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LIST OF ABBREVIATIONS AND ACRONYMS

AAQN: Asia Pacific Quality Network

AAU: African Association of Universities

ACRL: Association of College and Research Libraries

AHP: Analytic Hierarchy Process

ALA: American Library Association

ARL: Association of Research Libraries

AU: Africa Union

BSC: Balance Scorecard

CAF: Common Assessment Framework

CEMAC: CommunauteqEconmique et Monetaire de LqAfrique Centrale

CHE: Commission for Higher Education

CHEA: Council of Higher Education Accreditation

CHELSA: Committee of Higher Education Libraries of South Africa

CHE-HEQC: Commission for Higher Education . Higher Education Quality Committee

CHE-IRC: Commission for Higher Education-Information Resource Center

CSF: Common Assessment Framework

D: Portuguese Global Performance Measure

DAAD: German Academic Exchange Foundation

EFQM: European Foundation of Quality Framework

ENQA: European Network for Quality Assurance in Higher Education

EQA: External Quality Assurance

IFLA: International Federation of Library Associations

INQAAHE: International Network of Quality Assurance Agencies in Higher Education

IUCEA: Inter-University Council of East Africa

LIA: Letter of Interim Authority

LIS: Library and Information Science

LIRG: Library and Information Research Group

LMD: License, Master, Doctorate

MERCOSUR: Common Market of South America

NEASC: New England Association of Schools and Colleges

QAA: Quality Assurance Agency for Higher Education

SCONUL: Standing Conference of University Librarians

TQM: Total Quality Management

UNESCO: United Nations Education, Science and Cultural Organization

UNISA: University of South Africa

CHAPTER ONE: INTRODUCTION

1.0 Introduction

A number of common global challenges such as growing social demand, privatization, and commercialization of higher education and the effects of information communication technology on the provision of higher education have seriously affected higher education systems worldwide. The social and economic demand for higher education have led to a more diversified clientele and the need for different types of higher education institutions (Altbach, Reisberg & Rumbley 2009:ix; Sanyal & Martin 2007:5; Teferra 2007:55). The expansion, diversification and privatization of higher education worldwide have brought with them increased concern about the quality of higher education in both developed and developing countries (Martin & Stella 2007:19). During the 2009 World Conference on Higher Education, emphasis was on expanding access, equity, relevance and quality of higher education (UNESCO 2010:1). Globalization has highlighted the need for the establishment of national accreditation and quality assurance systems, alongside promotion of networking among them (UNESCO 2010:5).

These challenges have also created increased need of improvement of the quality assurance processes and procedures in higher education institutions and external quality assurance agencies. All over the world, there is increased interest in quality and standards, reflecting the rapid growth of higher education and its cost to the public and the private purse (UNESCO 2010:3; ENQA 2005:9; UNESCO 2006:6; Materu 2007:xiii). Quality requires both establishing quality assurance systems and patterns of evaluation, as well as promoting a quality culture within institutions (UNESCO 2010:3). Regulatory and quality assurance mechanisms that promote access to, and create conditions for, the completion of studies should be put in place for the entire higher education sector to address these challenges (UNESCO 2010:4).

1.1 Background to the statement of the problem

One of the major trends that emerged to address the challenges of globalization and commercialization of higher education was the setting up of regional quality assurance

agencies acround the world. These organizations are integrating national, regional and international initiatives to coordinate quality assurance activities in the world and include the World Bank, UNESCO, the European Association for Quality Assurance in Higher Education and the African Association of Universities (Altbach, Reisberg & Rumbley 2009:ix; Sanyal & Martin 2007:4).

The European Bologna Process and the MERCOSUR (Common Market of South America) initiatives on accreditation have established new trends at both the national and international levels in higher education quality assurance systems. The Bologna process aimed at establishing, by 2010, a common qualification structure in the so-called European Higher Education Area, a credit transfer system, and a national accreditation mechanism, all of which jointly aim at facilitating the mobility of students and professionals (Altbach, Reisberg & Rumbley 2009: ix; Martin & Stella 2007:25; UNESCO 2006:9).

Regional initiatives have been created in Africa and Asia following the Bolgna process. They include the Communauteq Econmique et Monetaire de LqAfrique Centrale (CEMAC) which adopted the License, Master, Doctorate (LMD) system to harmonize and standardize tertiary education in Cameroon, the Central Africa Republic, Congo, Gabon, Equatorial Guinea and Chad. The Asia Pacific Quality Network (AAQN) was also formed to promote the mobility of students and skilled workers within the region. MERCUSOR the Common Market of South American initiative on accreditation was formed to enable members to develop a scheme for making degrees comparable among them (Materu 2007:12; Martin & Stella 2007: 25; UNESCO 2006:9).

The African Union identified quality assurance as an area of focus in its Plan of Action for the Second Decade of Education in Africa. The African Union has also developed a framework for harmonizing higher education programmes in Africa. The purpose of harmonization was to establish an African system that would ensure that the performance of higher education institutions could be compared against a set of criteria that takes into account the unique context and challenges of higher education delivery on the continent (AU 2007:33). The African Association of Universities (AAU), with support from UNESCO, has also stimulated the setting up of national, sub-regional and regional quality assurance systems (UNESCO 2010:7).

The new phenomenon of globalization has brought growing concern worldwide about the quality of higher education inputs, processes and outcomes. Many countries have also been considering if their traditional quality assurance structures are still appropriate, or whether they should create new mechanisms for external quality assurance (Sanyal & Martin 2007:5). Assuring quality in higher education involves putting in place and strengthening appropriate quality assurance systems and regulatory frameworks with the involvement of all stakeholders (UNESCO 2010:8). Globalization regional integration and the ever-increasing mobility of students and scholars have made the need for internationally recognized standards among and between nations more urgent. The explosive growth of both traditional institutions and new providers raises questions in regard to standards of quality (Altbach, Reisberg & Rumbley 2009:ix). The authors further state that quality criteria must reflect the overall objectives of higher education, notably the aim of cultivating in students critical and independent thought and the capacity to learn throughout life. Increasing emphasis is also placed on outcomes of higher education; evaluators are looking for new data and indicators that demonstrate that students have mastered specific objectives because of their education.

Academic librarians should also cope with the current changes in higher education, that is, they need to identify what changes are occurring externally, what changes need to occur internally and to manage the change process to reconcile the internal with the external (Cullen 2003:1). This study is about the impact of external quality assurance and aims to demonstrate the application of the quality management frameworks and performance implementation model in the evaluation of university libraries in Kenya.

1.1.1 Definitions of key terms and concepts

This section defines the precise meanings of the general terms used in this study. Other terms were explained whenever they appeared in the study. As stated by Creswell (2003:43):

      The rational is that, in formal research, students must be precise in how they use

language and terms. The need to ground thoughts in authoritative definitions constitutes good science.

1.1.1.1 Defining Quality in higher education

In the literature reviewed, there seemed to be no universal agreement on the concept of quality in education, many authors found its definition complex. A report by NEASC (2006:25), states that the term quality education is fundamentally subjective, and that whatever constitutes a quality educational experience varies according to each community's values, priorities and demographics. According to Martin and Stella (2007:30), quality was complex to define because there is no consensus on the exact objectives of higher education, which is a multi-dimensional and complex process based on the relationships between, and among, teachers and learners. Furthermore, the relative character of quality complicates the nature of the concept. According to Gvaramadze (2008:445), quality is not an absolute, but rather, compromising and relative to the processes and local contexts presented in terms of desired outcomes. Hence, it is more of a stakeholder concept, open to different perspectives from different interest groups.

However, Gola (2004:26) defined quality as the caliber of the results of the teaching and learning processes in a university, specifying worthwhile learning goals and enabling students to achieve them. Sanyal and Martin (2007:5) identified the following ten definitions of quality in higher education according to the varied stakeholders, that is;

- Providing excellence;
- Being exceptional;
- Providing value for money;
- Conforming to specifications;
- Getting things right the first time;
- Meeting customers' needs;
- Having zero defects;
- Providing added value;
- Exhibiting fitness of purpose; and

- Exhibiting fitness for purpose.

Kemenade, Pupius and Hardjono (2008:176) described quality concept by four elements that is object, standard, subject and values. The four value systemsqon quality and quality management are control, continuous improvement, commitment and breakthrough. Many quality assurance agencies and authors have defined quality as it relates fitness for purpose . meeting or conforming to generally accepted standards (CHE 2008:6; CHEA 2002:3; Sanyal & Martin 2007:5; Bogue & Hall 2003:14).

1.1.1.2 Defining Quality Assurance in Higher Education

Quality assurance is a generic term used as shorthand for all forms of external quality monitoring, evaluation or reviews and defined as a process of establishing stakeholder confidence whose provision (inputs, processes and outcomes) fulfills expectations or measures up to the minimum requirements. At the institutional level, quality assurance is generally defined as that aspect of the overall management function that determines and implements the quality policy (Harvey 2004a:3; Martin & Stella 2007:34).

Quality assurance was defined by Vlasceanu, Grunberg & Parlea 2004:48

> to relate to a continuous process of evaluating (assessing, monitoring, guaranteeing, maintaining, and improving) the quality of a higher education system, institutions or programmes. As a regulatory mechanism, quality assurance focuses on both accountability and improvement, providing information and judgment, not ranking through an agreed process and well-established criteria. Many systems make a distinction between internal quality assurance (that is, intra-institutional practices in view of monitoring and improving the quality of higher education) and external quality assurance (that is, inter- or supra institutional schemes of assuring the quality of higher education institutions and programmes). The scope of quality assurance is determined by the Quale shape and the size of higher education system. Quality assurance varies from accreditation, in the sense that the former is only a prerequisite for the latter. Quality assurance is often considered as a part of the quality management of higher education, while sometimes the two terms are used synonymously.

Quality assurance is a widely used term that refers to the processes associated with ensuring that quality adheres to some externally or internally set standard (CHE-HEQC 2004:23; Rowley 2005:510). Quality assurance and standards in this perspective are generic terms used to bring together narrowly defined regulatory requirements and good practice under a common umbrella of diverse European local contexts. The purpose is to provide assistance to universities in order to develop and enhance a quality assurance system and quality cultures as a way towards greater institutional autonomy and set a common frame of reference to improve the education that is available to students (ENQA 2005).

Quality assurance is not an aim in itself. It is an instrument, which the state, directly or through delegation, may enact its role to protect students and families from low-quality fraudulent providers and serve the purpose of quality improvement. Quality assurance has also a cost in financial and human terms. The existence of a quality assurance mechanism does not automatically mean that national higher education provision is of good quality (Martin & Stella 2003:105).

1.1.1.3 Defining Accreditation

Various authors define the term accreditation as the outcome of a process by which a government, parastatal or private body (accreditation agency) evaluates the quality of higher education. This includes the institution as a whole, or a specific higher education programme, in order to formerly recognize it as having met certain predetermined criteria or standards and award a quality label (Martin & Stella 2007:36; Sanyal & Martin 2007:6; Harvey 2004a:5; CHEA 2002:1). Accreditation ensures quality control (minimum standards) in higher education, quality enhancement and facilitation of student mobility (Sanyal & Martin 2007:6).

Cret (2010:14) argued, %that accreditation does not entail organizational changes by themselves, standardization of programmes but they constitute an external tool that does not impose changes from itself. One might better conceive it as a kind of a catalyst. They provide frameworks and opportunities to mobilize management tools

more easily+.

Accreditation uses methods that overlap with audit, assessment and external examination. The methods include self-assessments, document analysis, scrutiny of performance indicators, peer visits, inspections, specially constituted panels, delegated responsibility to internal panels and stakeholder surveys (Harvey 2004a:8). According to CHEA (2002:1), accreditation is the process of external quality review used in higher education to scrutinize colleges, universities and higher education programmes for quality assurance and quality improvement. Success results in an accredited institution or a programme.

In South Africa, accreditation refers only to institutions and their authority to offer specific programmes. In the United States of America, accreditation involves a collegial process of self-study and external peer review for quality assurance, accountability and quality improvement of an institution or programme designed to determine whether or not it has met or exceeded the published standards of its accrediting association and its achieving its mission and stated purpose. In Western Europe, it involves an evaluation and assessment of an institution or its programmes in relation to its aims and objectives, its recognized standards and its own goals. In Kenya, it means compliance with standards and award of status.

According to Dano and Stensaker (2007:83), critical issues are related to how
> accreditation is actually implemented as a method, what kind of procedures are developed, and how these relate to institutional attempts to develop their own quality processes. This includes how the meetings are set up, the types of questions asked and how they are asked, and the time reserved for discussion and feedback.

1.1.1.4 Defining Impact

Impact in the context of quality in higher education refers to the consequences that the establishment of quality processes (both internal and external) has on the following:

- Culture;

- Policy;

- Organizational framework;

- Documentation;

- Infrastructure;

- Learning and teaching practices;

- Assessment/grading of students;

- Learning outcomes;

- Student experience;

- Student support;

- Resources;

- Learning and research environment;

- Research outcomes; and

- Community involvement in the institution or department (Harvey 2004:12).

However, Harvey and Newton (2004:152) state that:

> Evaluating the impact of quality education is not just a matter of specifying a remit, identifying evaluation criteria and adopting the same methods of investigation as the evaluators. The evaluation of impact must engage the politics of quality, go beyond any limiting specification, analyze ideology, dig beneath the surface, and dialectically deconstruct the prevailing perception.

A study on the impact of external quality assurance in Nordic countries found that the %systems are often integrated into a broader external quality assurance framework, reducing the potential to overrun other means and approaches to assure and improve quality+ (Dano & Stensaker 2007: 92). The findings also showed that accreditation introduced a number of methods and procedures for improving and assuring quality, the significance and effect of each method decreased because of less clarity concerning the purpose and implications. It recommended that communication, tailoring and mutual adjustments are needed more as the development of an internal quality culture in higher education institution is more dependent on how the whole system for external quality assurance functions than on whether a particular method is being applied

The impact of external quality assurance includes the changes evident from one review to the next. The improvements in performance indicators; the establishment by institutions of internal quality assurance units and formal processes; institutional declarations that regard the external process as having led to improvements; feedback from students indicating positive change and statements from employers suggesting a perceived improvement in graduate abilities (Harvey 2006:290).

1.1.2 External quality assurance in higher education

According to Martin and Stella (2007:41), different quality assurance agencies use the term external quality assurance to denote different practices to serve various purposes and they exercise the responsibility of carrying out quality assurance in various ways. There are two types of quality assurance systems internal and external. Internal quality assurance ensures that an institution or programme has policies and mechanisms in place to make the attainment of its own objectives and standards possible.

External quality assurance is performed by an organization or quality assurance agency from outside the institution. The organization assesses the operation of the institution or its programmes in order to determine if it meets the agreed upon or predetermined standards (CHE 2008:8; Sanyal & Martin 2007:5). This study was limited to external quality assurance as it pertains to the assessment of operations of university libraries in Kenya.

There are three main methods of external quality assurance in higher education institutions. These are quality audit, quality assessment and accreditation. A quality audit examines an institution or one of its units. According to Sanyal and Martin (2007:5), quality audits are the first step in the quality assurance procedure. Norway, Australia, New Zealand and South Africa practice the quality audit approach of external quality assurance. Quality assessment involves evaluating the quality of higher education processes, practices, programmes and services using appropriate techniques, mechanisms and activities. Quality assessment leads to quality assurance or lack thereof, for the stakeholders. The authors further argue that quality assessment establishes confidence among stakeholders but accreditation does it to a greater

degree because it provides a quality label. France uses quality assessment to judge quality in higher education institutions.

Accreditation is the most widely used method of external quality assurance. Accreditation is the common system in India, USA, Nigeria, Colombia, Germany, Japan, Philippines, Hungary, Chile, Portugal, North and South America and Kenya. This study was limited to accreditation as a method of external quality assurance. Three innovative procedural changes have been brought about by the emerging concern and pressure from governments and international funding agencies for external quality assurance. These are special interest in the quality of teaching and learning in higher educational institutions, the need for regular assessment and the focus on outcomes rather than inputs and outputs (Martin & Stella 2007:28).

External quality assurance systems in higher education have three main purposes quality control, accountability or guidance and improvement. Quality control relates to the traditional role of governments of ensuring that higher education provision is in line with minimum quality requirements. External quality assurance is conducted mainly to enforce accountability in order to reassure external stakeholders of the levels of quality, high standards and international comparability of both public and private providers. The other main reason for external quality assurance is improvement of the existing practices by establishing self-assessment procedures in higher education institutions (Martin & Stella 2007:41; UNESCO 2006:22 . 24).

Either the fitness-for-purpose or the standard-based approach can be used to assess quality in higher education. The fitness for purpose approach begins by analyzing the stated purpose of a higher education institution or programme (mission statement). Alternatively may consider whether the purpose is acceptable in higher education or not (fitness for purpose). The fitness-for-purpose approach is usually understood as the more appropriate approach for quality improvement, whereas that standard-based approach is more readily associated with accountability and conformity (Martin & Stella 2007:42; UNESCO 2006:26). The more current systems are voluntary; however, motivation to apply for EQA could be to obtain special status, which gives an institution

an advantage in an environment where there is competition for students and funding. Accreditation is compulsory in Hungary and Kenya. Regional accrediting agencies in the USA use the standard based approach, where it is voluntary in nature.

According to Martin and Stella (2007:101), EQA systems tend to fill the gaps in the broader quality assurance system, and they focus on functions that are not yet carried out by other agencies. The size of the higher education system is one of the contextual issues that may heavily influence the choices that made regarding the structure of an EQA. The level of private provision of higher education, the country's level of development and public perception of that provision all influence the quality assurance arrangement in a country. The maturity of the system is another factor that determines the role that various stakeholders can play in the quality assurance arrangement. The overall purpose of an EQA system corresponds to a specific approach compulsory, voluntary, fitness for purpose or fitness of purpose. However, it is also common for EQA agencies to emerge as multi-functional systems, embracing new functions such as licensing, institutional audit, and programme, accreditation.

The system of evaluation and improvement is not linear, and there is an interactive process of implementation, which means that policy and requirements are adjusted on the ground and the original intention modified by practitioners. Harvey (2006:288) also argues that:

> There have been changes, which have coincided with a period of attention to quality issues in higher education and leave it open as to whether quality assurance is responsible, has created an atmosphere in which improvement has been encouraged or simply reflect zeitgeist, brought about by other factors such as massification and consumerism in higher education.

The EQA agency should ensure that its external reviewers are up to the tasks to be accomplished, have no conflict of interest, receive the necessary training, and the reviewer's reports are evidence-based and clear, with precisely stated conclusions (INQAAHE 2007:10). An evaluation method should incorporate an evidence-based approach, and that evaluation should be research-informed. Figure 1.1 depicts an

external evaluation model as proposed by Harvey and Newton (2004:150).

Figure1.1 External evaluation: alternative research-based model

Elements of approach	Self -regulation	Enhancement -led	Research-informed	
Object	Learner	Outcomes of learning	Research	Outcome of research
Focus	Learning experience	Learning infrastructure	Linked organizational processes	
Rationale	Improvement/ Enhancement	Dissemination mechanisms and capacity		
Methods	Evidence-based, Research informed approach	Internal/external peers as critical friends	Document analysis of institutional	Analysis of learning and teaching strategy	Analysis of student outcome

Minelli E. *et al*. (2006:122), while comparing two case studies characterized by different historical, institutional and organizational backgrounds, concluded that:

> External forms of control, rules established by law and procedures formulated by national boards or agencies can become a relevant resource that academic management can use to define a perspective of cultural and organizational change.

The European Foundation for Quality Management (EFQM) has developed a widely used framework for quality enhancement, the EFQM Business Excellence Model, which

not only embeds the principles of Total Quality Management (TQM), but also provides a mechanism for accreditation of an organization's quality processes (Rowley 2005:514).

1.1.2.1 External quality assurance in Kenya

Kenya was the first African country to set up an external quality assurance agency for higher education (Materu 2007:18). Over the last ten years, the demand for higher education has increased in Kenya just like in other developing countries due to the social demand for higher education. This led to the expansion of public higher education institutions from three in 1997 to seven in 2007, with 15 constituent colleges and 13 private universities. To control private higher education institutions, the Commission for Higher Education (CHE) was established in 1985 through an Act of parliament (Kenya 1985:144).

However, Materu (2007:iv) argues that the main reasons for setting up quality assurance agencies in Africa have been regulation of the development sector rather than to enhance accountability and improve quality. The author further states that "a stronger link between the results of quality assurance processes and funding allocations, as well as learning outcomes (quality of graduates) in order to promote accountability" is needed.

The external quality assurance method used in Kenya is accreditation. In Kenya, accreditation is compulsory for private universities, but not for public universities. CHE developed standards and guidelines for external quality evaluation, that is, standards for physical facilities, curriculum, university libraries, validation of diploma programmes and collaboration between institutions and distance learning. However, Materu (2007: xvi), states:

> The standards being applied by national quality assurance agencies in Africa are mainly input-based, with little attention being paid to process, output and outcomes. The author also state that many standards use terms such as "appropriate to" or "suitable conditions" for or "facilities that are adequate for" the specific needs.

In Kenya, like in other countries, quality assurance structures in higher education were set up to enhance accountability, compliance with standards or quality improvement. CHE uses both the standard-based approach and fitness-for-purpose approaches in its quality assurance processes. The quality assurance instruments used by the CHE for evaluation of universities include rules, guidelines, standards and performance criteria.

CHE has been conducting quality assurance in university libraries in Kenya since 1985, as part of the accreditation process. In fulfilling its mandate through institutional and programme accreditation, which is compulsory for all private universities, CHE conducts external quality evaluation (accreditation and re-inspection/audit). CHE uses standards and peer evaluators for quality assurance. External evaluation of academic libraries falls within this mandate.

The quality of higher education and the need for effective quality assurance mechanisms are becoming priority themes in national strategies for higher education in sub-Saharan Africa.

Realizing the importance of regional quality assurance systems, the Inter-University Council of East Africa (IUCEA) together with the German Academic Exchange Foundation (DAAD), have conducted a number of workshops to develop a quality assurance handbook that would develop quality assurance systems and culture in the East African partner states (IUCEA/DAAD 2010:iv). The initiative has shown support for the agreement of performance indicators and quality benchmarks for self-assessment of academic programmes but there is also a need to support the qualification frameworks and performance indicators for the self-assessment.

1.1.2.2 The role of accreditation, a process of external quality assurance, in university libraries

Traditionally, library quality was synonymous with collection size . an assessment of what the library has rather than with what the library does. Quality is recognized as a multi-faceted concept with different perspectives. One perspective focuses on the library user or customer, another focuses on educational programs and the extent to which they achieve their mission and goals (outcome assessments). Data related to service

quality, satisfaction and outcome assessment should be linked to a planning process (Hernon 2002b:224).

The quality of library services is a major concern for university libraries and Poll (2005:2) argues that:

> As the expenses and workload for new information resources and services are rising, libraries need to justify the investment in them and to prove the efficiency and positive influences of the new resources and services.

The statement by Lindauer (1998:546) that the future vitality of libraries in academic institutions will be dependent on whether they can continually prove their value to the overall educational endeavor still applies today. The single most important challenge facing the academic library manager is implementing constructive change and improvement in library performance. Who decides on the quality level and who evaluates it and assesses %fitness to purpose+ of the library?

According to Derfert-Wolff, Gorski & Marcinek (2005:3), the quality of a library is defined and assessed from the perspective of different groups of people. Moreover, the quality of library services decides on the perception of the library within its parent institution and society. Yet as stated by Lakos (1998:278), a:

> culture of assessment is the attitudinal and institutional changes that have to occur in order for library staff to be able to work in an environment where decisions are based on facts, research and analysis, and services are planned and delivered in order to maximize positive outcomes and impacts for library clients.

How can academic libraries demonstrate that they are not only efficient and effective in meeting internal goals and objectives but also the goals of their parent institutions? The literature clearly states that, %The real problem is that libraries need to identify the performance measurements and indicators that relate to outcomes and impacts and then devise a way of regularly or continuously gathering the data+(Wallace 2001:65).

Accreditation offers librarians an opportunity to contribute to institutional self-assessment; current trends in accreditation also challenge librarians to examine the criteria by which they measure success. Accreditation affects librarians in that the provision and use of library materials and services affects the quality of the studentsq educational experience (Dalrymple 2001:23).

Pritchard (1996:5) addressed the lack of research on the quality of academic libraries and asked the following questions?:

- How is library goodness determined?
- How to manage change and improvement in libraries?
- What was the purpose of establishing library services?
- How does one know whether and when the mission is accomplished?
- How do library managers and staff effect improvements to achieve quality and effectiveness? and
- What is the ultimate evidence of success?

According to Lindauer (1998:546), two problems face academic librarians when trying to describe the impact of their services and resources on desired institutional outcomes and goals:

> First, they are not strategically or externally focused when determining which measures to use as evidence of how the library affects educational outcomes. Second, they often do not organize their data and other supporting documentation in ways that are accessible or meaningful to academic administrators and accreditation teams, nor do they use language that reflects what is used in campus-wide planning documents.

Traditionally, performance indicators in libraries focused on input, such as workstation to-user-ratio, or opening hours, rather than output. This has recently provoked renewed interest in service impact, and impact assessment. Impact assessment takes a wider perspective and examines the contribution that the library is making to organizational or societal success. For example, academic libraries need to consider how they might

measure their impact on learning and knowledge creation and transfer, and public libraries would benefit from measures relating to social inclusion, learning, and digital citizenship (Rowely 2005:516).

The quality landscape for public services is dynamic. Not only do individual accreditation bodies and funding bodies continually evolve their quality regimes and expectations, but new agendas also emerge to match changes in services and service objectives. Key areas for development for libraries and other public sector organisations are impact assessment and digital service delivery (Rowely 2005:517).

Specifically, library and information managers and their staff must seek to balance the tension between processes, measures and activities that promote quality enhancement, while at the same time responding to expectations, targets, and systems defined by external stakeholders, some of whom have the ultimate power of the funding body (Rowley 2005:516).

In 2004 the Quality Assurance Sub-committee of the Committee for Higher Education Librarians of South Africa (CHELSA) identified the following objectives as important in quality issues in libraries:

- Collection of national statistics to enable national benchmarking;
- Development of a National Best Practice Guide to assist CHELSA members as they undertake self-evaluation, including benchmarking in preparation for a Higher Education Quality Council (HEQC) audit;
- Alignment of individual library self-evaluations with that of the HEQC, which has a six-year cycle;
- Training library evaluators to act as peer evaluators when CHELSA members undertake self-evaluation; and
- The possibility of using a common instrument such as the North American LibQual+ [TM] (Gozo 2007:4).

The assessment of university libraries should be defined and shaped by its connections and contributions to institutional goals and desired educational outcomes and it should

be focused on the library's teaching and learning role. Identification of the specific performance indicators for measuring and documenting the library's impact on key institutional outcomes should also be prioritized (Lindauer 1998:547).

1.2 Research Problem

This section described the research problem, purpose statement and the objectives of the study. According to Creswell (2007:113):

> the problem statement should indicate the source of the issue leading to the study, be framed in terms of existing literature, and be related to one of the approaches to research using words that convey the approach. The purpose statement should also include terms that encode the statement for a specific approach.

A research problem is the issue that exists in the literature, in theory or in practice that leads to a need for the study (Creswell 2003:80). The purpose sets the objectives, the intent and the major idea behind a proposal or study. Studies that have addressed the problem were reviewed to justify the importance of the study and to create a distinction between past studies and the current study.

1.2.1 Statement of the problem

There was no documentary evidence of studies on the impact of external quality assurance systems of university libraries in Kenya. A World Bank study in 2006 did not include Kenya. "No comprehensive mapping and analysis of quality assurance systems in the region had yet been undertaken" (Materu 2007: xiv).

Although Kenya uses the "*Standards and Guidelines for Establishing University Libraries*" for external quality assurance, the evaluation criteria and indicators have not been standardized to facilitate self-assessment and comparison between libraries. There are no common performances measures covering inputs, outputs and outcomes. According to Materu (2007:68), very little was available in terms of performance indicators for assessing the effectiveness of quality assurance processes at the institutional and system level.

The purpose of this study was to explore the impact of external quality assurance on university libraries. The aim of the study was to establish the nature of the EQA approach adopted by Kenya and to demonstrate the applicability of a quality management framework and a performance evaluation model for the evaluation of university libraries in Kenya.

1.2.2 Objectives of the study

The study aimed to achieve the following objectives:

i.   To determine and assess the processes of external quality assurance used in university libraries;

ii.   To explore the impact of external quality assurance on university libraries in Kenya;

iii. To investigate the perceptions of university librarians regarding external quality assurance;

iv.   To explore the extent of usage of the CHE standards in university libraries in Kenya;

v.   To investigate the perceptions of university librarians regarding the CHE standards;

vi.   To identify the performance measures used for the evaluation of quality in Kenyan university libraries;

vii. To investigate the perceptions of university librarians regarding performance measurement; and

viii. To demonstrate the applicability of quality management frameworks and performance evaluation model in the evaluation of university libraries.

Appendix 1 shows the research objectives and possible sources of data.

1.3 Justification and originality of the study

There are many studies on the impact of evaluation of academic libraries, including Europe, the United States of America, Canada and South Africa. In contrast, there was no evidence of studies on the impact of external quality assurance of university libraries

in developing countries, particularly in Kenya. The findings of this study were significant in that they provided details on the impact of accreditation, a process of external quality assurance on university libraries in Kenya. This study also identified gaps in the accreditation of university libraries by CHE and the recommendations made might have significant policy implications on the process of external quality assurance in Kenya.

The findings of the study will be significant for the CHE and the stakeholders because the standards applied in the evaluation of university libraries might now focus on input output, and outcome measurements, which would be in line with international best practices. The findings of the study were significant because they can help CHE review its external quality assurance processes and procedures to incorporate an evidence-based approach (outcome assessment) for evaluation of university libraries in Kenya. The findings of the study were also significant because they identified the need to review the current standards and guidelines used for the evaluation of university libraries in Kenya. The university libraries can also adopt the performance criteria and indicators suggested in this study for self-assessment and benchmarking.

The mixed methodology used for this study might benefit other researchers for conducting impact studies in other areas in Kenya. The study also made significant constructive additions to the areas of accreditation and performance measures.

The study was original because it has contributed to knowledge by conducting empirical work that had not been undertaken in Kenya. The demonstration that quality management frameworks and performance evaluation models that have been adopted in other countries might be applied by Kenyan academic libraries also contributed to the originality of the study.

1.4 Methodology

Hudson Maxim said, ‰All progress is born of inquiry. Doubt is what often than overconfidence, for it leads to inquiry and inquiry leads to invention+ (Kothari 2004:5). The research design for this study included the study population, sampling procedures, sample size and frame, data collection methods and data analysis procedure and

presentation.

The three main purposes of social research are exploration, description and explanation. According to Babbie (1998:90) exploratory studies are undertaken for the following reasons:

- To satisfy the researchers curiosity and desire for better understanding;
- To test the feasibility of undertaking a more extensive study; and
- To develop methods to be employed in any subsequent study.

The ultimate goal of social science research is to produce an accumulating body of reliable knowledge. Such knowledge enables us to explain, predict and understand empirical phenomena that interest us. As stated by Wallace (2007:532)

> Librarians need to actively and assertively engage in research to make sense of library statistics, to assess the success of library instruction and information literacy programs and to determine the true effectiveness and efficiency of library tools.

In the Library and Information Science (LIS) field, researchers should pay more attention to qualitative methods. LIS has already accepted widely used qualitative methods, but we need to relate more of our research to a broader framework . one contributing to the advancement of institutional change or to its practice. Practice means contributing to institutional change. The outcome (of the type of research) is knowledge that heightens the membersqawareness of what is occurring within their institutions and increases their motivation to effect change (Hernon 2004:294).

Mixed methods research uses a method and philosophy that attempt to fit together the insights provided by qualitative and quantitative research into a workable solution (Johnson & Onwuegbuzie 2004:16). This study approached theory by using mixed research methods. This study was based on the philosophy of pragmatism and exploratory research method. The aims and objectives of this study were achieved by reviewing the literature, using documentary sources, questionnaires and interviews to

generate both qualitative and quantitative data.

The population of the study constituted all the universities in Kenya recognized by the Commission for Higher Education. The population of the first phase of the study constituted all the 31 recognized public and private universities in Kenya. The sample frame was drawn from the list of universities authorized to award degrees in Kenya accessible at http://www.che.or.ke/status.html. Based on the findings from the questionnaire survey, five purposively selected heads of university libraries were interviewed. They included respondents from two private chartered universities, two private universities with letters of interim authority (LIA) and one public university.

Data collection and analysis for this study was based on a sequential explanatory design. Quantitative data was collected and analyzed first, followed by the qualitative data. The study's qualitative data explained and interpreted the findings of the primarily quantitative data. This strategy was straightforward due to the nature of the design and easy implementation because the steps fall into clear separate stages. In addition, the design made it easy to describe and report the data (Creswell 2003:215). Detailed information on the research design and methods used to collect and analyze data for this study are given in Chapter 3.

1.5 Limitations of the study and key assumptions

The study was limited to accreditation as a method of external quality assurance of university libraries. The study covered public universities, private chartered universities, private registered universities and private universities with Letters of Interim Authority, recognized by the Commission for Higher Education. It was the beyond the scope of this study to cover academic institutions that award diplomas.

Where there was a system of external quality assurance in Kenya, there seemed to be no system for assessing impact quality assurance and benchmarking. The assumption of quality library services was implied. Yet it is necessary to ascertain the impact of quality assurance in university libraries. The study, was therefore, limited to performance criteria and indicators that would provide a basis for the self-assessment

of university libraries. The study did not look at the internal quality assurance systems of university libraries in Kenya, but suggested it as an area for further research.

1.6 Ethical considerations

This research was based on the four internationally established and accepted moral principles promoted by UNISA, including:

- Autonomy (the study respected the autonomy, rights and dignity of research participants);
- Beneficence (the study made positive contribution towards the welfare of people);
- Non-maleficence (the study did could not cause harm to the research participants in particular or to people in general); and
- Justice (the benefits and risks of research would be fairly distributed among people) (UNISA 2007:9).

This study adhered to the ten general ethics principles of research as per the UNISA Policy on Research Ethics (UNISA 2007:9). The following ethical statements therefore guided the research

i. A written confirmation of authority to conduct the research was provided to the participating institutions, explaining the nature of the study;

ii. An informed consent form developed for participants to sign before engaging them in research. The right to participate was voluntarily and information to withdraw any time was mentioned in the form;

iii. The purpose and procedure of the study were explained in the questionnaire and during the interview survey;

iv. The study protected the anonymity of individual roles and incidents during the research; and

v. An accurate account of the findings was presented during the interpretation of data (UNISA 2007:9).

1.7 Outline of the thesis

The main text of the thesis was divided into six chapters.

Chapter One gave an introduction to the research area as well as the purpose and objectives of the study, and this set the scene for what was to follow outlining and describing the research problem.

Chapter Two provided a review of the literature. The review revealed what was being done and what had not been accomplished in this field. The purpose of reviewing was to identify the main lessons from previous research (worldwide). The literature review was divided into four sections: Introduction; external quality assurance in higher education; the role of external quality assurance in university libraries; and the impact of external quality assurance on university libraries.

Chapter Three presented the theoretical perspective of the study as well as the research methodology and design.

Chapter Four presented the results of data obtained from the questionnaire and interview surveys conducted for this study. The results were analyzed and presented according to the research objectives.

Chapter Five was devoted to interpretation of the data and findings from the surveys. The interpretations of the research findings were in accordance with the specific objectives and theoretical framework as discussed in Chapter One and Three.

The summary, conclusions and recommendations were presented in Chapter 6.

1.8 Referencing conventions used in the study

There are many styles of academic referencing. The most common one is the Harvard style. Harvard referencing specifically references the use of in-line parenthetical references rather than the use of footnotes or endnotes found in many academic publications. Today, the most common found citation guidelines which utilize Harvard

referencing are the APA (American Psychological Association), the MLA (Modern Language Association) style and many other bodies (Solid Writers 2008:1).

This study adopted the Harvard referencing style as recommended by the Department of Information Science (UNISA 2010:49). The facts, ideas or arguments of other authors cited in the study were identified and acknowledged.

1.9 Summary

This chapter provided the background information for the research. The introduction established the concern leading to the research problem. The emerging trends in external quality assurance in higher education worldwide were highlighted, alongside the accompanying challenges. The impact of external quality assurance, as depicted in the literature was outlined. The terms and concepts used in the study were also defined in this chapter. The status of external quality assurance worldwide was also provided. The introduction could not have been complete without a section on the role of external quality assurance in academic libraries.

A description of the research problem and justification of the study were also provided. The purpose statement and research objectives and questions were then stated.

A brief description of the research methodology and design was provided. The scope and limitations, key assumptions and ethical considerations were also outlined in this chapter. The chapter ended with an outline of the thesis and the referencing style adopted.

CHAPTER TWO: REVIEW OF THE LITERATURE

2.0   Introduction

This section is devoted to a review of the relevant literature on the impact of external quality assurance on university libraries. The review sought to establish what was being done and what had not been accomplished in this field. The purpose of the literature review was to identify studies that had been undertaken on the topic under study over the years globally. It also constituted a reasonable framework for discussing the issues accomplished in the field of study.

A grounding of the literature on accreditation as a process of external quality assurance (EQA) in academic libraries was provided. The literature review focused on the performance measures and models/methods used to evaluate the impact of academic libraries. The literature elaborated on the implications of EQA as a catalyst for change in academic libraries. Chapter 1, Section 1.1 of this study reviewed the literature on EQA, and the definition of the key terms and concepts were also provided.

The literature review is divided into the following sections:

- Purpose of literature review;
- Accreditation a process of external quality assurance;
- Performance measurements and indicators in university libraries;
- Impact assessment in university libraries;
- Culture of assessment in university libraries:
- Conceptual framework; and
- Conclusions.

2.1 Purpose of literature review

According to Gall, Gall and Borg (2007:98) the purpose of the literature review was to inform the reader about "what already is known, and what is yet to be known, about problems, or questions that you plan to investigate". Creswell and Clark (2007:30) state that:

In qualitative research, the literature is reviewed to provide evidence for the purpose of the study and the underlying problem addressed in the inquiry. In a quantitative review, the literature is used to identify a theory to test the specific questions that remain unanswered in the literature and that must be asked by participants.

O¢Leary (2007:79) argues that a literature review is undertaken to inform people of what is happening in the field; gaining a level of topical and methodological knowledge and expertise; finding potential gaps in the literature that may point to potential research questions; critically evaluating common typical methods and facilitating the development of your own methodological approaches. The primary focus of literature review is recent developments in the field as reflected in articles in recent issues of international and local journals (UNISA 2009:9).

Gall, Gall and Borg (2007:97) summarized the reasons for doing a literature review as follows:

i.   Delimiting the research problem by finding out how other researchers have formulated fruitful lines of focused inquiry within a broad field of interest;

ii. Seeking new lines of inquiry that is, determining what research already has been done in your area of interest and research possibilities that have been overlooked;

iii. Looking out for lines of inquiry in your area of study done, for example literature reviews sometimes identify similar studies done over a period of years;

iv. Gaining methodological insights into the studies might be useful in designing the current study; and

v.   Identifying recommendations for further research.

2.1.1 Sources of information

The first step before conducting the literature review was identifying books, articles, professional papers and other publications relevant to the problem statement. The preliminary sources used for the literature review were the reference materials, journals and books available at the Commission for Higher Education-Information Resource

Center (CHE-IRC) in Kenya. Overviews on the topic were found in Encyclopedias (for example *Encyclopedia of Library and Information Science* and *Encyclopedia of Higher Education)*, and proceedings of conferences retrieved from the websites of organizations (Creswell 2002:38).

Scholarly articles have been used to present results of similar studies that relate the present study to the ongoing dialogue in the literature, and to provide a framework for comparing results of the study with other studies (Creswell 2002:46). The theories and opinions described in this review were sourced from the journals available at the University of South Africa Online Library available at http://www.unisa.ac.za/. Examples of the electronic journals include: *The Journal of Academic Librarianship; College and Research Libraries; Library and Information Research; Library and Information Science Research; Performance Measurement and Metrics,* and *Library Trends.*

2.1.2 Research map of the literature

The literature map drawn was to help understand how the study would add, extend or replicate completed research. The literature map presented as a flow chart, gives an overview of the existing literature (Creswell 2002:33).

Figure 2.1: Research Map of the Literature on External Quality Assurance in University Libraries
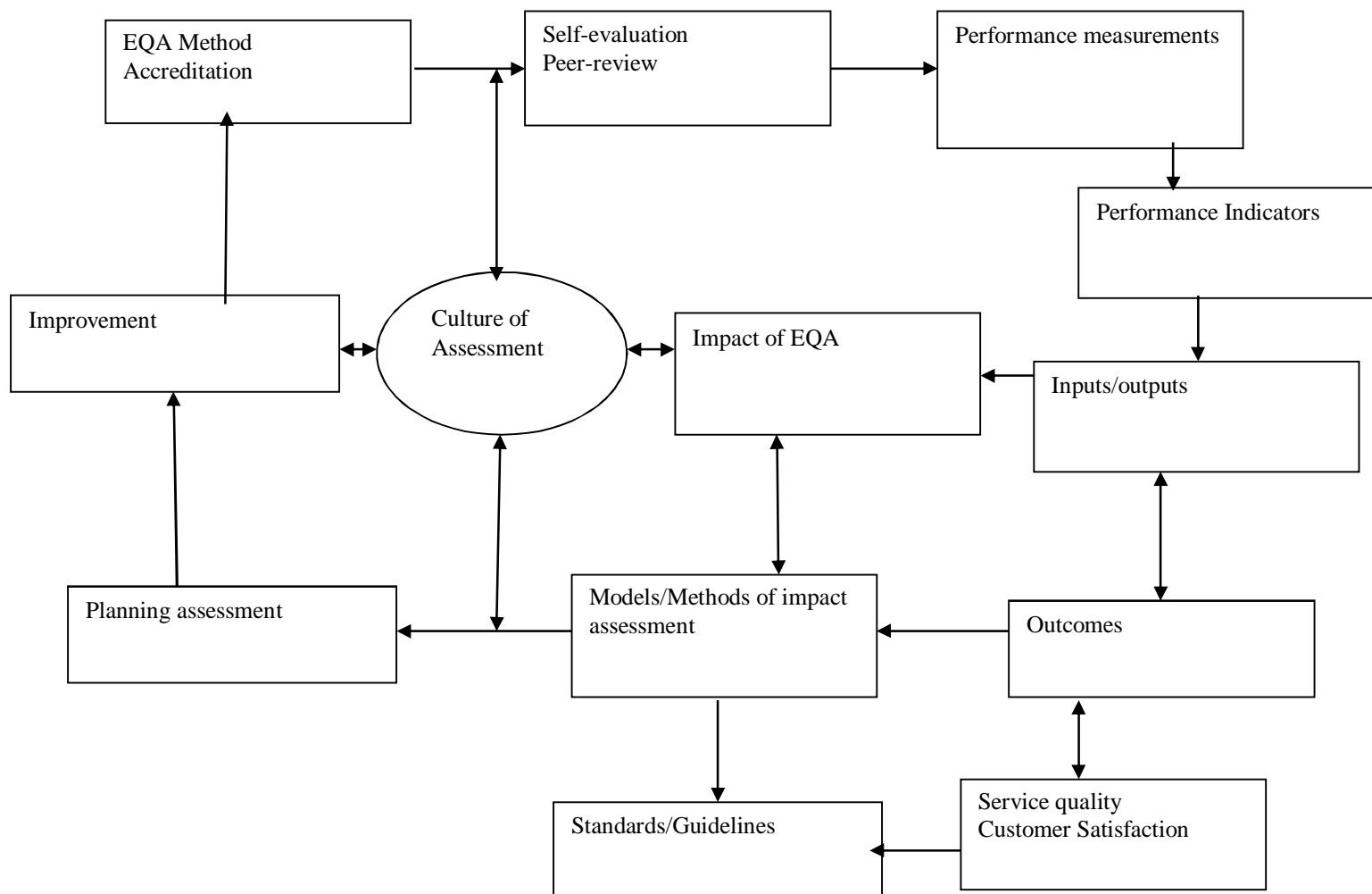
2.2 Accreditation: A process of external quality assurance

The previous section provided an explanation of the purpose of the literature review and the sources of information used in this study. A research map of the literature was presented. This section defines the key terms and concepts, purposes and methods of accreditation a process of external quality assurance. The role of accreditation in university libraries was also discussed.

2.2.1 Concept of accreditation

A great deal of the reviewed literature defined and explained the functions and processes of accreditation in the context of external quality assurance. In summary, the literature was devoted to the role of accreditation as a process of quality assurance and quality improvement in institutions of higher learning (Bogue & Hall 2003:23; Dalrymple 2000:24; Eaton 2009:1; Martin & Stella 2007; Matthews 2007:20; NEASC 2006:20).

In the literature reviewed the term accreditation was used in many different ways and contexts, the term does not appear to be very convergent and clear. This, according to Hartley and Virkus (2003:33), is mainly because the term is applied differently in many countries. In European universities, accreditation is seen as an opportunity to strengthen their image by demonstrating their quality. In the UK, the term is used to refer exclusively to the approval given to a programme of study by a professional body and the term ‰alidation+is the nearest equivalent word to accreditation in the UK. This refers to a process whereby each individual university seeks to satisfy itself of the quality of provision in a particular programme (Hartely & Virkus 2003:33). In the USA, where accreditation started, it is voluntary and non-governmental in nature and based on self-regulation (Bogue & Hall 2003:21; CHEA 2002:1; Dalrymple 2000:23; Jerabek 2004:81; NEASC 2006:20). In Kenya, both programme and institutional accreditation are compulsory (CHE 2008:8). In South Africa, it means the status given to a programme (CHE-HEQC 2004:7).

Although the term accreditation has been defined by many authors (Baker 2004:3; Bogue and Hall 2003:22; Dalrymple 2001:23; Dittrich 2004:55; Eaton 2009:1; Erichsen

2004:42; Jerabek 2004:80; Hartley & Virkus 2003:32; Harvey 2004:5; Matthews 2007:20; Scheele 2004:19; Sohm 2004:33; Talamanca 2004:50) and external quality assurance bodies (CHE 2008:8; CHEA 2008:1; CHE-HEQC 2004:22; NEASC 2006:20; NWCCU 2009:1; WASC 2009:1). The definition by UNESCO has been used to explain accreditation as follows:

> Accreditation is the process of external quality review used in higher education to scrutinize colleges, universities, and higher education programs and institutions as being in conformity with some agreed-upon standard for quality assurance and quality improvement. The result of this process is usually the awarding of a status (a yes/no decision) of recognition and sometimes of a license to operate within a time-limited validity. The process can imply initial and periodic self-study and evaluation by external peers. In some countries, it conveys institutional authority to offer specific programs (UNESCO 2006:19).

The terms used to explain the processes of external quality assurance in the literature review accreditation, pre-accreditation, re-accreditation, audit, institutional or programme evaluation, but as stated by Harvey (2004:17), the approach to accreditation is always the same. According to Martin and Stella (2008:36), accreditation involves some kind of benchmarking (of what is acceptable and what is not) and a set of existing quality criteria. Accreditation is thus the only method within the quality assurance spectrum which makes an explicit judgment about the degree to which an institution or programme actually meets the pre-determined standards or requirements. According to Scheele (2004:19) external evaluation always begins with self-evaluation, peer evaluation (evaluation by impartial experts, usually from the field of study concerned), use of standards, performance indicators and public reports.

2.2.2. Purposes of accreditation

According to Martin and Stella (2008:41), the purposes of accreditation in higher education institutions are quality control, accountability/public assurance and improvement in teaching/learning. Bogue and Hall (2003:23) pointed out that

accreditation performs two functions: quality assurance and institutional improvement. According to Dalrymple (2001:24), these primary functions are perceived as follows:

> People perceive the quality assurance or accountability functions as wielding more influence, while at the same time functioning as a directive or a lowest common denominator. The continuous quality improvement function is seen as a positive, but without authority. Therefore, it tends to be viewed as discretionary and not required.

When accreditation functions as a quality assurance mechanism, it serves many constituencies, attesting that an institution or program has met established standards. When accreditation focuses on institutional improvement, it uses peer review to stimulate and assist educational programs to move toward achieving self-determined goals (Bogue & Hall 2003:23; Matthews 2007:20; NEASC 2006:20).

According to Harvey (2004b:8) accreditation is a form of control of the higher education sector. However, Hartley and Virkus (2003:32) noted that in many European universities, accreditation is seen as an opportunity to strengthen their image by demonstrating quality and to improve their market position internationally. In the USA, the roles of accreditation are:

- Assuring quality . which is a means by which colleges, universities and programs assure quality to students and the public;
- It is a requirement for access to federal funds such as student aid and other federal funds;
- Engendering private sector confidence . private individuals and foundations look for evidence of accreditation when making decisions about private giving; and
- Easing transfer of courses and programs among colleges and universities for students (Eaton 2009:2).

In the USA, accreditation has also been a force in reassuring the public of the quality of education offered within the country. A stated aim of higher education accreditation is to provide both quality and public assurance through the processes of comprehensive self-

study and peer evaluation, which are guided by standards conceived by professionals in the field (NEASC 2006:124).

Accreditation of an institution or program tells the public in general, and the institutional constituencies in particular, that it has the appropriate mission and purposes, the resources necessary to achieve those purposes, and a history and record implying that it will continue to achieve its purposes (Bogue & Hall 2003:23; INQAAHE 2007:7; UNESCO 2006:19). The accreditation process appears to generate cohesion, long-term direction and stability. The process also has profound impact on decision-making and strategic planning and is often described as a %blue-print+ or a %frame-work+ for future planning (NEASC 2006:24).

2.2.3. Accreditation methods and mechanisms

Accreditation involves a set of procedures designed to gather evidence to enable a decision to be made as to whether the institution or programme should be granted accreditation status. The component methods include self-assessment, document analysis, scrutiny of performance indicators, peer visits, inspection, specially constituted panels, delegated responsibility to internal panels, often via proxy, entrustment to external examiners or advisors, stakeholder surveys such as student satisfaction surveys, alumni and employer surveys, direct intervention such as direct observation of classroom teaching or grading of student work (Harvey 2004:9).

Quality assurance agencies have developed instruments that may consist of open-ended questions to focus on qualitative analysis, or request the collection of a set of statistics. Peer review is a phase where qualitative judgment is the prevailing mode. Many quality agencies use both quantitative and qualitative data during the quality assurance process. However, human judgement is always applied to these methods of data collection (Martin & Stella 2007:60).

An accreditation agency normally uses a three-step process; the first step involves provision by the institution of the relevant information related to pre-determined well publicized criteria. Self-assessment is the most central element in most external quality

assurance systems. A set of standards and criteria determined by the Quality Assurance Agency for Higher Education (QAA) forms the basis of self-assessment. The second step is a site visit by an external review team to validate the self-assessment or the institutional report that results in the report. The third step is the report based on the outcome of the site visit (Martin &Stella 2007:63).

Accreditation is seen as the external validation of an internal quality assurance process. Brophy (2008:14) states that the use of independent assessment through external examination and peer review provides balance as well as credibility to third parties, such as senior management. In the literature, different terms such as self-study, self-evaluation, internal quality assurance, internal review are used. This study will use the term self-assessment.

However, institutions in different countries use the following procedures to get accreditation, either in whole or for a separate programme:

i.   The faculty administrators and staff of the institution or academic program conduct a self-assessment using the accreditations set of expectations regarding quality (standards, criteria) as their guide;

ii. A team of peers selected by the accrediting association reviews the evidence, visits the campus to interview faculty and staff, and writes a report on its assessment including, a recommendation to the commission (a group of peer faculty and professionals) of the accrediting association; and

iii. Guided by a set of expectations regarding quality and integrity, the accreditation organization reviews the evidence and recommendations. They communicate the decision to the institution and other constituencies as appropriate (Bogue & Hall 2003:28).

Wolff (1995:77) argues that:

Self-studies do not in and of themselves lead to change unless new approaches are developed. Developing new approaches to self-study and team evaluation requires significant appropriate quality indicators and the generation and analysis of qualitative and quantitative data.

Wolff (1995:79) lists four organizing principles - resources, research, students and learning - that could be used to address quality at an institution or library, as shown in Table 2.1.

Table 2.1 Four- organizing principles

	Organizing principle	Indicators of Institutional Quality	Indicators of Library Quality
1	Resources	Size of endowment, budget Size and qualifications of faculty Selectivity of students body, Size and condition of physical plant Number of computer labs	Size of budget, endowment Size and compensation of staff Size and variety of collections Square footage of library, number of seats Number of computers and CD-ROM players
2	Research	Research productivity of faculty Research dollars generated Budget to support research Research development activities	Reference staff, budget Reference inquiries of students and faculty Number and type of indexing and abstracting tools Offerings of bibliographic instruction
3	Students	Student selectivity Attrition and retention rates Placement statistics Alumni satisfaction Availability of student services Student to faculty ratio	Number of students served Students satisfaction Hours of facilities Timeliness of access Cost of services Availability of duplicate resources
4	Learning	Basic skill levels: writing, numeracy Critical thinking skills Lifelong learning skills Major field proficiency Institution and program goals	Effectiveness of bibliographic instruction Contribution to studentsq critical thinking skills Lifelong use of information resources Ability to generate researchable questions Library learning goals

Source: Adapted from Wolff (1995:80).

Matthews (2007:83) stated that among the topics that must be addressed typically by a library's self-study are:

- Access, availability, and use of library collections;
- Collections and learning resources;
- Information literary; information technology;
- Collaboration with faculty and other academic staff; and
- Library staff and Outcome assessment.

After the self-assessment is completed a visiting team is appointed by the accrediting body to visit the campus and evaluate its programs. It involves evaluation by peers. The composition of the accrediting team differs from one accrediting body to another. Peer evaluation gives persons competent to judge the educational merit and professional relevance of the program an opportunity to examine and assess the quality of the curriculum, the facilities including libraries, the students, and the administrative structure. The participation of librarians in review teams is essential to ensure that knowledgeable peers evaluate the library (Dalrymple 2001:27; Wolff 1995:81).

Williams and O'Connor (1995:11) noted that:

> Visiting teams are sometimes criticized because they tend to interpret standards conservatively, and because values that they use are likely to be those of older, more established institutions. The have also been criticized in the past for a perceived lack of training on the part of the team members.

In 2005, the NEASC, a regional accrediting body in the USA, conducted a survey on the impact of accreditation on the quality of education. The qualitative results revealed that respondents representing accredited higher education institutions place the greatest value on the peer-review and self-study processes (NEASC 2006:195).

During the European Network for Quality Assurance (ENQA) workshop held in Rome, Italy, in 2003, attention was given to peer review as a basis of accreditation. The recommendations that were made:

i. Peer review panels be reviewed periodically;

ii. Young professors to be on the panels as it is not always obvious that highly ranked university professors are interested in undergraduate education;

iii. Training of peers by the agency is important;

iv. The agency should facilitate the panel during the whole procedure and provide update information;

v. While international peers are useful, it is important to be aware of the threat of ±cultural imperialismq and

vi. That existing data on the given institution be used, and the method varied for large self-evaluation papers (which are descriptive and not analytical and not self-critical) (ENQA 2004:64).

During the European conference, it was noted that accreditation fits in as a tool in the broader concept of higher education quality assurance. The contributions also showed a large variety of accreditation concepts, scope and working methods. Despite the differences, there was convergence, not due to homogenization, but due to comparable use of the various instruments. It was also noted that there is a visible change of approach after several years of evaluation (ENQA 2004:63).

2.2.4. The role of accreditation in university libraries

Accreditation influences university libraries generally because of the provision and use of library materials and services to support the teaching, learning and research environments of the higher education institutions. According to Dalrymple (2001:23), accreditation offers an opportunity for librarians to contribute to institutional self-assessment and continuous improvement.

Hiller, Kyrillidou and Self (2008:226), Matthews (2007:23) and Dalrymple (2001:23) have noted that the primary external motivators for engaging in assessment accountability and accreditation, while the internal ones were for measuring achievement and improving library resources and services. Assessment has also grown

in importance as libraries have become more customer-oriented. There has also been interest in leadership and management topics (Ambro0i 2003:65; Pors 2008:139).

According to Poll (2006:547) the questions asked are:
- Does investment in libraries represent value for money?
- Are there tangible, demonstrable effects arising from library use?
- Do such effects serve the goals of the funding institutions?
- Could such effects be achieved without the existence of the particular library?

The implication for academic libraries is that the organizations awarding accreditation are less concerned about measuring traditional library inputs and are moving to asking for measurements that focus on the impact of the library on the lives of students, faculties, researchers and others. This shift towards determining outcomes is evidenced by the use of such phrases as %evaluation of student performance+ and %evidence of student learning+, found in some of the regional accreditation standards in the United States (Matthews 2007:20).

Dano and Stensaker (2007:83) argued that critical issues are related to how accreditation is actually implemented as a method, what kind of procedures are developed, and how these relate to institutional attempts to develop their own quality processes in academic libraries. According to Lindauer (1998:546), this includes how the meetings are set up, the types of questions asked, how they are asked, and the time reserved for discussion and feedback and how data and supporting documentation is organized. Dalrymple (2001:31) noted that:

> The task of implementing an assessment of the academic library does not include articulating a mission and determining goals only, but also having a commitment to what is often called a culture of evidence. Having a working knowledge of such basic evaluation techniques as user surveys, focus groups, interviews, sampling, citation patterns and bibliometrics is necessary for a library to operate in such a culture.

NEASC (2006:195), while conducting a survey in 2005 on the impact of accreditation on the quality of education in the USA, found that assessing quality at the higher education level is complicated. This was due to varying views on what specific indicators of high quality are, given the great variation in institutional objectives and priorities. NEASC questioned if a process can be an indicator of quality (NEASC 2006:1).

The advent of new measurement initiatives, especially by The Association of Research Libraries (ARL), helped refocus libraries on customer outcomes and to collect data that could assist libraries in improving services and adding value to the work of their communities (Hiller, Kyrillidou & Self 2008:226).

2.3. Performance measurement and indicators

The previous section discussed the literature in relation to the accreditation as an external evaluation method of quality assurance in university libraries. This section presents the literature reviewed on the different types of performance criteria and indicators including inputs, outputs and outcome measurements as measures of assessment of university libraries. The service quality and customer satisfaction indicators of how a customer perceives the transaction and service received was also presented. The section also addressed the standards used by accrediting bodies as measures for self-assessment and comparison.

2.3.1 The concept of performance measurement

The definition of performance measurement and indicators vary accordingly. According to Poll and Boekhorst (1996:16), performance measurement means the collection of statistical and other data describing the performance of a library. Nicholson (2004:165-166) defined performance measures as the determination of the magnitude of quantity while evaluation is the process of determining the merit, worth, or value of something, or the product of that process. Ambro0i (2003:65) observed that evaluation was part of the strategic planning process that had practical significance primarily in collecting data, which is used in the process of problem solving and decision-making.

Sinikara (2006:2) broadened the concept of performance measurement and brought the idea of change, pointing out that:

> Evaluation embraces change and encourages libraries to treat change as a positive force. By engaging in planning and research, librarians have a better idea of the future and they can meet that future with relevant, effective and efficient services and activities. The single most important challenge facing the academic library manager is securing constructive change and improvement in library performance.

This study adopted the definition of Lindauer (1998:549) explicated by McClure and Lopata that reads:

> Performance measures are broad, managerial tools that encompass measurement of inputs (indicators of the resources essential to provide service; outputs (indicators of the services resulting from the use of those resources); and impacts (the effects of theses outputs on other variables or factors).

Bogue and Hall (2003:188) defined performance indicator as a publicly reported quantitative measure or evidence of educational resources, activity, or achievement that:

- Furnishes intelligence on strategic operating conditions;
- Facilitates evaluation of operating trends, goal achievement, efficiency, and effectiveness in benchmark relation to historic comparative or criterion standards; and
- Informs decision-making on resource allocation and program/service improvement.

Poll and Boekhorst (1996:18) stated that:

> An often-cited description of what constitutes a performance indicator was given by Orr in 1973 that performance indicator should be appropriate, informative, valid, reproducible and practical, fit for being used for comparative purposes.

According to Winkworth (1997:93) the purposes of performance measurement was to influence people - their behavior and their decision-making. Derfert-Wolff, Gorski and Marcinek (2005:4) stated that performance measurement may be used for strategic planning, decision making, new service planning and control after its implementation, an accreditation, quality control, monitoring process (TQM, ISO 9000), and benchmarking. Voorbij (2009:59) stated that

> The primary goal of benchmarking is to assist in improving the performance of an organization. The benchmarking philosophy says that we only discover how good we are by comparing out results with others, and that we can improve our performance by learning best practice from outstanding organizations in the same sector.

Brophy (2008:16) suggested blending of methods like ethnography, externally moderated, reflective self-evaluation and narrative-based practices in library performance measurement. Turk (2007:177) also suggested that combining traditional and alternative library performance indicators leads to library evaluation frameworks that focus on multiple perspectives . service effectiveness, service efficiency and service quality, together with usability aspects of performance measurement.

According to Dalrymple (2001:31), it is possible to develop indicators by asking the following questions:

i. Does the library survey its constituents on a regular basis?

ii. Does the library examine what proportion of its users base interacts with the library in a given time period?

iii. Does the library assess the effect of its instructional program on studentsq learning?

iv. Does the library monitor and examine usersq success in obtaining needed materials?

v. Does the library explore usersqunderstanding its role library in their teaching, learning, and research?

How does the library ensure that students who are part of the learning community have access to appropriate materials at a location far from the campus?

2.3.2 History of performance measurement

The literature on performance measurement until the late 1980s was too statistical, with complex statistical presentation and very obscure. It had few clear objectives or models of reality. The literature since the late 1980s was less mechanical, more explanatory and nearer to real decisions, with some recognition of real audiences. However, the data was too complex and numerically oriented (Winkworth 1997:3).

Pritchard (1996:5) looked at the development approaches to academic library effectiveness and noted that the literature documented on performance and output measures were vast. They included studies by Goodhall (1988), Van House (1989), Van House, Weil, and McClure (1990), Shapiro (1991) who attempted to develop a practical manual for library statistics and evaluation. Blagden (1980) and Allfred (1979) analyzed the problem of setting relevant criteria and the need to evaluate libraries based on performance, outcomes and user satisfaction.

Poll (2008b:28) outlined the trends in performance measurement over the last decade and stated that the literature can best be followed by looking at the papers presented at the Biannual Northumbria Conference on Performance Measurement in Libraries and Information Services. Poll further stated that during the first conference in 1995, people were still busy inventing and testing new indicators while the 1997 conference saw the participants questioning the traditional performance indicators. The subsequent conferences focused more and more on new tools like management information systems and methods like TQM. The effects of performance assessment and measurements on the electronic library were major discussion topics at these conferences. The other topics considered during the conferences were:

    i.   Stakeholder perceptions of library quality;

    ii.   Benchmarking;

iii.   Electronic indicators;

iv.   The balanced scorecard;

v.   Qualitative measures like user surveys or focus groups;

vi.   Cost measures; and

vii.   Above all measures, indicators showing the impact or outcome of library services

2.3.3 Inputs, outputs and outcome measures

In the literature review the type of measurements compiled by academic libraries mostly include input and output data gathered in the form of statistics (ALA 2004:2; ALA 1998:3; Cullen 2001a:9; Gozo 2007:1; Hernon 2002a:55; Matthews 2007:23; Melo & Sampio 2007:1; Weiner 2005:433). The different types of measures as described by other authors are presented in Table 2.2.

2.3.3.1 Inputs and output measures

Inputs and outputs have been defined in the literature by various authors including Cullen (2001a:9), Dugan and Hernon (2002:376), Hernon (2002a:55), and Melo and Sampaio (2007:1). This study adopted the definition of the American Library Association (ALA) that states:

> Inputs are generally regarded as the raw materials of a library - the money, space, collection, equipment, and staff - out of which a program can arise. Outputs serve to quantify the work done, that is, number of books circulated, number of reference questions answered (ALA 2004:2).

Both inputs and outputs are invaluable measures for making administrative and operational decisions concerning the provision of library services including staff deployment, setting hours of operations and devising collection development policies (ALA 1998:3).

Table 2.2 Input, output and outcome measures

Poll (2001a:710)	Nicholson (2004:179)	Weiner (2005:433)	Gozo (2007:5)
Indirect measures: Studentsqsuccess compared to library use; Number and/or impact factor of research publications **Indirect** measures: Studying the use of their collection and services; Speed of delivering information and services; The accuracy of delivery; The costs of the libraryqs products and services; The adequacy of processes and The satisfaction rate of the population server.	Users view of the system Measurement based on the users view of the use experience.	Quality of services: Customer satisfaction, Patron perception of library service quality, Market penetration, assessment of impact and Outcome assessment	Provision of stock, Annual additions to stock, Subscriptions Study places/facilities, Hours open per year, Clientele, Library staff, Use of library service, and expenditure.

In the USA, input and output data were gathered before 1990s and most libraries did not ask themselves about the validity, usefulness and benefit of collecting the data. This was not until the ARL moved away from collecting input and output data and moved towards outcomes measures in 1998 did the growth of new initiatives in developing new

alternative metrics emerge (ALA 1998:3; ALA 2004:2; Brophy 2008:7; Turk 2007:177; Voorbij 2009:59).

2.3.3.2 Outcome measures

Outcomes are the result between interaction inputs, processes and outputs. There are defined by ALA (2004:2) as ways in which library users are changed as a result of their contact with library resources and programmes. Definitions of library outcomes generally highlight the effect on individual users or on users collectively. Impact links this with the library's aims, objectives, and their relationship with its host institution's goals (ALA 1998:5; ALA 2004:2; Dalrymple 2001:31; Dugan & Hernon 2002:377; Lindauer 1998: 548; Melo and Sampio 2007:1; Poll 2006:548; Saunders 2008:308; Turk 2008:180).

Many authors in the reviewed literature focused on the effect of the library on student learning and teaching. Information literacy skills was viewed as directly affecting student outcomes because students gain skills such as critical thinking, computer literacy, problem solving and lifelong learning (Dalrmple 2001:31; Dugan & Hernon 2002:377; Harvey 2004:15; Hernon 2002b: 224; Lindauer 1998:549; Matthews 2007:127; Saunders 2008:309; Weiner 2005:433).

Poll (2006:549) found that research had shown that outcomes:

> are not always predicable; are generally rather an addition to previous experience than a radical change in attitude; will be higher if a gain in skills and competencies or a change in behavior seems promising to the user; and often become visible only in long-term development.

The important outcomes of an academic library program involve answers to questions like:

i.   Is the academic performance of students improved through their contact with the library?

ii. Do students improve their chances of having successful career by using the library?

iii.   Are undergraduates who used the library more likely to succeed in graduate school?

iv.   Does the library's bibliographic instruction program result in a high level of information literacy?

v.   Are faculty members more likely to view the use of the library as an integral part of their courses as a result of collaboration with the libraries staff?

vi.   Are students who use the library more likely to lead fuller and more satisfying lives (ALA 1998:3)?

Dugan and Hernon (2002:376) noted that as the need to measure accountability moved beyond surveys and anecdotes, the effort to demonstrate effectiveness increasingly focused on efficiency and quality (service quality and learning impacts) measures. Institutional effectiveness is concerned, in part with measuring institutional efficiency, such as fiscal accountability, and educational quality and improvement, including student learning (Melo & Sampaio 2007:1).

The accrediting bodies are asking for evidence of the quality, accessibility, relevance, availability and delivery of resources and services, regardless of the location of the library's customers (Matthews 2007:83). The need to incorporate outcomes assessment based on evidence of organizational planning and improvement was also addressed by ALA (1998:5), Lindauer (1998:548) and Hernon (2002b:229).

Saunders (2008:308) conducted a study analyzing how librarians acknowledge the role accreditation in the guidelines and documents on information literacy. The study found that librarians pointed to strong analytical communication, quantitative and information skills as the first of five key educational outcomes. The results also showed that academic librarians find that the sanctioning of information literacy within accreditation standards smoothens the way for them to approach faculty about collaborative work, whether simply offering support in designing effective library assignments or having a team teaching a course that integrates information literacy within a discipline (Saunders 2008:312).

2.3.3.3 Service quality and customer satisfaction

Satisfaction and service quality also result from interaction, events and services provided by the library. They are indicators of how the customer perceives the transaction and the service they have received, and are, therefore, a measure of the affective relationship that results from customer responses to these transactions (Cullen 2001a:9; Harer & Cole 2005:160; Hernon 2002b:225; Phipps 2001:634). Satisfaction, like service quality, deals with expectations and draws on the confirmation/ non-confirmation process. The purpose of satisfaction studies is to identify if some general areas require scrutiny, whereas service quality studies provide data to examine specific problem areas for improvement (Hernon 2002b:228).

Poll (2001a:710) argues that the two most interested stakeholder groups are the population the library is set to serve, and the institution to which it belongs. Thus, the best place to start developing quality within an organization is the performance and attitude of individuals directed towards quality (Melo & Sampaio 2007:2).

In the last decade, measures have been developed to assess the quality of library services, as well as the cost-efficiency of institutions services and the performance. Nevertheless, extent of use and quality of performance do not yet prove that users benefited from their contacts (Phipps 2001:634; Poll 2005:2; Wolff 1995:75). According to Poll (2006:552):

> High satisfaction could mean that the library has been effective in conveying the view: it is well worth using a library. Nevertheless, this does not mean that there is a change in skills, competences and behavior. User satisfaction would rather be seen as giving a good basis for such changes in furthering receptivity and thus rendering outcomes possible.

Cullen (2001b:683), while examining the research literature on user satisfaction surveys, concludes by stating the following:

i. There is a body of research into service quality and the role of customer satisfaction in the field of library and information studies that shows consistent results and patterns of responses by users in different places and types of libraries;

ii. This literature indicates that there are significant gaps between usersq expectations and perceptions in some key areas of service, notably quality of collections and access to these, the provision of a study environment, services and equipment that meet the needs of students and willingness of staff to help users;

iii. Urgent remedial action is needed in some of these areas to increase user satisfaction at the micro and macro levels;

iv. There is also a gap between usersq expectations and our professional perceptions of these;

v. Our past reliance on measures of %objective quality+ have not always met customer needs; and

vi. There is a lack of resolve in the profession to address these two gaps that could lead to libraries not thriving as well as they might in a competitive environment.

Based on the Gaps Model, expectations are subjective and comprise desired wants, or the extent to which customers believe a particular attribute is essential for an excellent service provider, and perceptions are judgments about service performance. However, satisfaction, on the other hand, does not involve gap analysis (Hernon 2002b:225).

2.3.3.4 Standards and guidelines used in university libraries.

Evaluation criteria and indicators should be identified and standardized at the local, national or international levels to facilitate self-assessment and comparison between libraries (Derfert-Wolff, Gorski & Marcinek 2005: 4). Standards can be interpreted to mean that they should directly address the quantity, quality, extent, and level of suitability of programs, services (which include the availability, in a variety of formats, of a collection) and staffing in academic libraries (ALA 1998:5).

Studies on performance measurement have resulted in some sets of performance indicators and standards. Some of the indicators and standards, as discussed by Poll (2008b), include *ISO Standard on Library Performance indicators*, *IFLA Guidelines for Performance Measurement in Academic Libraries*; European projects such CAMILE, DECIMAL, and the ARL New Measures Initiatives. *ACRL Standards for Libraries in Higher Education*, *Guidelines for the Application of Best Practice in Australian University Libraries*.

The creation of national quality standards and guidelines should take into account local conditions (Derfert-Wolff, Gorski & Marcinek 2005:4). Standards should also be reviewed regularly to ensure that the programs, services and staffing practices they treat are germane to the current state of the profession. Standards should be based on evidence of normative practice or programmatic success determined by the measurement of outcomes (ALA 1998:5).

Throughout the world, most accrediting bodies are putting increasing pressure on institutions to measure what students learn by applying assessment processes and replacing traditional standards with less prescriptive standards that seek outcome measures (Dugan & Hernon 2002:377). Dalrymple (2001:30) also states that technology has prompted librarians to reconsider the basis and rationale for virtually every traditional process and standard. The changes in the role, value and organizational structure of accreditation provide an opportunity for the library community to develop new ways to demonstrate their importance and worth. The first step is to acquire a clear understanding of the goals and process of accreditation and assessment. The second is to establish standards compatible with these goals; and the third is the ability to implement assessment to demonstrate conformity with standards.

In the USA, the American Library Association (ALA) developed the "*Standards for Libraries in Higher Education*" in 2004, which differed from the Association of College & Research Library's (ACRL) "*Standards for University Libraries: Evaluation of Performance*" of 1989. The 1989 standards were prescriptive because the university

librarians had to become skilled in the process of examining and redefining. Necessary missions such as: assessing coherent goals whose attainment and redefining could be measured, continually and effectively assessing the needs of users, and identifying and applying those measures that could reveal the extent to which it has been successful in fulfilling its mission (ALA 2004:2).

In contrast, the 2004 standards were not prescriptive, they provided a comprehensive outline to methodically examine and analyze all library operations, services, and outcomes in the context of accreditation. The expectation is that these standards embrace key principles that will continue to be espoused by regional accrediting associations as critical elements or core requirements that provide a foundation upon which a library documents its compliance (ALA 2004:1).

Cullen (2001a:13) suggested that the development of standards in relation to the outcomes of library and information services should:

i.   Be based on consensus concerning the value and relevance of rigorous empirical research;
ii. That consensus on the criteria for research would be a welcome first step in this direction; and
iii. That given the difficulty of designing randomized controlled trials to evaluate the impacts/outcomes of information services, a consensus of expert opinion might agree on comparative control versus case studies as long as the methodologies could demonstrate that the design would reduce bias and correct the confounding variables in assessing the outcomes.

However, according to Materu (2007: xvi), the standards being applied by national quality assurance agencies in Africa are mainly input-based, with little attention being paid to process, output and outcomes. The author also states that, many standards use terms such as %appropriate to+ or %suitable conditions for+ or %facilities that are adequate for+ the specific needs.

The vagueness of these standards leaves them open to subjective interpretation and

undoubtedly puts a great deal of pressure on the peer reviewers to make judgments about what is reasonable (Materu 2007:25).

In Kenya, standards for academic libraries were first prescribed in the *Universities (Establishment of Universities) (Standardization, Accreditation and Supervision) Rules, 1989* (CHE 1989:111). The rules focused on spatial requirements and the holdings of university libraries. In 2007, the *Standards and Guidelines for University Libraries in Kenya* was published after consultations with stakeholders. The 2007 standards were an attempt to point out specific evaluation mechanisms for university librarians. Statements on information literacy skills and distance learning libraries were included (CHE 2007:2).

The CHE standards are input-based (collection size, staffing resources, financial, spatial requirements) and to some extent on throughputs, or process/efficiency measures. Outputs are the direct result of interactions between inputs and processes that is, transformation of inputs such as books, staff and facilities into outputs such as loans; enquiries answered and reader education.

According to Derfert-Wolff, Gorski & Marcinek (2005:4), standards should be based on research into effectiveness, not on conjecture or subjective opinion. Meanwhile, Cullen (2001a:11) states that standards must also be based on benchmarking with comparable institutions and expert opinion. Scheeder (2005:8) points out that standards provide opportunities for librarians to add value as information providers, and they also represent an opportunity for the library profession to raise its visibility as the authority on information quality.

2.4. Impact assessment in university libraries

The previous section discussed the inputs, outputs and outcome measurements compiled by university libraries. This section discussed the models and methods used to assess the impact of university libraries. The question of whether performance measurements work or are effective in evaluating university libraries was raised by Town (1997:81). The author saw a gap between the performance measurements and

the objective for which they were designed, that is, to demonstrate good performance and identify success. Town (1997:81) argued that the current data collection methods and structures obscure rather than illuminate performance and provide a misleading picture of what performance is or should be.

Wallace (2001: 65) stated that libraries should identify the performance measurements and indicators that relate to outcomes and impacts and then devise a way to regularly or continuously gather the data. The author said methodology for determining library outcomes and their impact was needed.

2.4.1 The concept of impact assessment in university libraries

Lindauer (1998:550) defined impact as the direct effects that libraries have on institutional outcomes or if more indirect, the enabling effects that contribute to outcomes. According to Wallace (2001:61), outcomes and impact are, therefore, closely related since both measure the results of programs and services, but outcome is the micro or personal measure, that is, how service programs affect individuals, and impact is the macro or institutional measure, that is, how services and programs affect institutional goals.

In the reviewed literature, many authors found it difficult to assess impact. According to Poll (2006:560) this was primarily because we usually deal with assessing the impact on people . changes in their behavior, knowledge, awareness, competencies, and attitudes. Meanwhile, Harvey and Newton (2004:149) stated that it is difficult because it is impossible to control all relevant factors to be able to map out causal relationships.

However, the most challenging problem, according to Poll (2006:550), is that it is nearly impossible to separate library impact from other influences and to prove that changes in competencies or behavior are, indeed, the result of using library services. These problems are most tricky when assessing the overall impact of a library and its services. They become less apparent in evaluating the outcome of one single activity like implementing a new service or conducting a user-training programme (Poll 2006:551).

2.4.2 Models of Assessing Impact in University Libraries

Several models and methods were developed worldwide for assessing impact/outcome of libraries and information services worldwide. Cullen (1997:5) while analyzing the origins of measurement in libraries, depicts Cameroon's typology shown in Table 2.3. Focus is mainly on the methodologies of Kim Cameron, whose 1986 typology was used by Van House and Childers (1990) and Calvert and Cullen (1996). Attributes such as leadership, purpose and resolution that are missing in Cameron's model of evaluation were identified.

Table 2.3 Systems of evaluation used in LIS mapped on to Cameron's typology

Model	Goal Attainment model	Systems resource model	Internal systems	Multiple constituencies model
Measures	Goals and objectives, Benchmarks, Standards, Output measures, Citizens charter.	Input measures, Library statistics, Benchmarks, Standards.	Managing Information systems, Decision support systems, TQM - Total Quality, Management ISO 9000/9001 etc.	Service quality, Customer satisfaction, Total Quality Management ISO 9000/9001 etc., Gap reduction, Marketing.

Source: Adapted from Cullen (1997:8).

A new model of organizational effectiveness known as 'Focus/Value/Purpose Matrix' was proposed and, unlike the typology employed by Cameron, which emphasized the complex nature of organizational effectiveness, this new model demonstrated clearly the element of choice that is fundamental to performance measurement (Cullen 1997:11). According to Broady-Preston and Preston (1999:126), the four models outlined in Table 2.3 show that attempting to measure the quality of libraries is a multidimensional activity. It is possible to argue the validity of adopting one or more of these while recognizing that some are mutually contradictory.

Broady-Preston and Preston (1999:125) criticized the goals approach model and system resource model stating that:

Library success has been adjudged based on the amount of resources acquired, and the degree to which those have been translated into service outputs. Benchmarking is a reflection of this model. However, as with these models, it is only the %multiple constituencies model+ that is described as the %participant satisfaction model+, and that effectiveness is here assessed by determining how satisfied with the library performance are all those groups holding a stake in such performance.

According to Broady-Preston and Preston (1999:127), the most useful and successful model will be the one that accommodates change, yet still gives a working plan for future direction of the organization. The two most popular models developed and used in the private sector to plan strategy, measure performance and initiate change are the:

- Balanced Scorecard and the
- Business Excellence Model.

The aim of the two scorecards is to recognize, strategically, what underpins success and in so doing, bring together information, which, while it may always have been in existence, has never been brought together in one place before. The Balance Scorecard is a model that translates an organization mission and its strategy for achieving its purpose into a comprehensive set of performance measures that provide the framework for a strategic measurement and management system. It measures the organizational performance across four balanced perspectives: financial, customers, internal business processes, learning, and growth (Melo & Sampaio 2007:4). Figure 2.3 shows the Balance Scorecard implementation in a library adapted from Kaplan, and Norton 1992, as cited by Melo & Sampaio (2007:4).

The Business Excellence Model provides a way of looking at all factors that contribute to the success of the organization. These factors are grouped into enablers (leadership, policy and strategy, people management, resources and processes) and results

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(customer satisfaction, people satisfaction and impact on society), as shown in Figure 2.2.

Figure 2.2 Mixed Model CAF-BSC-AHP model implementation
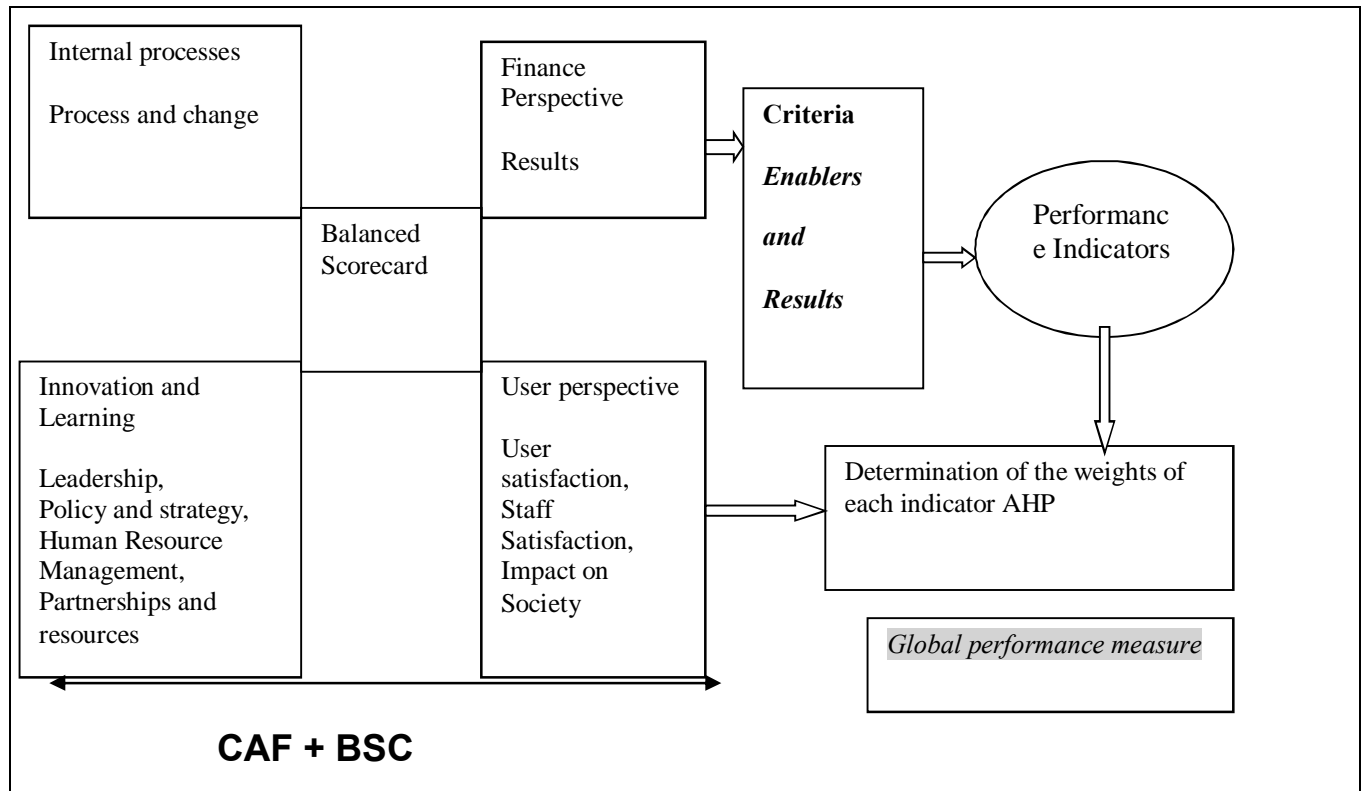
Source: Adapted from Melo & Sampaio (2007:4).

Thus scorecards enable the organization to be responsive to change and more importantly to have a strategy that is demonstrably customer-centred, thereby enabling quality service delivery to be apparent to all (Broady-Preston & Preston 1999:128). Pors (2008:141) argued that the Balance Scorecard had been translated and interpreted in very different ways. It is also obvious that the implementers use the features they judge relevant and tend to ignore other features like the thesis of causation and the formulation of critical success factors.

Two quality evaluation models for academic libraries in Portugal and Brazil by Melo and Sampaio (2007:3) were developed based on the Balance Scorecard (BSC) and the Common Assessment Framework (CAF). The model is used to measure the

contribution of the academic library to the institution to which it belongs, as well as to the society. The final output is the Portuguese global performance measure (D). The Common Assessment Framework (CAF) model structure was based on the European Foundation for Quality Management (EFQM) excellence model cited by Melo and Sampio (2007:4), as shown in Figure 2.2.

Figure 2.3: Balance Scorecard adapted to a library
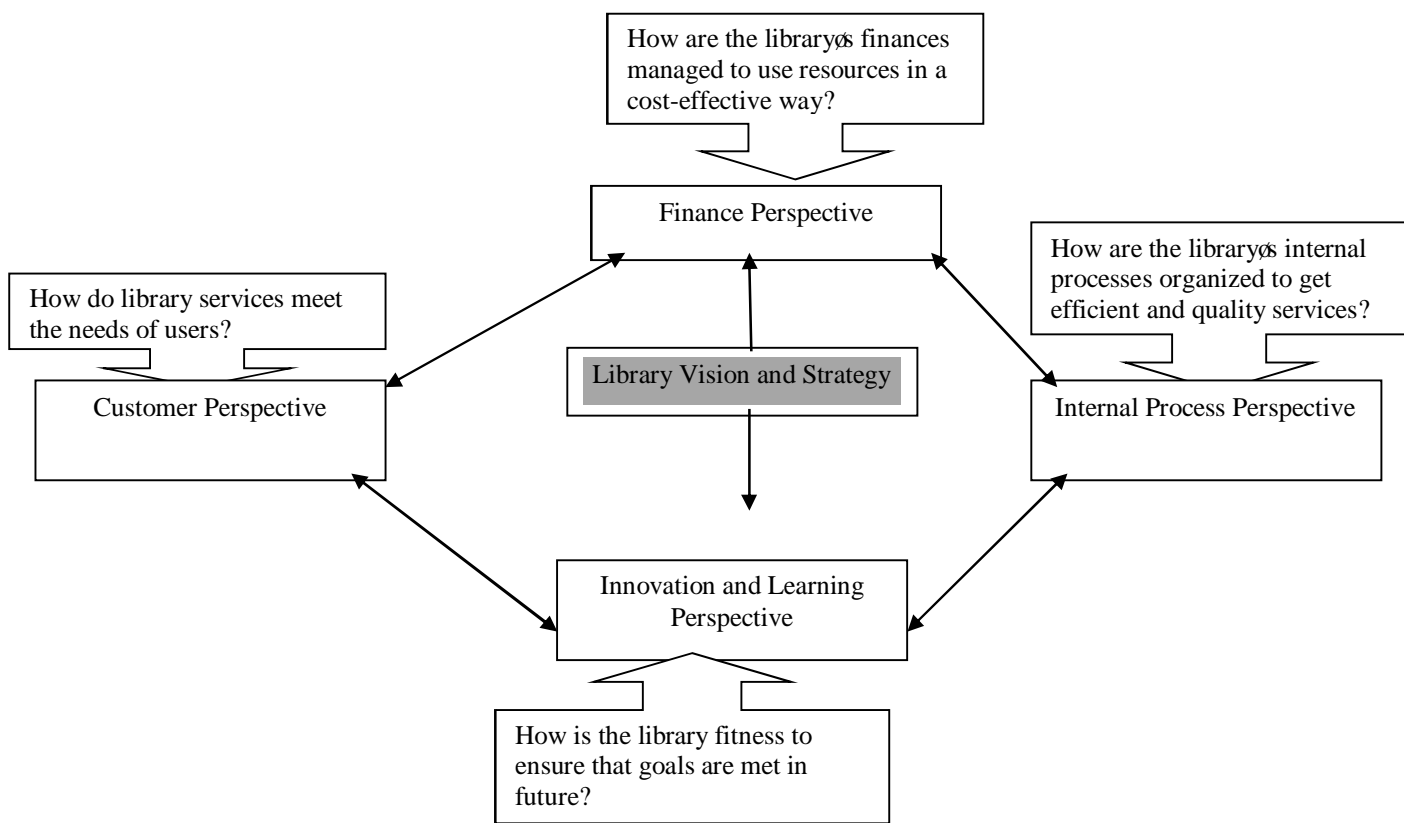
Source: Adapted from Melo & Sampaio (2007:3)

A survey based on this mixed model was conducted among 10 academic libraries and the results showed the only four criteria, that is, customer perspective, impact on society, leadership and financial perspective were considered particularly important for performance evaluation. Melo and Sampaio (2007:3) added the process and change management criteria, strategic and planning, and external partnerships. The enablersq criteria and results criteria are shown in Figures 2.2 and 2.3.

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2.4.3 Methods of measuring impact

The methods used for measuring impact have been identified by many authors including Dugan and Hernon (2002:379), Hiller, Kyrillidou and Self (2008:226), Poll (2006:551) and Poll (2008b:36).

According to Wallace (2001:65), these methodologies should: include appropriate performance measurements/indicators and benchmarks, take into account the goals and objectives of colleges and universities, accrediting agencies, and libraries; have a presentation structure that is meaningful to the aforementioned groups; allow for comparison between libraries at different institutions; and be easily tailored to individual institutions.

These methods can be differentiated into quantitative and qualitative methods:

- Qualitative: developmental portfolios, think-aloud/think-after protocol, directed conversations, focus group interviews, curriculum and syllabus evaluation, exit interviews, external reviewers, observation and self-assessment; and
- Quantitative: content analysis, evaluation of theses/dissertations, tests (even ones administered as pre- and post-tests), videotape and audiotape evaluation and nationally developed tests, general surveys, satisfaction surveys.

Poll (2006:551) stated that:

> Quantitative methods try to measure changes in competences or behavior or to find correlations between library use and a person's academic or professional success. Quantitative (soft) measures try to assess outcomes by evaluating users' experiences and opinions.

Poll (2008b:36) avowed that qualitative methods like surveys, focus groups or interviews supply the "anecdotal evidence", the stories that illustrate what the library wants to tell about its service. Quantitative methods yield data that can be benchmarked with other libraries, and which can be used for management decisions and for reporting.

Hiller, Kyrillidou and Self (2008:226) pointed out that many academic libraries have employed a qualitative method . usability . to improve access to, and organization of, their virtual space so customers can easily navigate and find the information they need. Usability studies had been conducted in most libraries, with the majority focused on the librariesqwebsite and digital library initiatives. The findings have led to changes in the design of library websites and digital libraries so that they are easier to use.

Hiller, Kyrillidou and Self (2008:227) in a study found out that the libraries identified were using data effectively but generally did not understand the evidence, how to present the evidence, and what to do with the evidence. However, according to Poll (2006:551), the results of qualitative methods have a subjective bias because they show the perceived outcome. These results should be validated with outcomes of quantitative methods or with statistics of library use.

Poll (2005:6) identified the problems of assessing impact as follows:
  i.   All methods that have been tested until now are time-consuming;
  ii.   A lot of data that could be relevant for proving impact is not available because of data protection rules (for example individual data about grades in exams);
  iii. The data or correlations found in projects so far are in most cases not comparable; and
  iv.   Services can have different value and outcome for different groups.

2.4.3.1 Instruments of data collection

According to Kayongo & Jones (2008:130), the LibQUAL+ [TM], an emerging standardized measure of library service quality, was adapted from an instrument called SERVQUAL (for Service Quality), which is grounded in the %Gap Theory of Service Quality+. The goals of LibQUAL+ [TM], as stated on the LibQual+ [TM] are to:
  i.   Foster a culture of excellence in providing library service;
  i.   Help libraries better understand user perceptions of library service quality;
  ii.   Collect and interpret library user feedback systematically over time;
  iii. Provide libraries with comparable assessment information from peer institutions;

iv. Identify best practices in library service; and

v. Enhance library staff membersqanalytical skills for interpreting and acting on data (Kayongo & Jones 2008:130).

Methodologies such as LibQUAL + have worked as pointers to the need to study specific processes. Gathering data from the process itself is one of the most efficient methods for measuring performance and is also useful in helping staff recognize the need to change and enhance services. Using this data to develop performance and learning goals supports continuing customer focus (Phipps 2001:634). According to Hiller (2001:606), these surveys, though quite valuable, are expensive and time-consuming to design, administer and analyze. Hiller (2001:623) argued that:

> Whether the survey results are statistically reliable, representative, valid or significant doesnq necessarily mean that they provide information that can be used to assess and improve library service quality. It is also important to examine whether these surveys are asking the right questions to the right group. There are local issues in each institution that probably cannot be effectively addressed via a standardized survey tool.

Phipps (2001:640) agreed with Hiller (2001:623) and pointed out that it is critical to construct and apply additional methods for informing the summary data from LibQUAL+ surveys. It would be unfortunate if results were used to draw inferences or conclusions based on this macro-data without recognizing that assumptions and beliefs of the current culture limit and skew the interpretation.

Hiller, Kyrillidou and Self (2008:226) stated that North American academic research libraries have made great strides recently in acquiring data in three key areas that inform those motivators: customer satisfaction, use of electronic resources and web usability. The implementation of LibQUAL + as a customer satisfaction survey tool has grown from 12 academic research libraries in 2000 to more than one thousand libraries of all types and across the world.

The LibQUAL +[TM] survey was also used in 2006 to assess library service quality at the University of Notre Dame in Australia. The results showed that the libraries were meeting users expectations for the service in most areas. However, a closer examination of the data revealed dissatisfaction within a sub group of users regarding one particular aspect of library services. The study focused on the deficient area, information control and users. In addition, an analysis was conducted to determine the relationship between selected institutional characteristics and LibQUAL+[TM] scores for the service quality dimension of information control at the University of Notre Dame and other ARL libraries. This analysis with a narrowed focus on faculty and information control increased the library's awareness about which library services were most important to faculty and clearly identified areas needing improvement (Kayongo & Jones 2008:130).

Rhodes University was one of the seven South African Universities that participated in the in the LibQUAL+[TM] 2007 survey. The results of the survey showed that all the groups of library users at Rhodes University were dissatisfied with the library building. Rhodes University performed very well in the information control but less in the service dimension (Moon 2007:72).

Woodbery (2006:1), pointed out that there are projects and initiatives that have been established to study impact in academic libraries including:

i.   The eVALUEd project, based within the evidence base at the University of Central England, was set up to develop a transferable model for e-library evaluation in higher education;

ii. The Association of Research Libraries (ARL) New Measures Initiative, which includes several outcome related programs;

iii. SCONUL and LIRG (Library and Information research group) have started an impact initiative for electronic resources;

iv. Within IFLA, the section for Statistics and Evaluation has established a working group for collecting work done on outcome and impact and to establish first guidelines for assessing impact; and

v.   The College of Australian Universities Librarians (CAUL) statistics available at http://www.caul.edu.au/stats/.

2.4.3.2 Factors that hinder the use of performance measurement

According to Ambro0i (2003:76), the factors that hinder the use of performance measurement in academic libraries include:

- Lack of knowledge about evaluation techniques and statistical analysis methods;
- Lack of exploitation possibilities, which present themselves for the collection and use of data and perhaps the non-user-friendly aspects of the automated systems; and
- The other reasons can also be financial in nature and the milieu of academic libraries, academic and broader social environment.

Poll (2008b:29) argued that in the literature on quality assessment of libraries, there have always been complaints about lack of reports on practical use of performance indicators as opposed to a broad theoretical discussion on the merits or problems of performance measurement. Turk (2007:178), in a study on the use of library statistics and performance indicators in Slovenia, found out that:

> Libraries generally do not use the data to assess their performance. The reason for this is lack of knowledge about evaluation techniques and statistical analysis methods and the absence of demand from the academic and broader environment for measuring library service quality.

Ambrozic (2003:76) pointed out that enough had been done in the Anglo-Saxon countries to implement national systems of library statistics and to educate the librarians on how to collect and use quantitative and qualitative data. The librarians had also been taught how to perform the transition from measuring inputs to measuring outputs. The author suggested that the role of IFLA in sensitizing other countries on the above-mentioned issues would be of great importance.

Poll (2008b:36) noted that:

> Measures for assessing the quality of library services and the cost-efficiency of a library's performance do not yet prove that users benefited from their interaction with the library. Measuring impact or outcome means going a step further and trying to assess the effects of library services on users.

According to Henczel (2006:15), all measurement processes must be compatible to ensure that they support each other without conflict in order to provide a holistic measurement and evaluation framework that has organization-wide strategic benefits. If improvements are to result from the measurement and evaluation of client satisfaction, the findings must be developed into service development, improvement strategies and incorporated into business, strategic, marketing and communication plans.

Self (2003:59) stated that the nature of measurement can equally be controversial. The author poses the following questions:

- Do we count the number of times we perform a task?
- Do we measure the cost of performing a task?
- Do we calculate the time it typically takes to do the task?
- Do we survey our customers and ask them how we performed the task?

According to Hernon (2002b:230), there is a need to explore different methods of data collection and to go beyond self-assessment and to link the results to the planning process. Whether it is called assessment, evaluation or evidence-based practice, the desired goal for library decision making is that the best available evidence is applied to improve the quality of professional judgment (Hiller, Kryllidou and Self 2008:230).

Ambro0i (2003:66) believed that:

> The evaluation of the library, as a system, must be based on a scientific method. First, the goal of the system must be defined, followed by the collection of data on the functioning of the system and on the benefits for its patrons. To make the

systems analysis feasible, the standardization of adequate statistical data is necessary.

2.5 Culture of assessment in academic libraries

Matthews (2007:5) stated that the majority of librarians had not developed a culture of assessment. The lack of a culture of assessment is most distressing because the benefit of using assessment as the foundation for making decisions advances the central role of the library on a campus. The collection of data can be the catalyst to move a library in the right direction, make improvements in services to improve productivity and lower costs per transaction, improve customer service, and demonstrate the value of the library to its stakeholders (Matthews 2007:5).

According to Lakos (1997:278), a culture of assessment is the attitudinal and institutional changes that have to occur in order for library staff to be able to work in an environment where decisions are based on facts, research and analysis, and services are planned and delivered in order to maximize positive outcomes and impacts for library clients.

The reasons why a culture of assessment is not frequently fostered in any library according to Matthews (2007:6), are:

- The perception that one can't measure what the library does;
- Lack of leadership;
- The library not having control over outcomes;
- The possibility of using such information against the library;
- Lack of skills;
- The move to increased demand for electronic resources and services;
- Old mental models; and
- Preference for the status quo.

According to Pors (2008:143), leadership is an important element in the configuration of organizational culture and both leadership style and the leaders'approach to innovation,

change and competency development are of importance in relation to the directions of the organization. Hiller, Kyrillidou and Self (2008:225) also found that the most critical determinants of successful assessment were library leadership that promoted, supported and used assessment and an organizational culture that was customer-centered and motivated to improve library services.

In a study that replicated in Beck's 2002 study on the Impact Assessment on Decision Making in nine Academic Research Libraries, Dole, Liebst and Hurych (2006: 176) found that:

> Beck concluded that the degree to which a library administrator uses assessment data for decision-making is related to the administrator's philosophy of leadership, need for information, personal interest in assessment and local organizational culture.

The findings of several surveys conducted on leadership by Pors (2008:145) indicated that institutional imperatives in relation to assessment were fewer in Denmark than in UK. The UK simply appeared to have a stronger culture of assessment, which culture was more oriented towards ±harderqtools and standards, whilst the employment of tools and standards in Denmark tended to be much more ±softqand human-oriented. This was mainly because in Denmark, assessment is voluntary while in the UK it has grave implications for organizations.

Markless and Streatfield (2008:41) discovered during the 'Impact Initiative Project+ in the UK that workshops were important in encouraging people to get started with evaluation of libraries. The participants of the workshops noted the following changes:

i. The self-evaluation approach turned their focus away from input, process and output performance to that of impact, leading to deeper understanding of what their services could achieve and how;

ii. Enhanced interventions with students (for example improving the quality of information literacy diagnostic tests used with distance learning students; integration of information literacy into student learning);

iii.   Changes in relationships with academic staff . raised library profile; achieved better relationships; more positive attitudes towards information literacy;

iv.   Deeper librarian understanding of teaching and learning;

 v.   Funding gained for focused tutorials for Web CT . after evaluation showed that the existing induction was failing to have impact on search strategy; and

vi.   Enabled library staff to demonstrate impact by showing increase in student awareness of services and resources, positive academic staff attitudes to more student use of materials, or gains in skills by students (Markless and Streatfield 2008:44).

Key systems need to be integrated into the organizational structures to develop this new culture:

- A strategic planning system that fully involves and utilizes the knowledge and experience of staff, and

- A performance effectiveness management system that provides support for goal-setting, measuring and positive support for performing and learning (Phipps 2001:642).

The findings of a survey of 24 libraries by Hiller, Kryllidou and Self (2008:227) found that few libraries had staff with sufficient skills to analyze data and present results. This was more apparent with LibQUAL +^{TM} data, where the majority of libraries relied on the mean scores provided by ARL, with few having used more sophisticated analysis tools. The authors also found that several libraries had never reported the results of the survey to staff or their broader community, while some libraries questioned its validity and qualitative data was used more often in decision-making and for improvement. The lack of staff competences in research methodology and data analysis contributed to this skepticism.

Gathering, analyzing and utilizing customer data is only one part of a larger complex transformational culture change that is needed to ensure the ability of academic research libraries to survive and compete. Performance appraisal systems need to

provide a continuous feedback loop that demonstrates to staff whether their efforts are successful in meeting customer needs (Phipps 2001 645).

In the library sector, benchmarking has been perceived as a way of meeting external accountabilities and fostering internal change (Cullen 2003:1). Cullen identified the following best practices that should be included in libraries:

i. A focus on process benchmarking and peer review with other agencies and organizational culture;

ii. The development, through peer review, of performance measures that cover inputs, output, and outcomes;

iii. Attention to change management principles to ensure change is embedded in the organization; and

iv. An underlying research basis demonstrating constructs validity and attention to cultural and organizational context (Cullen 2003:10).

Hiller, Kryllidou and Self (2008:229) noted that leadership, direction and support, combined with a customer-centered organizational culture, are foundations for effective assessment and informed decision-making. The following should be included:

- Establishing a formal assessment program;
- Developing and defining an institutional research agenda;
- Providing training in research methodology and assessment techniques;
- Recognizing and promoting the value of using data in decision making;
- Partnering with others knowledgeable about the research process;
- Achieving a balance between the research process and timeliness of management decisions; and
- Presenting and acting upon assessment results.

Matthews (2007:12) mapped the steps to be taken in the planning implementation, evaluation and improvement of a library assessment plan that leads to a culture of assessment in Figure 2.4.

Figure 2.4 Planning and implementation of a library assessment plan

Planning

Understand the campus mission and goals
Align library's mission with the campus mission
Use the campus assessment plan as the foundation
Create a library assessment plan

Improvement

Communicate the results of the assessment to campus administrators, library staff, and other stakeholders

Culture of Assessment

Implementation

Select appropriate assessment measures
Gather the assessment data

Evaluation

Assessment of the library's impact on:
- Student learning outcomes
- Faculty teaching
- Campus teaching

Source: Adapted from Matthews (2007:121).

2.6 Conceptual framework

Academic libraries are in a state of continuous growth and change. While these changes and growth are clearly a result of the inputs, outputs and outcomes assessment as discussed in Section 2.3. There is no lack of theories and models for measuring the impact of academic library services on students, faculty and other users.

To provide a framework for the study, the review addressed the objectives outlined in Section 1.2.2. The elaborated concepts on performance measurement in Section 2.3, together with the models and methods of impact assessment of university libraries given in Section 2.4, served as a conceptual framework for this study. The concept of a culture for assessment presented in section 2.5 provided the catalyst of change needed for academic libraries to embrace change.

2.7 Summary

The purpose of the literature review was given in the first section of this chapter. The research map of the literature on external quality assurance in university libraries was also presented. The literature review started with an introduction to the concept of accreditation as a process of external quality assurance in higher education. The role of accreditation as a catalyst for change in higher education was also presented. The implications of accreditation for university libraries as discussed by various authors were presented.

The literature on performance measurement was reviewed, including the types of measures and indicators used in university libraries. The literature on impact assessment in academic libraries was discussed and the models and methods used for assessment were identified. To conclude, the literature of how a culture on assessment can be embraced in academic libraries was provided.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

Research methodology has been defined by a number of authors including Babbie and Mouton 2001; Cohen, Manion and Morrison 2000:44; Creswell and Clark 2007; Flick 2006; Kothari 2004:5; O'Leary 2004:9.

O'Leary (2004:1) looked at research as an open-ended process that is likely to generate as many questions as it does answers. According to Cohen, Manion and Morrison (2000:45), social science researches are activities and undertakings aimed at developing a science of behavior; the word science itself implies both normative and interpretive perspectives. Babbie and Mouton (2001:45) believed that social science is the systematic and scholarly application of the principles of a science of behavior to the problems of people within the social contexts.

O'Leary (2004:85) defined the word methodology as a framework associated with a particular set of paradigmatic assumptions used to conduct research. According to Cohen, Manion and Morrison (2000:44), if methods refer to techniques and procedures used in the process of data gathering, then the aim of methodology is to help us understand, in the broadest possible terms, not the products of scientific inquiry, but the process itself.

The selection of methods and their application are always dependent on the aims and objectives of the study, the nature of the phenomenon being investigated and the underlying theory or expectations of the investigator (Babbie & Mouton 2001:48). According to O'Leary (2004:9), there is no best type of research. There are only good questions matched with appropriate procedures of inquiry.

This chapter presents the theoretical perspective of the study, research methodology and research design of the study.

3.1 Theoretical perspective of the study

This section provides the worldviews or paradigms that relate to mixed method research. The elements of quantitative and qualitative research methods, which provide

a foundation for collecting and analyzing both forms of data in a mixed method study, are presented.

3.1.1 Quantitative and qualitative research paradigms

Positivism, constructivism and pragmatism are three research philosophies that have evolved over the century. The positivist philosophers, according to Johnson and Onwegbuzie (2004:14), are:

> Quantitative purists who believe that social observations should be treated as entities in much the same way that physical scientists treat physical phenomena? Further, they contend that the observer is separate from the entities that are subject to observation.

According to O'Leary (2004:5), positivists believe that the world is a fixed entity whose mysteries are not beyond human comprehension. Their findings are always quantitative, statistically significant and generalizable. Positivists believe in empiricism, the idea that observation and measurement are at the core of the scientific endeavor (Henning 2004:17).

Positivists frameworks usually make excessive assumptions and claims are made to validity and accuracy of scientific knowledge. This paradigm does not take into consideration how people make meaning or how culture influences interpretation (Henning 2004:17). According to Cohen, Manion & Morrison (2000:1), positivism provides the clearest possible ideal of knowledge.

Post-positivists believe that the world may not be knowable. They see the world as infinitely complex and open to interpretation. They see the world as ambiguous, variable and multiple in realities. These findings are always inductive, dependable and auditable (Cameron 2009:140; O'Leary 2004:7).

Post-positivism research makes claim on the following:

  i.   Determination-cause-effect thinking;

  ii. Reductionism, narrowing and focusing on select variables to interrelate; and

iii.   Detailed observations and measures to interrelate theories that are continually refined (Creswell & Clark 2007:22).

Qualitative purists, also called constructivists, and interpretivists reject what they call positivisim. These purists contend that multiple-constructed realities abound, that time and context-free generalizations are neither desirable nor possible. That research is value bound, that it is impossible to differentiate fully causes and effects, that logic flows from specific to general and that the knower and known cannot be separated because the subjective knower is the only source of reality (Cameron 2009:140; Cherryholmes 1992:13; Ngulube, Mokwato & Ndwandwe 2009:106). In constructivist approaches, the inquirer works from the bottom up using the participants' view to build broader themes and generate a theory interconnecting themes (Creswell & Plano Clark 2007:22).

The distinction between the qualitative and quantitative paradigms lies in the quest for understanding and in-depth inquiry. In quantitative study, the focus is on controlling all components in the actions and representatives of the participants. Respondents or research subjects are usually not free to express data that cannot be captured by predetermined instruments. In qualitative study, the variables are usually not controlled because it is exactly this freedom and natural development of action and representation that we wish to capture. Qualitative studies usually aim for depth rather than quantity of understanding. The distinction between the qualitative and quantitative paradigms lies between the quest for understanding and in-depth inquiry (Babbie & Mouton 2001:309; Flick 2006:33; Henning 2004:3; O'Leary 2004:99).

According to O'Leary (2004:99), quantitative and qualitative approaches have come to represent a whole set of assumptions that dichotomize the world of methods and limits the potential of researchers to build their methodological designs from their questions. In direct opposition to the 'purists' are the pragmatists who argue against a false dichotomy between the qualitative and quantitative research paradigms and advocate for efficient use of both approaches (Cameron 2009:140; Creswell 2003:4; Fielzer 2010:6).

3.1.2 Mixed Method Research Paradigm

Primarily the pragmatists advocated the third research paradigm, namely mixed method research. Mixed method research is based on the pragmatism philosophy (Cameron 2004:141; Flick 2006:33; Johnson, Onwuegbuzie & Turner 2007:112; Ngulube, Mokwatlo & Ndwandwe 2009:106). Mixed methods research uses a method and a philosophy that attempt to fit together the insights provided by qualitative and quantitative research into a workable solution (Johnson & Onwuegbuzie 2004:16).

Cherryholmes (1992:13) explains that Charles Sanders Peirce's statement in 1905 was the first declaration of pragmatism. The statement reads as follows:

> The word *pragmatism* was invented to express a certain maxim of logic. The maxim is intended to furnish a method for the analysis of concepts. The method prescribed in the maxim is to trace out in the imagination the conceivable practical consequences . that is, the consequences for deliberate, self-controlled conduct of the affirmation or denial of the concept.

Cherryholmes (1992:13) further elaborates that William James and John Dewey shifted attention to the importance of the consequences of actions based upon particular conceptions. Dewey wrote: "Pragmatism does not insist upon consequent phenomena nor upon the precedents, but upon possibilities of action" (Cherryholmes 1992:13). Baert (2005:194) reiterates that:

> Cognitive aims of social investigation include the critique of society (which ties in with self-emancipation or the lifting of past restrictions), understanding (which comes down to the attribution of meanings to texts or practices).

Pragmatism offers an epistemological justification (that is via pragmatic epistemic values or standards) and logic (that is, it uses the combination of methods and ideas that helps one best frame, address, and provide tentative answers to one's research questions for mixing the approaches (Johnson, Onwuegbuzie & Turner 2007:125). The pragmatist worldview focuses on the consequences of research, the primary

importance of the question asked rather than the methods, and multiple methods of data collection that inform the problems under study. Thus it is pluralistic and oriented toward "what works" in practice (Creswell & Clark 2007:26; Feilzer 2010:8). According to Feilzer (2010:8), pragmatism allows the researcher to be free of mental and practical constraints imposed by the forced dichotomy between positivism and constructivism.

Fielzer (2010:14) noted: "pragmatism brushes aside the quantitative/qualitative divide and ends the paradigm war suggesting that the most important question is whether the researcher has helped to find out what the researcher wants to know". This study was based on the research philosophy of pragmatism.

3.1.3 Mixed Method Research

According to Cameron (2009:141), mixed method research has been described as a "quiet revolution due to its focus of resolving tensions between the qualitative and quantitative methodological movements". Mixed methods research is, generally speaking, an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research) (Johnson, Onwuegbuzie & Turner 2007:113).

The mixed method approach to research tends to base knowledge claims on pragmatic grounds (for example consequence-oriented problem-centered and pluralistic). It employs strategies of inquiry that involve collecting data either simultaneously or sequentially to best understand research problems. The data collection also involves gathering both numeric information (for example on instruments) as well as textual information (for example, through interviews) so that the final database represents both quantitative and qualitative information (Creswell 2003:19; Johnson & Onwuegbuzie 2004:14).

According to Onwuegbuzie et al (2009:129), pragmatist researchers can use the whole range of qualitative and quantitative (that is descriptive and inferential analytical

techniques) analyses in an attempt to fulfill one or more of five mixed research purposes (triangulation, complementarities, developmental, initiation and expansion).

The principles of mixed methodology have been applied as an approach to examining and enhancing the quality of academic libraries in recent years. These include the methods of assessing service quality (Calvert and Hernon 1997; Melo and Sampaio 2007); e-library evaluations and outcome assessment (Dugan and Hernon 2002; Hernon 2002b); information control (Kayongo and Jones 2008); performance measurement (Poll and Boekhorst 1996); and self-evaluation (Stein et al, 2008).

Mixed methods research is the research that:

i.   Partners with the philosophy of pragmatism in one of its forms (left, right, middle);

ii. Follows the logic of mixed methods research (including the logic of the fundamental principle and any other useful logics imported from qualitative or quantitative research that are helpful for producing defensible and usable research findings);

iii. Relies on qualitative and quantitative viewpoints, data collection, analysis and inference techniques combined, according to the logic of mixed methods research, to address ones research questions; and

iv. Is cognizant, appreciative, and inclusive of local and broader socio-political realities, resources and needs (Johnson, Onwuegbuzie & Turner 2007:129).

In formulating the theoretical perspective of studying the impact of external quality assurance on academic libraries in Kenya, the mixed method research approach provides a useful prototype. The reasons for applying the mixed method methodology have been explained in sections 3.1.1, 3.1.2 and 3.1.3 of this chapter. In summary as stated by Ngulube, Mokwatlo and Ndwandwe (2009:109) the use of mixed research methods offers an opportunity for researchers to counterbalance the biases, limitations and weaknesses of either the qualitative or quantitative research approaches. The

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application of different approaches of mixed methods for this study was presented in the subsequent sections.

3.2 Research Design

The ultimate goal of social science research is to produce an accumulating body of reliable knowledge. Such knowledge enables us to explain, predict and understand empirical phenomena that interest us. Research design is governed by the notion of 'fitness for purpose'(Babbie & Mouton 2001:79; Cohen, Manion & Morrison 2000:73).

A research design is a blue-print of how the research will be conducted (Babbie & Mouton 2001:74). According to Creswell and Clark (2007:5), research design refers to the plan of action that links the philosophical assumptions to specific methods and techniques of data collection and analysis. Research design focuses on the end product, that is, what kind of study is being planned and what kinds of results are aimed at and the research problem. Research methodology focuses on the research process and the kind of tools and procedures to be used (Babbie & Mouton 2001:75). Methods are the techniques used in research to gather data, which is used as a basis for inference and interpretation, for explanation and prediction (Cohen, Manion & Morrison 2000:44-45). Methods are the techniques used to collect data, that is interviewing, surveying, participative observation. Tools are the devices used that facilitate the collection of data. They include questionnaires, observation checklists and interview schedules and methodological design is the plan for conducting your study which includes all the above. The number one prerequisite is that the designs address the research questions (O'Leary 2004:85).

3.2.1 Mixed Method Research Design

Mixed method research designs use both the quantitative and qualitative approaches in a single research project to gather or analyze data (Cameron 2009:143). Creswell and Plano Clark (2007:59) used the term mixed method design and suggested four major types of mixed method design such as triangulation, embedded, explanatory and the exploratory design.

However according to Creswell (2009:103) there has been much development in the area of mixed methods research designs and the author has learned that:

> Designs used in practice are much more subtle and nuanced than I had first imagined. We now know that these designs are not complex enough to mirror actual practice, although I would argue that they are well suited to researchers initiating their first mixed methods study.

Creswell (2009:104) further suggests that mixed method design should be looked at, not as designs, but as a set of interactive parts. The author further states that instead of looking at mixed methods as a priority of one approach over the other or a weighting of one approach, the researcher should consider the equal value and representations of each. Ngulube, Mokwatlo and Ndwandwe (2009:107) added that mixed method research should focuses on fusing together qualitative and quantitative approaches and intertwining them. The mixing can occur at any stage of the research.

Cameron (2009:145) differentiates between mixed method design and mixed model design. Mixed method design is defined as the mixing of the quantitative and qualitative approaches only in the methods stage of a study. Mixed model designs involve the mixing of the quantitative and qualitative approaches during several stages of a study. However, Tashakkori (2009:289) explains further that mixed methods study must have two types of data that is qualitative and quantitative. It must also have a mixed question, two types of analysis (that might include the conversion of one type of data to another) and integrated inferences.

Meanwhile according to Creswell (2009:104), the designs have begun to incorporate unusual blends of methods, such as combinations of quantitative and qualitative longitudinal data, discourse analysis and survey data, secondary datasets and qualitative follow-ups, and joint matrices of quantitative and qualitative data in the same table. However, Creswell and Tashakkori (2007: 306) pointed out that:

> In a sequential mixed method design, a researcher may begin with a quantitative

survey (embracing a post-positivist perspective) to answer a theory-driven research question and move to collecting qualitative focus group data (embracing a constructive perspective) in response to a qualitative question.

In addition, Onwuegbuzie, Bustamante and Nelson (2010:63) suggested:

The development of a quantitative instrument traditionally considered an activity that belongs to the post-positivist philosophical stance could involve both quantitative and qualitative analyses.

At the research design stage, quantitative data can assist the qualitative component by identifying representative sample members, as well as outlying (that is deviant) cases. Conversely, at the design stage, qualitative data can assist the quantitative component of a study by helping with conceptual and instrument development. At the data collection stage, quantitative data can play a role in providing baseline information and helping to avoid 'elite bias' (Johnson, Onwegbuzie & Turner 2007:115).

Tashakkori (2009:288) states that scholars of mixed methods studies seem to agree on a variety of other conceptual and methodological studies including:

i. The importance of identifying a sequence of (qualitative and quantitative) strands/phases (for example, sequential, parallel, or conversion process of data collection and analysis) and;

ii. Explicitly identifying what type of data collection procedures or type of data is needed (for example, observation and self-report questionnaires) for answering the (mixed) research questions.

3.2.2 Mixed Method Research Typologies

In the literature on mixed method, various research typologies have been suggested by authors including Cameron (2009:142); Collins and O Cathain (2009:3); Creswell (2009:101); Creswell and Clark (2007:58); Feilzer (2010:6); Johnson and Onwuegbuzie (2004:19); Ngulube, Mokwatlo & Nwandwe (2009:107); Nigas (2009:2); Onwuegbuzie et al: (2007:5); and Onwuegbuzie, Bustamente and Nelson (2010:57) .

Cameron (2009:143-145) discussed the typologies of mixed method designs, these included designs by:

i. Caracellis and Greenes (1997) typology which included three component designs (triangulation, complementary and expansion) and four integrated designs (iterative, embedded/nested, holistic and transformative);

ii. Tashakkoris and Teddlies (2003) had six types of multi-strand - mixed method and mixed model study-with procedures that are concurrent, sequential and conversion; and

iii. Creswells and Clarks (2007) had four types of designs (triangulation, embedded, explanatory and exploratory).

Collins and OqCathain (2009:3) caution novice researchers to be aware that:

Typologies do not offer a panacea. The authors further advise researchers that in some cases typologies delineate only minimally the information required by the researcher, or give inconsistent information required by the researcher, or present overly complex information.

Johnson and Onwuegbuzie (2004:19) asked whether equal status should be given to quantitative and qualitative approaches or whether give one paradigm should be given the dominant status. Tashakkori (2010:289) pointed out that:

Determining the dominance of one approach or another is not readily possible in the beginning or even during the course of study. It is only during the process of integration and/or making conclusions that one might be (if at all) able to %assign+ greater weight to the qualitative or quantitative components. The amount of data, size of sample or even time spent in the field collecting data do not necessarily translate to priority/dominance of one or another approach.

During reviews of the literature on mixed method designs, parallels have been noted between the typologies discussed by Johnson and Onwuegbuzie (2004), Cameron (2009) and Creswell and Clark (2007). Johnson and Onwuegbuzie (2004:19) developed

two mixed method research typologies, that is mixed model designs and mixed method designs. The mixed model designs are constructed by mixing qualitative and quantitative approaches within and across the stages of research. Mixed method design is based on crossing of paradigm emphasis and time ordering of the quantitative and qualitative phases. The authors also suggested that:

> One can easily create more specific and more complex designs, for example, one can develop a mixed method design that has more stages; one can also design a study that includes both a mixed model design and a mixed method design features (Johnson & Onwuegbuzie 2004:19).

This study adopted a sequential mixed model design because more than one methodology was used and data was collected in two phases. The sequential mixed model design applied in this study was based on the typology of the mixed model design discussed by Johnson and Onwuegbuzie (2004:19). Thus, the aims, objectives and the research questions in this study were achieved by doing a literature review, using documentary sources, questionnaires and interviews to generate both qualitative and quantitative data.

3.3 Data Collection

Various authors including Babbie and Mouton (2001:230), Cohen, Manion and Morrison (2000:169), O'Leary (2004:153), Nachmias and Nachmias (1992:216), Patton (1990:14), and Sapsford (2007:6), have mentioned surveys as a common method used to collect data in social science research.

O'Leary (2004:152) defined survey as "information gathered by asking a range of individuals the same questions related to their characteristics, attributes, how they live or their opinions". Meanwhile, Sapsford (2007:12) defined survey as a research style that involves systematic observation or systematic interviewing to describe a natural population and generally draw inferences about causation or patterns of influence from systematic covariation in the resulting data.

The advantages of self-completed questionnaires over structured interviews are that they are cheap to administer, they save time and the questions are standardized. The disadvantage of questionnaires over the interview survey is that there is no one to explain to the respondents the questions (Babbie & Mouton 2001:230; Cohen, Manion & Morrison 2000:117; Sapsford 2007:110).

One of the most important factors that contribute to the popularity of surveys relates to the advances in computer technology, which have also made analysis of large sets of data possible (Babbie & Mouton 2001:231). However, survey research is weak in validity and strong on reliability. In comparison with field research, for example, the artificiality of the survey format puts a strain on validity by representing all subjects with a standardized stimulus. Nevertheless, survey research goes a long way toward eliminating unreliability in observations made by the researcher (Babbie & Mouton 2001:264).

Questionnaires and interview survey methods were used to collect both quantitative and qualitative data for this study. The advantages of either method were used to complement the disadvantages of the other in this study. Data was collected in two phases. This is mainly because they are the best methods available to the social scientist interested in collecting original data for describing a population that is too large to observe directly. They are also excellent vehicles for measuring attitudes and orientation in a large population (Creswell & Clark 2007:6; Babbie & Mouton 2001:232).

3.3.1. Sampling

Sampling is the process of selecting observations or units of analysis from a population (Jupp 2006:271). In the reviewed literature, the common type of sampling techniques mentioned are probability and non-probability (purposive) sampling. Probability sampling techniques are used in quantitative-oriented studies, while non-probability sampling techniques are used in qualitative studies (Babbie & Mouton 2001:174; Balnaves & Caputi 2001:91; Cohen, Manion & Morrison 2000:102; Collins, Onwuegbuzzie & Jiao 2007:267; Creswell & Clark 2007:112; Johnson, Onwuegbuzie &

Turner 2007:112; Kothari 2004:14; O'Leary 2004:103; Teddlie & Yu 2007:77; and Sapsford 2007:6).

Teddlie and Yu (2007:77) introduced a mixed method sampling as the other sampling technique and defined it as "a sampling strategy that involves the selection of units or cases for a research study using both probability sampling (to increase external validity) and purposive sampling strategy (to increase transferability)". A study population is that aggregation of elements from which the sample is selected (Babbie & Mouton 2001:174; Cohen, Manion & Morrison 2000:172; Hernon and Schwartz 2009:1; Kothari 2004:14; and Sapsford 2007:6). According to Sapsford (2007:6), population in statistical terminology means a set of objects about which we wish to speak. Balnaves and Caputi (2001:91) state that populations must be accessible and quantifiable and related to the purpose of research.

In quantitative research, the intent of sampling individuals is to choose individuals who are representative of a population so that the results can be generalized to a population. That is, the researcher wants the sample to reflect the characteristics of the population of interest and, typically, this requires a sample of a certain size relative to the population (Balnaves & Caputi 2001:91; Collins, Onwuegbuzzie & Jiao 2007:267; Creswell & Clark 2007:112; Johnson, Onwuegbuzie & Turner 2007:112; O'Leary 2004:103; Teddlie & Yu 2007:87).

In qualitative research, the inquirer purposefully selects individuals and sites that can provide the necessary information based on specific purposes associated with answering a research study's questions and central phenomenon (Balnaves & Caputi 2001:95; Collins, Onwuegbuzzie & Jiao 2007:267; Creswell & Plano Clark 2007:112; Creswell 2007:125; O'Leary 2004:103; Teddlie & Yu 2007:77).
According to Creswell and Clark (2007:123), the intent in these design, is to use qualitative data to provide more detail about the quantitative results and to select the best participants that can best provide this detail.

The population of the first phase of the study constituted all the 31 recognized public and private universities in Kenya. That included every member of the population (Kothari 2004:14; OdLeary 2004:103; Sapsford 2007:7). The selected sample for the first phase of the study reflected the characteristics of the entire population and it was therefore, possible to draw concrete inferences. As stated by Balnaves and Caputi (2001:91), the social scientist uses samples and sample statistics to make inferences about the population from which they are drawn. The sample frame was drawn from the list of universities authorized to award degrees in Kenya, accessible at http://www.che.or.ke/status.html. A sampling frame is the actual list of sampling units from which the sample, or some stage of the sample, is selected. In single-stage sampling designs, the sampling frame is simply a list of the study population (Babbie & Mouton 2001:174).

The sampling units included the heads of all the seven public university libraries, eleven private chartered universities, nine private universities with letters of interim authority and four registered private universities, which comes to a total of 31 recognized universities in Kenya. Questionnaires were sent to all the universities in Kenya. Based on the findings from the questionnaire survey, selected heads of university libraries were interviewed.

During the second phase of the data collection, a subset of the respondents who participated in the initial phase were selected. The sample size for the interview survey was much smaller than that of the questionnaire survey. The collected data during phase one was analyzed and key results that needed to be explained were identified for follow up interviews and a purposeful sampling strategy was applied (Cohen, Manion & Morrison 2000:103; Creswell & Plano Clark 2007:123; Johnson, Onwegbuzie & Turner 2007:115). Unstructured interviews were used to collect qualitative data for this study. Open-ended questions were asked with the intention of eliciting the participants views and opinions about the impact external quality assurance, utilization of CHE standards with focus on information literacy programmes in university libraries

3.3.2 Reliability and Validity

Reliability is a matter of whether a particular technique, applied repeatedly to the same object, would yield the same result each time (Babbie & Mouton 2001:119). Cohen, Manion and Morrison (2000:105) argue that reliability is a necessary but insufficient condition for validity in research because reliability is a necessary precondition for validity. According to Hernon and Schwartz (2009:74) reliability and validity are separate but related concepts. Still, it should be not assumed that if one exists, the other necessarily does.

The term validity refers to the extent to which and empirical measure adequately reflects the real meaning of the concept under consideration. The criterion of reliability is reformulated in the direction of checking dependability of data and procedures. Validity in both qualitative and quantitative research serves the purpose of checking on the quality of the data and the results. Validity or authenticity within the sample's findings means negotiating researcher subjectivities, approaching methods with consistency, and ensuring research process can be audited or even reproduced (Cohen, Manion & Morrison 2000:122; Flick 2006:37; Hernon & Schwartz 2009:74; O'Leary 2004:103).

To assess validity for a current study, investigators establish the validity of instruments through content and construct validity. Internal validity means that the investigator can only draw inferences from the sample population if threats are accounted for in the design. External validity means that correct inferences can only be drawn from features of other persons, settings and past and future situations if the investigator considers certain aspects of the design (Creswell & Clark 2007:134). In the current study, the researcher checked for the reliability of scores (through statistical procedures of internal consistency) and any test-retest comparisons (Balnaves & Caputi 2001:89; Creswell & Clark 2007:134; O'Leary 2004:103). In the present study the multiple research methods were combined to help interpret the perceptions of university librarians towards external quality assurance and performance measures utilized to assess the quality of university libraries. Triangulation was used to secure indepth-understanding of the impact of

accreditation a process of external quality assurance on university libraries in Kenya. The data collected using the questionnaires, which consisted of both closed and open-ended questions, were analyzed to provide information regarding the reliability and validity of the questionnaires and as a starting point for follow up questions for the interviews.

Creswell (2007:209) recommended that qualitative researchers engage in at least two procedures for validation, including triangulating among different data sources and thick description. Triangulation is generally considered one of the best ways to enhance validity and reliability in qualitative research (Babbie and Mouton 2001:275). Sequential triangulation is utilized when the results of one approach are necessary for planning the next method. Triangulation may be defined as the use of two or more methods of data collection of some aspect of human behavior. Types of triangulation include time, space, combined levels, theoretical, investigator and methodological triangulation (Balnaves & Caputi 2001:95; Creswell 2007:209; Johnson, Onwegbuzie & Turner 2007:113).

In the first phase of data collection (see section 3.3.3), validity was addressed through honesty, depth, richness and scope of the data achieved, the participants approached, the extent of triangulation and the distinctness or objectivity of the researcher. Data validity was also improved through careful sampling, appropriate instrumentation and appropriate statistical treatment of data, as mentioned in sections 3.3.3 of this study. Reliability was enhanced by obtaining detailed field notes by employing a good-quality tape recorder for recording and by transcribing the tape and coding of data (Cohen, Manion and Morrison 2000:105; Creswell & Clark 2007:134; Hernon & Schwartz 2009:73; O¢Leary 2004:103).

Threats to validity for this study were minimized by:
  i.   Choosing an appropriate time scale;
  ii. Ensuring that there were adequate resources for the required research to be undertaken;

iii.   Selecting an appropriate methodology for answering research questions;

iv.   Selecting appropriate instruments for gathering the type of data required; and

v.   Using an appropriate sample (for example, one which is representative, not too small or too large (Johnson, Onwegbuzie & Turner 2007:115).

3.3.3. Data Collection: Phase One

The advantages and the disadvantages of questionnaire surveys have been discussed by many authors including Babbie and Mouton (2001:263); Cohen, Manion and Morrison (2000:269); Nachmias and Nachmias (1992:216); and O'Leary (2004:159). The disadvantage of questionnaire surveys is the standardization of questions, which often represents the least common denominator in assessing people's attitudes, orientation, circumstances and experiences, it can seldom deal with the context of social life (Babbie & Mouton 2001:263). As stated by Cohen, Manion & Morrison (2000:269), if only closed items are used the questionnaire will be subject to weaknesses, if open items are used respondents may be unwilling to write answers for one reason or another.

Onwuegbuzie, Bustamante and Nelson (2010:63) stated that the standard technique of quantitative instrument development is inadequate because it leads to reliance solely on quantitative data to assess the psychometric properties of the instrument. The authors strongly recommend that qualitative-based (that is open-ended) items be included with quantitative items. Examples of studies that generated both types of data include a study undertaken by Feilzer (2010:9), which was of a multilevel sequential mixed design. During the quantitative phase, the survey generated a large amount of qualitative data as respondents commented in the spaces provided for comments or next to the survey questions.

In the first, phase of the study, the within-stage mixed model design of data collection was applied. Thus, data was collected using a questionnaire that included structured questions (quantitative data) and one or more open-ended items (qualitative data collection) (Johnson & Onwuegbuzie 2004:20).

3.3.3.1 Design of the Questionnaire

The questionnaires were used to collect quantitative and qualitative data for the first phase of the sequential, mixed model method study. The design was specifically based on the research purpose and objectives of this study (Collins, O↓Leary 2004:150; Onwuegbuzzie & Jiao 2007:267; Sapsford 2007:102).

The advantages of the mail questionnaire suited the nature of this research and the disadvantages were taken into account while designing the questionnaire. To overcome the disadvantages, structured self-administered questionnaires, with simple, close-ended questions (where the respondent has to choose from a selection of answers) and open-ended questions (where the respondent is given open questions, for example other-specify) were used.

The mail questionnaires were used to collect quantitative and qualitative data on the current status of quality assurance in university libraries in Kenya. The survey questionnaire had a combination of questions including:
  i.   Factual questions, which were designed to elicit objective information from the respondents regarding their background and environment; and
  ii. Questions about subjective experiences on external quality assurance, these included questions about respondents opinions and attitudes, as shown in Appendix 2.

3.3.3.2 Lay Out of the Questionnaire

The first section (items 1-11) of the questionnaire included questions, which elicited different bits of information on type of institution; position of the respondent; number of years in that position; sex; qualifications; number of users of the library; statistics on information resources available; seating capacity of the library and the total number of library staff, as indicated in Appendix 2.

Items 12 to 16 were also one-item test questions to gather facts about the external quality assurance process in the university libraries. Items 17 to 28 were Likert scale questions of five scales constructed to measure respondents attitudes towards the process of accreditation. The Likert scale, a format in which respondents are asked to strongly agree, agree, disagree, or strongly disagree or strongly approve, approve was used in designing the questionnaire, as shown in Appendix 2. Both the questions and statements gave the questionnaire more flexibility in the design of items and made it more interesting (Babbie & Mouton 2001:233; Balvnaves & Caputi 2001:80; Cohen, Manion & Morrison 2000:253; Nachmias & Nachmias 1992:436; O¢Leary 2004:160; Sapsford 2007:223).

Items 30 to 34 were also Likert scale questions developed to gauge attitudes towards the university library standards. Questions 35 to 37 were items on how universities had applied the standards.

In section C (questions 39 to 56), general questions on the measures used to collect data in university libraries were asked. Ranking-type questions were used and respondents were requested to rank the performance criteria and indicators used in academic libraries in the order of not important; somewhat important and very important.

In items 51 to 55, open-ended questions were included to elicit views on the outcomes of university libraries. At the end of section B, C and D of the questionnaire, an item was included for further comments from the respondent on the topic under study.

3.3.3.3 Pre-testing the Questionnaires

A pretest of the questionnaire was undertaken to protect it from errors. It is not usually necessary that the pre-test subjects comprise a representative sample (Babbie & Mouton 2001:244 . 245; Balnaves & Caputi 2001:86; Cohen, Manion, & Morrison 2000:260). Before engaging in the actual exercise of data collection, the instrument was first given to experts in external quality assurance and management of universities to

validate the questionnaire, as shown in Appendix 6. The study depended on the experts to objectively examine the soundness and validity of the questions. Their comments were incorporated into the final instrument revisions. This enabled the researcher to avoid bad responses, distortion of data and subjectivity of responses. The testing was important to establish the content validity of the instrument and to improve questions, formats and scales (Creswell 2003: 158).

3.3.3.4 Administering the Questionnaires

The questionnaire was addressed to the 31 library heads of university in all recognized universities in Kenya. The questionnaire was administered via electronic mail, and via postal mail to those respondents who did not have e-mail addresses. To avoid a low response rate, a short, advance notice letter was sent to all members informing them of the survey; the significance and value of the research as recommended by O¢Leary (2004:140). Clear background information and instructions were provided which clarified the survey¢s purpose, assured anonymity/confidentiality, provided return information and offered thanks for the respondents¢ time and assistance (O¢Leary 2004:140), as shown in Appendix 3. A reminder mail was sent out a week after the second mail out and the survey was administered within a period of 3 weeks.

3.3.4 Data Analysis – Phase One

According to Onwuegbuzie et al (2007:5), the fundamental principle of a mixed analysis involves the use of quantitative and qualitative analytical techniques that are utilized either concurrently or sequentially, sometime after the data collection process, from which interpretations are made either in a parallel, integrated or iterative manner. At the level of data, numeric data is similar to textual/visual data in as much as it represents descriptive codes that characterize the persons meanings, beliefs, attitudes and so on. Thus, both data types might be available for collection and analysis regardless of the research paradigm involved, depending on the research questions (Onwuegbuzie, Johnson & Collins 2009:131).

According to Onwuegbuzie et al (2007:11), mixed analysis has the following stages:

data reduction, data display, data transformation, data correlation, data consolidation, data comparison and data integration. The data types analyzed for this study were represented by quantitative and qualitative data. These included responses from the first phase of the data collection, which generated both qualitative and quantitative data. The second phase of the study generated qualitative data through in-depth interviews (Onwuegbuzie et al 2007:6).

The data analysis type for this study adopted the multi-analysis approach. The set of data collected during the first phase was analyzed prior to analyzing the other data set, that is, the analysis was done sequentially (Creswell & Tashakkori 2007:306; Johnson, Onwegbuzie & Turner 2007:115; Onwuegbuzie et al 2007:11). The mixed model design adopted for this study allowed for the research questions for the second phase to emerge from inferences of the first phase. The first phase of the study was exploratory while the second phase was confirmatory (Cameron 2009:146). During the first phase of study the data collected was first reduced using descriptive and inferential statistics.

3.3.4.1 Preparing the Data for Analysis

The quantitative data was prepared by assigning numeric values to each response, cleaning the data entry errors from the database, and creating special variables such as recording items on instruments with inverted scores or computing new variables that comprised multiple items that form scales. Recording and computing was completed with statistical computer programs such as SPSS. A codebook that lists the variables, their definitions and the variable numbers for each was developed (Creswell & Clark 2007:130).

3.3.4.2 Exploring the Data

In quantitative analysis, exploring the data entails visually inspecting the data and conducting a descriptive analysis (the mean, standard deviation and variance of responses to each item on instruments or checklists) to determine the general trends in the data. Researchers explore the data to see the distribution of the data and determine whether it is normally or non/normally distributed so that proper statistics can be chosen

for analysis (O¢Leary 2004:187).

The main function of descriptive statistics is to provide measures of central tendency, dispersion and distribution shape. Descriptive statistics is a medium for describing data in manageable forms. Inferential statistics, on the other hand, assists in drawing conclusions from your observations. Typically, this involves drawing conclusions about a population from the study of a sample drawn from it (Balnaves & Caputi 2001:132; Creswell & Clark 2007:130; O¢Leary 2004:192).

In this study, tables and graphs were used to identify and extract bits of information for trends, clusters or groupings and also to make comparisons and represent a convenient way of summarizing information (Babbie & Mouton 2001:458; Balnaves & Caputi 2001:110). However, Sapsford (2007:180) states that:

> Tabular analysis lacks sophistication, is less powerful than other techniques and it risks showing ±alse positive¢ results because a large number of separate significance tests may be involved, but it is a much easier set of techniques for the researcher and audience to understand and it retains an immediate and interpretative relationship to the data at all stages.

3.3.4.3 Analyzing the Data

The quantitative data analysis proceeds from descriptive analysis to inferential analysis and multiple steps in the inferential analysis build a greater refined analysis (Creswell & Plano Clark 2007:131; O¢Leary 2004:192; Sapsford 2007:181). Inferential statistics allows the assessment of probability that an observed difference is not just a fluke or chance finding. Inferential statistics is about conducting statistical tests that can show statistical significance (O¢Leary 2004:192).

Univariate analysis is the examination of the distribution of cases using only one variable at a time, that is, reporting all individual cases. Data was also presented in summary of averages or measures of central tendency, that is mode, mean and median measures of dispersion such as range and standard deviation (Babbie & Mouton 2001:422; Balnaves & Caputi 2001:148).

However, social scientists are not only interested in the relationship of one variable at a time but relationships between two or more variables, that is, an analysis of more than one variable such an analysis is known as bivariate (Balnaves & Caputi 2001:149; Babbie & Mouton 2001:430). Bivariate data was presented in simple summary descriptions. The numerical summary is a relationship known as correlation, which is, a relation between two paired observations. Correlation is also concerned with covariation, that is, how two variables covary. While correlation is concerned with the degree and direction of relation between two variables, prediction is concerned with estimation that is, estimating one variable from another variable. The most widely used measure of correlation is the Spearman's Rank (Spearman's Rho) Coefficient Correlation and Pearson Product Moment Correlation, simply known as Pearsons Correlation Coefficient (Balnaves & Caputi 2001:149; O'Leary 2004:188; Sapsford 2007:181). The SPSS statistical package was used to provide the Spearman's Rho correlation coefficient test for this study.

3.3.4.4 Presenting the Data Analysis

In quantitative research, presenting the results involves representing the findings in statements summarizing the statistical results. Only one statistical test was represented in each table. Figures were used to present quantitative results in a visual form, such as bar charts, ling graphs or charts. These visual forms depicted trends and distributions of the data (Balnaves & Caputi 2001:122; Creswell & Clark 2007:133). According to Balnaves and Caputi (2001:235), the presentation of data should ensure that:

i.   People understand and accept the evidence in the form provided;

ii.   The evidence is instrumental in making a case or in supporting the claim;

iii. The evidence is of appropriate technical and intellectual levels for the proposed measures; and

iv.   The readers know and respect the sources of the evidence.

3.3.5. Data Collection - Phase Two

In phase two, in-depth interviews were conducted as a follow-up to the questionnaire to

explore in more detail the survey findings (Feilzer 2010:10). The mixed model design used in this research allowed for the questions from the second phase to emerge from the inferences of the first phase (Cameron 2009:146).

O¢Leary (2004:162) defines interviewing as a method of data collection that involves researches asking respondents open-ended questions. A research interview serves three purposes. First, it may be used as the principal means of gathering information having direct bearing on the research objectives. Second, it may be used to test hypotheses or to suggest new ones; or as an explanatory device to help identify variables and relationships (Cohen, Manion & Morrison 2000:273; Creswell 2007:43; O¢Leary 2004:164; Patton 2001:342).

Qualitative data consists of open-ended information that the researcher gathers through interviews with participants. Also, qualitative data may be collected by observing participants at research sites, gathering documents from private or public sources, or collecting audio-visual materials such as video-tapes or artifacts (Creswell & Plano Clark 2007:6).

The main kinds of interviews are structured, semi-structured and unstructured (Cohen, Manion & Morrison 2000:273; O¢Leary 2004:164; Patton 2001:342). Unstructured interviews were used to collect qualitative data for this study. Open-ended questions were asked with the intention of eliciting the participants views and opinions on external quality assurance in university libraries, as shown in Appendix 5. Open-ended questions have a number of advantages because they are flexible; probing the respondent can be done so that more depth is achieved to clear any misunderstanding, they encourage co-operation, establish rapport and they allow the interviewer to make a truer assessment of what the respondent really believes (Babbie & Mouton 2001:289; Cohen, Manion & Morrison 2001:273; O¢Leary 2004:275; Patton 2001:342).

The main advantages of interview surveys are that they attain a high response rate and the respondents are less likely to turn away an interviewer standing on their doorstep

than to throw away a mailed questionnaire. They also allow for greater depth than other data collection methods. The presence of an interviewer also reduces the number of "don't knows" and "no answers". The interviewer can also observe respondents as he/she asks questions. Interviews can also guard against confusing questionnaire items. (Babbie & Mouton 2001:250; Cohen, Manion, & Morrison 2000:269; O'Leary 2004:162).

The disadvantage of interviews is that they are prone to subjectivity and bias on the part of the interviewer (Cohen, Marion & Morrison 2000:269). The other weakness is that they may require more time to collect systematic information because it may take several conversations with difficult people (Patton 2001:342). Interviews enable participants to discuss their interpretations of the world in which they live and to express how they regard situations from their own point of view (Cohen, Manion & Morrison 2000:267). Qualitative interviewing design is characterized by being flexible, interactive and continuous because it is not prepared in advance and cast in stone. The interviewer has a general plan of inquiry but not a specific set of questions that must be asked in particular words and in a particular order (Babbie & Mouton 2001:289).

3.3.5.1 The Interview Process
The interview process followed steps as suggested by Creswell 2007:132-133; O'Leary 2004:50 and Patton 2001:343, that is:
- Interviewees were identified based on a purposeful sampling procedure discussed in section 3.3.1;
- A one-on-one unstructured interview was conducted;
- Appropriate recording equipment was used to record the interview;
- An interview protocol form was used to record the interview in case the audio-recording did not work;
- The interviews were conducted at the office of the head of the university library;
- Prior consent was obtained before conducting the interview; and
- The interview was conducted within the specified time.

The interview data was analyzed in two separate stages:

i.   Quantitatively reducing the qualitative data by description; and

ii. Raw data were analyzed using a qualitative in-depth approach by grouping responses according to questions and emerging themes.

3.3.6 Data Analysis - Phase Two

Analyzing text presents a challenging task for the qualitative researcher. It is difficult to represent qualitative data using tables and matrices (Creswell 2007:147). This section presents the procedure for preparing qualitative data for analysis, exploring the data, analyzing the data and data presentation.

3.3.6.1 Preparing the Data for Analysis

For qualitative data preparing the data means organizing the document or visual data for review or transcribing text from interviews and observations into word-processing files for analysis. Coding was used to reduce a wide variety of idiosyncratic items of information to a more limited set of attributes. Coding the material aimed at categorizing and/ or theory development. The more or less strictly sequential analysis of text aims at reconstructing the structure of the text and of the case (Babbie & Mouton 2001:413; Creswell 2007:148; Flick 2006:296).

The analysis of qualitative data (words or text or images) typically follows the path of aggregating the words or images into categories of information and presenting the diversity of ideas gathered during data collection (Creswell & Clark 2007:6).

3.3.6.2 Exploring the Data

In qualitative research, exploring the data involves reading through all the data to develop a general understanding of the database. It means recording initial thoughts by writing short memos in the margins of transcripts or field notes (Creswell & Clark 2007:131).

The qualitative data was then organized and prepared for data analysis. The recorded interview was transcribed, the field notes typed and sorting and arrangement of the data

done. This also entailed reading all the data to obtain a general sense of the information and to reflect on its overall meaning (Creswell 2003:191; Flick 2006:283; Patton 2001:440). An interview protocol was used, on which questions were asked with spaces for recording answers. It included a place for essential data about time, day and the place of the interview. The qualitative interviews were audio-taped and later transcribed. Before collecting the data, permission was sought by describing the initial phase in the sequential qualitative data collection. The follow up phase stated the purpose and objectives of the research (Creswell & Plano Clark 2007:115; Flick 2006:284).

Univariate analysis is the examination of the distribution of cases using only one variable at a time that is, reporting all individual cases. Data was presented in summary using averages or measures of central tendency that is mode, mean and median measures of dispersion such as range and standard deviation (Babbie & Mouton 2001:422). The purpose of univariate analysis is purely descriptive while bivarate analysis involves explaining relationships between the variables (Babbie & Mouton 2001:430).

Descriptive statistics is a medium for describing data in manageable forms. Inferential statistics, on the other hand assists in drawing conclusions from your observations. Typically, this involves drawing conclusions about a population from the study of a sample drawn from it (Babbie & Mouton 2001:458). In lieu of statistical significance, qualitative findings are judged by their substantive significance (Patton 2001:467).

3.3.6.3 Analyzing and Presenting the Data

Qualitative data analysis begins with coding the data, dividing the text into small units (phrases, sentences, paragraphs) and assigning a label to each unit. This label can come from the exact words of the participants, a term composed by the researcher, or a concept in the social sciences.

In qualitative research, presenting the results may involve a discussion of the evidence for the themes or categories; the presentation of figures that depict the physical setting of the study; or frameworks, models, or theories. Writing strategies for providing

evidence include conveying subthemes or sub categories, citing specific quotes, using different sources data to cite multiple items of evidence, and providing multiple perspectives from individuals in a study to show divergent views. Apart from these findings can also be presented by figures, maps, tables, that present different themes. (Creswell & Clark 2007:133).

Data was broken down, conceptualized and put back together in many ways. Open coding was applied to express the data and phenomena obtained in the form of concepts, units of meanings were classified into single words and short sentences. Axial coding followed open coding to refine and differentiate the categories resulting from open coding. Selective coding was the third step, which elaborated on the development and integration of concepts. The results of the interview survey were also presented in terms of themes and sub themes supported by quotations (Creswell 2007:153, Flick 2006:297; Patton 2001:465). Some of the results from the interviews and open-ended questions were presented in tables and charts.

3.3.6.4 Data Triangulation

The results from phases one and two of the study were triangulated to form the basis for the conclusions and recommendations of this study. This involved qualitative data being correlated with quantitative data. It was followed by data consolidation, where both quantitative and qualitative data were combined. The next step involved data comparison, that is, findings from quantitative and qualitative sources. Data integration followed wherein both qualitative and quantitative findings were integrated into a coherent whole as recommended by Onwuebuzie et al (2007:12).

Bazeley (2009:205) suggests using software packages such as Excel for integrating data analyses for mixed methods involving synthesis of varied forms of data from a range of sources. Nvivo, MAXQDA and QDA Miller are also recommended. The author further states that:

> Computer-based coding of qualitative data is typically more complex and more
> detailed than manual thematic sorting and often leads to greater insight in itself,

but more particularly, the use of software allows for instructive within-case, cross-case, and comparative analyses using coded data, with just a few clicks (Bazeley 2009:206).

The study used the Excel software for integrating the data and SPSS statistical software was also used for organizing the qualitative data.

3.4 Ethical considerations

During data collection and data analysis and presentation, the researcher considered many ethical issues based on the UNISA Policy on Research Ethics (UNISA 2007:9). Informed consent procedures and maintaining confidentiality of the participants were two common widely covered ethical issues in the reviewed literature by Babbie & Mouton (2001:520); Balnaves & Caputi (2001:234); Creswell (2003:66); Creswell (2007:141); O¢Leary (2004:43); Patton (2001:408) and UNISA (2007:9).

The foremost ethical rule of social science research is that research should bring no harm to research subjects and the basic rule is that participation should be voluntary (Babbie 1998:38). According to Babbie and Mouton (2001:520), the researchers have a right to search for truth, but not at the expense of the rights of other individuals. Researchers have also a right to collect data through interviewing people, but not at the expense of the interviewee¢s right to privacy.
Patton (2001:405) states that the purpose of a research interview is first and foremost to gather data, not change people.

O¢Leary (2004:43) stated that researchers need to recognize that power can influence the research process, and that with power comes responsibility. Both the integrity of the knowledge produced and the wellbeing of the researched are dependent on the ethical negotiation of power and power relationships. Negotiation of power involves accepting responsibility to:

    i.   Recognize and appreciate your own reality as a researcher;

ii. Be cognizant of how your worldview, assumptions and position can unwittingly influence the research process; and

iii. Act ethically. Research should be conducted in a manner that balances the biases and subjectivities of the researcher and protects the dignity and welfare of the researched (O'Leary 2004:43).

The ethical responsibilities of research include recognizing, understanding and balancing subjectivities, accurate reporting, acting within the law, developing the appropriate expertise and experience of the researcher, designing and conducting equitable research, ensuring respondents have given informed consent, ensuring no harm comes to respondents and ensuring confidentiality and if appropriate, anonymity (O'Leary 2004:50).

This study was conducted based on the policy of research ethics as recommended by UNISA 2007. The following ethical statements guided the research:

vi. A written authority to conduct this research was sent to the participating institutions, explaining the nature of the study;

vii. An informed consent form was developed for participants to sign before engaging them in research. The right to participate was voluntarily and the right to withdraw from the survey at any time was mentioned in the form;

viii. The purpose and procedure of the study was explained in the questionnaire and during the interview survey;

ix. The study protected the anonymity of individuals' roles and incidents during the research. That is, in the survey research, the participants names were disassociated from the responses during the coding and recording process. In qualitative research, aliases or pseudonyms for individuals and places were used to protect identities; and

x. An accurate account of the findings was presented during the interpretation of data as recommended by Creswell (2003:66) and UNISA (2007).

3.5 Evaluation of the research methodology

According to Creswell and Clark (2007:162), a study should be evaluated after completion by the researcher. The authors further suggest several ways for evaluating mixed method research by addressing the following questions:

- Is the study mixed method?
- Does the study show rigorous mixed methods?
- Does the study include advance mixed methods features consistent with a type of mixed method design?
- Does the study show sensitivity to some of the challenges of using the design? (Creswell and Clark 2007:163).

This study used mixed methods for collecting and analysis of both quantitative and qualitative data. This study showed rigorous mixed methods by adopting a sequential mixed model design because more than one methodology was used and data was collected in two phases. The sequential mixed model design applied in this study was based on the typology of the mixed model design discussed by Johnson and Onwuegbuzie (2004:19). Thus, the aims, objectives and the research questions in this study were achieved by doing a literature review, using documentary sources, questionnaires and interviews to generate both qualitative and quantitative data.

Questionnaires and interview survey methods were used to collect both quantitative and qualitative data for this study. Data was collected in two phases. In the first, phase of the study, the within-stage mixed model design of data collection was applied. Thus, data was collected using a questionnaire that included structured questions (quantitative data) and one or more open-ended items (qualitative data) (Johnson & Onwuegbuzie 2004:20).

The population of the first phase of the study constituted all the 31 recognized public and private universities in Kenya. Based on the findings from the questionnaire survey, selected heads of university libraries were interviewed. During the second phase of the data collection, a subset of the respondents who participated in the initial phase was selected. The sample size for the interview survey was much smaller than that of the

questionnaire survey. Open-ended questions were asked with the intention of eliciting the participantsq views and opinions about the impact external quality assurance, utilization of CHE standards with focus on information literacy programmes in university libraries.

In the present study the multiple research methods were combined to help interpret the perceptions of university librarians towards external quality assurance and performance measures utilized to assess the quality of university libraries. Triangulation was used to secure in-depth-understanding of the impact of accreditation a process of external quality assurance on university libraries in Kenya. The data collected using the questionnaires, which consisted of both closed and open-ended questions, were analyzed to provide information regarding the reliability and validity of the questionnaires and as a starting point for follow up questions for the interviews.

The data analysis type for this study adopted the multi-analysis approach. The set of data collected during the first phase was analyzed prior to analyzing the other data set, that is, the analysis was done sequentially (Creswell & Tashakkori 2007:306; Johnson, Onwegbuzie & Turner 2007:115; Onwuegbuzie et al 2007:11). The mixed model design adopted for this study allowed for the research questions for the second phase to emerge from inferences of the first phase. The first phase of the study was exploratory while the second phase was confirmatory (Cameron 2009:146). During the first phase of study the data collected was first reduced using descriptive and inferential statistics.

The results from phases one and two of the study were triangulated to form the basis for the conclusions and recommendations of this study. This involved qualitative data being correlated with quantitative data. It was followed by data consolidation, where both quantitative and qualitative data were combined. The next step involved data comparison, that is, findings from quantitative and qualitative sources. Data integration followed wherein both qualitative and quantitative findings were integrated into a coherent whole as recommended by Onwuebuzie et al (2007:12).

The research faced one of challenges specific to sequential mixed method design as outlined by Creswell and Clark (2007:74) that is a long time for implementation of the design. This challenge faced was because, during the quantitative phase, the survey generated a large amount of qualitative data as respondents commented in the spaces provided for comments or next to the survey questions. The analysis of the data took a long time because inferences for the next phase of data collection had to emerge from it. To maximize on the little time left for research, some of the individuals who participated in the first phase of the data collection were selected for the interview.

However, despite the challenges faced during the data analysis, this study recommends the use of sequential mixed method design by future researchers. The design enabled the study to collect reliable and validated data through the use of both quantitative and qualitative instruments of data collection.

3.6 Summary

This chapter presented the research methodology and design for gathering data for this study. The theoretical perspective of the study was discussed and presented. This study was based on the philosophy of pragmatism. The literature on the qualitative, quantitative and mixed method research approaches was reviewed. The reasons for selecting mixed methodology for this study were provided. Reviews of various research designs and typologies were also presented and the mixed model method design was selected. This involved collecting data in two phases. In the first phase, a questionnaire was used to collect data on the impact of external quality assurance from university libraries in Kenya. In the second-phase, an in-depth qualitative interview was conducted with purposefully selected participants to find out if %change does occur at these institutions. The methods of data collection and analysis used for this study were also explained.

CHAPTER FOUR: PRESENTATION OF FINDINGS

4.0 Introduction

This chapter presents the results of the data obtained from the questionnaire and interview surveys conducted for this study. The results were analyzed and presented according to the research objectives, as discussed in Chapter One section 1.2.2.

Questionnaires were sent to all the heads of the 31 university libraries in Kenya as discussed in Chapter Three, Section 3.3.1 of this study. A total of 27 (87%) of the 31 respondents completed and returned the questionnaires. The overall response rate of 87% was high and that ensured that the survey results were representative of the survey population. According to Fincham (2008:1), response rates approximating 60% for most research should be the goal of researchers. Babbie (2010:273) also stated that:

> There is no absolutely acceptable level of response to a mail survey, except for 100 percent. While it is possible to achieve response rates of 70% or more, most mail surveys probably fall below that level.

Chart 4.1: Response rate
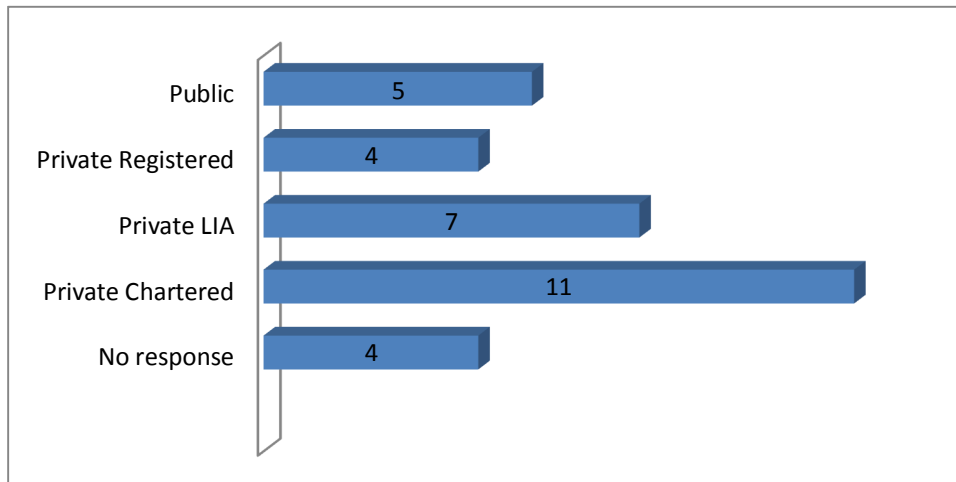
The total response rate included all the 11 (100%) private chartered universities, seven (78%) of the nine universities with letters of interim authority (LIA), all the four (100%)

registered private universities and five (71%) of the seven public universities, as shown in Chart 4.1.

As discussed in Chapter Three, section 3.3.1 of this study, the data from the questionnaires was first analyzed and the key results that needed to be explained were identified for a follow up interview. Based on the findings from the questionnaire survey, five heads of university libraries were purposively selected for the interview. They included respondents from two private chartered universities, two private universities with letters of interim authority (LIA) and one public university.

4.1 Background Information of Respondents and University Libraries in Kenya

The characteristics of the respondents and the statistics of university libraries were not part of the objectives of this study, but the findings provide background information on the different aspects being investigated. Data is presented in this section according to the categories of universities in Kenya, that is, private chartered, private with letters of interim authority, private registered and public.

4.1.1 Characteristics of respondents

In order to ascertain the leadership qualities of the respondents, the issues dealing with qualifications and positions held in the institutions were explored in the questionnaire. More than half 16 (59%) of the, 27 respondents indicated that they held substantive positions as managers of university libraries in Kenya, as shown in Table 4.1.

Seven librarians were in acting positions, three from public universities, and four from private universities. In two university libraries, the position of head or manager was vacant and librarians and assistant librarians, as shown in Table 4.1 took the leadership role.

Table 4.1 also shows that 20 (74%) of the 27 respondents who held managerial positions in university libraries held masters'degrees. Three respondents were holders of doctorate degrees in library and information science. The other two librarians who responded to the questionnaire were holders of bachelor's degrees and two had diplomas, as shown in Table 4.1.

Table 4.1: Qualifications of heads of university libraries in Kenya

Heads of university libraries	Qualifications				
	PhD	Masters	Bachelor	Diploma	Total
Manager or Head	3	13	-	-	16
Acting Librarian	-	5	1	1	7
Librarian	-	1	1	-	2
Assistant Librarian	-	1	-	1	2
Total	3	20	2	2	27

4.1.2 Information resources

Results from the survey indicated that the majority of the respondents, that is 22 (81%) out of the 27, have collections of more than 9001 book titles, as shown in Chart 4.2.

Chart 4.2: Total numbers of book titles
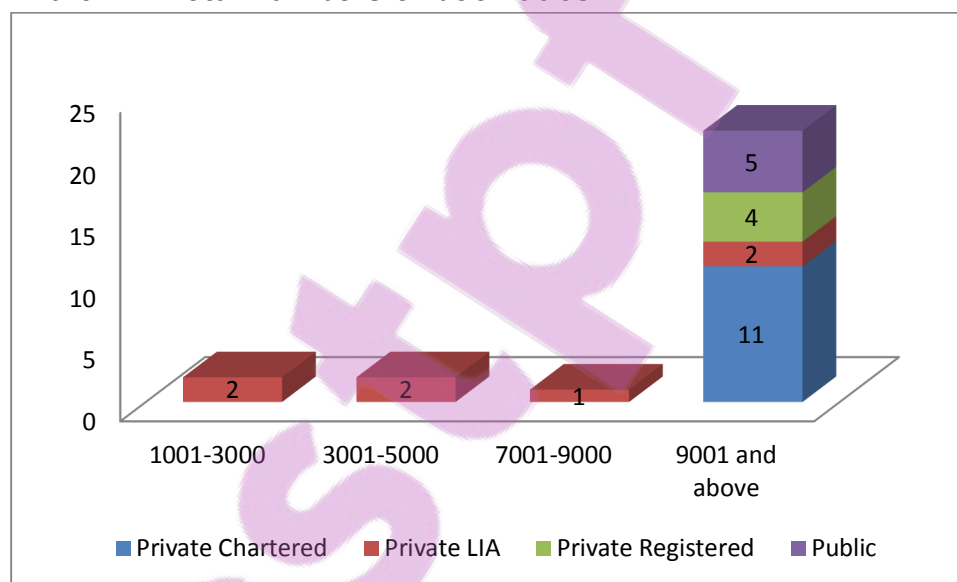
These included all the 11 chartered private universities, five public universities, four private registered universities and two private universities with LIA. One private university with a LIA had a collection of between 7001 and 9000, two others had

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between 3001 and 5000 and two universities have a collection of below 3000 titles, as depicted in Chart 4.2.

Overall, only 13 (48%) of the 27 respondents indicated that they subscribed to more than 51 print journal titles in their university libraries, as shown in Table 4.2. These included all the five public universities, six private chartered universities, one private university with a LIA, and a registered private university. Seven universities had fewer than 20 print journal titles; these include four universities with LIA, two registered and one chartered. Four universities had between 21 and 30 print journal titles, two others between 31 and 40 and one between 41 and 50, as shown in Table 4.2.

Table 4.2: Total number of print journal titles

Type of University	Total number of print journal titles					Total
	20 and below	21 - 30	31 . 40	41 - 50	51 and above	
Private Chartered	1	2	2	-	6	11
Private with LIA	4	1	-	1	1	7
Private Registered	2	1	-	-	1	4
Public	-	-	-	-	5	5
Total	7	4	2	1	13	27

Table 4.3 also shows that the majority of the respondents 17 (63%) had access to more than 2001 e-journal titles. These included respondents from eight chartered universities, five private universities with LIA and four public universities. Two universities had between 501 and 1000, one university had between 1001 and 2000 and five universities did not respond to this question as shown in Table 4.3.

Table 4.3: Total Number of E- Journal Titles

Type of University	Total number of e-journal titles						Total
	100 and below	101 - 500	501 - 1000	1001-2000	2001 and above	No response	
Private Chartered	-	-	1	1	8	1	11
Private with LIA	1	-	-	-	5	1	7
Private Registered	-	1	1	-	-	2	4
Public	-	-	-	-	4	1	5
Total	1	1	2	1	17	5	27

4.1.3 Number of library users in university libraries

Strictly more than half the respondents 14 (52%) out of the 27 indicated that they had more than 1000 users.

Chart 4.3: Total numbers of users of university libraries
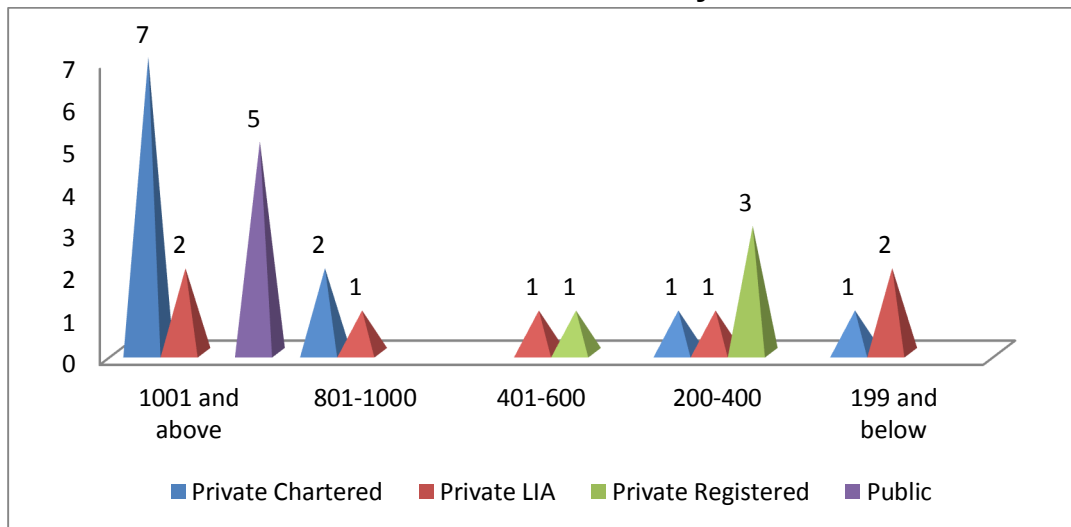
They were from seven private chartered universities, all the five public universities and two private universities with LIA, as shown in Chart 4.3. Three private universities had between 801 and 1000 library users. Two private universities had between 401 and 600 users. Five university libraries had a total of between 200 and 400 users. Three universities had fewer than 199 users, as depicted in Chart 4.3.

4.1.4 Number of library staff and qualifications

Chart 4.4 illustrates that two (21%) of the 24 respondents from public universities had a staff complement of 81. Another respondent from a public university indicated that they had between 41 and 50 staff members. Chart 4.4 also shows that 14 (58%) of the 24 respondents from private university libraries had fewer than 10 staff members. These included four private chartered universities, six private universities with LIA and four registered universities, as depicted in Chart 4.4.

Chart 4.4 also shows that four (17%) of the 24 private chartered universities had staff numbering between three and 21. Chart 4.4 also indicates that three (12%) out of the 24 universities had library staff of between 11 and 20.

Chart 4.4: Number of university library staff
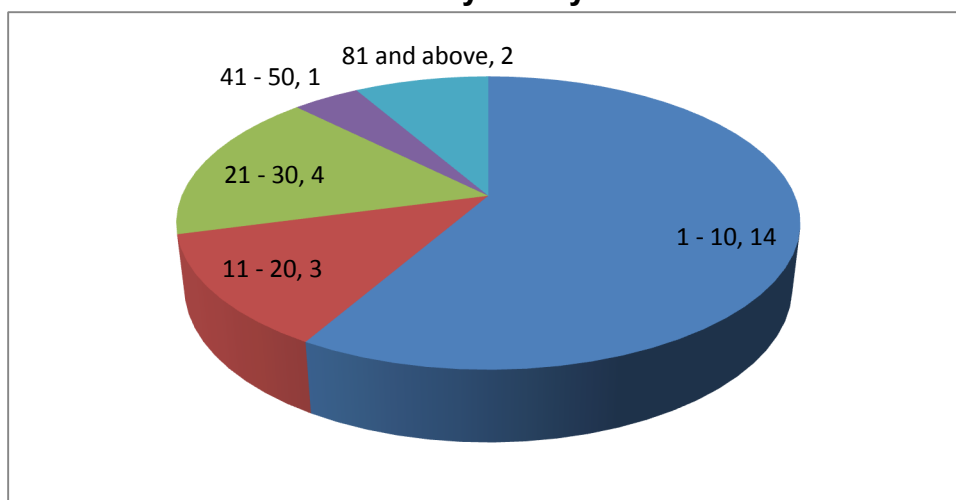
In response to the question related to the qualifications of the library staff, 22 (81%) out of the 27 respondents indicated that the total number of staff in their libraries with

bachelors degree were 80, as shown in Chart 4.5. Respondents from private chartered universities indicated that had 36, public universities had 24, private universities with LIA had 16 and private registered universities had only four members of staff with bachelors degrees

Chart 4.5 shows that 19 (70%) out of the 24 respondents indicated that the number of library staff with Masters degrees stood at 74 in the universities. Of these, 33 were from nine private chartered universities, 30 from three public universities and eight from four private universities with LIA. Three were from three private registered universities, as shown in Chart 4.5.

Only nine out of the 22 respondents held doctorate degrees. They were from four private chartered universities and two public university libraries, as shown in Chart 4.5.

Chart 4.5: Qualifications of university library staff
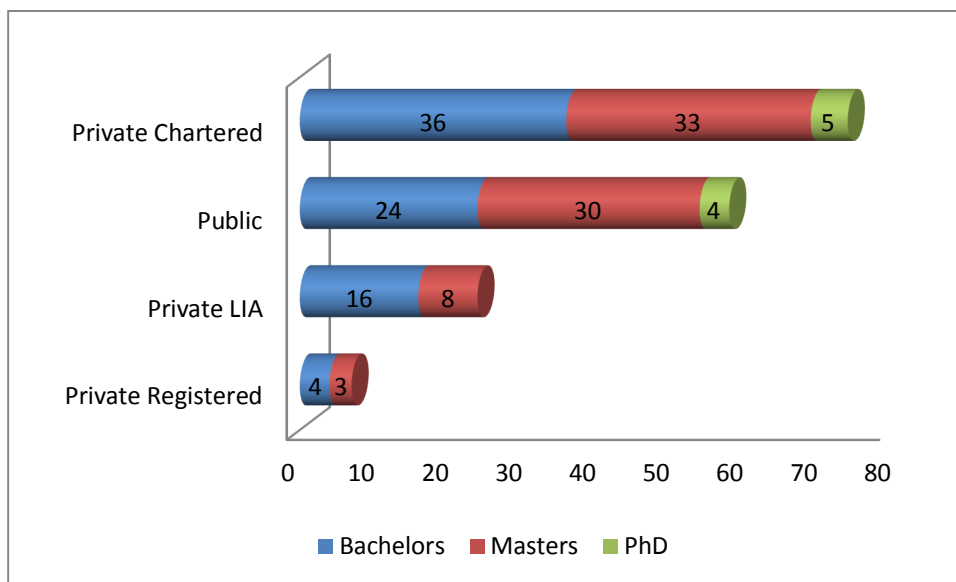
4.2 Accreditation, a process of external quality assurance

As mentioned in Chapter One, Section 1.1.1.3, only private universities are accredited by the Commission for Higher Education (CHE) in Kenya. Therefore, data analysis in this section is only for the private accredited universities. There was a 92% response rate, meaning 22 out of the 24 librarians from private universities completed the

surveys. They included all the 11 private chartered universities, seven of the nine private universities with LIA, and all the four private registered universities.

4.2.1 Role of accreditation in university libraries

The most frequently cited role of accreditation in university libraries was "quality assurance", reported by 19 (86%) out of the 22 respondents, as shown in Table 4.4. The respondents were from 10 out of the 11 private chartered universities, all the seven private universities with LIA and two of the four private registered universities, as shown in Table 4.4.

Award of status was the second most cited role of accreditation, reported by 18 (82%) of the 22 respondents. They were from eight private chartered universities, six private universities with LIA, and four registered universities as shown in Table 4.5.

Table 4.4 indicates that five (24%) of the 22 respondents reported that public accountability was a role of accreditation. These included three private chartered universities, one private university with LIA, and one private registered university. Only three (14%) of the universities, two private chartered and one private with LIA, cited funding as a role of accreditation. Table 4.4 also shows how each category of the private universities cited the different roles of accreditation.

Table 4.4: Role of accreditation as cited by private universities

Private Universities	Role of accreditation			
	Quality Assurance	Public Accountability	Award of Status	Funding
Private Chartered	10	3	8	2
Private with LIA	7	1	6	1
Private Registered	2	1	4	3
Total	19	5	18	6

4.2.2 Strengths of accreditation

In response to an open-ended question, "Can you describe the strengths of accreditation?", 21 (95%) of the 22 respondents cited conformity with standards as the greatest strength of accreditation, as shown in Table 4.5. They were from 10 private chartered universities, seven private universities with LIA and all the registered private universities, as shown in Table 4.5. One of the respondents noted that accreditation "sets standards that a library should attain in providing resources and services that support learning and instruction that it provides". Another one noted, "Accreditation sets benchmarks in terms of collection and infrastructure building".

Quality assurance was the second most cited strength of accreditation, mentioned by 13 (59%) of the 22 respondents. These included respondents from seven private chartered universities, four private universities with LIA and two registered universities, as shown in Table 4.5. One of the respondents reported, "Accreditation ensures that the institution has adequate resources and staff in the library, which leads to quality education".

Increased funding was cited by six (27%) of the 22 respondents as strength of a accreditation, some reported that "accreditation helped institutions appreciate libraries and also invest in them".

Only five (23%) of the 22 respondents indicated that public accountability was also strength of accreditation. They included respondents from three private chartered universities, one from a private university with LIA and the other respondent from a private registered university, as shown in Table 4.5. One respondent reported that accreditation increased "credibility, recognition and donor confidence".

Enhanced reputation of library staff was reported by only five (23%) of the 22 respondents as being one of the strengths of accreditation. The respondents were from two private chartered universities and one registered university.

Table 4.5 indicates that four (18%) of the 22 respondents from two private chartered and two registered universities cited improvement of library services as a strength of accreditation. One of the respondents reported that accreditation "certifies the library's

competency in its role of ensuring adequacy, relevance and quality of information resources and facilities to facilitate quality learning and teaching in various academic programs+.

Table 4.5: Strength of accreditation in university libraries in Kenya

Private Universities	Strength of accreditation in university libraries in Kenya					
	Conformity with standards	Quality assurance	Increased funding	Improvement of library services	Public accountability	Enhanced reputation of library staff
Private Chartered	10	7	2	2	3	2
Private with LIA	7	4	2	-	1	-
Private Registered	4	2	2	2	1	1
Total	21	13	6	4	5	3

4.2.3 Improvement of the accreditation process

An open-ended question %What needs to be improved about the accreditation process?+ was answered by 19 (86%) out of the 22 respondents. Nine (41%) out of the 19 respondents noted that more time should be spent in the library during visits by CHE in order to improve accreditation process, as shown in Table 4.6. These included respondents from six private chartered universities, two private universities with LIA and one registered university, as shown in Table 4.6. One university librarian reported, %More time should be spent in the library to enable more refinement and thorough inspection because aspects such as their strategic plans and action plans conformity these with these documents, annual reports need to be looked at+.

Table 4.6: Improvement of the accreditation process

Private Universities	Improvement of accreditation process				
	More time should be spent in the library during the visits	Regular follow-ups	Consider changing information environment	Avoid conflict of interest by peer evaluators	Appreciate efforts of institutions
Private Chartered	6	4	-	-	-
Private with LIA	2	-	1	1	-
Private Registered	1	-	2	1	1
Total	9	4	3	4	1

Table 4.6 also shows that four of the 22 respondents reported that regular follow-ups should be conducted by CHE to ensure that recommendations made during previous visits were implemented. Three respondents reported that CHE should consider the changing environment of information communication technologies when evaluating libraries. Two respondents reported that peer evaluators should be selected properly to avoid conflict of interest. One respondent from a private university with LIA said that the %little efforts that libraries make should be appreciated by CHE+.

4.2.4 Degree of agreement with statements on accreditation

Questions 18 to 29 were statements on accreditation and respondents were requested to indicate if they strongly agreed, agreed, disagreed, strongly disagreed or were not certain about the statements. See Appendix 2.

4.2.4.1 Accreditation enhanced quality and physical development of library

Table 4.7 shows that 16 (73%) out of the 22 respondents strongly agreed that %Accreditation has enhanced the quality of library and information services in their

institutions+. The 16 were from seven of the 11 private chartered universities, five of seven universities with LIA, and all four private registered universities.

One private university with LIA agreed with the statement. Two respondents, from two private chartered universities disagreed with the statement. Another respondent from a private chartered university strongly disagreed with the statement. Two respondents, one from a private chartered university and the other one from a private university with LIA, did not respond to the statement, as depicted in Table 4.7.

Table 4.7: Frequencies of agreement with statements that accreditation enhanced quality and physical development of library

Statements	Strongly agree		Agree		Disagree		Strongly disagree		Not Certain		No response	
	N	%	N	%	N	%	N	%	N	%	N	%
Accreditation has enhanced the quality of library and information services at my institution	16	73%	1	5%	2	9%	1	5%	-	-		
Accreditation has led to physical development of the university library.	15	68%	5	14%	-	-	-	-	-	-	2	9%

Overall 15 (68%) of the respondents strongly agreed that %Accreditation has led to physical development of the university library+, as shown in Table 4.7. The respondents were from seven of the 11 private chartered universities, five of the seven private universities with LIA and two of the four private registered universities.

Five respondents agreed that accreditation had led to physical development of the university library. The respondents were from three private chartered universities, one university with LIA and a private registered university. Two respondents, one from a private chartered university and the other from a private university with LIA, did not respond to this question.

4.2.4.2 Accreditation led to staff development and improvement of the environment for staff

Only eight (36%) out of the 22 respondents strongly agreed that participation in the accreditation process had led to professional development of staff, as shown in Table 4.8. The respondents were from four private chartered universities, two private universities with LIA and two private registered universities.

Seven (32%) of the 22 respondents from three private chartered universities, three private universities with LIA and a private registered university agreed with the statement. Three respondents from two private chartered universities and a private university with LIA disagreed with the statement. Three respondents, one each from a private chartered university, a private university with LIA and a private registered university, did not respond to the question.

Table 4.8: Frequencies of agreement with statements that accreditation led to professional staff development and improvement of staff environment

Statements	Strongly agree		Agree		Disagree		Strongly disagree		Not Certain		No response	
	N	%	N	%	N	%	N	%	N	%	N	%
Participation in the accreditation process has led to professional staff development training.	8	36%	7	32%	3	14%	1	4%	-	-	3	14%
Participation in the accreditation process has led to improvements in the work environment for staff.	8	36%	8	36%	1	5%	1	5%	2	9%	2	9%

Table 4.8 shows that eight (36%) out of the 22 respondents strongly agreed that participation in the accreditation process had led to an improvement in the environment for the staff. The respondents were from four private chartered universities, two private universities with LIA and two private registered universities.

An equal number that is eight, (36%) out of the 22 respondents agreed with the statement that accreditation process had led to an improvement in the environment for staff, as shown in Table 4.8. They included respondents from five private chartered

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universities, two private universities with LIA and one private registered university. One respondent from a private university with LIA disagreed with the statement.

Only one respondent from a private chartered university strongly disagreed that participation in the accreditation process led to improvement in the environment for staff, as shown in Table 4.8. Two respondents, one from a private university with LIA and the other from a private registered university, were not certain about the statement. Two respondents one from a private chartered university and the other from a private registered university, did not respond to the question.

4.2.4.3 Preparation prior to site visits/inspection

Table 4.9 indicates that 11 out of the 22 (50%) respondents agreed that preparation for accreditation is time consuming. They were mostly from seven of the 11 private chartered universities, three of the four registered universities and one from the seven private universities with LIA. One respondent from a private chartered university disagreed with the statement and two respondents, one from a private chartered university and the other from a private university with LIA, did not respond, as depicted in Table 4.9.

Table 4.9 also shows that eight (36%) of the 22 respondents strongly agreed that preparation for the accreditation visit/inspection was time-consuming. These respondents were from two private chartered universities, five private universities with LIA and one registered university. One respondent from a private chartered university disagreed with the statement. Two other respondents from a private chartered university and a private university with LIA did not respond.

Thirteen (59%) out of the 22 respondents strongly agreed that staff participated in preparing for the visit/inspection, as shown in Table 4.9. The respondents were from three of the four private registered universities, five of the seven private universities with LIA and five of the 11 private chartered universities.

Eight (36%) of the respondents agreed with the statement, one disagreed and two did not respond, as depicted in Table 4.9.

Table 4.9: Frequencies of agreement with statements on preparation prior to site visits/inspection

Statements	Strongly agree		Agree		Disagree		Strongly disagree		Not Certain		No response	
	N	%	N	%	N	%	N	%	N	%	N	%
Preparation for the accreditation visit/inspection is time-consuming.	8	36%	11	50%	1	5%			-	-	2	9%
The University library staff participated in preparing for the visit/inspection	13	59%	8	36%	1	5%	1	5%	2	9%	2	9%
The institutions are adequately trained on how to prepare for the accreditation visit.	1	5%	4	18%	11	50%	3	14%	1	5%	2	9%

Table 4.9 shows that eleven (50%) out of the 22 respondents disagreed that universities were adequately trained on how to prepare for the accreditation visit. They were from six of the 11 private chartered universities, two of the seven private universities with LIA and three of the four private registered universities.

Four (18%) of the 22 respondents in the survey agreed with the statement that universities are adequately trained on how to prepare for the accreditation visit. Three respondents strongly disagreed, one was not certain, and two did not respond as depicted in Table 4.9.

The involvement of university library staff was further explored during the face-to-face interviews held with four respondents from two private chartered universities and two private universities with LIA. All of them confirmed that they were involved in the accreditation process. One respondent reported that she was involved "from the onset and during inspection"; another respondent also reported that she was "involved from the beginning, before the implementation of a new programme, and the faculty consults with the her for sources of information for the curriculum".

One other respondent reported that he was %involved in the design of the new library building as recommended by CHE+, and the last one noted that she %attends all meetings where accreditation processes and decision making are made+.

4.2.4.4 Site visit/inspection of university libraries

Table 4.10 indicates that 12 (55%) out of the 22 respondents strongly agreed that participation of experienced university librarians during the site visit stimulated and assisted the institutions efforts towards achieving self-determined goals. The respondents were from five of the eleven private chartered universities, four of the seven private universities with LIA and three of the four registered universities who responded to this question.

Table 4.10: Frequencies of agreement with statements on site visits/inspection

Statements	Strongly agree		Agree		Disagree		Strongly disagree		Not Certain		No response	
	N	%	N	%	N	%	N	%	N	%	N	%
Participation of experienced university librarians during the site-visit stimulates and assists the university library towards achieving self-determined goals	12	55%	7	32%	-	-	-	-	-	-	3	14%
Recommendations of the visiting/inspection team are usually valid.	10	45%	10	45%			-	-			2	10%

Table 4.10 shows that seven (32%) out of the 22 private universities agreed with the statement, including four (36%) of the 11 private chartered universities, two of the seven (29%) private universities with LIA and one registered university. Three respondents from two private chartered universities and one private university with LIA did not respond, as shown in Table 4.10.

Table 4.10 also indicates that ten (45%) out of the 22 respondents strongly agreed that recommendations of the visiting/inspection team were usually valid; they were from five of the 11 private chartered universities, three of the seven private universities with LIA and one of the four registered universities.

An equal number, ten (45%) out of the 22 respondents, also agreed that the recommendations of the visiting/inspection team were usually valid, as shown in Table 4.10. They included respondents from five of the 11 private chartered universities, three of the seven private universities with LIA and two of the four registered universities. Two respondents from one private chartered university and one private university with LIA did not respond to this question.

4.2.4.5 Follow-up on visits/inspection

Table 4.11 indicates that ten (45%) of the 22 respondents strongly agreed that CHE provided guidance and support following the accreditation visit/inspection. These were from five of the 11 private chartered universities, four of the seven private chartered with LIA and one of the four registered universities.

In addition, eight of the 22 respondents agreed with the statement, and they included respondents from three of the 11 private chartered universities, two of the seven private universities with LIA and three of the registered universities. Only one respondent from a private chartered university disagreed with the statement. Another respondent from a private chartered university was not certain about the statement. Two respondents from a private chartered university and a private university with LIA did not respond to this question, as depicted in Table 4.11.

Twelve (55%) of the 22 respondents strongly agreed that the benefits of the accreditation process were long-term. These included respondents from nine of the 11 private chartered universities, two of the seven private universities with LIA and one of the registered universities

Table 4.11: Frequencies of agreement with statements on follow ups of accreditation visits/inspection

Statements	Strongly agree		Agree		Disagree		Strongly disagree		Not Certain		No response	
	N	%	N	%	N	%	N	%	N	%	N	%
The Commission provided guidance and support following the accreditation visit/inspection	10	45%	8	36%	1	5%	-	-	1	5%	2	10%
The benefits of accreditation process are long-term.	12	55%	7	32%	-	-	-	-	1	5%	2	8%
The benefits of accreditation process are short-term.	8	36%	3	14%	7	32%	-	-	2	6%	2	6%

Only seven of the 22 respondents agreed that the benefits of accreditation process were long term, as shown in Table 4.11. They included respondents from four of the seven private universities with LIA and three of the four registered universities. One respondent from a private registered university was not certain. Two respondents from a private chartered university and a private university with LIA did not respond to this question, as depicted in Table 4.11.

Table 4.11 also shows that eight (36%) of the 22 respondents strongly agreed that the benefits of accreditation were short-term. They included four of the 11 respondents from private chartered universities and two from private universities with LIA and two from a private registered university.

Only three (14%) of the 22 respondents agreed that the benefits of accreditation are short term. They were from a private chartered university, a private university with LIA and a private registered university.

Table 4.11 also indicates that seven (32%) of the 22 respondents disagreed that the benefits of accreditation were short-term. They were from three private chartered

universities, two private registered universities. Two respondents, one from a private chartered university and the other from a private university with LIA, were not certain.

Table 4.12: Perception of university librarians on accreditation

No	Statements	Agreed
1	The University library staff participated in preparing for the visit/inspection.	95%
2	The accreditation process has led to the physical development of the university library.	90%
3	Recommendations of the visiting/inspection team are usually valid.	90%
4	The benefits of accreditation process are long-term.	87%
5	Participation of experienced university librarians during the site-visit stimulates and assists the university library towards achieving self-determined goals.	86%
6	Preparation for the accreditation visit/inspection was time consuming.	86%
7	The Commission provided guidance and support following the accreditation visit/inspection.	81%
8	The accreditation has enhanced the quality of library and information services at my institution	78%
9	Participation in the accreditation process has led to improvements in the work environment for the staff.	72%
10	Participation in accreditation process has led to professional staff development training.	68%
11	The institutions are adequately trained on how to prepare for the accreditation visit.	22.5%
12	The benefits of accreditation process are short-term.	50%

Two other respondents one from a private chartered university and the other from a private university with LIA did not respond. Table 4.12, shows the perceptions of university librarians towards all the statements on agreement.

4.3 University Library Standards

As discussed in Chapter Two, section 2.3.3.3 of this study, standards directly address the quantity, quality, extent and level of suitability of programs, services including the availability in a variety of formats of a collection and staffing in academic libraries. This section analyzed information from respondents to establish the implementation of the guidelines of the Commission for Higher Education (CHE) in evaluating university libraries in Kenya.[1] The attitude of the heads of university libraries towards use of standards was also determined.

All the 27 (100%) respondents from 11 private chartered, seven private with LIA, four private registered and five public universities reported that they had used the guidelines.

4.3.1 Implementation of standards in university libraries in Kenya

The analysis focused on the implementation of the following standards:

- Vision, mission and objective;
- Information resources;
- Organization and access to information resources;
- Information literacy competency;
- Distance library services;
- Library building;
- Administrative structure and library staffing; and
- Library budget.

4.3.1.1 Implementation of the vision, mission and objective standard

The majority, that is 25 (93%) of the 27 respondents, indicated that they had implemented the mission, vision and objective standard in their libraries, as shown in Table 4.13. All the private chartered universities, private universities with LIA and private registered universities in the study indicated that they had implemented the

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[1] *Standards and guidelines for university libraries, 2007*

standard. Three respondents from five public universities also indicated that they had implemented the standard, as shown in Table 4.13.

It was also confirmed during the follow up-interview with the four respondents from private universities that they had, indeed, formulated the mission statements for their university libraries. The mission statements were also aligned to the institutionsqmission statement. Four respondents further reported that all their library staff were involved in the development of their vision and mission statement.

Table 4.13: Frequencies of implementation of standards on vision/mission, information resources and organization/access

Universities	Standards and guidelines for university libraries					
	Vision, mission and objective standard		Information resources		Organization and access of information resources	
	N	%	N	%	N	%
Private Chartered	11	100%	11	100%	11	100%
Private with LIA	7	100%	7	100%	6	86%
Private Registered	4	100%	4	100%	4	100%
Public	3	60%	3	60%	4	80%
Total	25	93%	24	89%	25	93%

4.3.1.2 Implementation of the information resources standard

Results indicate that the information resources standard had been implemented by 24 (89%) of the 27 respondents, as shown in Table 4.13. The respondents represented all 11 (100%) private chartered universities, six (86%) of the seven private universities with LIA, all the four (100%) private registered universities and three (60%) of the five public

universities. Only one private university with LIA and two public universities had not implemented the standard.

In response to an open-ended question, "Any other comment?", a respondent reported that "the use of figures, for example 60 titles per programme, is not a practical measure because in some instances, the size of the population does not warrant it. The use of percentages would be a fairer measure and some measures do not account for electronic resources". Another respondent also noted that the "guidelines on information resources are not clear; a collection of 60 titles per programme is not clear, so there is a need to define what programme means, does it mean a course. A determining formula for ascertaining the adequacy of multiple copies should also be specifically stipulated". One other respondent suggested that "there was need to expand the standards on electronic resources".

4.3.1.3 Implementation of the organization and access to information standard

The results indicate that 25 (93%) of the 27 respondents had implemented the standard on organization and access to information, as shown in Table 4.13. All the 11 private chartered universities, six private universities with LIA, all the four private registered and four of the five public universities had implemented the standard.

In response to an open-ended question, one respondent noted that the standards on organization and access "are okay, only that they are biased in some areas like use of LC instead of allowing usage of other schemes".

4.3.1.4 Implementation of the information literacy competency standard

Table 4.14 shows that 20 (74%) of the 27 respondents had implemented the information literacy competency standard in their universities libraries. They were from seven of the 11 private-chartered universities, six of the seven universities with LIA, two of the four private registered universities and all the four public universities, as shown in Table 4.14.

Table 4.14: Frequencies of implementation of Information literacy competency, distance library services and library building standards

Universities	Standards and guidelines for university libraries					
	Information literacy competency standard		Distance library services standard		Library building standards	
	N	%	N	%	N	%
Private Chartered	7	64%	3	27%	9	64%
Private with LIA	6	86%	1	14%	6	86%
Private Registered	2	50%	1	25%	3	75%
Public	5	100%	2	40%	4	80%
Total	20	74%	7	26%	22	81%

In response to the question, "How does the library contribute to learning in the university?", all the five respondents interviewed reported that they contribute to learning in the university by providing information resources, participate in senate meetings, curriculum design, development meetings, organize library committee and conduct orientation/instruction for new students. Out of the five, three supported learning by teaching information literacy competencies (ILC) in the universities, as shown in Table 4.14. When asked the question, "How do you conduct information literacy programme lessons?" three respondents reported that they conducted such programmes through courses and orientation, as shown in Table 4.15.

Three interviewees also reported that they assessed students at the end of the course by examination, as shown in Table 4.15. The findings also showed that the information literacy competency course was designed by the university libraries and offered in another department. Only one respondent from a private university with LIA reported that the course was offered by the library department. In the other two universities, the

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ILC course was offered from the communications department. Two interviewees reported that they offered information literacy through orientation to new students and by having sessions with individual users.

Table 4.15: Information literacy competency (ILC)

Universities interviewed	Implementation of ILC programmes in university				
	How do you conduct ILC Programmes?		Course examinable?	Course designed by the university library	Is course taught as a unit and in which department?
	Courses	**Orientation**			
Private LIA (1)	Yes	Yes	Yes	Yes	Information literacy course/library department
Private LIA (2)	No	Yes	N/A	4	N/A
Private Chartered (3)	No	Yes	N/A	N/A	N/A
Private Chartered (4)	Yes	Yes	Yes	Yes	Communications course/Communications department
Public (5)	Yes	Yes	Yes	Yes	Communication Skills course/Communications department

In response to the question, "How do you determine the impact of the information literacy programme?" two interviewees reported that they used feedback forms, questionnaires and interviews. One interviewee indicated that they "relied on users comments". Another respondent reported that they had an open-door policy and interviewed users during the orientation programme. One other interviewee used the feedback form only to determine the impact of the ILC programme.

One interviewee also reported, "We have already developed a curriculum for information literacy classes, which will be examinable with a pass/fail by 2011".

4.3.1.5 Implementation of the distance library standards

The results indicate that the distance library standards had not been implemented by 20 (74%) of the 27 respondents, as shown in Table 4.14. Seven of the 27 respondents who had utilized the distance library standard were from three of the 11 private chartered universities, one of the seven private universities with LIA, one of the four private registered universities and two of the five public universities, as shown in Table 4.14.

4.3.1.6 Implementation of the library building standard

The library building standard had been implemented by 22 (81%) of the 27 respondents as shown in Table 4.14. The respondents who indicated that they had implemented the standard included nine from the 11 private chartered universities, six from the seven private universities with LIA, three from the four registered universities and four from the five public universities, as shown in Table 4.14.

4.3.1.7 Implementation of the administrative structure and staffing

Table 4.16 shows that 16 (67%) of the 27 respondents indicated that they had implemented the administrative structure. They were from seven of the 11 private chartered universities, four of the seven private universities with LIA, only one of the four private registered universities and four of five public universities.

The library staffing standard had been implemented by 15 (56%) of the 27 respondents, as indicated in Table 4.16. The respondents who had implemented the standard on staffing included seven from the 11 private chartered universities, three of the seven universities with LIA, two of the four registered universities and three of the five public universities.

In response to an open-ended question, a respondent noted, "The library is fully represented in the major senior management organs of the university". Another respondent reported, "The guidelines on administrative structure should be amended so that the university librarian reports to the Vice Chancellor".

Table 4.16: Frequencies of implementation of standards on administrative structure, library staffing and library budget

Universities	Standards and guidelines for university libraries					
	Administrative structure		Library staffing		Library budget	
	N	%	N	%	N	%
Private Chartered	9	64%	7	64%	8	73%
Private with LIA	4	57%	3	43%	3	43%
Private Registered	1	25%	2	50%	2	50%
Public	4	80%	3	60%	-	100%
Total	18	67%	15	56%	13	48%

4.3.1.8 Implementation of the library budget standard

The library budget standard had been implemented by 13 (48%) of the 27 respondents, as shown in Table 4.16. The majority of the respondents were from eight of the 11 private chartered universities, three of the four private universities with LIA and two of the four private registered universities. The public universities had not implemented this standard. Table 4.17 lists how each standard was implemented, by university libraries.

4.3.2 Attitude of respondents towards use of standards in evaluation of library services

In order to establish the attitude of university librarians towards the use of "Standards and Guidelines for Evaluating University Libraries, 2007", respondents were requested to indicate if they strongly agreed, agreed, disagreed, strongly disagreed or were not certain. Data in this section was analyzed to establish the attitude of the respondents towards the use of standards in quality assurance.

Table 4.17: Implementation of CHE Standards in University Libraries

No	Standards	Implemented	Not implemented
1	Vision, mission and objective	93%	7%
2	Organization and access of information resources	93%	7%
3	Information resources	89%	11%
4	ICT Resources	89%	11%
5	Library building	81%	19%
6	Information literacy competency	74%	26%
7	Administrative structure	67%	32%
8	Library staffing	56%	44%
9	Library budget	48%	52%
10	Distance library services	26%	74%

4.3.2.1 Standards on the quantity, quality and extent suitability of library services and staffing

Only 16 (59%) of the 27 respondents strongly agreed that standards directly addressed the quantity, quality and extent level of suitability of library services and staffing, as shown in Table 4.18. The respondents who strongly agreed were from three private chartered universities, four private universities with LIA, three private registered universities and four public universities.

Only eight (30%) of the 27 respondents agreed with this statement. They included respondents from five private chartered universities, a private university with LIA, one private registered university and a public university. Only two respondents from a private chartered university and a private university with LIA disagreed with the

statement. A respondent from a private university with LIA did not respond to this question, as shown in Table 4.18.

Table 4.18: Frequencies of agreement with statements on standards on quantity, quality and extent of suitability of library services and staffing

Statements on standards developed by CHE	Strongly agree		Agree		Disagree		Not Certain		No response	
	N	%	N	%	N	%	N	%	N	%
Standards and guidelines addressed the quantity quality, extent level of suitability of library services and staffing	16	59%	8	30%	2	7%	-	-	1	4%
Standards should be revised regularly	23	85%	3	11%	-	-	-	-	1	4%

4.3.2.2 Standards should be revised regularly

Table 4.18 shows that 23 (85%) of the 27 respondents strongly agreed that the standards developed by CHE should be reviewed regularly. The 23 respondents were from nine private chartered universities, six private universities with LIA, four private registered universities and four public universities, as shown in Table 4.18. Only three respondents from two private chartered universities and a public university agreed with the statement. A respondent from a private university with LIA did not respond to this question, as shown in Table 4.18.

In response to an open-ended question, four respondents reported that the standards should be revised and reviewed regularly. Another respondent noted that standards %need constant updates in order to keep in tandem with contemporary trends in the provision and access to information resources+.

4.3.2.3 Standards developed by CHE for university libraries are up-to-date and realistic.

The results show that 13 (48%) of the 27 respondents agreed that the standards developed by CHE are up-to-date, as shown in Table 4.19. They included respondents from seven private chartered universities, two private universities with LIA, one private registered university and three public universities.

Only four (15%) of the 27 respondents strongly agreed that standards developed by CHE are up-to-date, as shown in Table 4.19. The four respondents were from one private chartered university, one private registered university and two private universities with LIA. Six respondents from two private chartered universities, one private university with LIA, one private registered university and two public universities disagreed with the statement. One respondent from a private university with LIA strongly disagreed with the statement. Two respondents from a private chartered university and a private registered university were not certain if the standards developed by CHE were up-to-date. One respondent from a private university with LIA did not respond to this question, as shown in Table 4.19.

Table 4.19: Frequencies of agreement with statements on standards developed by CHE are up-to-date and realistic

Statements on standards developed by CHE	Strongly agree		Agree		Disagree		Strongly disagree		Not Certain		No response	
	N	%	N	%	N	%	N	%	N	%	N	%
Standards developed by CHE for University Libraries are up-to-date	4	15%	13	48%	6	22%	1	4%	2	7%	1	4%
Standards developed by CHE are realistic	6	22%	17	63%	2	7%	-	-	1	4%	1	4%
Standards should be based on evidence of normative practice	15	56%	10	37%	1	4%					1	4%

Table 4.19 also shows that 17 (63%) of the 27 respondents agreed that standards developed by CHE were realistic. They included respondents from eight private chartered universities, one private university with LIA, three private registered universities and all the five public universities. Only six (22%) of the 27 respondents strongly agreed that the standards developed by CHE are realistic, they were from two

private chartered universities, three private universities with LIA and one private registered university.

Two respondents from two private universities with LIA disagreed with the statement that the standards developed by CHE were realistic. One respondent from a private chartered university was not certain about the statement. One respondent from a private university with LIA did not respond, as shown in Table 4.19.

4.3.2.4 Standards should be based on evidence of normative practice

Table 4.19 shows that more than half, that is 15 (56%) of the 27 respondents strongly agreed that standards should be based on evidence of normative practice. They were from four private chartered universities, six private universities with LIA, two private registered universities and three public universities.

Table 4.20: Agreements with statements on CHE standards and guidelines

	Statements on CHE standards and guidelines	Agreed	Dont Agree
1	Standards should be revised regularly to ensure that the statements are relevant to the current state of the profession	96%	4%
2	Standards should be based on evidence of normative practice	93%	10%
3	Standards and guidelines addressed the quantity quality, extent level of suitability of library services and staffing	89%	11%
4	Standards developed by CHE are realistic	85%	10%
5	Standards developed by+CHE for University Libraries+are up-to-date	63%	13%

Table 4.19 also indicates that 10 (37%) of the 27 respondents agreed that standards should be based on evidence of normative practice. The respondents were from six private chartered universities, two registered universities and two public universities. One respondent from a private chartered university disagreed with the statement, and

only one respondent from a private university with LIA did not respond, as shown in Table 4.19.

Table 4.20 shows the librarians perceptions statements on library standards.

4.4 Performance Measurements in Kenyan University Libraries

The previous section established how standards had been implemented in university libraries by the respondents. This section identified the performance indicators and methods used for measuring quality in university libraries. These included input/output measures (library statistics) and outcome measures (service quality, customer satisfaction and information literacy).

4.4.1 Input/output measurements

Chart 4.6 indicates that 21 (79%) of the 27 respondents collect library statistics in Kenyan university libraries. They included respondents from eight private chartered universities, six private universities with LIA, two private registered universities and five public universities.

Chart 4.6: University library statistics

	Private Chartered	Private LIA	Private Registered	Public
Yes	8	6	2	5
No	2	1	2	0
No response	1	0	0	0

The interviewees confirmed that they collected library statistics annually and the automated library systems had enhanced and data collection. They further indicated that they collected these statistics through computerized library management systems. One of the interviewees noted, "The turn-style machine gives statistics, daily entries of

users, number of borrowers, new arrivals, and assessment of defaults and suitability of loan repayments.

In response to an open-ended question, "What does your library use the statistical data for?" the respondents indicated that they used the statistics for planning, decision-making, to improve service delivery, budgeting, report writing and collection development.

Table 4.21: Frequencies of use of library statistics in Kenyan university libraries

Universities	What do you use the library statistics for?					
	Planning	Decision - making	Improve service delivery	Budgeting	Report writing	Collection development
Private Chartered	2	1	6	1	1	7
Private with LIA	4	3	4	2	3	1
Private Registered	1	1	1	-	-	1
Public	4	4	1	-	1	2
Total	11	9	12	3	5	11

Table 4.21 shows that 12 (44%) of the 27 respondents indicated that they used the data collected to improve service delivery in their university libraries. The respondents were from six private chartered universities, four private universities with LIA, one private registered university and one public university.

Table 4.21 also shows that 11 (41%) of the 27 respondents indicated that they used the statistical data collected for planning in their libraries. These included respondents from two private chartered universities, four private universities with LIA, one private registered university and four public universities.

An equal number, that is 11 (41%) respondents, indicated that they used the statistics collected for collection development. The respondents were from seven private chartered universities, one private university with LIA, one private registered university and two public universities, as shown in Table 4.21.

Nine (33%) of the 27 respondents from one private chartered university, three private universities with LIA, one private registered university and four public universities indicated that they used the statistics for decision-making as shown in Table 4.21.

Chart 4.7: Outcome measurements in university libraries

	Private Chartered	Private LIA	Private Registered	Public
■ Yes	3	3	1	2
■ No	7	4	3	3
■ No response	1	0	0	0
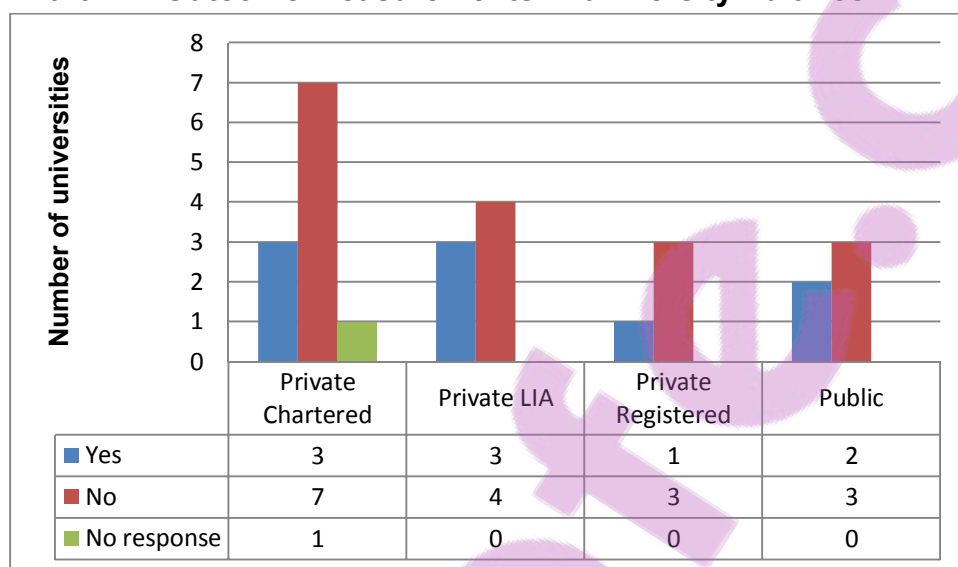
Five (18%) of the 27 respondents indicated that they used the statistics collected for report writing; they were from one private chartered university, three private universities with LIA and one public university. Three respondents from one private chartered university and two private universities with LIA used the data collected for budgeting as shown in Table 4.21.

4.4.2 Outcome measurements
Chart 4.7 indicates that only nine (33%) of the 27 respondents collected outcome measures in Kenyan university libraries. Outcome measures had been collected at nearly the same rate in three (43%) of seven private universities with LIA and two (40%) of the five public universities. The private chartered universities had implemented this measure in a limited way in only three (27%) of the 11 libraries. The same applied to the

registered universities, where only one respondent indicated that they measure library outcomes, as depicted in Chart 4.7.

Table 4.22: Methods used to collect outcome measurements in Kenyan university libraries

Universities	What methods do you use to collect outcome data?			
	Evaluation forms/feedback questionnaires	Evaluation forms/feedback questionnaires/surveys and interviews	No response	Total
Private Chartered	1	2	-	3
Private with LIA	2	1	-	3
Private Registered	-	-	1	1
Public	2	-	-	2
Total	5	3	1	9

4.4.2.1 Methods used to collect outcome data

The respondents were also requested to indicate the methods used to collect outcome data in their libraries. Only five of the nine respondents who indicated that they measured library outcomes responded to this question. The five respondents indicated that they used evaluation forms/feedback questionnaires to collect outcome data, as shown in Table 4.22. Three of the nine respondents reported that they used evaluation forms/feedback questionnaires, surveys and interviews to collect outcome data, as shown in Table 4.22.

4.4.2.2 Types of outcome measurements

Nine respondents from three private chartered universities, three private universities with LIA, one private registered university and two public universities indicated that they collected service quality and customer satisfaction measurements.

Table 4.23: Types of outcome measurements collected by Kenyan university libraries

Universities	Types of outcome measurements collected			
	Service quality and customer satisfaction	Journal usage	Usage of various types of ICT	Information literacy
Private Chartered	3	2	2	2
Private with LIA	3	1	1	2
Private Registered	1	-	-	-
Public	2	2	1	1
Total	9	5	3	5

In addition, five respondents reported that they collected journal usage measurements; they were from two private chartered universities, one private university with LIA and two public universities.

Two respondents from two private chartered universities, one private university with LIA and one public university reported that they collected data on the use of various types of ICT. Five other respondents from two private chartered universities, two private universities with LIA and one public university indicated that they collected information literacy outcome measures, as depicted in Table 4.23.

4.4.2.3 The attitude of respondents towards outcome measurements

The questionnaire survey also sought to find out the attitude of the respondents towards outcome measurements, namely skills, knowledge and understanding, attitudes and values, and behaviors. Twenty two (81%) of the 27 respondents indicated the order of importance of outcome measurements, as shown in Table 4.24.

Table 4.24: Frequencies of the importance of outcome measurements

Outcome measures	Very important		Important		Somewhat important		Less important		Total
	N	%	N	%	N	%	N	%	
Skills	19	86%	3	14%					22
Knowledge and understanding	17	77%	5	23%					22
Attitudes and values	14	67%	7	32%	1	5%			22
Behaviours	12	55%	3	14%	6	27%	1	4%	22

The skills outcomes measurement was cited by 19 (86%) of the 22 respondents as being very important, as shown in Table 4.24. The respondents were from eight private chartered universities, seven private universities with LIA, one registered university and three public universities. Only three (14%) of the 22 respondents from two private chartered universities and a public university indicated that the skills outcome measurement was important, as indicated in Table 4.24.

The knowledge and understanding outcome measurement was cited as very important by 17 (77%) of the 22 respondents, as shown in Table 4.24. They included eight private chartered universities, four private universities with LIA, one private registered university and four public universities. Only five (23%) of the 22 respondents from three private universities with LIA and two registered universities indicated that the knowledge and understanding outcome measurement was important, as shown in Table 4.24.

The attitudes and values outcome measure was cited as very important by 14 (64%) of the 22 respondents, as shown in Table 4.24. The respondents were from four private

chartered universities, five private universities with LIA, and one private registered university. Seven (32%) of the 22 respondents also cited the attitude and values outcome measure as being important, as shown in Table 4.24, they were from four private chartered universities, two private universities with LIA and one private registered university. One respondent from a public university reported that the attitudes and values outcome measurement was somewhat important, as indicated in Table 4.24.

The behaviours outcome measurement was the lowest rated with only 12 (55%) of the respondents declaring that it was very important, as shown in Table 4.24. The respondents were from four private chartered universities, three private universities with LIA, two private registered universities and three public universities.

Six (27%) of the 22 respondents from three private chartered universities, two private universities with LIA and one registered university also indicated that the behaviours outcome measurement was somewhat important. Three respondents from one private chartered university and two private universities with LIA indicated that the behaviors outcome measurement was important, and one respondent from a public university indicated that it was less important, as shown in Table 4.24.

The importance of outcome measurement was further explored during the interview with five respondents. In response to the question, "How do you determine that students' learning has improved through their contact with the library?" One interviewee noted "We have an information feedback system through suggestion boxes. We analyze their comments and in this way we are able to tell their level of satisfaction". Another interviewee observed, "We receive feedback from lecturers on student improvement, on the use of references and bibliography, and by interacting with faculty they learn of type of papers students present".

4.4.3 Customer satisfaction survey
Out of the 27 university libraries that participated in the study only 17 (63%) indicated that they conducted customer satisfaction surveys. Ten (59%) of the 17 respondents indicated that they conducted customer satisfaction surveys annually while three

conducted it biannually. Three other respondents stated that they conduct the customer surveys regularly and one respondent did not respond.

Table 4.25 indicates that 15 of the 27 respondents stated that the most recent customer survey conducted was in 2009. The customer surveys had been conducted in 2009 by four private chartered universities, five private universities with LIA, two private registered universities and four public universities. Two other respondents from two private chartered universities conducted the customer surveys in 2008, as shown in Table 4.25.

Table 4.25: Year that customer survey was conducted

Type of institution	2009	2008	Total
Private Chartered	4	2	6
Private LIA	5	-	5
Private Registered	2	-	2
Public	4	-	4
Total	15	2	17

Table 4.26 shows that 17 (63%) of the 22 respondents reported that they surveyed students. Ten of the 17 respondents indicated that they surveyed students, faculty and staff and seven respondents showed that they surveyed students, as shown in Table 4.26.

In response to an open-ended question 16 (94%) of the 17 respondents indicated that the results of the survey were used for planning. Four respondents indicated that they used the results for marketing, and four others said they used the results to seek funding. Thirteen respondents also pointed out that they used the results of the survey to identify their strengths and weaknesses, and two others reported that they used the results to improve library and information services.

Table 4.26: Categories of customers of university libraries who were surveyed

Type of institution	Students	Students, Faculty and Staff	Total
Private Chartered	3	3	6
Private LIA	1	4	5
Private Registered	1	1	2
Public	2	2	4
Total	7	10	17

When asked about the methods they used to conduct customer satisfaction in the library, 14 (82%) of the 17 respondents reported that they used questionnaires and interviews. They were from four private chartered universities, five private universities with LIA, two private registered universities and three public universities.

Two other respondents from one private university with LIA and one public university indicated that they used evaluation forms, as shown in Table 4.27. One respondent from a private chartered university did not respond to this question.

When asked, %Why some of respondents do not conduct customer satisfaction surveys?+ three respondents noted that it was not required by the employer, another respondent reported that it was %too expensive to administer+, and one other respondent reported that it was due to %Poor response from users+. Out of the 17 respondents who indicated that they conducted customer satisfaction surveys, only 10 responded to this question. The other seven respondents from four private chartered universities, two private universities with LIA and one public university did not respond to this question.

Table 4.27: Methods used to conduct customer satisfaction surveys in Kenyan university libraries

Universities	Methods used to conduct customer satisfaction surveys		
	Questionnaires and interviews	Evaluation forms	No response
Private Chartered	4	-	1
Private with LIA	5	1	-
Private Registered	2	-	-
Public	3	1	-
Total	14	2	1

4.5 The Attitude of respondents towards performance measurement

The importance of performance criteria and indicators for assessing quality was explored in the questionnaire by asking the respondents to rate them on a 5 point Likert scale where 1= very important, 2= important, 3 = somewhat important, 4=less important and 5= not certain. This section focused on the attitude of the respondents towards the performance criteria and the indicators on leadership, planning and strategy, management of resources and partnerships, management of internal processes, customer perspective, staff outcomes, the impact of society, process change and management, and financial perspective.

4.5.1 Leadership performance criteria

This section presents the results of the respondent's definition of vision and mission, development of library management systems and the promotion and training of learning and activities to improve the library's performance as shown in Table 4.28.

4.5.1.1 Definition of vision, mission performance indicator

The definition of vision and mission performance indicator was cited by 25 (93%) of the 27 respondents as being very important, as shown in Table 4.28. They were from 10 private chartered universities, seven private universities with LIA, four private registered universities and four public universities. Only two respondents from a private chartered university and a public university cited the definition of vision, mission performance indicator as important.

Table 4.28: Frequencies of the importance of leadership performance criteria

Performance indicators	Very important		Important		Some what important		Less important	
	N	%	N	%	N	%	N	%
Definition of vision and mission	25	93%	2	7%	-	-	-	-
Development of library management system	21	78%	6	22%	-	-	-	-
Promotion and training of learning and activities to improve the library's performance	19	70%	7	25%	-	-	1	-

4.5.1.2 Development of the library management system performance indicator

The development of a library management system performance indicator was cited by 21 (78%) of the 27 respondents as being very important, as shown in Table 4.28. They were from nine private chartered universities, five private universities with LIA, three private registered universities and four public universities. Only six of the 27 respondents ranked the indicator important; they were from two private chartered universities, two private universities with LIA, one private registered university and one public university.

4.5.1.3 Promotion and training of learning activities to improve the library's performance indicator

The promotion and training of learning activities to improve the library's performance indicator was ranked very important by 19 (70%) of the 27 respondents, as shown in Table 4.28. They included respondents from nine private chartered universities, six

private universities with LIA, two private registered universities and two public universities.

4.5.2 Planning and strategy performance criteria

This section presents the results on the attitudes of respondents towards indicators of the planning and strategy performance criteria, conduct of surveys of library users, strategic plan and benchmarking practices, as shown in Table 4.29.

4.5.2.1 Strategic plan performance indicator

Table 4.29 indicates that the strategic plan performance indicator was by 25 (93%) of the 27 respondents as being very important. The respondents were from 11 private chartered universities, six private universities with LIA, four private registered universities and four public universities. Only two respondents from a private university with LIA and a public university cited the indicator as important.

Table 4.29: Frequencies of the importance of planning and strategy performance criteria

Performance indicators	Very important		Important		Some what important	
	N	%	N	%	N	%
Conduct of surveys of library users	19	70%	8	30%	-	-
Strategic plan	25	93%	2	7%	-	-
Benchmarking practices	20	74%	6	22%	1	4%

4.5.2.2 Benchmarking practices performance indicator

The benchmarking practices performance indicator was also highly ranked as very important by 20 (74%) of the 27 respondents, as shown in Table 4.29. They were respondents from nine private chartered universities, five private universities with LIA, two private registered universities and four public universities. Six (22%) out of the 27 respondents ranked it important; they were from a private chartered university, two private universities with LIA, two registered universities and a public university.

4.5.2.3 Conduct of surveys on library users' performance indicator

The conduct of surveys on library usersq performance indicator was ranked very important by 19 (70%) of the 27 respondents, as shown in Table 4.29. They included respondents from nine private chartered universities, five private universities with LIA, three private registered universities and four public universities.

4.5.3 Management of resources and partnership performance criteria

This section presents the results on the attitudes of respondents towards indicators on the management of resources and partnership performance criteria, namely number of monographs/journals (print), number of reading places (seats) in the library, opening hours per week and partnership to minimize costs, as shown in Table 4.30.

4.5.3.1 Number of monographs/journals (print) performance indicator

The number of monographs/journals (print) was ranked very important by 15 (56%) of the 27 respondents, as indicated in Table 4.30. They were from eight private chartered universities, two private universities with LIA, two private registered universities and three public universities.

Table 4.30 indicates that six (22%) of the 27 respondents indicated that the management of resources and partnership performance indicator was important. The respondents were from two private chartered universities, three private universities with LIA and one private registered university. Five (18%) of the 27 respondents from two private universities with LIA, a private registered university and two public universities cited the indicator as somewhat important. One respondent was not certain how to rate this indicator, as shown in Table 4.30.

4.5.3.2 Number of reading places (seats) performance indicator

The number of reading places (seats) in the library performance indicators was rated very important by 11 (41%) of the 27 respondents, as shown in Table 4.30. They included respondents from five private chartered universities, two private universities with LIA, one private registered university and three public universities.

Ten (37%) of the 27 respondents from six private chartered universities, three private universities with LIA, and one private registered university also ranked the indicator important.

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Six respondents from two private universities with LIA, two private registered universities and two public universities considered the indicator somewhat important, as shown in Table 4.30.

Table 4.30: Frequencies of the importance of management of resources and partnership of performance criteria

Performance indicators	Very important		Important		Some what important		Less important	
	No	%	No	%	No	%	No	%
Number of monographs/journals (print)	15	56%	6	22%	5	18%	1	4%
Number of reading (seats) places in the library	11	41%	10	37%	6	22%	-	-
Opening hours per week	13	48%	12	44%	2	7%	-	-
Partnerships to minimize costs	12	44%	9	33%	6	22%	-	-

4.5.3.3 Opening hours per week performance indicator

The opening hours per week performance indicator was considered very important by 13 (48%) of the 27 respondents, as shown in Table 4.30. They were from four private chartered universities, four private universities with LIA, two private registered universities and three public universities.

Table 4.30 also shows that 12 (44%) of the 27 respondents cited the indicator as important; they were from six private chartered universities, two private universities with LIA, two private registered universities and two public universities. Only two respondents indicated that it was somewhat important.

4.5.3.4 Partnerships to minimize costs performance indicator

The partnerships to minimize costs indicator was found to be very important by 12 (44%) of 27 respondents as shown in Table 4.30. They were from six private chartered universities, two private universities with LIA, two private registered universities and two public universities.

Table 4.30 also shows that nine (33%) of the 27 respondents cited the partnerships to minimize performance indicator as important. The respondents were from three private chartered universities, three private universities with LIA, a private registered university and two public universities.

Six respondents considered the indicator somewhat important, they included respondents from two private chartered universities, two private universities with LIA, a private registered university and a public university.

4.5.4 Management of internal processes performance criteria

This section presents results on the attitudes of respondents towards indicators of the management of internal processes performance criteria, namely average time to retrieve a free access document, percentage use of electronic resources and average time to provide a document that does not exist in the library, as shown in Table 4.31.

4.5.4.1 Average time to retrieve a free access document performance indicator

The average time to retrieve a free access document performance indicator was ranked very important by 11 (41%) of the 27 respondents, as shown in Table 4.31. They were from six private chartered universities, two private universities with LIA and three public universities.

Table 4.31 also shows that 10 (37%) of the 27 respondents indicated that the average time to retrieve a free access document performance indicator was important. They were from three private chartered universities, three private universities with LIA, three private registered universities and one public university. Only three (11%) of the 27 respondents indicated that the performance indicator was somewhat important, while two were not certain.

4.5.4.2 Percentage use of electronic resources performance indicator

Table 4.31 shows that 13 (48%) of the 27 respondents considered the percentage use of electronic resources performance indicator very important. They were from five private chartered universities, five private universities with LIA, one of the four private registered universities and two public universities.

The percentage use of electronic resources performance indicator was ranked important by 11 (41%) of the 27 respondents. They were from five private chartered universities, two private universities, with LIA, one private registered university and three public universities as shown in table 4.31.

Only three respondents indicated that the performance indicator was somewhat important, as shown in Table 4.31.

Table 4.31: Frequencies of the importance of the management of internal processes performance criteria

Performance indicators	Very important		Important		Some what important		Less important	
	No	%	No	%	No	%	No	%
Average time to retrieve a free access document	11	41%	10	37%	3	11%	2	7%
Percentage use of electronic resources	13	48%	11	41%	3	11%	-	-
Average time to provide a document that does not exist in the library	11	41%	11	41%	5	18%	-	-

4.5.4.3 Average time to provide a document that does not exist in the library performance indicator

The average time to provide a document that does not exist in the library performance indicator was also considered very important by 11 (41%) of the 27 respondents, as shown in Table 4.31.They were from three private chartered universities, five private universities with LIA, one private registered university and two public universities.

An equal number, 11 (41%) out of the 27 respondents, also considered the performance indicator important. They were from six private chartered universities, two private universities with LIA, one private registered university and two public universities.

Only five respondents indicated that it was somewhat important, as shown in Table 4.31. They included respondents from two private chartered universities, two private universities with LIA and one public university.

4.5.5 Customer perspective performance criteria

This section presents the results on the attitudes of respondents towards indicators on the customer perspective performance criteria, namely library visits per capita, loans per capita and overall user satisfaction, as shown in Table 4.32.

4.5.5.1 Library visits per capita performance indicator

Table 4.32 shows that only seven (14%) of the 27 respondents considered the library visits per capita performance indicator very important. The respondents were from three private chartered universities, one private university with LIA, two private registered universities and one public university.

Table 4.32: Frequencies of the importance of customer perspective performance criteria

Performance indicators	Very important		Important		Some what important	
	No	%	No	%	No	%
Library visits per capita	7	14%	14	52%	5	18%
Loans per capita	10	37%	15	56%	2	7%
Overall user satisfaction	22	82%	5	18%	-	-

The library visits per capita performance indicator was ranked important by 14 (52%) of the 27 respondents. The respondents were from six private chartered universities, four private universities with LIA, a private registered university and three public universities. Five other respondents reported that it was somewhat important, as shown in Table 4.31. They were from two private chartered universities, one private university with LIA, one private registered university and one public university.

4.5.5.2 Loans per capita performance indicator

The loans per capita performance indicator was considered very important by 10 (37%) of the 27 respondents, as shown in Table 4.32. They were from four private chartered universities, two private universities with LIA, two private registered universities and two public universities.

Table 4.32 also shows that 15 (56%) out of the 27 respondents indicated that the loans per capita performance indicator was important. The respondents were from six private

chartered universities, five private universities with LIA, one private registered university and three public universities. Only two respondents indicated that the results were somewhat important; they were from one private chartered university and a private registered university.

4.5.5.3 Overall user satisfaction performance indicator

The customer perspective performance criteria s indicator was considered very important by the majority, that is, 22 (81%) of the 27 respondents, as shown in Table 4.32. They were from nine private chartered universities, six private universities with LIA, three private registered universities and four public universities.

Only five (18%) of the 27 respondents indicated that the performance indicator was important, as shown in Table 4.32. They were respondents from two private chartered universities, a private university with LIA, a registered university and a public university

4.5.6 Staff outcomes performance criteria

This section presents the results on the attitudes of respondents towards indicators on the staff outcomes performance criteria, which had only two indicators, namely the levels of absenteeism or sickness and overall staff satisfaction, as shown in Table 4.33.

4.5.6.1 Level of absenteeism or sickness

The level of absenteeism or sickness indicator was ranked very important by 15 (56%) of the 27 respondents, as shown in Table 4.33. The respondents were from five private chartered universities, four private universities with LIA, two private registered universities and four public universities. Only one respondent from a public university indicated that the indicator was somewhat important.

Eleven (41%) of the 27 respondents also indicated that the performance indicator was important, as shown in Table 4.33. They were from six private chartered universities, three private universities with LIA and two private registered universities.

4.5.6.2. Overall staff satisfaction performance indicator

The overall staff satisfaction performance indicator was deemed very important by the majority, that is, 22 (81%) of the 27 respondents as shown in Table 4.33. They were from nine of the 11 private chartered universities, six of the seven private universities

with LIA, three of the four private registered universities and four of the five public universities.

Only five (19%) of the 27 respondents indicated that the indicator was important. They were from two private chartered universities, a private university with LIA, a private registered university and a public university.

Table 4.33: Frequencies of the importance of staff outcomes performance criteria

Performance indicators	Very important		Important		Some what important	
	No	%	No	%	No	%
Levels of absenteeism or sickness	15	56%	11	41%	1	4%
Overall staff satisfaction	22	81%	5	19%	-	-

4.5.7 Impact of society performance criteria

This section presents results on the attitudes of respondents towards indicators on the impact of society performance criteria, namely the amount of academic publications by faculty, amount of academic publications by library staff and the amount of training sessions for library users as shown in Table 4.34.

4.5.7.1 Number of academic publications by faculty performance indicator

The number of academic publications by faculty was considered very important by 17 (63%) out of the 27 respondents, as shown in Table 4.34. They were from nine of the 11 private chartered universities, four of the seven private universities with LIA, three of the four private registered universities and one of the five public universities.

Table 4.34 also shows that eight (30%) of the 27 respondents cited the indicator as important; they were from two private chartered, two private universities with LIA, and four public universities. Two respondents from a private university with LIA and a private registered university indicated that the indicator was somewhat important.

Table 4.34: Frequencies of importance of the impact of society performance criteria

Performance indicators	Very important		Important		Some what important		Less important	
	No	%	No	%	No	%	No	%
Number of academic publications by faculty	17	63%	8	30%	2	7%	-	-
Number of academic publications by library staff	10	37%	14	52%	3	11%	-	-
Number of training sessions for library users	17	63%	8	30%	1	4%	1	4%

4.5.7.2 Number of academic publications by library staff performance indicator

Table 4.34 shows that 14 (52%) of the 27 respondents ranked the number of publications by library staff an important performance indicator. They were from three private chartered universities, four private universities with LIA, four private registered universities and four public universities.

The number of academic publications performance indicator was ranked as very important by 10 (37%) of the 27 respondents. They were from seven private chartered universities, one private university with LIA, one private registered university and one public university. Only three respondents reported that the indicator was somewhat important.

4.5.7.3 Number of training sessions for library user's performance indicator

Table 4.34 shows that 17 (63%) of the 27 respondents viewed the number of training sessions for library users as very important. The respondents were from eight private chartered universities, four private universities with LIA, three private registered universities and two public universities.

Eight (30%) of the 27 respondents reported that the indicator was important; they were from two private chartered universities, two private universities with LIA, one private registered university and three public universities. One respondent from a private university with LIA considered that the indicator somewhat important, as shown in Table 4.34.

4.5.8 Process and change management performance criteria

This section presents the results of the attitudes of respondents towards the process and change management performance criteria indicators, namely median time of document acquisition, median time for document retrieval and assess market penetration, as shown in Table 4.35.

4.5.8.1 Median time of document acquisition performance indicator

The median time for document acquisition was considered by 14 (52%) of the 27 respondents to be very important, as shown in Table 4.35. The respondents were from seven private chartered universities, two private universities with LIA, two private registered universities and three public universities.

Twelve (44%) of the 27 respondents also indicated that the performance indicator was important, as shown in Table 4.35. The respondents were from four private chartered universities, five private universities with LIA, two private registered universities and one public university. One respondent from a public university considered it somewhat important, as shown in Table 4.35.

4.5.8.2 Median time for document retrieval performance indicator

The median time for document retrieval performance indicator was ranked very important by 24 (89%) of the 27 respondents, as shown in Table 4.35. They were from nine private chartered universities, seven private universities with LIA, four private registered universities and four public universities.

Only three respondents two from a private chartered university and one from a public university, considered that the indicator important, as shown in Table 4.35.

Table 4.35: Frequencies of the importance of the process and change management performance criteria

Performance indicators	Very important		Important		Some what important		Less important	
	No	%	No	%	No	%	No	%
Median time for document acquisition	14	52%	12	44%	1	4%	-	-
Median time for document retrieval	24	89%	3	11%	-	-	-	-
Assess market penetration	10	37%	11	41%	4	15%	2	7%

4.5.8.3 Assess market penetration indicator

Table 4.35 also shows that eleven (41%) of the 27 respondents considered that the assess market penetration indicator important. They were from three private chartered universities, three private universities with LIA, three private registered universities and three public universities. Meanwhile 10 (37%) of the 27 respondents considered it very important, as shown in Table 4.35. The respondents were from five private chartered universities, two private universities with LIA, one private registered university and two public universities.

Only four respondents from two private chartered universities, a private university with LIA and a private chartered university deemed the indicator somewhat important, as shown in Table 4.35. Two other respondents felt the indicator was less important.

4.5.9 Financial perspective performance criteria

This section presents results on the attitudes of respondents towards indicators on the financial perspective performance criteria, namely the cost per user and cost per library visit, as shown in Table 4.36.

4.5.9.1 Cost per user performance indicator

The cost per user performance indicator was considered important by 11 (41%) of the 27 respondents, as shown in Table 4.36. The respondents were from five private chartered universities, two private universities with LIA, one private registered university and three public universities. Nine (33%) of the 27 respondents considered it very important, as shown in Table 4.36. The respondents were from four private chartered universities, three private universities with LIA, one private registered university and one public university. Respondents from two private chartered universities, one private with LIA and two private registered universities deemed the indicator somewhat important, as shown in Table 4.36.

4.5.9.2 Cost per library visit performance indicator

The cost per library visit performance indicator was ranked important by 12 (44%) of the 27 respondents as shown in Table 4.36. The respondents were from seven private chartered universities, two private universities with LIA, one private registered university and two public universities.

Table 4.36: Frequencies of importance of financial perspective performance criteria

Performance indicators	Very important		Important		Some what important		Less important	
	No	%	No	%	No	%	No	%
Cost per users	9	37%	11	41%	5	18%	2	7%
Cost per library visit	6	22%	12	44%	7	26%	2	7%

Seven of the 27 respondents from two private chartered universities, two private universities with LIA, two private registered universities and one public university considered the indicator was somewhat important. Six respondents also considered it very important; they were from two private chartered universities, two private universities with LIA, one private registered university and one public university. Two universities deemed the indicator less important, as shown in Table 4.36.

Table 4.37: Ranking of performance criteria

	Performance Criteria	Number of respondents
1	Leadership	25
2	Planning and strategy	25
3	Process and change management	24
4	Customer Perspective	22
5	Staff outcomes	22
6	Impact of society	17
7	Management of resources and partnerships	15
8	Management of internal processes	13
9	Performance financial perspective	12

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Table 4.37 shows how the respondents ranked the performance criteria. Meanwhile, Table 4.38 lists the performance indicators from highest to lowest as ranked by the librarians.

Table 4.38: Performance indicators of highest and lowest

	Performance indicators	Percentage of rankings
1	Definition of vision and mission	100%
2	Strategic plan	100%
3	Overall user satisfaction	100%
4	Overall staff satisfaction	100%
5	Median time of document retrieval	100%
6	Development of library management system	100%
7	Promotion/training of library activities	100%
8	Conduct of surveys	100%
9	Level of staff absenteeism	97%
10	Benchmarking practices	96%
11	Median time of document acquisition	96%
12	Amount of publications by faculty	93%
13	Amount of training sessions for library users	93%
14	Loans per capita	93%
15	Opening hours per week	92%
16	Percentage use of electronic resources	89%
17	Amount of academic publications by library staff	89%

	Performance indicators	Percentage of rankings
18	Average time to provide a document that does not exist in the library	82%
19	Number of monographs/journals (print)	79%
20	Average time to retrieve a free access document	78%
21	Number of reading (seats) places in the library	78%
22	Partnerships to minimize costs	77%
23	Costs per library visit	66%
24	Library visit per capita	66%
25	Costs per user	62%
26	Assess market penetration	52%

4.6 Use of Performance indicators in Kenyan university libraries

This section presents the results on the use of performance indicators in university libraries. The section focused on the same performance criteria ranked in section 4.5, namely the indicators on leadership, planning and strategy, management of resources and partnerships, management of internal processes, customer perspective, staff outcomes, the impact of society, process change and management, and financial perspective.

4.6.1 The use of leadership performance criteria in Kenyan university libraries

The definition of vision and mission performance indicator was used by 17 (63%) of the 27 respondents, as indicated in Table 4.39. The respondents were from seven private chartered universities, five private universities with LIA, three public universities and two private registered universities, as shown in Table 4.39.

The development of the vision and mission statements was further explored during the interviews and the five interviewees reported that the library staff were involved in the development of their vision and mission statements.

Table 4.39: Frequencies of use of leadership performance criteria in Kenyan university libraries

Performance indicator	Private Chartered	Private LIA	Private Registered	Public	Total
Definition of vision and mission	7	5	2	3	17
Development of library management system	7	5	1	2	15
Promotion and training of learning activities to improve the library's performance	5	3	1	3	12

The development of a library management system performance indicator was used by 15 (56%) of the 27 respondents, as indicated in Table 4.39. The respondents were from seven private chartered universities, five private universities with LIA, two public universities and one private registered university, as shown in Table 4.39.

The promotion and training of learning activities to improve the library's performance indicator was used by 12 (44%) of the 27 respondents. They included respondents from five private chartered universities, three private universities with LIA, three public universities and one private registered university, as shown in Table 4.39.

4.6.2 The use of planning and strategy performance criteria in Kenyan university libraries

The strategic plan performance indicator was used by 17 (63%) of the 27 respondents, as shown in Table 4.40. They included respondents from six private chartered universities, five private universities with LIA, three private registered universities and three public universities, as shown in Table 4.40. It also shows that 15 (56%) of the 27 respondents indicated that they had used the conduct of surveys of library users performance indicator. They included respondents from six

private chartered universities, five private universities with LIA, one private registered university and three public universities, as shown in Table 4.40.

Table 4.40: Frequencies of use of planning and strategy performance criteria in Kenyan university libraries

Performance indicator	Private Chartered	Private LIA	Private Registered	Public	Total
Conduct of surveys of library users	6	5	1	3	15
Strategic Plan	6	5	3	3	17
Benchmarking practices	6	4	2	2	13

The benchmarking practices performance indicator was used by 13 (48%) of the 27 respondents, as shown in Table 4.40. They included respondents from six private chartered universities, four private universities with LIA, two of the private registered universities and two public universities, as shown in Table 4.40.

4.6.3 The use of management of resources and partnerships

The number of reading places performance indicator had been used by 15 (56%) of the 27 respondents. They included respondents from six private chartered universities, five private universities with LIA, one of the private registered universities and three public universities, as shown in Table 4.41. Table 4.41 shows that 14 (52%) of the 27 respondents indicated that they had used the opening hours per week performance indicator. They included respondents from six private chartered universities, five private universities with LIA, one private registered university and two public universities.

Table 4.41: Frequencies of use of management of resources and partnerships performance criteria in Kenyan university libraries

Performance indicator	Private Chartered	Private LIA	Private Registered	Public	Total
Number of monographs/journals (print)	8	2	2	1	13
Number of reading places (seats) in the library	6	5	1	3	15
Opening hours per week	6	5	1	2	14
Partnerships to minimize costs	4	2	1	2	9

The number of monographs/journals performance indicator was used by 13 (48%) of 27 respondents, as shown in Table 4.41. They included respondents from eight private chartered universities, two private universities with LIA, two private registered universities and one public university.

The least used performance indicator amongst the management of resources and partnerships performance criteria measurement was the partnerships to minimize costs, which had been used by only nine (33%) of the 27 respondents, as shown in Table 4.41. The respondents were from four private chartered universities, two private universities with LIA, one private registered university and two public universities.

4.6.4 The use of management of internal processes performance criteria

The average time to retrieve a free access document performance indicator was used by only four (15%) of the 27 respondents, they were from one private chartered university, one private university with LIA and two public universities, as depicted in Table 4.42.

The average time to provide a document that does not exist in the library performance indicator was used by five (19%) of the 27 respondents. They were from two private chartered universities, one private university with LIA and two public universities, as shown in Table 4.42.

Table 4.42: Frequencies of use of management of internal processes performance criteria in Kenyan university libraries

Performance indicator	Private Chartered	Private LIA	Private Registered	Public	Total
Average time to retrieve a free access document	1	1	0	2	4
Percentage use of electronic resources	3	2	0	2	7
Average time to provide a document that does not exist in the library	2	1	0	2	5

The percentage use of electronic resources performance indicator was used by seven (26%) of the 27 respondents. The respondents were from three private chartered universities, two private universities with LIA and two public universities, as shown in Table 4.42.

4.6.5 The use of customer perspective performance criteria

Overall user satisfaction was the most used performance indicator amongst the customer performance criteria. Thirteen (48%) of the 27 respondents indicated that they had used the indicator, as shown in Table 4.43. The respondents were from four private chartered universities, five private universities with LIA, one private registered university and three public universities, as shown in Table 4.43.

Table 4.43: Frequencies of use of customer perspective performance criteria in Kenyan university libraries

Performance indicator	Private Chartered	Private LIA	Private Registered	Public	Total
Library visits per capita	2	2	0	3	7
Loans per capita	2	1	0	3	6
Overall user satisfaction	4	5	1	3	13

The library visits per capita performance indicator had been used by only seven (26%) of the 27 respondents. The respondents were from two private chartered universities, one private university with LIA and three public universities. Only six of the 27 respondents had used the loans per capita performance indicator, as also shown in Table 4.43. The respondents were from two private chartered universities, one private university with LIA and three public universities.

4.6.6 The use of staff outcomes performance criteria

Table 4.44 shows that seven (26%) of the 27 respondents had used the staff overall satisfaction performance indicator in the university libraries. The respondents were from two private chartered universities, three private universities with LIA and two public universities. Only five (19%) of the 27 respondents indicated that they had used the levels of absenteeism or sickness performance indicator. They were from two private

universities with LIA, two public universities and one private chartered university, as shown in Table 4.44.

Table 4.44: Frequencies of use of staff outcomes performance criteria in Kenyan university libraries

Performance indicator	Private Chartered	Private LIA	Private Registered	Public	Total
Levels of absenteeism or sickness	1	2	0	2	5
Overall staff satisfaction	2	3	0	2	7

4.6.7 The use of the impact on society performance criteria

The number of training sessions performance indicator for library users was used by six (22%) of the 27 respondents. They were from three private chartered universities, two private universities with LIA and one public university. The number of academic publications by faculty and library staff performance indicator were used by only four (15%) of the 27 respondents, as indicated in Table 4.45. The respondents were from two private chartered universities, one private university with LIA and one public university.

Table 4.45: Frequencies of use of the impact on society performance criteria in Kenyan university libraries

Performance indicator	Private Chartered	Private LIA	Private Registered	Public	Total
Number of academic publications by faculty	2	1	0	1	4
Number of academic publications by library staff	2	1	0	1	4
Number of training sessions for library users	3	2	0	1	6

4.6.8 The use of process and change management performance criteria

Table 4.46 shows that five (19%) of the 27 respondents had used the median time of document acquisition performance indicator in their university libraries. The respondents

were from three private chartered universities, one private university with LIA and one public university. An equal number had also used the median time of document retrieval indicator.

Only four (15%) of the 27 respondents from two private chartered universities, one private university with LIA and one public university indicated that they had used the assess market penetration indicator, as shown in Table 4.46.

Table 4.46: Frequencies of use of process and change management performance criteria in Kenyan university libraries

Performance indicator	Private Chartered	Private LIA	Private Registered	Public	Total
Median time of document acquisition	3	1	0	1	5
Median time of document retrieval	2	2	0	1	5
Assess market penetration	2	1	0	1	4

4.6.9 Use of the financial perspective criteria

Table 4.47 shows that only four (15%) of the 27 respondents indicated that they had used the cost per user performance indicator. The respondents were from two private chartered universities, one private university with LIA and one public university.

Only three (11%) of the 27 respondents from a private chartered university, a private university with LIA and a public university indicated that they had used the costs per library visit performance indicator, as shown in Table 4.47.

Table 4.47: Frequencies of use of financial perspective performance criteria in Kenyan university libraries

Performance indicator	Private Chartered	Private LIA	Private Registered	Public	Total
Cost per user	2	1	0	1	4
Cost per library visit	1	1	0	1	3

4.7 Spearman's Rank (Spearman's Rho') Coefficient Correlation Test of Significance

The previous sections, 4.1 to 4.6 of this chapter, presented the research results using descriptive statistics. In order to attach statistical significance to the results, the Spearman rank coefficient correlation test was applied to each of the questions (18-29, 35-39, 50 and 58 (see Appendix 2). This section, therefore, presents the results of the bivariate data analysis of the ordinal variables in the study.

4.7.1 Spearman's rho' correlation coefficient test results on the attitudes of respondents on external quality assurance – accreditation

Table 4.48 shows that17 sets of variables were considered to have high, strong positive correlation significance at the 0.01 level (2-tailed) as follows:

i.   Accreditation has enhanced the quality of library and information services in my institution and has led to physical development of the university library (Spearman's rho=0.738, p=0.000);

ii. The Participation in the accreditation process has led to professional and staff development training, and enhanced the quality of library and information services in my institution (Spearman's rho =0.549, p=0.008);

iii. Preparation for the accreditation visit/inspection is time-consuming and accreditation has enhanced the quality of library and information services in my institution (Spearman's rho=0.537, p=0.010);

iv. Participation in the accreditation process has led to improvements in the work environment for staff and the accreditation has led to physical development of the university library (Spearman's rho=0.710, p=0.000);

v.   Participation in the accreditation process has led to professional staff development and training, and accreditation has led to physical development of the university library (Spearman's rho=0.542, p=0.009);

vi. Accreditation has led to physical development of the university library and preparation for the accreditation visit/inspection is time consuming (Spearman's rho=0.545, p=009);

vii. Preparation for the accreditation visit/inspection is time-consuming, and the participation of experienced university librarians in site-visits stimulates and assists the university library in achieving self-determined goals (Spearman's rho=0.557, p=0.007);

viii. Participation in accreditation has led to professional staff development and training, and the benefits of accreditation are long-term (Spearman's rho=0.539, p=010);

ix. The benefits of accreditation are long-term and participation in accreditation has led to an improvement of the work environment for staff (Spearman's rho=0.632, p=0.002);

x. The Commission provided guidance and support following the accreditation visit/inspection, and accreditation has enhanced the quality of library and information services in my institution (Spearman's rho=0.557, p=0.007);

xi. The Commission provided guidance and support following the accreditation visit/inspection, and preparation for the accreditation visit/inspection is time consuming (Spearman's rho=0.607, p=0.003);

xii. Participation of experienced university librarians in the site visit stimulates and assists the university librarians in achieving self-determined goals, and the Commission provided guidance and support following the accreditation visit/inspection visit (Spearman's rho=0.658, p=0.001);

xiii. The recommendations of the visiting/inspection team are usually valid, and the benefits of accreditation are long term (Spearman's rho=0.559, p=0.007);

xiv. The recommendations of the visiting/inspection team are usually valid, and Commission provided guidance and support following the accreditation visit/inspection visit (Spearman's rho=0.605, p=0.003);

xv. The university library staff participated in the preparations for the visit/inspection, and the recommendations of the visiting/inspection team are usually valid (Spearman's rho=0.556, p=0.007);

xvi. Institutions are adequately trained on how to prepare for the accreditation visit, and the benefits of accreditation are long-term (Spearman's rho=0.588, p=0.004); and

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xvii. Institutions are adequately trained on how to prepare for the accreditation visit and the university library staff participated in the preparations for the visit/inspection (Spearman's rho=0.653, p=0.001).

Table 4.48 also indicates that 19 sets of variables were considered to have fairly strong positive correlation significance at the 0.05 level (2-tailed) as follows:

i. Accreditation has enhanced the quality of library and information services in my institution and participation in accreditation has led to improvement in the work environment for staff (Spearman's rho=0.487, p=0.022);

ii. Participation of experienced university librarians in site-visits stimulates and assists the university library in achieving self-determined goals and the accreditation has enhanced the quality of library and information services in my institution (Spearman's rho=0.484, p=0.023);

iii. The benefits of accreditation are long-term, and accreditation has enhanced the quality of library and information services in my institution (Spearman's rho=0.475, p=0.026);

iv. The university library staff participated in preparing for the visit/inspection, and accreditation has enhanced the quality of library and information services in my institution (Spearman's rho=0.465, p=0.029).

v. The Accreditation has led to the physical development of the university library, and participation of experienced university librarians in site-visits stimulates and assists the university library in achieving self-determined goals (Spearman's rho=0.448, p=0.037);

vi. The Accreditation has led to physical development of the university library and the benefits of accreditation are long- term (Spearman's rho=0.529, p=0.011);

vii. Participation in accreditation has led to professional staff development and training, and participation in accreditation has led to an improvement in the work environment for staff (Spearman's rho=0.506, p=016);

viii. Participation in accreditation has led to professional staff development and training, and preparation for the accreditation visit/inspection is time consuming (Spearman's rho=0.486, p=0.022).

ix. The benefits of accreditation are short-term, and participation in accreditation has led to professional staff development and training (Spearman's rho=0.463, p=0.30);

x. The Commission has provided guidance and support following the accreditation visit/inspection, and participation in the accreditation process has led to professional staff development and training (Spearman's rho=0.467, p=0.028);

xi. Institutions are adequately trained on how to prepare for the accreditation visit, and participation in accreditation has led to professional staff development and training (Spearman's rho=0.472, p=0.027).

xii. The benefits of accreditation are short-term, and participation in the accreditation process has led to an improvement in the work environment for staff (Spearman's rho=0.439, p=0.041);

xiii. The Commission provided guidance and support following the accreditation visit/inspection and participation in accreditation has led to an improvement in the work environment for staff (Spearman's rho=0.522, p=0.013);

xiv. Preparation for the accreditation visit/inspection is time-consuming, and the university library staff participated in the preparations for the visit/inspection (Spearman's rho=0.529, p=0.011);

xv. The participation of experienced university librarians in the site visit stimulates and assists the university librarians in achieving self-determined goals and the recommendations of the visiting/inspection team are usually valid (Spearman's rho=0.510, p=0.015);

xvi. Institutions are adequately trained on how to prepare for the accreditation visit, and the recommendations of the visiting/inspection team are usually valid (Spearman's rho=0.536, p=0.010);

xvii. The benefits of accreditation are long term, and the Commission provided guidance and support following the accreditation visit/inspection (Spearman's rho=0.501, p=0.018);

xviii. The Commission provided guidance and support following the accreditation visit/inspection, and institutions are adequately trained on how to prepare for the accreditation visit (Spearman's rho=0.488, p=0.037); and

xix. The university library staff participated in the preparations for the visit/inspection and the Commission provided guidance and support following the accreditation visit/inspection (Spearman's rho=0.528, p=0.012).

Table 4.48: Spearman's rho correlation test results on attitude of respondents towards external quality assurance–accreditation

Attitude towards accreditation		The accreditation has enhanced the quality of library and information services in my institution	The accreditation process has led to the physical development of the university library	Participation in the accreditation process has led to the professional staff development training	Participation in the accreditation process has led to improvement in environment for the staff	Preparation for the accreditation/inspection is time consuming	Participation of experienced university librarians in the site visit stimulates and assists the university towards achieving self-determined goals	Recommend-ation of the visiting/inspection team are usually valid	The benefits of the accreditation process are long-term	The benefits of the accreditation process are short term	Commission provided guidance and support following the accreditation visit/inspection	Institutions are adequately trained on how to prepare for the accreditation visit	The University library staff participated in preparations for the visit/inspection
The accreditation has enhanced the quality of library and information services in my institution	Correlation Coefficient	1.000	.738(**)	.549(**)	.487(*)	.537(**)	.484(*)	.366	.475(*)	.360	.557(**)	.380	.465(*)
	Sig. (2-tailed)	.	.000	.008	.022	.010	.023	.094	.026	.100	.007	.081	.029
	N	22	22	22	22	22	22	22	22	22	22	22	22
The accreditation process has led to the physical development of the university library	Correlation Coefficient	.738(**)	1.000	.542(**)	.710(**)	.545(**)	.448(*)	.129	.529(*)	.378	.357	.133	.219
	Sig. (2-tailed)	.000	.	.009	.000	.009	.037	.568	.011	.083	.103	.555	.327
	N	22	22	22	22	22	22	22	22	22	22	22	22

Attitude towards accreditation		The accreditation has enhanced the quality of library and information services in my institution	The accreditation process has led to the physical development of the university library	Participation in the accreditation process has led to the professional staff development training	Participation in the accreditation process has led to improvement in environment for the staff	Preparation for the accreditation/inspection is time consuming	Participation of experienced university librarians in the site visit stimulates and assists the university towards achieving self-determined goals	Recommend-ation of the visiting/inspection team are usually valid	The benefits of the accreditation process are long-term	The benefits of the accreditation process are short term	Commission provided guidance and support following the accreditation visit/inspection	Institutions are adequately trained on how to prepare for the accreditation visit	The University library staff participated in preparations for the visit/inspection
Participation in the accreditation process has led to the professional staff development training	Correlation Coefficient	.549(**)	.542(**)	1.000	.506(*)	.486(*)	.173	.135	.539(**)	.463(*)	.467(*)	.472(*)	.378
	Sig. (2-tailed)	.008	.009	.	.016	.022	.442	.548	.010	.030	.028	.027	.083
	N	22	22	22	22	22	22	22	22	22	22	22	22
Participation in the accreditation process has led to improvements in the environment for staff	Correlation Coefficient	.487(*)	.710(**)	.506(*)	1.000	.259	.394	.208	.632(**)	.439(*)	.522(*)	.348	.338
	Sig. (2-tailed)	.022	.000	.016	.	.244	.069	.352	.002	.041	.013	.112	.123
	N	22	22	22	22	22	22	22	22	22	22	22	22
Preparation for the	Correlation Coefficient	.537(**)	.545(**)	.486(*)	.259	1.000	.557(**)	.389	.317	.248	.607(**)	.206	.529(*)

Attitude towards accreditation		The accreditation has enhanced the quality of library and information services in my institution	The accreditation process has led to the physical development of the university library	Participation in the accreditation process has led to the professional staff development training	Participation in the accreditation process has led to improvement in environment for the staff	Preparation for the accreditation/inspection is time consuming	Participation of experienced university librarians in the site visit stimulates and assists the university towards achieving self-determined goals	Recommend-ation of the visiting/inspection team are usually valid	The benefits of the accreditation process are long-term	The benefits of the accreditation process are short term	Commission provided guidance and support following the accreditation visit/inspection	Institutions are adequately trained on how to prepare for the accreditation visit	The University library staff participated in preparations for the visit/inspection
accreditation/inspection is time consuming	Sig. (2-tailed)	.010	.009	.022	.244	.	.007	.073	.151	.267	.003	.359	.011
	N	22	22	22	22	22	22	22	22	22	22	22	22
Participation of experienced university librarians in the site visit stimulates and assists the university towards achieving self determinedgoals	Correlation Coefficient	.484(*)	.448(*)	.173	.394	.557(**)	1.000	.510(*)	.398	.123	.658(**)	.324	.349
	Sig. (2-tailed)	.023	.037	.442	.069	.007	.	.015	.066	.584	.001	.141	.112
	N	22	22	22	22	22	22	22	22	22	22	22	22
Recommendations of the visiting/inspection team are	Correlation Coefficient	.366	.129	.135	.208	.389	.510(*)	1.000	.559(**)	.188	.605(**)	.536(*)	.556(**)
		.094	.568	.548	.352	.073	.015	.	.007	.403	.003	.010	.007

Attitude towards accreditation		The accreditation has enhanced the quality of library and information services in my institution	The accreditation process has led to the physical development of the university library	Participation in the accreditation process has led to the professional staff development training	Participation in the accreditation process has led to improvement in environment for the staff	Preparation for the accreditation/inspection is time consuming	Participation of experienced university librarians in the site visit stimulates and assists the university towards achieving self - determined goals	Recommend-ation of the visiting/inspection team are usually valid	The benefits of the accreditation process are long-term	The benefits of the accreditation process are short term	Commission provided guidance and support following the accreditation visit/inspection	Institutions are adequately trained on how to prepare for the accreditation visit	The University library staff participated in preparations for the visit/inspection
usually valid	Sig. (2-tailed)												
	N	22	22	22	22	22	22	22	22	22	22	22	22
The benefits of accreditation are long term	Correlation Coefficient	.475(*)	.529(*)	.539(**)	.632(**)	.317	.398	.559(**)	1.000	.288	.501(*)	.588(**)	.403
	Sig. (2-tailed)	.026	.011	.010	.002	.151	.066	.007	.	.193	.018	.004	.063
	N	22	22	22	22	22	22	22	22	22	22	22	22
The benefits of accreditation process are	Correlation Coefficient	.360	.378	.463(*)	.439(*)	.248	.123	.188	.288	1.000	.060	.404	.273
	Sig. (2-tailed)	.100	.083	.030	.041	.267	.584	.403	.193	.	.790	.063	.220

Attitude towards accreditation		The accreditation has enhanced the quality of library and information services in my institution	The accreditation process has led to the physical development of the university library	Participation in the accreditation process has led to the professional staff development training	Participation in the accreditation process has led to improvement in environment for the staff	Preparation for the accreditation/inspection is time consuming	Participation of experienced university librarians in the site visit stimulates and assists the university towards achieving self - determined goals	Recommendation of the visiting/inspection team are usually valid	The benefits of the accreditation process are long-term	The benefits of the accreditation process are short term	Commission provided guidance and support following the accreditation visit/inspection	Institutions are adequately trained on how to prepare for the accreditation visit	The University library staff participated in preparations for the visit/inspection
short- term	N	22	22	22	22	22	22	22	22	22	22	22	22
Commission provided guidance and support following the accreditation visit/inspection	Correlation Coefficient	.557(**)	.357	.467(*)	.522(*)	.607(**)	.658(**)	.605(**)	.501(*)	.060	1.000	.448(*)	.528(*)
	Sig. (2-tailed)	.007	.103	.028	.013	.003	.001	.003	.018	.790	.	.037	.012
	N	22	22	22	22	22	22	22	22	22	22	22	22
Institutions are adequately trained on how to prepare for the accreditation visit	Correlation Coefficient	.380	.133	.472(*)	.348	.206	.324	.536(*)	.588(**)	.404	.448(*)	1.000	.653(**)
	Sig. (2-tailed)	.081	.555	.027	.112	.359	.141	.010	.004	.063	.037	.	.001
	N	22	22	22	22	22	22	22	22	22	22	22	22

Attitude towards accreditation		The accreditation has enhanced the quality of library and information services in my institution	The accreditation process has led to the physical development of the university library	Participation in the accreditation process has led to the professional staff development training	Participation in the accreditation process has led to improvement in environment for the staff	Preparation for the accreditation/inspection is time consuming	Participation of experienced university librarians in the site visit stimulates and assists the university towards achieving self - determined goals	Recommend-ation of the visiting/inspection team are usually valid	The benefits of the accreditation process are long-term	The benefits of the accreditation process are short term	Commission provided guidance and support following the accreditation visit/inspection	Institutions are adequately trained on how to prepare for the accreditation visit	The University library staff participated in preparations for the visit/inspection
The University library staff participated in preparing for the visit/inspection	Correlation Coefficient	.465(*)	.219	.378	.338	.529(*)	.349	.556(**)	.403	.273	.528(*)	.653(**)	1.000
	Sig. (2-tailed)	.029	.327	.083	.123	.011	.112	.007	.063	.220	.012	.001	.
	N	22	22	22	22	22	22	22	22	22	22	22	22

* Correlation is significant at the 0.01 level (2-tailed).* Correlation is significant at the 0.05 level (2-tailed).

4.7.2. Spearman's rho correlation test results on attitude of respondents towards the standards and guidelines for university libraries.

Table 4.49 indicates that there was a strong, positive correlation significance at the 0.01 level (2 tailed) between the following two sets of variables:

i.   Standards developed by CHE for university libraries are up to date and standards developed by CHE are realistic (Spearman's rho=0.536, p=004); and

ii. Standards should be reviewed regularly to ensure that the statements are relevant to the current state of the profession and standards should be based on evidence of normative practice determined by the measurement of outcome (Spearman's rho=0.503, p=0.008).

Table 4.49 also shows that there was a fairly positive correlation significance at the 0.05 level (2 tailed) between the following three sets of variables:

i.   Standards directly address the quantity, quality and extent of suitability of library services and staffing and standards developed by CHE are realistic (Spearman's rho=0.407, p=0.035);

ii. Standards developed by CHE are realistic and standards directly address the quantity, quality and extent of suitability of library services (Spearman's rho=0.432, p=0.024); and

iii. Standards should be based on evidence of normative practice determined by the measurement of outcome and standards directly address the quantity, quality and extent of suitability of library services and staffing (Spearman's rho=0.386, p=0.046).

From table 4.49 it was also clear that there were also significant negative correlations between the variables, "standards should be reviewed regularly to ensure that the statements are relevant to the current state of the profession and the standards developed by CHE for university libraries are up to date+ (Spearman's rho=-0.034, p=0.865).

Table 4.49: Spearman's rho correlation test results on attitudes of respondents towards the use of standards and guidelines for university libraries

Attitude towards CHE standards		Standards directly address quantity and quality	Standards should be reviewed regularly	Standards developed by CHE are up to date	Standards development by CHE are realistic	Standards should be based on evidence of normative practice
Standards directly address the quantity and quality	Correlation Coefficient	1.000	.330	.407(*)	.432(*)	.386(*)
	Sig. (2-tailed)	.	.092	.035	.024	.046
	N	27	27	27	27	27
Standards should be reviewed regularly	Correlation Coefficient	.330	1.000	-.034	.097	.503(**)
	Sig. (2-tailed)	.092	.	.865	.630	.008
	N	27	27	27	27	27
Standards developed by CHE for university libraries are up to date	Correlation Coefficient	.407(*)	-.034	1.000	.536(**)	.057
	Sig. (2-tailed)	.035	.865	.	.004	.779
		27	27	27	27	27

Attitude towards CHE standards		Standards directly address quantity and quality	Standards should be reviewed regularly	Standards developed by CHE are up to date	Standards development by CHE are realistic	Standards should be based on evidence of normative practice
	N					
	Correlation Coefficient	.432(*)	.097	.536(**)	1.000	.309
	Sig. (2-tailed)	.024	.630	.004	.	.117
Standards development by CHE are realistic	N	27	27	27	27	27
Standards should be based on evidence of normative practice	Correlation Coefficient	.386(*)	.503(**)	.057	.309	1.000
	Sig. (2-tailed)	.046	.008	.779	.117	.
	N	27	27	27	27	27

* Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed).

4.7.3 Spearman's rho correlation test results on attitudes of respondents towards outcomes measurements

Table 4.50 indicates that there was a strong, positive correlation significance at the 0.01level (2 tailed) between the variables *behaviors* and *attitude and values* (Spearman's rho=0.848, p=000).

Table 4.50 also shows that there were significant negative correlations between the following two sets of variables:

i. Knowledge and understanding and attitudes and values (Spearman's rho=-0.193, p=0.391); and

ii. Behaviours and knowledge and understanding (Spearman's rho=-104, p=645).

Table 4.50: Spearman's rho correlation test results on attitudes of respondents towards outcome measurements

Outcome measures		Skills	Knowledge and understanding	Attitude and values	Behaviors
Skills	Correlation Coefficient	1.000	.417	.062	.012
	Sig. (2-tailed)	.	.054	.784	.959
	N	22	22	22	22
Knowledge and understanding	Correlation Coefficient	.417	1.000	-.193	-.104
	Sig. (2-tailed)	.054	.	.391	.645
	N	22	22	22	22
Attitude and values	Correlation Coefficient	.062	-.193	1.000	.848(**)

Outcome measures		Skills	Knowledge and understanding	Attitude and values	Behaviors
	Sig. (2-tailed)	.784	.391	.	.000
	N	22	22	22	22
Behaviors	Correlation Coefficient	.012	-.104	.848(**)	1.000
	Sig. (2-tailed)	.959	.645	.000	.
	N	22	22	22	22

* Correlation is significant at the 0.01 level (2-tailed).

4.7.4. Spearman's rho correlation test results on attitudes of respondents towards performance measurement

This section presents the results on the associations between the various sets of variables of performance criteria and indicators of leadership, planning and strategy, management of resources and partnerships, management of internal processes, customer perspective, staff outcomes, impact of society, process change and management and financial perspectives.

4.7.4.1 Spearman's rho correlation test results on attitudes of respondents towards performance indicators of leadership, planning and strategy, management of resources and partnerships.

Table 4.51 indicates that there was a strong, positive correlation significance at the 0.01level (2 tailed) between the variables *number of monographs/journals (print)* and *number of (seats) places in the library* (Spearman's rho=0.524, p=005).

Table 4.51 also shows that there was a fairly positive correlation significance at the 0.05 level (2 tailed) between the following three sets of variables:

i. Definition of vision and mission, and strategic plan (Spearman's rho=0.460, p=016);

ii. Promotion and training of learning and activities to improve the library's performance, and number of reading places (seats) in the library (Spearman's rho=0.477, p=012); and

iii. Benchmarking practices, and partnerships to minimize costs (Spearman's rho=0.524, p=005).

Table 4.51 also shows that there were significant negative correlations between the following 10 sets of variables:

i. Definition of vision and mission, and conduct surveys of library users (Spearman's rho=-0.184, p=359);

ii. Definition of vision and mission, and benchmarking practices (Spearman's rho=-o.166, p=407);

iii. Development of a library management system and strategic plan (Spearman's rho=-0.151, p=0.452);

iv. Promotion and training of learning and activities to improve the library's performance, and benchmarking practices (Spearman's rho=-0.040, p=842);

v. Conduct surveys of library users and strategic plan (Spearman's rho=-0.184, p=359);

vi. Benchmarking practices, and conduct surveys of library users (Spearman's rho = -0.027, p=893);

vii. Conduct surveys of library users, and number of journals (print) (Spearman's rho=-0.097, p=0.647);

viii. Strategic plan, and development of a library management system (Spearman's rho=-0.152, p=0.452);

ix. Opening hours per week, and strategic plan (Spearman's rho=-0.030, p=0.880); and

x. Opening hours per week and benchmarking practices (Spearman's rho=-0.074, p=0.713).

Table 4.51: Spearman's correlation test results on attitudes of respondents towards performance indicators on leadership, planning and strategy, and management of resources and partnerships

Performance Criteria		Leadership			Planning and strategy			Management of resources and partnerships			
Performance indicators		Definition of vision and mission	Development of library management system	Promotion and training of learning and activities to improve the library's performance	Conduct surveys of library users	Strategic plan	Benchmarking practices	Number of monographs/ print journals	Number of reading places(s eats) in the library	Opening hours per week	Partnerships to minimize costs
Definition of vision and mission	Correlation Coefficient	1.000	.189	.114	-.184	.460(*)	-.166	.081	.049	.223	.263
	Sig. (2-tailed)	.	.345	.571	.359	.016	.407	.689	.810	.263	.184
	N	27	27	27	27	27	27	27	27	27	27
Development of library management system	Correlation Coefficient	.189	1.000	.029	.043	-.151	.075	.146	.122	.192	.240
	Sig. (2-tailed)	.345	.	.887	.830	.452	.710	.468	.543	.338	.228
	N	27	27	27	27	27	27	27	27	27	27
Promotion and training of learning and activities to	Correlation Coefficient	.114	.029	1.000	.484(*)	.114	-.040	.245	.477(*)	.091	.283
		.571	.887	.	.011	.571	.842	.218	.012	.651	.153

Performance Criteria		Leadership			Planning and strategy			Management of resources and partnerships			
Performance indicators		Definition of vision and mission	Development of library management system	Promotion and training of learning and activities to improve the library's performance	Conduct surveys of library users	Strategic plan	Benchmarking practices	Number of monographs/ print journals	Number of reading places(seats) in the library	Opening hours per week	Partnerships to minimize costs
improve the library's performance	Sig. (2-tailed)										
	N	27	27	27	27	27	27	27	27	27	27
Conduct surveys of library users	Correlation Coefficient	-.184	.043	.484(*)	1.000	-.184	-.027	-.092	.167	.076	.118
	Sig. (2-tailed)	.359	.830	.011	.	.359	.893	.647	.404	.708	.559
	N	27	27	27	27	27	27	27	27	27	27
Strategic plan	Correlation Coefficient	.460(*)	-.151	.114	-.184	1.000	.143	.292	.049	-.030	.263
	Sig. (2-tailed)	.016	.452	.571	.359	.	.478	.139	.810	.880	.184
	N	27	27	27	27	27	27	27	27	27	27
Benchmarking	Correlation Coefficient	-.166	.075	-.040	-.027	.143	1.000	.108	.236	-.074	.400(*)

Performance Criteria		Leadership			Planning and strategy			Management of resources and partnerships			
Performance indicators		Definition of vision and mission	Developme nt of library manageme nt system	Promotion and training of learning and activities to improve the library's performance	Conduct surveys of library users	Strategic plan	Benchmarking practices	Number of monographs/ print journals	Number of reading places(s eats) in the library	Opening hours per week	Partnerships to minimize costs
practices	Sig. (2-tailed)	.407	.710	.842	.893	.478	.	.591	.237	.713	.039
	N	27	27	27	27	27	27	27	27	27	27
Number of monographs/j ournals(print)	Correlation Coefficient	.081	.146	.245	-.092	.292	.108	1.000	.524(**)	.158	.028
	Sig. (2-tailed)	.689	.468	.218	.647	.139	.591	.	.005	.430	.890
	N	27	27	27	27	27	27	27	27	27	27
Number of reading places (seats)in the library	Correlation Coefficient	.049	.122	.477(*)	.167	.049	.236	.524(**)	1.000	.337	.331
	Sig. (2-tailed)	.810	.543	.012	.404	.810	.237	.005	.	.086	.092
	N	27	27	27	27	27	27	27	27	27	27

Performance Criteria		Leadership			Planning and strategy			Management of resources and partnerships			
Performance indicators		Definition of vision and mission	Development of library management system	Promotion and training of learning and activities to improve the library's performance	Conduct surveys of library users	Strategic plan	Benchmarking practices	Number of monographs/ print journals	Number of reading places(seats) in the library	Opening hours per week	Partnerships to minimize costs
Opening hours per week	Correlation Coefficient	.223	.192	.091	.076	-.030	-.074	.158	.337	1.000	.179
	Sig. (2-tailed)	.263	.338	.651	.708	.880	.713	.430	.086	.	.371
	N	27	27	27	27	27	27	27	27	27	27
Partnerships to minimize costs	Correlation Coefficient	.263	.240	.283	.118	.263	.400(*)	.028	.331	.179	1.000
	Sig. (2-tailed)	.184	.228	.153	.559	.184	.039	.890	.092	.371	.
	N	27	27	27	27	27	27	27	27	27	27

* Correlation is significant at the 0.01 level (2-tailed).* Correlation is significant at the 0.05 level (2-tailed).

4.7.4.2 Spearman's correlation test results on attitudes of respondents towards performance indicators on customer perspective, management of internal processes and the staff outcomes

Table 4.52 indicates that there was a strong, positive correlation significance at the 0.01 level (2 tailed) between the following six sets of variables:

i. Library visits per capita and loans per capita (Spearman's rho=0.625, p=0.000);

ii. Loans per capita, and average time to retrieve a free access document (Spearman's rho=0.575, p=0.002);

iii. Average time to retrieve a free access document, and percentage use of electronic resources (Spearman's rho=0.540, p=0.004);

iv. Percentage use of electronic resources, and average time to provide a document that does not exist in the library (Spearman's rho=0.610, p=0.001);

v. Average time to provide a document that does not exist in the library, and average time to retrieve a free access document (Spearman's rho=0.538, p=0.004); and

vi. Overall staff satisfaction, and library visits per capita reduce space (Spearman's rho=0.542, p=004).

Table 4.52 also shows that there was a fairly positive correlation significance at the 0.05 level (2 tailed) between the following six sets of variables:

i. Library visits per capita, and percentage use of electronic resources (Spearman's rho=0.472, p=0.013);

ii. Loans per capita, and percentage use of electronic resources (Spearman's rho=0.435, p=0.023);

iii. Average time to retrieve a free access document, and levels of absenteeism or sickness (Spearman's rho=0.442, p=0.021);

iv. Average time to provide a document that does not exist in the library, and loans per capita (Spearman's rho=0.401, p=0.038);

v. Level of staff absenteeism or sickness, and loans per capita (Spearman's rho=0.431, p=0.025); and

vi. Level of absenteeism or sickness, and average time to provide a document that does not exist in the library (Spearman's rho=0.393, p=043).

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4.7.4.3 Spearman's rho correlation test results on attitudes of respondents towards performance indicators of impact of society, process and change management and financial perspectives

Table 4.53 indicates that there was a strong, positive correlation significance at the 0.01 level (2 tailed) between the following three sets of variables:

i. Number of academic publications by library staff, and number of academic publications by faculty (Spearman's rho=0.580, p=0.002);

ii. Number of training sessions for library users, and median time for document acquisition (Spearman's rho=0.649, p=0.000); and

iii. Costs per user and costs per library visit (Spearman's rho=0.703, p=0.000).

Table 4.53 also shows that there was a fairly positive correlation significance at the 0.05 level (2 tailed) between the following six sets of variables:

i. Number of academic publications by library staff, and median time document acquisition (Spearman's rho=0.404, p=0.037);

ii. Number of academic publications by library staff, and costs per users (Spearman's rho=0.392, p=0.043);

iii. Number of training sessions of library users, and median time of document retrieval (Spearman's rho=0.429, p=0.025);

iv. Median time for document acquisition, and median time for document retrieval (Spearman's rho=0.447, p=0.019);

v. Assess market penetration, and median time for document retrieval (Spearman's rho=0.429, p=0.025); and

vi. Costs per user, and assess market penetration (Spearman's rho=0.422, p=0.028).

Table 4.52: Spearman's rho correlation test results on attitudes of respondents towards customer perspective, management of internal processes and staff outcomes

Performance Criteria		Customer perspective			Management of internal processes			The staff outcomes	
Performance indicators		Library visits per capita	Loans per capita	Overall user satisfaction	Average time to retrieve a free access document	Percentage use of electronic resources	Average time to provide a document that does not exist in the library	Levels of absenteeism or sickness	Overall staff satisfaction
Library visits per capita	Correlation Coefficient	1.000	.625(**)	.314	.249	.472(*)	.072	.146	.542(**)
	Sig. (2-tailed)	.	.000	.110	.210	.013	.721	.466	.004
	N	27	27	27	27	27	27	27	27
	Correlation Coefficient	.625(**)	1.000	.049	.575(**)	.435(*)	.401(*)	.431(*)	.222
	Sig. (2-tailed)	.000	.	.810	.002	.023	.038	.025	.266
Loans per capita	N	27	27	27	27	27	27	27	27
Overall user satisfaction	Correlation Coefficient	.314	.049	1.000	.196	.176	.013	.126	.264
	Sig. (2-tailed)	.110	.810	.	.328	.381	.948	.530	.184

Performance Criteria		Customer perspective			Management of internal processes			The staff outcomes	
Performance indicators		Library visits per capita	Loans per capita	Overall user satisfaction	Average time to retrieve a free access document	Percentage use of electronic resources	Average time to provide a document that does not exist in the library	Levels of absenteeism or sickness	Overall staff satisfaction
	N	27	27	27	27	27	27	27	27
Average time to retrieve a free access document	Correlation Coefficient	.249	.575(**)	.196	1.000	.540(**)	.538(**)	.442(*)	.248
	Sig. (2-tailed)	.210	.002	.328	.	.004	.004	.021	.213
	N	27	27	27	27	27	27	27	27
Percentage use of electronic resources	Correlation Coefficient	.472(*)	.435(*)	.176	.540(**)	1.000	.610(**)	.284	.432(*)
	Sig. (2-tailed)	.013	.023	.381	.004	.	.001	.151	.024
	N	27	27	27	27	27	27	27	27
Average time to provide a	Correlation Coefficient	.072	.401(*)	.013	.538(**)	.610(**)	1.000	.393(*)	.119

Performance Criteria		Customer perspective			Management of internal processes			The staff outcomes	
Performance indicators		Library visits per capita	Loans per capita	Overall user satisfaction	Average time to retrieve a free access document	Percentage use of electronic resources	Average time to provide a document that does not exist in the library	Levels of absenteeism or sickness	Overall staff satisfaction
document that does not exist in the library	Sig. (2-tailed)	.721	.038	.948	.004	.001	.	.043	.555
	N	27	27	27	27	27	27	27	27
Levels of absenteeism or sickness	Correlation Coefficient	.146	.431(*)	.126	.442(*)	.284	.393(*)	1.000	.126
	Sig. (2-tailed)	.466	.025	.530	.021	.151	.043	.	.530
	N	27	27	27	27	27	27	27	27
Overall staff satisfaction	Correlation Coefficient	.542(**)	.222	.264	.248	.432(*)	.119	.126	1.000
	Sig. (2-tailed)	.004	.266	.184	.213	.024	.555	.530	.
	N	27	27	27	27	27	27	27	27

* Correlation is significant at the 0.01 level (2-tailed).* Correlation is significant at the 0.05 level (2-tailed).

Table 4.53: Spearman's rho correlation test results on attitudes of respondents towards the impact on society, process and change management and financial partnerships

Performance Criteria		The impact of society			Process and change management			Financial partnerships	
Performance indicators		Number of academic publications by faculty	Number of academic publications by library staff	Number of training sessions of library users	Median time document acquisition	Median time for document retrieval	Assess market penetration	Cost per user	Cost per library visit
Number of academic publications by faculty	Correlation Coefficient	1.000	.580(**)	.089	.013	-.044	.149	.235	.328
	Sig. (2-tailed)	.	.002	.657	.948	.826	.458	.239	.095
	N	27	27	27	27	27	27	27	27
Number of academic publications by library staff	Correlation Coefficient	.580(**)	1.000	.337	.404(*)	.118	.281	.392(*)	.366
	Sig. (2-tailed)	.002	.	.085	.037	.559	.156	.043	.060
	N	27	27	27	27	27	27	27	27
Number of training sessions of	Correlation Coefficient	.089	.337	1.000	.649(**)	.480(*)	.429(*)	.344	.224
		.657	.085	.	.000	.011	.025	.079	.262

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Performance Criteria		The impact of society			Process and change management			Financial partnerships	
Performance indicators		Number of academic publications by faculty	Number of academic publications by library staff	Number of training sessions of library users	Median time document acquisition	Median time for document retrieval	Assess market penetration	Cost per user	Cost per library visit
library users	Sig. (2-tailed)								
	N	27	27	27	27	27	27	27	27
Median time document acquisition	Correlation Coefficient	.013	.404(*)	.649(**)	1.000	.447(*)	.447(*)	.038	.091
	Sig. (2-tailed)	.948	.037	.000	.	.019	.019	.850	.651
	N	27	27	27	27	27	27	27	27
Median time for document retrieval	Correlation Coefficient	-.044	.118	.480(*)	.447(*)	1.000	.048	.144	.233
	Sig. (2-tailed)	.826	.559	.011	.019	.	.810	.473	.242
	N	27	27	27	27	27	27	27	27
Assess market	Correlation	.149	.281	.429(*)	.447(*)	.048	1.000	.422(*)	.351

Performance Criteria		The impact of society			Process and change management			Financial partnerships	
Performance indicators		Number of academic publications by faculty	Number of academic publications by library staff	Number of training sessions of library users	Median time document acquisition	Median time for document retrieval	Assess market penetration	Cost per user	Cost per library visit
penetration	Coefficient								
	Sig. (2-tailed)	.458	.156	.025	.019	.810	.	.028	.073
	N	27	27	27	27	27	27	27	27
Cost per users	Correlation Coefficient	.235	.392(*)	.344	.038	.144	.422(*)	1.000	.703(**)
	Sig. (2-tailed)	.239	.043	.079	.850	.473	.028	.	.000
	N	27	27	27	27	27	27	27	27
Costper library visit	Correlation Coefficient	.328	.366	.224	.091	.233	.351	.703(**)	1.000
	Sig. (2-tailed)	.095	.060	.262	.651	.242	.073	.000	.
		27	27	27	27	27	27	27	27

Performance Criteria		The impact of society			Process and change management			Financial partnerships	
Performance indicators		Number of academic publications by faculty	Number of academic publications by library staff	Number of training sessions of library users	Median time document acquisition	Median time for document retrieval	Assess market penetration	Cost per user	Cost per library visit
	N								

Correlation is significant at the 0.01 level (2-tailed). Correlation is significant at the 0.05 level (2-tailed).

4.8 Summary

This chapter presented the findings of the data collected from the heads of university libraries in Kenya. The objectives of the study were:

 i. To determine and assess the processes of external quality assurance used in university libraries;
 ii. To explore the impact of external quality assurance on university libraries in Kenya;
 iii. To investigate the perceptions of university librarians regarding external quality assurance;
 iv. To explore the extent of usage of the CHE standards in university libraries in Kenya;
 v. To investigate the perceptions of university librarians regarding the CHE standards:
 vi. To identify the performance measures used for the evaluation of quality in Kenyan university libraries;
 vii. To investigate the perceptions of university librarians regarding performance measurement; and
 viii. To demonstrate the applicability of quality management frameworks and performance evaluation model in the evaluation of university libraries.

The major findings are summarized in the subsequent sections according to the basis of the research objectives three, four, five and six listed above. The findings relating to research objective one and two were discussed in Chapters One and Two. The next chapter interprets and discusses these findings.

4.8.1 The role and strength of accreditation, a process of external quality assurance

The majority of the respondents identified quality assurance and award of status as the most important roles of accreditation. Few respondents mentioned public accountability and funding as roles of accreditation. The majority of the respondents also indicated that the greatest strength of accreditation was

conformity with standards. Quality assurance was also cited by most of the respondents as a strength of accreditation. Few of the respondents indicated that increased funding, improvement of library services, public accountability and enhanced reputation of library staff were strengths of accreditation. Most of the respondents indicated that more time should be spent in the library during the accreditation visits/inspections.

4.8.2 Attitude of respondents towards accreditation

The majority of the respondents strongly agreed that accreditation had enhanced the quality of library and information services in their university libraries. Most of the respondents strongly agreed that accreditation had led to physical development of their university libraries.

Few of the respondents strongly agreed that accreditation led to professional staff development and improvement of the environment for staff. Most of the respondents also agreed that preparation for the accreditation visit/inspection was time consuming. Few respondents disagreed with the statement that the institutions were adequately prepared for the accreditation visit/inspection.

Most of the respondents strongly agreed that participation of experienced university librarians in the site visit stimulates and assists the university library staff in achieving self-determined goals. Few respondents strongly agreed that recommendations made by the visit/inspection team were usually valid. Few of the respondents strongly agreed that CHE provided guidance and support following the accreditation visit/inspection. Most of the respondents strongly agreed that the benefits of accreditation were long-term, while few respondents strongly disagreed that the benefits of accreditation were short-term.

4.8.3 Implementation of CHE guidelines for evaluating university libraries

All the respondents from both public and private universities reported that they had used the CHE guidelines for evaluating university libraries. The majority of the respondents indicated that they had implemented the following standards:

- the vision, mission and objective;
- information resources;

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- organization and access to information; and
- library building.

Most of the respondents also indicated that they had implemented the information literacy competency programme standard, as well as the administrative structure and staffing standard. The results showed that the information literacy competency course was designed by the university library but offered by other departments, such as communication departments.

Few of respondents indicated that they had implemented the distance library standard and library budget standard.

4.8.4 Attitude of respondents towards the use of CHE standards in the evaluation of university libraries

Most of the respondents strongly agreed that standards directly addressed the quantity, quality and extent level of suitability of library standards and staffing.

Most of the respondents strongly agreed that the standards should be based on evidence of normative practice. Most of the respondents also agreed that the standards developed by CHE were realistic. The majority of the respondents strongly agreed that standards should be revised regularly. Few of the respondents agreed that the standards developed by CHE were up-to-date.

4.8.5 Input, output and outcome measurements

Most of the university libraries indicated that they collected input and output measurements. The data was used for planning, decision-making, to improve service delivery, budgeting, report writing and collection development. Few of the respondents indicated that they collected outcome measurements. The methods used to collect the outcome measures were evaluation forms/feedback questionnaires, surveys and interviews.

The types of outcome measurements collected were service quality, customer satisfaction and information literacy. The majority of the respondents indicated that the skills and knowledge and understanding outcome measurements were very important. Most of the respondents indicated that the attitude and values and behaviours outcome measurements were very important. Most of the university libraries conducted customer satisfaction surveys.

4.8.6 Attitude of respondents towards performance measurement in university libraries

The majority of the respondents indicated that the vision and mission, development of a library management system, strategic plan, overall user satisfaction, overall staff satisfaction and median time for document retrieval performance indicators were very important.

Most of the respondents indicated that the promotion and training of learning activities to improve the library, benchmarking practices, conduct surveys of library users, levels of absenteeism or sickness, amount of academic publications by faculty, and median time of document acquisition performance indicators were very important.

Few of the respondents indicated that the number of monographs/journals(print), number of reading places, opening hours per week, partnerships to minimize costs, average time to retrieve a free access document, percentage use of electronic resources, average time to provide a document that does not exist in the library. The library visits per capita, loans per capita, number of academic publications by library staff, assess market penetration, cost per user and cost per library visit performance indicators were mentioned by very few respondents as being very important.

4.8.7 Performance indicators used for measuring quality in university libraries

Most of the respondents indicated that they had used the following performance indicators:

- definition of vision and mission;
- development of a library management system;
- strategic plan;
- conduct of surveys of library users;
- number of reading places; and
- opening hours per week.

Few respondents indicated that they had used the following performance indicators:

- promotion and training of learning activities to improve the libraries;
- benchmarking practices;
- number of monographs/journals (print); and
- overall user satisfaction performance.

Very few respondents indicated that they had used the following performance indicators:

- partnership to minimize costs;
- average time to retrieve a free access document;
- percentage use of electronic resources;
- average time to provide a document that does not exist in the library;
- library visits per capita;
- loans per capita, levels of absenteeism or sickness;
- overall staff satisfaction;
- number of academic publications by faculty and library staff;
- number of training sessions for library users;
- median time for document acquisition;
- median time for document retrieval;
- assess market penetration;
- cost per user; and
- cost per library visit.

4.8.8 Spearman's rank coefficient test

A spearman's rank coefficient test was carried out on various statements (questions 18 . 29, 35-39, 50 and 58) to establish the relationships between the variables under study. The test showed that correlation between x and y was considered significant at the 0.05 level (2-tailed) and 0.01 level (2-tailed) as depicted in Tables 4.42, 4.43, 4.44, 4.45, 4.46 and 4.47.

CHAPTER FIVE: INTERPRETATION AND DISCUSSION OF THE FINDINGS

5.0 Introduction

This chapter interprets and discusses the data from the questionnaires and interviews presented in Chapter Four. The interpretations of the research findings were in accordance with the specific objectives and theoretical framework, as discussed in sections 1.2.2 and 3.1.2 of this study. The information, which emerged from the literature review, also provided a source for comparison with the findings of this study. The purpose of this study was to explore the impact of accreditation, a process of external quality assurance, on university libraries in Kenya with the main aim of establishing if there was a culture of assessment. The interpretations of the results were guided by the following themes that emerged from the findings:

i.   University librariansqawareness and perceptions, regarding accreditation;

ii.   The impact of accreditation on university library services;

iii. Usage of the CHE Standards and Guidelines for Evaluating University Libraries;

iv.   The attitude of university librarians towards the CHE Standards and Guidelines for Evaluating University Libraries;

v.   Types of data collected in Kenyan university libraries;

vi.   Awareness of, and perceptions, of university librarians regarding performance measurement;

vii. Usage of performance measures in university libraries in Kenya;

viii. Methods used for assessing the impact of quality university library services; and

ix.   Culture of assessment in university libraries in Kenya.

5.1 Background information

This section interprets the findings presented in section 4.1 of this study, which looked at characteristics of the university librarians and the background information on the university libraries. The characteristics of the respondents and the size of university libraries were not part of the specific objectives of the study, but they were relevant for the interpretation of the results.

5.1.1 Characteristics of the university librarians

The qualifications and status held by the respondents were considered important in order to establish the leadership qualities of the university librarians. Studies have shown that leadership was one of the significant elements in the configuration of organizational culture of assessment in academic libraries (Pors 2008:143; Hiller, Kryllidou & Self 2008:227; Dole, Liebst & Hurych 2006:176). The findings indicated that 59% of the respondents held leadership positions at their institutions and the title accorded to the majority was university librarian. This study used the title, university librarian to refer to the head of a university library. The majority of those holding this positions were in private registered, private chartered and public universities as shown in Table 4.1. The private universities with LIA had fewer librarians with substantive positions.

The findings showed that the majority of the university librarians (85%) had attained high academic qualifications. A few number of them held doctorate degrees while the majority were holders of mastersq degrees in library and information studies, as shown in Table 4.1. The findings also showed that their high qualifications sufficient for them to give informed views on the issues investigated.

5.1.2 Background information on the university libraries

The findings showed that the institutions represented in the sample varied considerably in terms of information resources available, users and the number of qualified staff, as indicated in section 4.1.

The findings revealed that the majority of universities in Kenya had book titles of more than 9,000 in their libraries. Most of the libraries also subscribed to more

than 51 print journal titles and over 2000 e-journals, as shown in Table 4.3. The findings have also revealed that public universities and private chartered universities had the majority number of users as shown in Chart 4.3.

The findings have thus revealed that there were only 83 staff members available to manage the information resources and serve the users as stated above. Out of the 83 professional librarians, 23 were already administrators, as discussed in section 5.1.1. This means that only 60 professional librarians were employed in the 27 university libraries in Kenya. The findings also showed that majority of the professional librarians were in public universities and private chartered universities.

The professional librarians had either a mastersq (74) or doctorate (9) qualifications. The results showed the number of professional staff to providing information services in the university libraries was inadequate. Weiner (2005:436) found that library staffing, budget, number of students and faculty at an institution could affect the level or volume of certain aspects that a library provides. The results showed that with inadequate professional staffing the university libraries would not offer quality library services and programs.

5.2. Awareness about the concept of accreditation
The primary objective of this study was to gain measurable insights about the impact of accreditation on the quality of university libraries. This section, therefore, interprets the findings presented in section 4.1 and 4.2, which relate to the impact of accreditation a process of external quality assurance, on university libraries.

5.2.1 The purpose of accreditation
The findings showed that the majority of university librarians (86%) were aware that the key role of accreditation was quality assurance as indicated in Table 4.4. Award of status was also considered a major purpose of accreditation by 82% of the university librarians. The other roles they cited were public accountability and funding. The findings are in agreement with the purposes of accreditation as

suggested by Eaton (2009:2), Martin and Stella (2007:41), NEASC (2006:124), and Bogue and Hall (2003:23). These studies were discussed in section 2.2.

The findings also showed that the majority of the university librarians (95%) considered conformity with standards the greatest strength of accreditation. Most of the university librarians (59%) cited quality assurance as the second strength of accreditation. The findings are contrary to a study conducted in the USA by NEASC in 2006, which revealed that the greatest value of accreditation peer-review and self-study processes (NEASC 2006:124). This is not surprising because, unlike in Kenya where accreditation is compulsory for private universities, in the USA it is voluntary and based on self-regulation. The findings further revealed that the university librarians were aware of accreditation as it pertained to award of status in Kenya that is for licensing. Based on the findings, it is important that CHE to consider other methods of external quality assurance, such as quality audit and quality assessment, as outlined in section 2.2.

5.2.2 Attitude on the impact of accreditation

The previous section showed that the university librarians were aware of the concept of accreditation. This section interprets the findings presented in section 4.2, which relate to the impact of accreditation on university libraries. This section also showed how the university librarians perceive accreditation, a process of external quality assurance.

The findings presented in section 4.2.4 indicated the level of agreement with a series of statements about the impact of accreditation by university librarians. Overall, the university librarians had high opinions of the impact of accreditation on the quality of libraries. This was reflected in the high ratings in their attitudes towards accreditation, as shown in Table 4.12. Out of the 12 statements on accreditation, the librarians agreed with 10. This agreement with the 10 statements showed that the accreditation process had a positive impact on university libraries in Kenya by:

- Promoting the physical development of university libraries;

- Assisting the university libraries to achieve self-determined goals;
- Involving peer reviewers during the site visit/inspection;
- Enhancing the quality of library and information services in the universities;
- Improving the work environment for library staff; and
- Helping in the professional development of staff.

The findings also showed that there were positive and negative perceptions about the accreditation process. The majority of the librarians agreed that recommendations made during the accreditation site/visit were valid, the benefits of accreditation were long-term and that CHE provided guidance and support following the accreditation visit/inspection. These findings also revealed that, despite the differences in the universities, majority of the librarians were positive that accreditation process had brought about significant changes in their institutions. This was further corroborated by results in section 4.7.1 and Table 4.47, where the statistical correlation coefficient tests showed that there were strong positive correlations and no negative correlations on the attitudes of the university librarians towards external quality assurance.

Contrary to the positive perceptions on the post-accreditation visit/inspection, the findings also showed that the weakest aspect of in the accreditation process was how CHE prepared the institutions for the accreditation visit/inspection. The majority of the university librarians (86%) agreed that preparation for the accreditation site visit/inspection was time-consuming. Most of them, (64%) also agreed that the institutions were not adequately trained prior to the accreditation site visit/inspection.The findings also suggested that the university librarians did not understand their role prior to the site visit/inspection.

The findings of this study showed that the aspect of self-evaluation was not practised by the university libraries. The results showed that, some of the university librarians indicated that more time should be spent in the library during the accreditation visit. The findings also showed that, the librarians felt that, the selection of peers should be done properly to avoid conflict of interest.

The positive perceptions of the university librarians on the impact of accreditation on the quality of the libraries were confirmed by the positive correlations tests, as shown in section 4.7.1. All the statements were found to be statistically significant, which suggests that the university librarians with positive attitudes would support changes in the accreditation process. Those with negative perceptions could be sensitized through seminars and workshops on these areas.

The strong positive views showed that accreditation had made significant impact on university libraries in Kenya. The agreement with the statements on accreditation also means that there was a need to improve the accreditation process to be in tandem with the international best practices in higher education quality assurance.

5.2.3 Usage of the CHE Standards and Guidelines for Evaluating University Libraries

The previous section discussed the perceptions of university librarians regarding accreditation. This section discusses how university libraries have used the CHE set of expectations during the process of accreditation. The interpretations were on the findings as presented in section 4.3.1 of this study.

5.2.3.1 Highest and lowest utilized standards

The findings revealed that the majority of the university libraries had used only five out of the ten standards as shown in Table 4.18. The majority had used the mission and vision standard (93%), the organization and access to information resources (93%), the ICT resources (89%), the information resources standard (89%) and the library-building standard (81%). The results suggested that these standards have been greatly utilized by the libraries. The high usage of these aspects could be attributed to the eligibility requirements for licensing by CHE. Higher usage of the five standards could be attributed to the prescriptive nature of the CHE standards and guidelines for evaluating university libraries. This was the reason why the ALA advocated for the revision of the 1989 Standards in the

USA because it found that the main reasons for the earlier standards was for university librarians to become skilled in the process of examining and redefining necessary missions and assessing coherent goals. The attainment and redefining of these goals must be measured continually and effectively by assessing the needs of users and identifying, and applying measures that would reveal the extent to which an institution has successfully fulfilled its mission (ALA 2004:2).

The findings also showed that the less utilized standards were information literacy (74%), administrative structure (67%), library staffing (56%), library budget (48%) and the distance library (26%), as shown in Table 4.18. The low usage of these standards suggested that CHE should ensure that they are complied with.

5.2.3.2 Usage of the information literacy and competency (ILC) standard

The findings showed that the majority of the university librarians (74%) had utilized the information literacy standard. However, further investigations during the interviews revealed that the information literacy competency standard had not been fully implemented as expected. The results revealed that only 60% of the university librarians interviewed supported learning by teaching ILC while the remaining 40% conducted library orientations. Information literacy has been recognized by accrediting bodies as an integral component of higher education learning outcomes such as critical thinking and the capacity for lifelong learning skills (Saunders 2008:312; Weiner 2005:433; Lindauer 2002:15).

5.2.3.3 Usage of the administrative structure and library staffing standards

The results showed that the administrative structure and library staffing standard had been utilized by only a few universities, as shown in section 4.1.4. Further investigations showed that the staff establishment available in their institutions were very limiting in private universities. The findings also showed that the public universities and private chartered universities had the highest number of professional librarians as discussed in section 5.12. The results implied that there was a shortage of qualified staff in the private universities. In order to meet the

program and service needs of university libraries it is suggested that the universities have adequate qualified staff.

5.2.3.4 Usage of the library budget and distance library standards
The findings of this study showed that most of the universities (52%) had not utilized the library budget standard, as shown in section 4.3.1.8. The findings also revealed that most of the private universities had not used this standard, as compared to the public universities. The results showed that university libraries received inadequate funding. These findings on library staffing and budget are in agreement with a study on library quality and impact by Weiner (2005:436), which found that library staffing, budget, the number of students and faculty at an institution affect the level or volume of certain services that a library provides.

The findings also showed that most of the university librarians (74%) - from all the categories of universities - had not utilized the distance library standard. The results showed that large populations of library users were not getting quality library services. It is suggested that CHE ensures that the distance library services standard is implemented.

The findings showed that CHE should place emphasis on the information literacy standard, administrative structure standard, library staffing standard, library budget standard and distance library standard during the revision of the CHE Standards and Guidelines for Evaluating University Libraries. This would be similar to the outcome of studies discussed by Lindauer (2002:14), which showed that the draft standards and relevant supporting documentation of the regional accreditation commissions in the USA placed emphasis on outcomes assessment, distance education, and information literacy.

5.3 Attitude towards the CHE Standards used during the accreditation process
The previous section showed how the university libraries had utilized the CHE Standards. This section interprets the results on the attitudes of the university librarians towards the standards and guidelines used for evaluating university

libraries with the main aim of suggesting areas for improvement. The findings were analyzed and presented in section 4.3.1.

5.3.1 Standards should directly address the quantity, quality extent and level of suitability of library services and staffing

The findings revealed that the majority of the university librarians (89%) agreed that the standards should directly address the quantity, quality extent and level of suitability of library services and staffing. The opinions of the librarians from private registered universities and public universities were very high, with all of them agreeing with this statement, as shown in section 4.3.2.1. Previous studies have shown that measuring quantity of use and quality performance does not prove that users benefited from their contacts with a library (ACRL 1998:3; Markless & Streatfield 2006:6; Poll 2005:2: Poll 2006:136; Poll & Payne 2006:547; Weiner 2005; 432). Many of the authors as discussed in section 2.3.3.3, observed that the current trend shows that since 2000 the focus has shifted from measuring traditional library inputs to measuring outcomes of the library programs as primary indicators of quality (ACRL 2004; Cullen 2001; Gullikson 2006; Heu & Nelson 2009; Lindauer 2002; Markless and Steatfield 2006; Poll 2005; Poll 2006; Poll 2008; Poll and Payne 2006; Saunders 2007; and Weiner 2005).

5.3.2 Standards are up to date and realistic

The findings showed that most of the university librarians (63%) agreed that the standards developed by CHE were up-to-date. Those from private chartered universities strongly agreed with this statement more than university librarians from the other categories of universities. The results showed that universities that had interacted with CHE longer had high opinions of this statement than those that had not, as indicated in section 4.3.2.3. These findings also showed that some of the university librarians rejected this statement and believed that the current standards were not up-to-date and did not reflect current trends.

The findings also revealed that the majority of the university librarians (85%) agreed that the CHE standards were realistic. The findings, as presented in section 4.3.1.2, showed that some of the librarians found the standards

prescriptive. The findings are in agreement with studies undertaken by Materu (2007: xvi), which found that the standards being applied in most African states were input-based. Some of the university librarians also suggested that the standards should also address the electronic formats of information. These findings revealed that even though CHE standards were found to be up-to-date, they should also be realistic and reflect the rapid changes brought about by different information formats.

5.3.3 Standards should be reviewed regularly and based on evidence

The findings revealed that nearly all the university librarians (96%) agreed that the standards should be reviewed regularly to ensure that they are relevant to the current state of the profession, as shown in Table 4.18. This observation suggests that the librarians would easily support the revision of the CHE standards to make them consistent with the rapid changes in the assessment of library quality. These include changes brought about by electronic publications, an increase in the information available and a rise in user expectations.

Nearly all university libraries (93%) agreed that the standards should be based on evidence of normative practice determined by the measurement of outcomes. These positive attitudes mean that the university librarians would easily also agree to the introduction of outcome assessment, as discussed in section 2.4.

The attitudes of the university librarians towards the standards were also found to have strong positive and negative correlations, as presented in section 4.7.2. There were two strong positive correlations, three fairly positive correlations and only one negative correlation. These results suggested that the majority of the university librarians had positive attitudes towards the standards used by CHE, and very few negative ones. The positive attitudes suggest that university librarians would support the revision of the standards that are based on evidence of normative practice. The findings have showed that the CHE Standards and Guidelines for Evaluating University Libraries should be subjected to regular review, consistent with international best practice.

5.4 Data collected in university libraries as measures of quality

The results of the previous section showed that the majority of the university librarians agreed that the standards used to evaluate university libraries should be revised regularly and be based on evidence. This section interprets the findings presented in section 4.4 to ascertain the types of data collected by the university libraries as measures of quality.

5.4.1 Input and output data

The results showed that majority of the university librarians (79%) collected library statistics. The majority of librarians in private chartered universities, private universities with LIA and public universities collected library statistics. However, in some private registered universities, library statistics was not collected. The university libraries that did not collect statistics should be encouraged to so because, as noted by ALA (2004:3) if inputs and outputs are provided, then the desired outcomes of student learning and research would automatically follow. The results showed that the collection of library statistics is done independently at the institutions. The results showed that there is a need to standardize the collection of library statistics in Kenya on a national scale through an organization similar to the Association of Research Libraries in the USA. Section 2.3.3.1 demonstrated that authors such as Dugan and Hernon (2002:379), Hiller, Kyrillidou and Self (2008:226), Poll (2006:551) and Poll (2008b:36) observed that the traditional method of describing the quality of an academic library using statistics no longer fulfills the goal of successfully measuring the usersqdemand for information, and that alternative methods must be found.

The results also showed that only 44% of the university libraries used the data collected for planning, decision-making, improving service delivery, budgeting, report writing and collection development as shown in section 4.4.1. These results were similar to studies conducted by Poll and Payne (2006:553) as discussed in section 2.3.3.1. In a similar study on the use of statistics Hiller, Kyrillidou and Self (2008:223), found that few libraries were able to use data

effectively and consistently in planning and decision-making. They also found that while the availability of library related data, especially user statistics, had grown substantially with online systems, most libraries were not organized in a manner that facilitates the use of data. The organizational cultures did not accept data and library staff had neither the skills nor the abilities to utilize different research methodologies, analyze their data and present results in a way that they could be used.

The findings indicated that 56% of the university libraries conducted customer satisfaction surveys in 2009. The results further showed that these surveys were conducted mostly in public universities as compared to private universities, as shown in Table 4.21. These results indicate that the type of data collected was mostly on user satisfaction. The findings indicate that the methods used by respondents to collect data were questionnaires and interviews. The findings were similar to studies on impact assessment in the UK which revealed that the the methods chosen tended to have an emphasis on qualitative ‰oft+ methods (Poll & Payne 2006:558).

The findings showed that standardized instruments for data collection such as LibQual discussed in section 2.4.2.1, have not been used in Kenyan university libraries. As stated by Poll (2008:36), qualitative methods only supply what the library wants to tell about its services while quantitative methods yield data that can be benchmarked with other libraries and for decision-making.

5.4.2 Outcome data

The findings showed that only a few of the university libraries (33%) collected outcome data. The outcome data collected in Kenyan university libraries were service quality and customer satisfaction surveys, journal usage, usage of various types of ICT and information literacy competency measures, as indicated in Table 4.19. The outcome data collected by Kenyan university libraries was generally for service quality and customer satisfaction. This is contrary to observations made by various authors in section 2.3.3.2 that user satisfaction is not considered an outcome measure as high satisfaction with a library service

does not mean that there is change in skills, competencies and behaviour (Poll 2005:2; Poll and Payne 2006:552; and Phipps 2001:634).

Several authors cited in section 2.3.3.3 have shown that the current library assessment trends have now moved to student learning outcomes and how inputs and outputs relate to them (Ackermann 2007:3; Oakleaf & Hinchliffe 2008:160).

University librarians in Kenya must move away from measures of satisfaction to measures of student learning. As stated by Poll and Payne (2006:548), quantity of use and quality of performance do not yet prove that users benefited from their interaction with a library. Measuring impact means going a step further and trying to assess the effect of services on users. There is also a need to organize workshops and sensitize university librarians to the importance of outcomes of an academic library and how they relate to input and output data.

The findings showed that the only relevant methods used to collect outcome data in the few Kenyan university libraries were feedback, questionnaires and interviews. This was not in line with the methods provided in section 4.4.2, which included pretest/post-test, self-assessment of users, behavioral observation, transaction logs, longitudinal studies and assessing changes in studentsq bibliographies. As stated by Ackermann (2007:1), some of the current library assessment tools are data collection and analysis tools that provide both data collection capabilities and descriptive analysis. The findings showed that the outcome measures provided by the university librarians were actually descriptive inputs and not student learning outcomes. They further showed that a lack of knowledge about outcome measurement amongst university librarians.

Studies by Hiller, Ambrozic (2003:76); Kryllidou and Self (2008:227); Matthews (2007:6) and Turk (2007:178), have shown that lack of skills, time and resources are the major barriers to assessment of the impact of academic libraries on student learning. The few professional university librarians available, as discussed in section 5.1.1, are expected to balance their time between different

responsibilities. Oakleaf and Hinchliffe (2008:161) identified similar challenges faced by librarians in the USA, where they found that the cost of time required for assessment often comes at the cost of time spent doing the activity that would be assessed.

The findings presented in section 4.4.2.3 showed that the university librarians highly agreed with statements on outcome measures. The high ratings awarded to the skills, knowledge and understanding and attitudes and values outcome measures showed that the librarians would support outcome measures in the assessment of the impact of library quality. The low ratings awarded to the behaviour outcome measures showed that there is a need to sensitize the university librarians in this area. The librarians attitudes showed one strong positive correlations between the behaviours and attitude and value statements, as shown in Table 4.7.3. However, there were two negative correlations, as shown in Table 4.7.3.

5.5 Attitude on performance measurement

The previous section 5.4 established that the types of data collected by the university librarians were descriptive inputs. Therefore, this section interprets the views of university librarians regarding performance criteria and indicators. These findings were presented in section 4.5. The attitude of the university librarians attitudes have been placed in order of importance of the performance criteria and indicators, from the highest to lowest.

5.5.1 Importance of performance criteria

The findings showed that out of the nine criteria, the university librarians considered five important. These were leadership, planning and strategy, staff outcomes, customer perspective and process change management as reflected in Table 4.35. In a similar study by Melo and Pires (2008:12), the customer perspective, impact on society, leadership and financial perspective criterion were considered important. Another study by Harer and Cole (2005:149) found that customer focus and leadership processes were considered very important

for assessing quality in university libraries.

The findings showed that the leadership criterion was the highest ranked criteria by the university librarians in Kenya, as shown in Table 4.35. This was similar to the results of a similar study by (Borbely 2011:13). However, the findings were contrary to studies undertaken by Melo and Pires (2008:12) and Harer and Cole (2005:149), which showed that that the customer perspectives were the most important criteria. As stated by Hiller, Kyrillidou and Self (2008:229) and Pors (2008:150) leadership direction and support combined with customer centered organizational culture, are the foundations of effective assessment and informed decision-making.

The findings also showed that the university librarians considered the impact on society, management of resources and partnerships, management of internal resources and financial perspective criteria as less important, as shown in Table 4.35. This was similar to the result of a study by Melo and Pires (2008:12), which showed that the less important criteria were process and change management, strategy and planning and external partnerships and resources.

The findings showed that the university librarians identified the key performance criteria for measuring the quality of university libraries. The results also showed that the librarians were aware of the importance of performance criteria in assessing the quality of university libraries. The positive views on performance measurement showed that the librarians would promote and support the use of performance criteria in the evaluation of university libraries in Kenya.

5.5.2 Performance indicators of high importance
The findings revealed that 22 out of 26 performance indicators were considered important by the majority of the university librarians, as shown in section 4.3. Out of the 22 performance indicators, 11 were considered very important by more than 60% of the librarians as indicated in Table 4.34. However, when the rankings of very important and important were added, only one performance

indicator, assess market penetration, was ranked very important by 52% of the university librarians, as indicated in Table 4.36. The patterns of ratings of the performance indicators were similar to the criteria order of importance, as discussed in section 5.5.1. The findings showed that the indicators rated very important by the majority of the university librarians were those of leadership, planning and strategy, customer perspective, staff outcomes, impact on society and process and change management as shown in Table 4.34.

In the current study, the formulation of vision and mission indicator was found to be the most important indicator amongst the three leadership performance criteria. The other two indictors, that is, the development of library management and promotion and training of learning activities to improve the library's performance were highly rated. This confirmed the findings in section 5.5.1 that the leadership criterion was the highest ranked by the university librarians in Kenya, as shown in Table 4.34

The findings further showed that the majority of the university librarians also considered the strategic plan performance indicator very important in comparison to the other two indicators, of planning and strategy performance criteria, as indicated in Table 4.25 and 4.34. The findings are consistent with studies by Derfert-Wolf, Gorski and Marcinek (2005:4) and Nicholson (2004:165), discussed in section 2.3 on the significant role of strategic planning in university libraries.

In addition, the findings showed that most of the university librarians also considered the user satisfaction performance indicator the most important indicator as compared to library visits per capita and loans per capita, as shown in Table 4.34. This was contrary to the findings of Melo and Pires (2008:12), which showed that the indicator considered most important by Portuguese and Brazilian university librarians was the library per visits indicator.

The findings also showed that the university librarians found the number of

academic publications and number of training sessions for library users, were the most important indicators amongst the impact on society criteria. The findings are similar to a study by Melo and Pires (2008:12), which found two of the most important indicators, were rate of studentsqsuccess and faculty publications.

The findings revealed that according to the university librarians, the most important indicator, amongst the process and change management criteria was median time for document retrieval. This was contrary to the findings by Melo and Pires (2008:12), where the median time of document acquisition was found to be more important.

These findings have shown that the university librarians were aware of the significance of performance indicators in the assessment of university libraries. This was mainly because 25 out of the 26 indicators were rated important by the majority of them, as shown in Table 4.36.

5.5.3 Performance indicators of low importance

The findings showed that only six indicators - amount of academic publications by library staff, costs per user, costs per library visits, library visit per capita, loans per capita and assess market penetration - were the lowest ranked performance indicators, as shown in Table 4.34. However, when the ratings, very important and important were combined, only one indicator was ranked as important by less than 50% of the university librarians, as shown in Table 4.36. The results showed that the lowest ranked performance indicators were those relating to financial perspective criteria.

The low opinions expressed by university librarians regarding the key areas in performance measurement of academic libraries indicates a lack of knowledge about the importance of performance indicators for management of resources and partnerships, management of internal processes and performance financial perspective criteria. This further shows that there is a need to sensitize university librarians to the importance of these performance indicators. The performance

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measures identified by the university librarians as important in this study constitute a significant body of potential methods of assessing the effectiveness of university libraries.

The attitude of the university librarians towards performance measurement were also found to have strong positive and negative correlations, as presented in section 4.7.2. There were 11 strong positive correlations, 15 fairly positive correlations and only 10 negative correlations. These results suggest that the majority of the librarians had positive attitudes towards performance measurement. Their positive attitudes showed that they would promote and support the use of performance measurement as a basis for assessing university libraries. The negative perceptions showed that there was need to sensitize and educate the university librarians on the role of performance measurement in the assessment of institutions.

5.6 Usage of performance criteria and indicators

The previous section established the attitude of the university librarians towards performance measurement and found that they had positive views towards performance criteria and indicators. This section interprets the results presented in section 4.6. It discerned if there was a culture of assessment in Kenyan university libraries.

5.6.1 Usage of the leadership performance criteria

The findings showed that the majority of the university librariansqperception of the leadership criteria was very high, as depicted in Table 4.35. However, the high perception did not translate into usage of the leadership performance criteria, which had been utilized by an average of only 56% of the universities. The majority of the university librarians (73%) had used the definition of vision mission performance indicator while only 56% had used the development of library management system performance indicator. These findings corroborate the results in section 5.2.3.1, which showed that the university libraries had implemented the vision and mission standard.

Amongst the three indicators of the leadership performance criteria, the promotion and training of learning activities to improve the library's performance was the least used indicator, by only 44% of the universities, as indicated in Table 4.42. The difference in usage amongst the different categories of universities was not significant, but the highest usage of the leadership performance criteria was evident in the public universities and private chartered, and lowest in private universities with LIA and private registered universities, as indicated in Table 4.33. The findings are in agreement with the results in section 5.3.1.1, which showed that few of the universities had implemented the information literacy and competency standard.

5.6.2 Usage of planning and strategy performance criteria
The findings showed that the planning and strategy performance criteria were among the top ten highest rated indicators as shown in Table 4.34. However, the high ratings were not reflected in the usage, as only 63% of the librarians indicated that they had used the strategic plan performance indicator, as indicated in Table 4.42. The findings also showed that the private chartered universities were the lowest users of this indicator as compared to other universities, as discussed in section 4.6.2.

The findings revealed that most of the university librarians (56%) had used the conduct of surveys performance indicator. The conduct of surveys performance indicator was also highly rated, and it is surprising that the usage was highest in most of the private universities with LIA (71%) and most public universities (60%), and lower in private chartered universities (55%) and private registered universities (25%). The findings confirmed the results in section 5.4.1, which showed that 56% of the university libraries conducted customer satisfaction surveys.

The findings showed that a number of university librarians (48%) had used the benchmarking practices performance indicator, as shown in Table 4.42. This was also the tenth ranked performance indicator and its low usage shows that there is

a need to create awareness on the importance of benchmarking in university libraries. As stated by Voorbij (2009:68), benchmarking enables libraries to compare their performance across a variety of aspects.

The results showed that the strategic plan was the most utilized indicator in comparison with the conduct of surveys of library users and benchmarking practices performance indicators. These three planning and strategy performance criteria were also rated very highly by the university librarians; however, usage was not reflected in the results.

5.6.3 Usage of management of resources and partnerships performance criteria

The findings show that a number of the university librarians had used the management of internal processes performance criteria, as shown in Table 4.42. The number of reading places in the library and number of monographs/journals indicators had been used by 56% of the universities. These were mostly librarians from private universities with LIA (71%), public universities (60%) and private chartered universities (55%). Only one private registered university had used this performance indicator. The other performance indicators - opening hours per week and partnerships to minimize costs was used by 52% of the librarians, as shown in Table 4.42.

5.6.4 Usage of management of internal processes performance criteria

The findings showed that the management of internal processes performance criteria was ranked lowest by university librarians, as shown in Table 4.35. However, one, the electronic resources performance indicator, was rated high (89%), as shown in Table 4.34. Nevertheless, the high ratings did not translate into usage, as only 26% had used this indicator.

The average time for providing a free access document that does not exist in the library was also rated as important by the majority of the university librarians (82%). However, usage was very low, at only 19%. The average time for retrieving a free access document indicator had also been used by very few

universities despite the high importance rating of 78% by the university librarians, as shown in Table 4.35. The representation of usage was very low in both public and private universities.

5.6.5 Usage of customer perspective performance criteria

The findings showed that the customer perspective criteria were rated as important by most university librarians, as shown in Table 4.35. However, its usage in the universities was very low, as presented in section 4.6.6 and reflected in Table 4.42. The findings showed that the indicator had been utilized more in the private universities with LIA and at the public universities than in the private chartered universities and private registered universities.

The library visits per capita was also highly ranked as important, although this was not reflected in its usage, with only 26% of the universities having used this indicator in their libraries. The Representation amongst the different categories of universities was highest in the public universities as compared to the private universities. The findings also showed that usage of the loans per capita performance indicator was lower than the library visits per capita indicator. The results further showed that the public university libraries were once again the greatest users of this performance indicator as compared to private universities.

5.6.6 Usage of staff outcomes performance criteria

The findings showed that the staff outcome criteria were little used by the university librarians, as depicted in Table 4.43. The two staff outcomes performance criteria indicators were all highly rated as important, as shown in Table 4.34. The usage of the overall staff satisfaction performance indicator was higher (26%) than the levels of staff absenteeism or sickness (19%). The public universities were the greatest users of these indicators as compared to the private universities as shown in Table 4.42. The findings confirmed the results in section 5.2.1.2 which showed that the levels of staffing in university libraries were inadequate.

5.6.7 Usage of the impact on society performance criteria

The findings showed that the impact on society performance criteria was also one of the least used criteria, as shown in Table 4.43. The high ratings for these indicators did not also translate into usage. The usage of the amount of publications by library staff and the amount of publications by faculty performance indicators were identical standing at only 15%. The amount of training sessions for library users had been used more than the other two indicators by only 22% of the universities.

5.6.8 Usage of process and change management performance criteria

The findings showed that the process and change management criteria were not rated as important by most of the university librarians, as shown in Table 4.43. The median time for document retrieval and the median time for document acquisition indicators were highly ranked, as shown in Table 4.34. However, usage of these indicators was very low, as shown in Table 4.42. The assess market penetration indicator was ranked lowest, by the university librarians, and its usage was also very low, with only 15% of the universities indicating that they had used it as an indicator of quality in their libraries.

5.6.9 Usage of financial perspective performance criteria

The findings showed that financial perspective criteria were the lowest ranked performance indicators as indicated in Table 4.35. The performance indicators cost per user and cost per library visit were the little used, as indicated in Table 4.43.

The findings showed that the utilization of performance measurement in universities was very limited. This is shown by the fact that, out of the 26 performance indicators, only seven had been utilized, by less than half of the university libraries in this study, as shown in Table 4.42. As stated by Dole, Liebst and Hurych (2005:174), library administrators should gather data and use the data for decision-making in all areas of the library; collection of data, survey data, economic information, departmental needs, shelving and interlibrary loan statistics, user needs and building use are very important.

The results showed that there were factors that hindered the usage of performance measurement in university libraries. The three major barriers to assessment identified by Oakleaf and Hinchliffe (2008:160) were time, resources and lack of understanding of assessment. The other significant barrier is lack of a culture of assessment. The results confirmed that there is no culture of assessment in university libraries in Kenya.

The reasons why a culture of assessment was not fostered in university libraries was discussed in section 2.5. Matthews (2007:6) stated that the major reasons for lack of a culture of assessment were the perception that one can't measure what a library does, lack of leadership, the library not having control over outcomes, the possibility of using such information being used against the library, lack of skills, the move to increased demand for electronic resources and services, old mental models and the preference for the status quo.

5.7 Summary of the chapter

This chapter interpreted and discussed the findings presented in Chapter Four. The discussions and interpretations were based on the themes that emerged from the findings outlined in section 5.0. This section summarizes the major observations drawn from the findings.

5.7.1 Impact of accreditation in university libraries

The findings showed that the university librarians were aware of the concept of accreditation, and that they could give informed views on the issues being investigated in the study. Overall, the university librarians were very positive about the impact of accreditation on the quality of their libraries, as reflected in the high ratings in attitudes towards accreditation. The agreement with the 10 statements on accreditation indicated that the process had made a positive impact in the universities.

These findings also revealed that, despite the different categories of universities, the majority of the university librarians' views were that the accreditation process

had brought about positive changes. Contrary to the positive perceptions on the post-accreditation visit/inspection, the findings also showed that the weakest aspect of the accreditation process was how CHE prepared the institutions prior to the accreditation visit/inspection.

5.7.2 Usage and attitudes towards the CHE Standards and Guidelines for Evaluating University Libraries

The results showed that the university libraries had not utilized five of the ten standards for evaluating libraries. The high usage of five of the standards could be attributed to the eligibility requirements for licensing by CHE. Higher usage of the five standards could also be attributed to the prescriptive nature of the CHE standards and guidelines for evaluating university libraries. While the low usage of the other five standards suggested that CHE should ensure that they are complied with.

These results suggested that the majority of the university librarians had positive attitudes towards the standards used by CHE and very few negative attitudes. The positive attitudes suggest that university librarians would support the revision of the standards, based on evidence of normative practice. The findings showed that the CHE Standards and Guidelines for Evaluating University Libraries should be subjected to regular review, consistent with international best practice. It was further suggested that CHE revise the standards so that they can provide a comprehensive outline to methodologically examine and analyze library operations, services and outcomes in the context of accreditation.

5.7.3 Types of data collected in Kenyan university libraries

The types of data collected by Kenyan university libraries were found to be descriptive inputs derived mainly from customer satisfaction surveys. The statistics were also independently collected by university libraries. It was suggested that there was a need to standardize the collection of library statistics in Kenya on a national scale. The findings showed that the outcome measures provided by the university librarians were actually descriptive inputs and not student learning outcomes.

The findings showed that the university librarians lack knowledge about outcome measurement. The findings presented in section 4.4.2.3 showed that the university librarians highly agreed with statements on outcome measures. This showed that they would support the introduction of outcome measures in the assessment of the impact of library programs.

5.7.4 Attitude towards performance measures

The findings showed that out of the nine criteria, five were considered important by the university librarians for performance evaluation. These were leadership, planning and strategy, staff outcomes, customer perspective and process change management criteria, as reflected in Table 4.35. The findings also showed that the university librarians considered the impact on society, management of resources and partnerships, management of internal resources and performance financial perspective criteria as less important as shown in Table 4.35.

The findings showed that the university librarians identified the key performance criteria for measuring the quality of university libraries. The results also showed that the librarians were aware of the importance of performance criteria in assessing the quality of university libraries. The positive views on performance measurement showed that the librarians would promote and support the use of performance criteria in the evaluation of university libraries in Kenya.

However, their low opinions regarding the key areas in performance measurement of academic libraries indicates that they lack knowledge about the importance of performance indicators for management of resources and partnerships, management of internal processes and performance financial perspective criteria. This further shows that there is a need to sensitize university librarians to the importance of these performance indicators.

5.7.5 Usage of performance measures

The high ratings awarded to the performance indicators in section 5.4 were not reflected in their usage by university librarians. Out of the 26 performance indicators only seven had been utilized by more than half of the university

libraries, as shown in Table 4.42. The findings showed that the utilization of performance measures in universities was very limited.

CHAPTER SIX: SUMMARY CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

The previous two chapters presented the findings and interpretations of the study. The background to the study, a descriptive statement of the research topic, the research problem in general terms, with a statement of the aims of research and definitions of important terms was presented in Chapter 1. Chapter 2 reviewed the literature relating to the research topic. Chapter 3 presented the theoretical perspective of the study, research methodology and research design of the study. This chapter summarizes the study and presents the conclusions and recommendations.

6.1 Summary of the study

The purpose of this study was to explore the impact of external quality assurance on university libraries. The exploration highlighted the nature of the EQA approach adopted by Kenya and demonstrated the applicability of a quality management framework and a performance evaluation model for evaluating of university libraries in Kenya. This section presents the summary of the research findings based on the objectives of the study presented in Chapter 1, section 1.2.2.

The study was conducted based on the problems identified as affecting CHE in Kenya as experienced by other External Quality Assurance Agencies in Africa, as discussed in section 1.1.2.

Chapter 3 presented the theoretical perspective, research methodology and design for gathering data for this study. The philosophy of pragmatism formed the basis of this study. A review of the literature on the qualitative, quantitative and mixed method research approaches was provided. This involved collecting data in two phases. In the first phase, a questionnaire was sent to all universities.

As discussed in Chapter 3, sections 3.3.1, of this study, the data from the questionnaires was analyzed and the key results that needed explanation identified for a follow-up interview. A total of 27 (87%) out of 31 potential respondents completed and returned the questionnaires. The overall response rate of 87% was high and ensured that the survey results were representative to the survey population. The total response rate included all the 11 (100%) private chartered universities, seven (78%) of the nine universities with letters of interim authority (LIA), all the four (100%) registered private universities and five (71%) of the seven public universities, as shown in Chart 4.1.

Based on the findings from the questionnaire survey, five heads of university libraries were purposively selected for the interview. They included respondents from two private chartered universities, two private universities with letters of interim authority (LIA) and one public university. The data from the two phases was analyzed using descriptive and correlation coefficient statistical data analysis (SPSS).

Most of the respondents 16 (59%) out of 27, held leadership positions, with the title of university librarian. The majority of the librariansq were qualified professionals with Masters degrees, and a few held doctorate degrees in library and information studies. The majority of the positions were in private registered, private chartered and public universities. The private universities with LIA had fewer librarians with substantive positions.

Overall, only 60 professional librariansq were available to manage the vast information resources and serve users in the university libraries in Kenya. The majority of the professional librarians were in public universities and private chartered universities. The professional librarians with Masters degrees were 74, while nine held doctorate degree qualifications. The number of professional staff to provide information services in the university libraries was found to be inadequate.

The findings showed that the institutions represented in the sample varied considerably in terms of information resources available, users and number of qualified staff. In summary, the following are the key results emerging from the literature review and the findings of the study.

6.1.1 Summary of the current trends in external quality assurance

The literature reviewed in Chapter 2 demonstrated that globalization and commercialization had affected higher education systems. Globalization highlighted the need for the establishment of national accreditation and quality assurance systems, along with the promotion of networking among them (UNESCO 2010:5). These challenges had also created and increased need for improvement of the quality assurance processes and procedures in higher education institutions and external quality assurance agencies. There was an increased interest in quality and standards the world over reflecting the rapid growth of higher education and its cost to the public and the private purse (UNESCO 2010:3; ENQA 2005:9; UNESCO 2006:6; Materu 2007:xiii).

The literature reviewed also established that the new phenomenon of globalization had brought growing concern worldwide regarding the quality of higher education inputs, processes and outcomes. Many countries had created new mechanisms for external quality assurance. This resulted in quality criteria that reflected the overall objectives of higher education, notably the aim of cultivating in students critical and independent thought and the capacity to learn throughout life. Increasing emphasis had been placed on outcomes of higher education and evaluators were looking for new data and indicators that demonstrate that students have mastered specific objectives as a result of their education (Altbach, Reisberg and Rumbley 2009:ix). Quality requires the establishment of both quality assurance systems and patterns of evaluation as well as promoting a quality culture within institutions (UNESCO 2010:3).

The university libraries are part of the higher education system and the same challenges mentioned above have affected them. The literature demonstrated that many university libraries in the USA and Europe had revised their standards

to include outcome and impact measures. The American Library Association and the American College of Research Libraries revised their standards in 2004 to include input, output and outcome measures of effective library services. The data that is collected now measures functions and processes that are relevant to contemporary higher education. The literature reviewed also demonstrated that the general trend is the adoption of quality management frameworks and performance evaluation models for the assessment of quality in university libraries.

6.1.2 Investigation into the awareness and attitude towards the impact of accreditation

The study established that 86% of the university librarians were aware that the key role of accreditation was quality assurance. The main purpose of accreditation, according to 82% of them, was award of status, while 95% of the librarians found that the greatest strength of accreditation was conformity with standards. The study established that the majority of the university librarians were aware of accreditation as it pertained to the award of status in Kenya that is for licensing.

Overall, the university librariansqperceptions of the impact of accreditation on the quality of libraries were very positive. The agreement with the 10 statements demonstrated that the accreditation process had made positive impacts in the university libraries in Kenya by:

- Promoting the physical development of university libraries;
- Assisting the university libraries to achieve self-determined goals;
- Involving peer reviewers during the site visit/inspection;
- Enhancing the quality of library and information services in the universities;
- Improving the work environment for library staff; and
- Helping in the professional development of staff.

The study also demonstrated that, despite the differences in the universities the majority of the librarians agreed that the accreditation process had brought significant changes in their institutions. The study established that the university libraries did not undertake self-evaluation and demonstrated lack of awareness regarding self-evaluation. The statistical correlation coefficient tests showed that there were strong positive correlations and no negative correlations on the attitudes of the university librarians towards external quality assurance.

6.1.3 Investigation into the usage of CHE Standards and Guidelines for Evaluating University Libraries

The study established that the university librarians had used only five of the ten standards. The majority of the libraries had used the mission and vision standard (93%), the organization and access of information resources (93%), the ICT resources (89%), the information resources standard (89%) and the library building standard (81%).

The findings also showed that the least utilized standards were information literacy (74%), administrative structure (67%), library staffing (56%), library budget (48%) and distance library (26%), as shown in Table 4.18. The study established that only 60% of the university librarians interviewed supported learning by teaching ILC while the remaining 40% conducted library orientations.

The study established that the public universities and private chartered universities had the highest number of professional librarians. The distance library standard had also not been utilized by 74% of the universities.

6.1.4 Investigation into the perceptions of CHE Standards and Guidelines for Evaluating University Libraries

The study demonstrated that the majority of the university librarians (89%) were of the view that the standards should directly address the quantity, quality extent and level of suitability of library services and staffing. The opinions of the librarians from private registered universities and public universities were very high, all of them agreed with this statement.

The study revealed that university librarians (63%) agreed that the standards developed by CHE were up-to-date as compared to 85% who were of the opinion that they were realistic. The study established that nearly all the university librarians (96%) agreed that the standards should be reviewed regularly, while 93% agreed that they should be based on evidence of normative practice.

6.1.5 Types of data collected by university libraries

The study established that university librarians (79%) collected library statistics. Only 44% of the universities used the data collected for planning, decision-making, to improve service delivery, budgeting, report writing and collection development. The study also ascertained that the collection of library statistics was done independently at the institutions.

The study also found that 56% of the university libraries conducted customer satisfaction surveys. The majority of the public universities conducted customer satisfaction surveys in comparison with private universities. The methods they used to collect data were questionnaires and interviews.

The study ascertained that university libraries did not collect much outcome data. The outcome data they collected was generally for service quality and customer satisfaction. The study further established that the outcome measurements collected by the university librarians was actually descriptive inputs and not student learning outcomes. The study established that the university librarians regarded the skills, knowledge, understanding, and attitudes and values outcome measurements important.

6.1.6 The perceptions of university librarians regarding performance measurement

The study established that the majority of the university librarians considered 25 out of the 26 performance indicators important. More than 60% of them considered 11 out of the 22 performance indicators very important. The study, therefore, ascertained that a majority of the university librarians had positive attitudes towards performance measurement.

The study further found that only six indicators - amount of academic publications by library staff, cost per user, cost per library visit, library visit per capita, loans per capita and assess market penetration - were the lowest ranked performance indicators. The study established that the indicators of high importance were leadership, planning and strategy, customer perspective, staff outcomes, impact on society and process and change management performance criteria. The study also found that the lowest ranked performance indicators were the financial criteria.

6.1.7 The usage of performance measurement in university libraries

The study ascertained that the high ratings awarded to the performance indicators by the university librarians did not translate into usage; they had utilized only seven of the 26 performance indicators.

6.2 Conclusions

The previous section provided a summary of the key findings of this study. This section provides the conclusions drawn from the research objectives and themes that emerged from the findings.

6.2.1 Conclusions on the role of accreditation and its impact on university libraries

The university librarians were not aware of other purposes of external quality assurance such as accountability and quality improvement. They were only aware of accreditation as it pertained to the award of status in Kenya, that is, for licensing.

Accreditation had made tremendous impact on university libraries, ensuring that the institutions had met the minimum standards such as physical development of libraries, improvement of the work environment for library staff, professional development of library staff and provision of adequate information resources. Accreditation had also made significant impact by involving peer evaluators during the site visit/inspection of university libraries.

The university librarians did not practice self-evaluation (internal quality assurance). There was no evidence in the information provided by the university librarians in the self-evaluation reports. The CHE did not adequately prepare the institutions prior to the site/visit inspection. Nor did it conduct regular follow-ups of institutions after the site visit/inspection.

The challenge to the university librarian in Kenya was ensuring that the quality criteria reflected the overall objectives of higher education, notably the aim of cultivating in students critical and independent thought and the capacity to learn throughout life.

Accreditation offered an opportunity for librarians to contribute to institutional self-assessment; current trends in accreditation also challenge librarians to examine the criteria by which they measure success. Accreditation had affected university librarians because the provision and use of library materials and services influences the quality of the studentsq educational experience (Dalrymple 2001:23).

6.2.2 Conclusions on the usage of CHE Standards and Guidelines for Evaluating University Libraries

The most utilized standards were those relating to the eligibility requirements for licensing by CHE and mandatory for the award of status of accreditation such as a Charter or Letter of Interim Authority (LIA). Meanwhile, the least used standards were those that were crucial for demonstrating that students had mastered specific objectives because of their education. These included the standards on information literacy, library administrative structure and library staffing, library budget and distance library standards.

The majority of university libraries conducted library orientations and not information literacy programmes. Information literacy has been recognized as an integral component of assessment of student learning. To offer quality library and information services, there must be adequate qualified staff. The result of low implementation of the administrative structure and library staffing standards led

to inadequate numbers of qualified librarians to offer quality services, as demonstrated in section 5.1.1. The public and private university libraries had the majority of qualified staff while private universities with LIA and registered universities had inadequate staff.

The revised CHE Standards and Guidelines of 2007 were mainly input-focused and prescriptive in nature. The standards do not include the measurement of outputs and outcomes in the assessment of the impact of university libraries. The standards had very few indicators that could assist university libraries to evaluate their performance in detail, and there is a need to supplement these standards with performance indicators.

6.2.3 Conclusions on the perceptions of university librarians regarding CHE Standards and Guidelines for Evaluating University Libraries

The university librarians agreed that the standards must address the quantity, quality, extent and level of suitability of library services and staffing. They also agreed that standards were up-to-date and realistic, but prescriptive in nature. They also agreed that the standards must reflect the rapid changes brought about by different formats of information, for example electronic publications.

The librarians also agreed that there is a need for regular revision of the standards regularly to ensure that they were in tandem with the rapid changes in the assessment of library quality. These included changes brought about by electronic publications, increased availability of information and a rise in user expectations.

The study established that the standards were input- based and the university librarians supported the introduction of evidence of normative practice determined by the measurement of outcomes as a basis for assessing the quality of university libraries. It is evident from the findings of this study that university librarians in Kenya are likely to support and promote the revision of the CHE Standards and Guidelines for evaluating university libraries.

6.2.4 Conclusions on the measures of quality collected in university libraries

The library statistics collected by university libraries were from customer satisfaction surveys. Universities in Kenya collected library statistics independently for their own usage. It was evident from the findings that the collection of library statistics was not centralized within a national body or association. Standardized instruments for data collection in Kenyan university libraries were not available; the instruments used were questionnaires and interviews. There was lack of understanding of outcome measurement amongst Kenyan university librarians. The outcome measurements provided were descriptive inputs and not student learning outcomes.

6.2.5 Conclusions on the perceptions of university librarians regarding performance measurements

The university librarians identified the key performance criteria for measuring the quality of university libraries. They established the performance indicators of high importance. The study concluded that the librariansq general perception with regard to performance measurement was positive. The librarians would promote and support the use of performance measurements as a basis for assessing university libraries.

6.2.6 Conclusions on the usage of performance measurement in university libraries

The study established that the high perceptions of performance measurement did not translate into usage. The usage of the performance indicators by the university librarians was very limited. The study concluded that there were factors that hindered the use of performance measures in university libraries in Kenya. It is evident that there was no culture of assessment in Kenya university libraries.

6.3 Conclusions on the statement of the problem

The main purpose of this research was to investigate the impact of accreditation on university libraries with the aim of establishing the types of measures used for evaluating performance. Although the population of this study was limited to public and private university libraries, the findings from the study were significant.

The study was also significant because, for the first time research was undertaken on the impact of accreditation, a process, of external quality assurance, on university libraries in Kenya.

However, it was evident from the findings that accreditation was mainly focused on compliance with minimum standards, as opposed to accountability or guidance and improvement of university libraries. The university librarians were only aware of accreditation as it pertained to award of status.

It was evident that accreditation, a process of external quality assurance, had made significant impact in university libraries, in Kenya. The impact on university libraries was due to the eligibility requirements for the award of status. However, it was clear from the findings that the university librarians did not conduct self-assessment prior to the accreditation visit. The reason for lack of self-assessment was that the standards of CHE focused on inputs, with little attention to process, output and outcomes. The measurements in the CHE standards did not reflect all aspects of library performance.

The types of measurements used were only descriptive inputs of the libraries. From the findings, it was evident that there was no collection of statistics nationally to enable benchmarking. It was also evident from the findings that there were no specific performance indicators to facilitate self-assessment and benchmarking between university libraries.

As stated by Ninh et al (2010:705), standards need supplementation with a systematic performance measurement system to provide guidance to individual universities. It was evident from the findings that there were no specific performance indicators for measuring and documenting the impact of libraries on key institutional outcomes. The performance measurements for assessing the effectiveness of quality assurance processes at the university libraries were also not evident. The standards used for evaluating university libraries only covered inputs, as opposed to their outputs and outcomes.

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6.4 Recommendations

The previous section presented the conclusions of the study findings. This section presents the recommendations, according to the conclusions made in the previous section. The recommendations made in this section demonstrate the application of the quality management frameworks and performance implementation model in the evaluation of university libraries.

6.4.1 Recommendations on the accreditation process in university libraries

CHE should create new mechanisms for external quality assurance. It should also promote accountability and quality improvement during the accreditation process of institutions instead of only regulating the higher education sector based on conformity with minimum standards (Materu 2007: iv). This might result in quality criteria that reflect the overall objectives of higher education, notably the aim of cultivating in students critical and independent thought and the capacity to learn throughout life. CHE should emulate other countries in emphasizing the outcomes of higher education during evaluation. The evaluators should look for new data and indicators that demonstrate that students have mastered specific objectives because of their education (Altbach, Reisberg and Rumbley 2009: ix).

CHE should consider improving the way it prepares institutions prior to the accreditation site visit/inspection. The Commission should prepare a site visit/inspection manual, indicating how the institutions should prepare before the accreditation visit. CHE should also advocate the use of self-evaluation in university libraries in Kenya. The libraries should consider developing internal quality assurance systems. As stated by Materu (2007: xvi), regular self-assessment at the institutional and unit levels is the backbone of a viable quality assurance system.

6.4.2 Recommendations on the CHE Standards and Guidelines for Evaluating University Libraries

The existing standards have encouraged university libraries to meet minimum requirements as set out by CHE but they have not adequately addressed the

teaching role of the library at universities. CHE should place emphasis on the information literacy, administrative structure, library staffing, library budget and distance library standards during the evaluation of university libraries. It is imperative that the CHE ensure that the private universities implement the administrative structure and library staff standards.

The CHE standards should include assessment of student learning and other outcomes that the university library would have on students. The university librarians should be sensitized on the significance of outcomes.

This study recommends that, in order to meet the program and service needs of university libraries, universities should ensure that they have adequate numbers of qualified staff. CHE should evaluate university libraries based on evidence of normative practice, hence the need to revise the standards. The standards should reflect the rapid changes brought about by different formats of information. The standards should also provide a comprehensive outline for methodologically examining and analyzing the library operations, services and outcomes in the context of accreditation.

This study recommends that a performance measurement system supplement the CHE standards for the purposes of benchmarking and individual assessment of university libraries. The study further recommends that the CHE standards focus on outputs and outcomes of the library programs as primary indicators of quality. CHE should also focus on continuous improvement of optimal quality standards rather than just compliance with minimum standards.

6.4.3 Recommendations on the measurements of performance in university libraries

The study recommends that university librarians in Kenya move away from measurements of satisfaction to that of student learning. As stated by Poll and Payne (2006:548), quantity of use and quality of performance do not yet prove that users benefited from their interaction with a library; measuring impact means

going a step further and trying to assess the effect of services on users. CHE should also organize workshops and sensitize university librarians on the role of outcomes of an academic library and how they relate to input and output data.

The study further recommends that university libraries in Kenya adopt the use of standardized instruments such as LibQual for data collection. As stated by Poll (2008:36), qualitative methods only supply what the library wants to tell about its services while quantitative methods yield data that can be benchmarked with other libraries and for decision-making.

The study recommends that the university librarians standardize the collection of library statistics in Kenya on a national scale. They should also take advantage of the availability of library-related data through computerized library systems. In order to overcome the barriers (such as, lack of skills, time and resources) that hinder the assessment of the impact of university libraries on studentsqlearning as mentioned by Ambro0i (2003:76), Hiller, Kryllidou and Self (2008:227), Matthews (2007:6) and Turk (2007:178), the universities should recruit additional professional library staff.

The study recommends sensitization of university librarians on the importance of performance indicators in the assessment of university libraries. The sensitization should focus on the indicators for management of resources and partnerships, management of internal processes and performance financial perspective criteria. The study proposes that CHE co-ordinate the sensitization of university librarians.

The study also recommends that CHE consider the introduction of systematic quality indicators and develop a culture of quality to provide for the measurement and monitoring of continuous improvement in universities libraries in Kenya. The university librarians should develop assessment methodologies that focus on performance indicators and measure outcomes of student learning.

In order to develop a culture of assessment in university libraries in Kenya, university librarians should adopt the proposed qualification framework and performance evaluation model, as shown in Figure 6.1.

Figure 6.1 Proposed Performance Evaluation Model

How are the library's finances managed in order to use resources in a cost- effective way?

Finance Perspective
Results

How are the library's internal processes organized in order to get efficient and quality services?

How do library services meet the needs of users?

Customer Perspective
User satisfaction; Staff Satisfaction; Impact on Society

Library Vision and Strategy

Internal Process Perspective
Process and change pro

Innovation and Learning Perspective
Leadership, Planning and strategy; Human Resource Management; Partnerships and resources

How is the library fitness to ensure that goals are met in future?

6.4.4 Proposed research qualification framework and performance evaluation model

The proposed model is an integrated, non-prescriptive model that captures the advantages of the Balance Score Card (BSC) and Common Assessment Framework (CAF). The BSC translates the interests of the institution by examining the library strategy and vision. The framework uses four perspectives, which represent the different facets of the performance linked together, by cause and effect (Melo and Pires 2008:8). Section 2.4 of this study provided a detailed description and discussion of the performance evaluation model. The selection of this model was mainly because it had been tested and implemented in several European countries, as discussed in section 2.4.

The results of this study indicated that the university librarians considered leadership, planning and strategy, staff outcomes, customer perspective and process, and change management important criteria for performance evaluation. The findings of this study were similar to those undertaken in European countries, as discussed in section 5.5. The model proposes a set of nine criteria with 26 relevant indicators to measure the performance of university libraries. The quality evaluation model will provide useful quantitative and qualitative data for decision-making and improvement of services.

The university librarians positive perceptions of the set of performance criteria and indicators discussed in section 5.4 and 5.6 of this study indicated that they would support and promote the proposed model. The perceptions of the university librarians of the performance criteria and indicators used in this model were very significant because they open avenues for discussion on the subject of performance measurement in the area of information and library services in Kenya.

6.5 Implications for policy and practices in the assessment of university libraries

The recommendations made in this study may influence the policy on evaluation of university and other academic libraries in Kenya by CHE. The study could also assist CHE in developing quality audit mechanisms that measure the effectiveness, efficiency and impact of quality assurance and enhancement processes. The study could also assist CHE to evolve its quality regimes and expectations by revising the standards used to evaluate university libraries to focus on outputs, outcomes and impacts alongside inputs.

The study provides measures (criteria and indicators) that might assist university libraries to evaluate all aspects of library performance. The use of the performance measurements will enable the demonstration of how university libraries contribute to the overall institutional goals, outcomes and impacts. The study will enable university libraries to show the importance of the university library/librarian by demonstrating that students have mastered specific objectives because of their education. The study also provides a performance measurement model that could assist university libraries across Kenya to benchmark.

The performance measures identified by the university librarians as important in this study constitute a significant body of potential methods of assessing the effectiveness, not only university libraries, but also other academic libraries as well.

6.6 Suggestions for further research

The study, through its findings, identified areas that required further research in the evaluation of university libraries. This study explored the impact of external quality assurance on university libraries and not the institutions internal systems. Further research on the how university libraries undertake internal quality assurance is required. This would show how university libraries are fulfilling the

purposes and standards that apply to higher education as defined in the institutions internal policies.

This study also identified the level of implementation of CHE standards for evaluating university libraries and found that the institutions have utilized a limited number of the standards. Further research is required into the factors that hindered the implementation of the standards in the areas of information literacy, administrative structure of the library, library staffing, budgeting of university libraries and distance library services.

The findings of the study also showed that university libraries only collected library statistics in relation to customer satisfaction. It was beyond the scope of this study to identify these barriers. Further research is required to determine the barriers that prevent the libraries from collecting statistics on all their inputs. There is a need for further research as to why there is no centralized system or a national body responsible for collecting library statistics in Kenya.

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Abbreviations of references used in the thesis

ALA   see   American Library Association

ACRL   see   Association of College and Research Libraries

CHE   see   Commission for Higher Education (Kenya)

CHE-HEQC see   Council for Higher Education . Higher Education
Quality

                         Committee (South Africa)

CHEA   see   Council of Higher Education Accreditation (USA)

ENQA   see   European Network for Quality Assurance in Higher
                            Education

INQAAHE   see   International Network of Quality Assurance Agencies
                            in Higher Education

NEASC   see   New England Association of Schools and Colleges

NWCCU   see   Northwest Commission on Colleges and Universities

UNESCO   see   United Nations of Education, Science and Cultural
                            Organization

UNISA   see   University of South Africa

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Appendix 1: Research objectives and possible sources of data

	Research Objectives	Possible sources of data
1	To determine and assess the processes of external quality assurance used in university libraries	Literature
2	To explore the impact of external quality assurance on university libraries in Kenya	Questionnaire and interview
3	To investigate the perceptions of university librarians towards external quality assurance	Questionnaire and interview
4	To explore the extent of usage of CHE standards in university libraries in Kenya	Questionnaire and interview
5	To investigate the perceptions of university librarians towards the CHE standards	Questionnaire and interview
6	To identify the performance measures used for the evaluation of quality in Kenyan academic libraries	Questionnaire and interviews
7	To investigate the perceptions of university librarians towards performance measurement	Questionnaire
8	To demonstrate the applicability of quality management frameworks and performance evaluation model in the evaluation of university libraries	Questionnaire and interview

EXTERNAL QUALITY ASSURANCE OF ACADEMIC LIBRARIES IN KENYA: QUESTIONNAIRE

INSTRUCTIONS FOR FILLING THE QUESTIONNAIRE

1. Tick the appropriate answer(s) to all questions.
2. Use spaces provided to write your answers to the questions.
3. If you use additional sheets of paper for detailed answers, kindly indicate in all cases the question number you are referring to.

SECTION A GENERAL INFORMATION

1. Type of institution? Private ☐   Public ☐

2. What is your position at this institution? *Specify* õ õ õ õ õ õ õ õ õ õ õ õ õ ..

3. For how long have you held this position? õ õ õ õ õ õ õ õ õ õ õ õ õ õ õ õ

4. What is your gender? Male ☐   Female ☐

5. What are your qualifications? PhD ☐   Masters ☐   Bachelors ☐

Other (*Specify*) õ

6. What is the total number of users of the library?

 199 and below ☐ 200 . 400 ☐ 401 - 600 ☐

 601 . 800 ☐ 801 . 1000 ☐ 1001 and above ☐

7. What is the total number of titles of the library?

 1000 and below ☐ 1001 . 3000 ☐ 3001 . 5000 ☐

 5001 . 7000 ☐ 7001 - 9000 ☐ 9001 an above ☐

8. What is the total number of print journals titles of the library?

 20 and below ☐ 21 . 30 ☐ 31 . 40 ☐

 41 . 50 ☐ 51 and above ☐

9. What is the total number of electronic resources?

E- Journals [ ]   E-Books [ ]   E-Databases [ ]

Others (specify) õ ..

10. What is the number of seating places in the library?

200 and below [ ]   201 . 400 [ ]   401 . 600 [ ]

601 and 800 [ ]   801 - 1000 [ ]   1001 . above [ ]

11. What is the total number of library staff? õ õ õ õ õ õ õ õ õ õ õ *(Specify)*

12. What are the qualifications of the library staff *(indicate in numbers)*.

Bachelors Degree [ ]   Masters Degree [ ]   Doctorate [ ]

Others (*specify*) õ ..

SECTION B   ACCREDITATION: A PROCESS OF EXTERNAL QUALITY ASSURANCE

13. Does your institution participate in external quality assurance (Accreditation)?
YES [ ]   NO [ ]

14. If yes which external quality assurance agency assures quality in your institution?   *(Specify)*õ õ õ õ õ õ .õ õ

If no, skip to question 30

15. What is the role of accreditation in your library?

Assuring quality [ ]   Public accountability [ ]

Award of status [ ]   Funding [ ]
(Letter of Interim Authority,
Charter)

Others *(Specify)*…………………………………………………………………………..
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16. Can you describe what you believe are the strengths of accreditation?
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17. What needs to be improved about the accreditation process?
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Please indicate your degree of agreement with each statement by using the following rating scale 1 = strongly agree, 2 = agree, 3 = disagree, 4 = strongly disagree, 5 = not certain (questions 18 – 29).

Questions	Statements	Strongly Agree	Agree	Disagree	Strongly disagree	Not Certain
18	The accreditation has enhanced the quality of library and information services at my institution					
19	The accreditation process has led to the physical development of the university library.					
20	Participation in accreditation process has led to professional staff development training.					
21	Participation in the accreditation process has led to improvements in the work environment for the staff.					
22	Preparation for the accreditation visit/inspection is time consuming					
23	The University library staff participated in preparing for the visit/inspection					
24	The institutions are adequately trained on how to prepare for the accreditation visit.					
25	Participation of experienced university librarians during the site-visit stimulates and assists the university library towards achieving self-determined goals					
26	Recommendations of the visiting/inspection team are usually valid.					
27	The Commission provided guidance and support following the					

Questions	Statements	Strongly Agree	Agree	Disagree	Strongly disagree	Not Certain
	accreditation visit/inspection					
28	The benefits of accreditation process are long-term					
29	The benefits of accreditation process are short-term					

30. If, no, would you like your library to participate in accreditation? Yes ☐ No ☐

31. If no, how do you ensure quality library services at your institution?
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SECTION C: UNIVERSITY LIBRARY STANDARDS

32. Has your institution used the %Commission for Higher Education (CHE) Standards and Guidelines for University Libraries, 2007+? Yes ☐   No ☐

    Aware and using   ☐

    Aware, but not using   ☐

    Do not know about them   ☐

    Using other standards *(specify)* õ

33. Please tick as appropriate the clauses in the standards that your library has implemented.

Vision, mission and objective	☐	Library building	☐
Information Resources	☐	Administrative Structure	☐
Organization and access to information resources	☐	Library Staffing	☐
Information Literacy Competency	☐	Library Budget	☐
Distance Library Services	☐		

34. Any other comments on the %Commission for Higher Education Standards and Guidelines for University Libraries+?
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Please indicate your degree of agreement with each statement by using the following rating scale, 1 = strongly agree, 2 = agree, 3 = disagree, 4 = strongly disagree, 5 = not certain (questions 35 – 39).

Question	Statements	Strongly Agree	Agree	Disagree	Strongly disagree	Not Certain
35	Standards directly address the quantity quality, extent level of suitability of library services and staffing					
36	Standards should be reviewed regularly to ensure that the statements are relevant to the current state of the Profession					
37	Standards developed by+ Commission for Higher Education for University Libraries+are up-to-date					
38	Standards developed by Commission for Higher Education are realistic					
39	Standards should be based on evidence of normative practice determined by the measurement of outcomes					

SECTION D   PERFORMANCE MEASURES AND INDICATORS

40. Does your library collect statistics? Yes ☐   No ☐

41. What does your library use the statistical data collected for?
....
....
....

42. Does your library measure its outcomes (that is ways in which library users are changed as a result of their contact with the library resources and programmes?
Yes ☐   No ☐

If no, skip to question 48

43. If yes, how does your library measure its outcomes?

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44. What outcome measures does your library routinely collect?

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45. How has the outcome data improved the operations of the university library?

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46. Does your library's outcome measures relate to the campus wide university's outcomes?   Yes ☐   No ☐

47. If yes, how does your library determine which outcomes to focus on?

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48. If no, are you interested in collecting library outcome data? Yes ☐   No ☐

49. What obstacles do you face in collecting library outcome data?

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50. Rate the importance of each outcome measure using the following;
      Scales *1= very important, 2 = important, 3 = some what important, 4 = less important 5 = not important*.

Skills   ☐   Knowledge and Understanding   ☐

Attitudes and Values   ☐   Behaviors   ☐

51. Does your library conduct customer satisfaction surveys? Yes ☐   No ☐

52. If yes, indicate the year of most recent customer satisfaction survey.

2009 ☐   2008 ☐   2007 ☐   2006 ☐   2005 ☐

If no, skip to question 56

53. Whom do you survey?   Students ☐   Staff ☐   Alumni ☐
Others *(specify)* ……………………………………………………………………
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54. How often do you conduct customer satisfaction surveys?
        Annually   ☐   Biannually   ☐

Other (specify)õ .

55. What are the results of the survey used for?

        Planning   ☐   Marketing   ☐   Funding   ☐

        Identify strengths and Weaknesses   ☐

 Other (Spec*ify)*
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56. If no, why do you not conduct customer satisfaction surveys?

        Not required by employer   ☐   Too expensive to administer ☐

        Poor response from users   ☐

Others (Specify)
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57. What methods do you use to measure customer satisfaction of your library? *(Specify)*

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……………………………………………………………………………………………………

58. Please rate the importance of each of the following performance criteria and indicators for assessing quality.

> ***Using the rating scale below indicate the number of your choice next to the indicator, Scales 1= very important, 2 = important, 3 = some what important, 4 = less important 5 = not important***.

Performance criteria	Performance indicator	Rating Scale				
		Very important	Important	Some what important	Less important	Not important
Leadership	Definition of vision and mission					
	Development of library management system					
	Promotion and training of learning and activities to improve the library̓s performance					
Planning and Strategy	Conduct of surveys of library users					
	Strategic Plan					
	Benchmarking practices					
Management of resources and partnerships	Number of monographs/journals (print)					
	Number of reading (seats) places in the library					
	Opening hours per week					
	Partnerships to minimize costs					
Management of internal processes	Average to retrieve a free access document					
	Percentage use of electronic resources					
	Average time to provide a document that does not exist in the library					
Customer perspective	Library visits per capita					
	Loans per capita					
	Overall user satisfaction					
The Staff outcomes	Levels of absenteeism or sickness					
	Overall staff satisfaction					

Performance criteria	Performance indicator	Rating Scale				
		Very important	Important	Some what important	Less important	Not important
The Impact of Society	Amount of academic publications by faculty					
	Amount of academic publications by library staff					
	Amount of training sessions for library users					
Process and change management	Median time of document acquisition					
	Median time of document retrieval					
	Assess market penetration					
Financial perspective	Costs per users					
	Costs per library visit					

59. Which performance indicators listed in question 58 have you used in your library for assessing quality?
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If possible please attach a copy of the customer satisfaction survey used in your library and send it to Beatrice A. O. Kwach, P.O. Box 50778-00200, and City Square, Nairobi; E-mail baokwach@yahoo.com or bkwach@che.or.ke.

Thank you for taking time to respond to this questionnaire.

Appendix 3: Consent Letter to respondents - questionnaire

Covering letter for the survey instrument for collecting information on external quality assurance in academic libraries in Kenya.

The University Librarian

I am a PhD Candidate at the University of South Africa (UNISA) investigating the impact of external quality assurance in university libraries in Kenya. The purpose of this study is to explore the impact of external quality assurance on university libraries libraries in Kenya. Particular attention is paid to the models and methods of assessing the impact of academic libraries. A model that will assist in developing a culture of assessment in academic libraries is proposed.

You can help in this study by consenting to complete a survey. The survey is designed to gather data about the types of performance indicators, methods and models used for measuring quality and the attitude of academic librarians towards external quality assurance.

The heads of all the university libraries in Kenya have been selected to participate in the survey due to their expertise in academic library management. Participation in the survey is voluntary and any participant can disengage from the exercise if they feel uncomfortable. However the information you provide will contribute to an important study and may be used to influence policies on evaluation of academic libraries.

The time to complete the survey will vary, however, it is anticipated that no more than two hours will be necessary. All information given during the survey is confidential and no names or other information, which might identify you, will be used in any publication arising from the research.

Enclosed please find a copy of the questionnaire. It has been sent to all the recognized private and public university libraries in Kenya. I should be grateful if you would complete and return it by 30th June 2010. I am happy to discuss with you any concerns you may have about this study, and you can contact me through, P.O.Box 50778 . 00200, Nairobi, Telephone: 0722729623, 020247552 and 07205000, Email baokwach@yahoo.com, bkwach@che.or.ke

Thank you for your cooperation,
Yours faithfully
Beatrice Kwach.

Appendix 4: Letter to the participants informing them about the interview

Dear Participant,

My name is Beatrice Kwach, I am a PhD candidate in the Information Science Department at the University of South Africa (UNISA).I am conducting a study titled ‰he impact of external quality assurance in university libraries in Kenya+. The purpose of this study is to explore the impact of external quality assurance on academic libraries in Kenya.

This is a follow up interview and participation is voluntary. You can withdraw from participating in the interview at any time. The interview is going to take 30 minutes of your time. The information you will give will enhance the process of accreditation of academic libraries in Kenya.

The notes and recording of the interview will be destroyed after transcription.

The information you provide will be strictly kept confidential and will be used for this study. Your credentials will not be included in the final report.

Yours Sincerely

Beatrice Odera-Kwach

PhD Candidate

UNISA

Appendix 5: Interview Guide

Section A: Information about the respondent

1. Designation:_____
   _____
2. Organization:_____
   _____
3. Female__ Male __
4. Highest education
   level_____
5. Date of Interview:_____

Section B: Accreditation Process

1. Do you participate in the institution's accreditation process? How are you
   involved?_____
   _____
   _____
   _____
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2. Does the library have a mission statement? If so how is it aligned with the
   institution's mission? Does the library's mission statement reflect the goals that
   will assist the university in meeting its mission? How is this done?

   _____
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3. Has the institution been involved in self-evaluation? What is the library's
   contribution during this process?

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Section B: Evaluation of the Impact of the Library/Assessment

4. Does the university collect data to determine the extent of student learning or the impact of research activities? Is the library involved in existing campus surveys or assessment plan?

_____

5. Do you have an assessment plan for the library? This includes input/output measures, assessment of student learning and assessment of the library's contribution to research and on faculty teaching?

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6. What methods are used to collect data?

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7. How does the library contribute to learning in the university?

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8. How do you relate with the faculty? Are you involved in curriculum development?

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9. Does the academic performance of students improved through their contact with the library?

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10. Do you conduct information literacy programs? How is it conducted?

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11. Does the information literacy program result into information literate students?

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Section C: Library Standards and guidelines

12. Do you think that the "Standards and Guidelines for University libraries in Kenya" provide all necessary outlines for examining and analyzing an academic library in Kenya?

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_____

13. Any other comment on the accreditation process?

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Appendix 6: Pre-testing of questionnaire

Dear Colleague,

I am currently a PhD student the University of South Africa (UNISA) conducting research on the impact of external quality assurance on university libraries in Kenya. The research includes a questionnaire survey, for the first phase of data collection.

I kindly request you to pre-test the attached questionnaire and kindly return it in two weeks time.

You are invited to feel free to write comments or advice for improvement on the questionnaire itself.

1. How long did it take to complete the questionnaire?
2. Are the aspects of external quality assurance addressed?

   _____

   _____

   _____

3. Are there questions which should be omitted?

   _____

   _____

   _____

   _____

4. Do you have any criticisms, comments or suggestions on the format of the survey?

   _____

   _____

   _____

Yours Sincerely

Beatrice Odera-Kwach

PhD Candidate

UNISA