle/10500/2024/02chapter2.pdf">http://uir.unisa.ac.za/bitstream/handle/10500/2024/02chapter2.pdf</a></p>
<p>&lt; 1% match (Internet from 06-Feb-2019)  <a href="https://repository.up.ac.za/bitstream/handle/2263/50691/Matsebatlela_Effect_2015.pdf?isAllowed=y&amp;sequence=1">https://repository.up.ac.za/bitstream/handle/2263/50691/Matsebatlela_Effect_2015.pdf?isAllowed=y&amp;sequence=1</a></p>
<p>&lt; 1% match (Internet from 07-Feb-2019)  <a href="https://repository.up.ac.za/bitstream/handle/2263/26077/Complete.pdf?isAllowed=y&amp;sequence=11">https://repository.up.ac.za/bitstream/handle/2263/26077/Complete.pdf?isAllowed=y&amp;sequence=11</a></p>
<p>&lt; 1% match (Internet from 19-May-2020)  <a href="http://docplayer.net/26460505-Quality-management-in-higher-education.html">http://docplayer.net/26460505-Quality-management-in-higher-education.html</a></p>
<p>&lt; 1% match (Internet from 18-May-2019)  <a href="https://ris.utwente.nl/ws/portalfiles/portal/6064589/thesis_M_Nega_Kahsay.pdf">https://ris.utwente.nl/ws/portalfiles/portal/6064589/thesis_M_Nega_Kahsay.pdf</a></p>
<p>&lt; 1% match (publications)  <a href="#">"The International Encyclopedia of Higher Education Systems and Institutions", Springer Science and Business Media LLC, 2020</a></p>
<p>&lt; 1% match (Internet from 17-Jun-2020)  <a href="http://docplayer.net/32680129-Quality-of-quality-definitions-an-analysis.html">http://docplayer.net/32680129-Quality-of-quality-definitions-an-analysis.html</a></p>
<p>&lt; 1% match ()  <a href="http://creativecommons.org/licenses/by-nc-sa/3.0/za/">http://creativecommons.org/licenses/by-nc-sa/3.0/za/</a></p>
<p>&lt; 1% match (Internet from 25-Nov-2018)  <a href="http://dspace.nwu.ac.za/bitstream/handle/10394/4138/deconing_gl.pdf;sequence=3D">http://dspace.nwu.ac.za/bitstream/handle/10394/4138/deconing_gl.pdf;sequence=3D</a></p>
<p>&lt; 1% match (Internet from 23-Jan-2020)  <a href="http://openscholar.dut.ac.za/bitstream/10321/469/4/Ramlagan_2009.pdf">http://openscholar.dut.ac.za/bitstream/10321/469/4/Ramlagan_2009.pdf</a></p>
<p>&lt; 1% match (Internet from 27-Mar-2019)  <a href="https://mafiadoc.com/quality-assurance-for-higher-education-in-lebanon-guide-i-59b0db351723ddd7c686cf36.html">https://mafiadoc.com/quality-assurance-for-higher-education-in-lebanon-guide-i-59b0db351723ddd7c686cf36.html</a></p>
<p>&lt; 1% match (publications)  <a href="#">Maria J. Manatos, Cláudia S. Sarrico, Maria J. Rosa. "The integration of quality management in higher education institutions: a systematic literature review", Total Quality Management &amp; Business Excellence, 2015</a></p>
<p>&lt; 1% match (Internet from 22-Jun-2019)  <a href="https://pdfs.semanticscholar.org/7f15/0ae6ffc17d8fa532776c4b88be4452dd2d53.pdf">https://pdfs.semanticscholar.org/7f15/0ae6ffc17d8fa532776c4b88be4452dd2d53.pdf</a></p>
<p>&lt; 1% match (Internet from 12-Sep-2014)  <a href="http://www.education.gov.za/LinkClick.aspx?fileticket=sKsxhYorWOk%3D&amp;tabid=452&amp;mi">http://www.education.gov.za/LinkClick.aspx?fileticket=sKsxhYorWOk%3D&amp;tabid=452&amp;mi</a></p>
<p>&lt; 1% match (student papers from 30-Apr-2010)  <a href="#">Submitted to North West University on 2010-04-30</a></p>
<p>&lt; 1% match (student papers from 10-Sep-2018)  <a href="#">Submitted to Asia e University on 2018-09-10</a></p>
<p>&lt; 1% match (Internet from 06-Sep-2017)  <a href="http://scholar.sun.ac.za/bitstream/handle/10019.1/1127/luckett_quality_2006.pdf?isAllowed=y&amp;sequence=2">http://scholar.sun.ac.za/bitstream/handle/10019.1/1127/luckett_quality_2006.pdf?isAllowed=y&amp;sequence=2</a></p>

<p>&lt; 1% match (Internet from 16-Jul-2010)  <a href="http://scholar.sun.ac.za/bitstream/handle/10019.1/783/Williams_Retrospective_2008.pdf">http://scholar.sun.ac.za/bitstream/handle/10019.1/783/Williams_Retrospective_2008.pdf</a></p>
<p>&lt; 1% match (Internet from 24-May-2020)  <a href="https://link.springer.com/content/pdf/10.1007/BF03180755.pdf">https://link.springer.com/content/pdf/10.1007/BF03180755.pdf</a></p>
<p>&lt; 1% match (Internet from 05-Nov-2018)  <a href="http://uir.unisa.ac.za/bitstream/handle/10500/5596/thesis_van%20schalkwyk_r.pdf?sequence=1">http://uir.unisa.ac.za/bitstream/handle/10500/5596/thesis_van%20schalkwyk_r.pdf?sequence=1</a></p>



## Appendix K – Permission to submit

PG 7



### Submission of Dissertation/Thesis for Examination

<b>Faculty</b>	Faculty of Management Studies		
<b>Department</b>	Operations and Quality		
<b>Qualification for which registered</b>	PhD: Quality Management		
<b>Offering type</b>	<b>Full time registration</b>	<b>Part time registration</b>	x
<b>Prior qualification</b>	Master of Business Administration		

<b>Student Surname</b>	Makola		<b>Student No.</b>	21649474
<b>First Names</b>	Andrew		<b>Title (Mr, Ms)</b>	Mr
<b>Postal Address</b>	P O Box 216, Butterworth 4960			
<b>Tel (W)</b>	<b>Tel (H)</b>	<b>Cell</b>	<b>Fax</b>	<b>e-Mail</b>
		082 445 5988	N/A	amakola@yahoo.com
<b>Title of Dissertation/ Thesis</b>	Development of Quality Management Systems for Support Services in the South African Public Higher Education Sector			<b>Full</b> <input checked="" type="checkbox"/> <b>Partial</b> <input type="checkbox"/> Dissertation/Thesis

<b>Supervisor</b>	Dr Manduth Ramchander			
<b>Position</b>	Senior Lecturer	<b>Present Qualifications</b>	DCom	
<b>Tel (W)</b>	<b>Tel (H)</b>	<b>Cell</b>	<b>Fax</b>	<b>e-Mail</b>
0315021509	0313735288	0744004400	N/A	Manduthr@dut.ac.za
<b>Co-Supervisor</b>	N/A			
<b>Position</b>	N/A	<b>Present Qualifications</b>	N/A	
<b>Tel (W)</b>	<b>Tel (H)</b>	<b>Cell</b>	<b>Fax</b>	<b>e-Mail</b>
N/A	N/A	N/A	N/A	N/A
I hereby grant the abovementioned student permission to submit his/her dissertation/thesis for examination.				

Signed: \_\_\_\_\_ Date: 15 May 2020

(Supervisor)

YES ☒ NO ☐

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

(Co-Supervisor)

YES ☐ NO ☐

Signed: \_\_\_\_\_ Date: 18 May 2020

(HoD)

<b>Routing</b>	<b>Student</b>		<b>Supervisor</b>		<b>HoD</b>		<b>Faculty Officer</b>	
----------------	----------------	--	-------------------	--	------------	--	------------------------	--