ASSESSING QUALITY ASSURANCE IN THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING SYSTEM IN MALAWI

By

ZIZWA MSUKUMA CHISI

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Supervisor

PROFESSOR JAN NIEUWENHUIS

Co-Supervisor

DR. ALBERTINA MAITUMELENG NTHONTHO

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DEDICATION

My thesis is dedicated to my loving wife, Agnes, for her outstanding support and encouragement. Also to my mother, Elvas Ndau Chisi, for taking care of me throughout my life. To my late father, Smart, my late brothers, Freedom and Noel, and my late sister, Gloria who were the source of admiration in my family.

Again, I am not forgetting my brother, Good-come, for his endless encouragement in this journey.

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Finally, to my wife, Agnes, for being an endless source of support and encouragement: her understanding and unlimited love and the endurance of my children - Gloria, Grace and Golden - gave me the vigor to work extra hard.

DECLARATION OF ORIGINALITY

I, **Zizwa Msukuma Chisi**, (student number 15285589) certify that the thesis titled, **"Assessing Quality Assurance in the Technical and Vocational Education and Training system in Malawi",** towards the awarding of the degree of Doctor of Philosophy, at the University of Pretoria, to the best of my knowledge and understanding does not:

a) Include, without any form of acknowledgement, material previously used and submitted for academic purposes at any higher education institution;

b) Contain information previously written and published by other people: all published sources of information contained in my thesis have been acknowledged.

c) Contain any material which is defamatory.

Signature: _____Date: _____

ABBREVIATIONS

CBET   Competency- Based Education and Training

DTVT   Directorate of Technical and Vocational Training

ESIP   Education Sector Implementation Plan

GoM   Government of Malawi

ISO   International Standards Organization

MGDS   Malawi Growth and Development Strategy

MoEST   Ministry of Education, Science and Technology

MoL   Ministry of Labour

NGOs   Non-Governmental Organizations

NSO   National Statistical Office

NESP   National Educational Sector Plan

QAS   Quality Assurance Systems

QMS   Quality Management System

PIF   Policy and Investment Framework

TVET   Technical, Vocational and Entrepreneurship Training

TCs   Training Colleges

TEVET   Technical, Entrepreneurial, Vocational Education and Training

TEVETA   Technical Education, Vocational and Entrepreneurship Training Authority

UNESCO   United Nations Educational, Scientific and Cultural Organization

HIV/AIDS   Human Immune Virus/Acquired Immune Deficiency Syndrome

DEFINITION OF TERMS

Program Accreditation: A process whereby a regulatory body conducts a systematic assessment of an academic program to ascertain whether or not it satisfies or complies with set standards. The process leads to the issuing of a certificate if there is compliance; and the non-issuing of one if non-compliant. The certificate is valid for a fixed period, after which another assessment cycle starts.

External quality assurance: A process in which peers visit a department/faculty/institution with the aim of validating the self-evaluation report and providing advice on quality enhancement.

Institutional academic review: A self-evaluation by the institution of its teaching, learning, research, service, and outcomes based on a detailed examination of curricula, structure, and program effectiveness as well as the quality and activities of the faculty in which the program is lodged.

Institutional Audit: An analysis and evaluation of the teaching and learning environment of a higher education institution and its compliance with quality requirements conducted by the institution concerned. The evaluation is done against provided pre-determined quality standards.

Internal quality assurance: A process in which an institution applies policies and processes aimed at ensuring its compliance with the minimum standards set to improve quality in higher education.

Quality in TVET: A process in which an institution applies policies and processes aimed at ensuring its compliance with the minimum standards set to improve quality in higher education.

Quality assurance: A structured procedure for the evaluation and verification of dimensions, inputs, outputs, and outcomes against required benchmarks to enhance and maintain quality, provide accountability and ensure the harmonization of minimum standards across institutions and systems.

Quality monitoring: The reviewing and monitoring of policies, systems, resources and strategies related to quality issues by the institution concerned.

Self-evaluation: An activity whereby an institution collects valuable information with the aim to analyze, check and determine whether or not it complies with minimum thresholds or standards.

Stakeholders: Groups, individuals, or organizations that have an interest in the higher education institution. Examples of the stakeholders of a higher education institution include students, staff, parents, private sector companies and institutions, as well as other tax payers, employers, the government, trade unions, funders, the institution's alumni and higher education graduates.

Standards: Thresholds or minimum requirements that enable an institution to meet or comply with a specific quality criterion. Quality on any dimension is therefore regarded as a continuum, with exceptionality at one end of the scale, the lack of quality at the other end, and a benchmarked position on the continuum representing the minimum or threshold required for compliance   with the standard.

ABSTRACT

Quality Assurance in Malawian TVET institutions follows the legal provision, as stipulated in the TEVET Act of 1999, which mandates the Authority to regulate technical and vocational training in Malawi. Since 1999, the legal provision requiring TVET institutions to develop and implement quality management systems has been enacted. Informed by this regulatory provision, this research study had the exploration of critical issues that have hindered effective implementation of quality assurance systems in TVET institutions as purpose. To this purpose, the researcher conducted a content analysis of data collected from participants through focus group discussions, questionnaires, and interviews.

The researcher adopted phenomenology as my research methodology since it enabled me to explore and describe the phenomenon being researched as it manifested in the real-life experiences of individuals with knowledge of quality management system practices in TVET institutions in Malawi. Again the researcher employed a purposive sampling technique to select participants who are conversant with Quality Assurance systems, and able to provide me with the information relevant to my research questions.

Five themes emerged from my data analysis: Resources and facilities in TVET institutions; Quality assurance methods and processes; Recruitment and staff development; Parallel TVET qualification and curriculum, and Governance and management in TVET. Together, they constitute a framework within which challenges that have negatively affected implementation of quality management system in TVET institutions can be addressed. Regarding resources and facilities, research findings indicate that the general condition of facilities as well as teaching and learning materials, being in a poor state is negatively affecting training at TVET institutions. Quality management system practices and implementation at TVET institutions need to be adequately supported with resources to ensure that training provision meets the requirements of the industry. Research findings indicate, however, that the implementation of quality assurance systems is relatively non-existent at TVET institutions, thus quality output is poor.

As to recruitment and staff development, the analysis of data revealed that a large proportion of teachers is inadequately qualified since Malawi Universities do not currently provide full training for TVET teachers. This makes it difficult for TVET institutions to provide effective teaching and learning. Regarding governance and management, the study found a lack of

institutional autonomy with regard to the making of decisions on the number of students to admit, and the eligibility students to be enrolled at TVET institutions, factors which negatively affect the quality of teaching and learning at these institutions. Research findings suggest, moreover, that leadership and governance systems are inefficient, resulting in the ineffective implementation of internal quality management systems as required by the TEVET Act. Since the implementation of quality management systems in TVET institutions is inadequate, the study suggests that TEVETA, as a regulatory body, is not performing its functions as required. More specifically, due to a shortage of capable staff, it is unsuccessful in motivating and triggering internal quality promotion processes in TVET institutions hence the lack of a quality culture within these institutions. As regards the multiplicity of TVET qualifications, research participants mentioned parallel TVET qualifications as a problem, indicating that the use of different examination bodies for TVET programs results in students writing different TVET examinations for certification.

The findings of this study have a number of implications for the implementation of quality management systems at TVET institutions in Malawi. Firstly, a theoretically pertinent insight emerging from the study is that merely putting a quality management system in place at TVET institutions is not a solution to the quality challenges of the TVET sector in Malawi. Various factors, critical to the effective implementation of quality management systems implementation are missing. The theoretical model of the study focused on two key assumptions regarding the implementation of quality assurance. Firstly, promoting quality training in general is the primary objective of TVET institutions. Secondly, the external organizational framework plays an important part in establishing the requirements that promote institutional quality assurance processes. The research findings indicate that the key problems for implementing quality assurance mechanisms in TVET institutions relate to lack of capacity and commitment of staff being some of the main challenges. The study has therefore revealed that internal and external factors of TVET institutions have negatively contributed in hampering the development and implementation of quality management systems. Internally, the research has revealed that lack of incapable, unmotivated, and uncommitted leadership is the key problem in TVET institutions. So far, TVET institutions lack systematic and supportive internal quality assurance mechanisms aimed at improving teaching and learning outcomes. Externally, ineffective regulatory frameworks, inadequate provision for secondary schools to prepare students for TVET is some key impediment to the quality assurance mechanisms implementation in TVET institutions. Additionally, on the

implications of my study, there is inadequate implementation of quality assurance systems in TVET institutions due to inadequate regulatory framework to facilitate quality assurance system implementation in TVET institutions. One notable recommendation is that TVET institutions and TEVETA are staffed and led by committed and capable staff.

The study further recommends that TVET should be managed well in terms of attaining the core activities. This requires:

- recruitment of staff is based on sound criteria rather than political connections;
- building the capacity of staff of TVET Sector including both TEVETA and TVET institutions, by training in their specialized expertise of TVET. This will allow the facilitation and implementation of quality assurance systems to promote continuous improvement;
- establishment of a mechanism for ensuring that TVET institutions have up-to-date machines, equipment and all learning resources for skills acquisition. For example, creating funding to address problems of machines, equipment, and lack of tools and materials;

Furthermore, findings have generally demonstrated that quality assurance systems which rely on procedural approach do not assist much in facilitating enhancement of quality through initiating and implementing quality assurance mechanisms in TVET institutions. This demands the development of a strong regulatory mechanism to enforce quality systems in TVET institutions as stipulated by the TEVETA Act of 1999. Quality management systems provide the lenses to enhance training in TVET institutions and this can only be made possible if internal quality assurance mechanisms are effective and adequate.

ETHICS CERTIFICATE

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE	CLEARANCE NUMBER: HU 16/06/01
DEGREE AND PROJECT	PhD
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CHAIRPERSON OF ETHICS COMMITTEE: Prof Liesel Ebersöhn

CC

Ms Bronwynne Swarts
Prof Jan Nieuwenhuis
Dr Maitumeleng Nthontho

This Ethics Clearance Certificate should be read in conjunction with the Integrated Declaration Form (D08) which specifies details regarding:
- Compliance with approved research protocol,
- No significant changes,
- Informed consent/assent,
- Adverse experience or undue risk,
- Registered title, and
- Data storage requirements.

KEY WORDS

Quality assurance; Quality; Quality control; Quality and relevance; Quality dimensions; Access and equity; Accreditation; standards; TVET; Malawi

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CHAPTER 1
INTRODUCTION, PROBLEM STATEMENT AND METHODS

1.1   Introduction

The significance of technical and vocational education and training (TVET) to economic development is undeniable. The TVET system plays a critical role in improving and enhancing the human resource capacity needed by the industrial sector to turn economies, particularly those in the developing world, from consuming and importing entities into predominantly producing and exporting ones. During the past two decades educational reforms in Malawi has resulted in tremendous developments to its TVET system, especially since the establishment in the year 1999 of an autonomous regulatory body for TVET. The primary function of this body is to develop an integrated, demand-driven TEVET system for formal and informal industrial training in the TVET sector. However, in spite of these reforms, initiated by a TVET reform project in Malawi in 1997, concerns about the quality of education in most technical colleges have still not been put to rest.

According to Chafa (2003), reforms to TVET systems in the Sub-Saharan region came about as a result of poor standards at institutional levels. One of the reasons for this, highlighted in a cooperative agreement between the governments of Malawi and Scotland, was the unresponsiveness and under-performance of TVET systems in Malawi during the years prior to the project, ascribed to population growth, coupled with an increased demand for education, inadequate infrastructure, insufficient teaching and learning materials, under-qualified teaching personnel, inadequate financial resources, and the increased absenteeism and dropout of students due to, amongst other factors, HIV and Aids. Furthermore, indications from the Malawi Labour Survey Report (2009) were that TVET curriculum development had not kept up with the rate at which technology was developing. Because of this, a mismatch occurred between the TVET systems and the use of technology. On the one hand there was a mismatch between TVET curricula and the technologies available for their delivery at colleges; on the other hand, there was a mismatch between the training provided by TEVET and the knowledge and skills required in occupations like motor vehicle mechanics and other industries.

Msiska (2007) notes that, while social and economic growth and development are two different concepts, they are strongly interrelated and dependent on each other. While

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economic growth enables the national economy to equitably distribute its national wealth and activities, development results in people's well-being and improved standards (Msiska, 2003). In this regard, the quest is for economic growth to translate into development. Policy, educational or otherwise, [that] focuses on economic growth without due regard to its effects on the society is void (Lewellin, 1995).

One of the claims made in the UNDP Human Development Report (UNDP, 1991) is that, while sustained improvement and well-being is impossible without economic growth, it is wrong to suggest that high economic growth automatically translates into higher levels of human development. According to Long (1977), development could be equated with progress towards welfare goals which would satisfy human needs. If TVET was, therefore, to contribute to development, it should equip students with the competencies needed for the satisfaction of individual and national welfare goals.

It was these observations and arguments which motivated me to embark on a research study which would enable me to explore the issues that hinder the effective implementation of quality management systems at TVET institutions in Malawi, focusing specifically on the status quo of and problems related to the establishment and implementation of quality assurance systems at TVET institutions in Malawi.

1.2   Background study

Like other countries in the Sub-Saharan region, concerns about TVET quality in Malawi is high, especially since TVET enrolments are increasing at an unprecedented rate (MOEST, 2009). Since 1994, when the Malawi government introduced its free primary education program, an increasing number of children had the opportunity to complete secondary school education and, by implication, qualified for enrolment in apprenticeship programs at TVET institutions. Although this is a positive development, the unexpected increase has raised concerns amongst stakeholder and the Malawi government about the capacity of TVET institutions to provide quality training to all their students (World Bank, 2010).

In Malawi, TVET training is aimed at the development of students' entrepreneurial skills and capacities, hence the reference to it as Technical, Entrepreneurial, Vocational Education and Training. The primary objective of the TEVET Act (Act No. 6 of 1999) is, therefore, to ensure that TEVET training is aligned to the requirements of industry, equipping students

with the skills they need in this sector. The Act effectively verbalizes the Malawi government's vision of a country in which skilled young people would drive development towards the achievement of its development goals, and that it is up to institutions and/or industries which provide formal and informal vocational training to ensure that the youth acquires the skills needed to do so (World Bank, 2010).

The provision and management of TVET in Malawi is the responsibility of TEVETA, an autonomous body, which was established through this Act in 1999. TEVETA's mandate is to regulate TVET education by determining strategic goals, providing funding and access to the TEVET system, and using labour market records as basis for the formulation and evaluation of TEVET policies (UNESCO, 2010).

The TVET system currently comprises three parallel qualification sub-systems, with qualifications being awarded following students' performance in Trade Tests, "Malawi (Advanced) Craft" examinations, and/or "Competency Based Education and Training (CBET) examinations all of which are run under the auspices of TEVETA" (World Bank 2010, p.119). These qualifications can be obtained either by (a) enrolling for a formal four-year TEVETA-regulated and quality-assured apprenticeship program which includes theoretical training at a college as well as practical experience and training in an industrial setting, or (b) enrolling for a series of short courses, offered solely by technical colleges but not regulated or quality assured by TEVETA (World Bank, 2010).

1.3   Statement of the problem

Studies on TVET quality in Malawi have focussed on the failure of TVET at secondary schools (Khowoya, 2008), the status of TVET labour information (TEVETA, 2009), skills needed for private sector development (TEVETA, 2009), TVET implementation (UNESCO, 2010), the assessment of educational needs (Torre, 2010), and the impact of TVET on the youth (Mangoche, 2014). Minimal research has, however, been conducted on critical factors which hinder the implementation of Quality Management Systems at public TVET institutions. In fact, very little has to date been done to address problems related to quality assurance management and implementation at either private or public TVET institutions.

In spite of the legal provisions made for the promotion of quality training in the TEVET Act (Act 6 of 1999) (UNESCO, 2010), and TVET institutions have not as yet developed a quality

culture. Consequently, challenges still remaining in these institutions have not as yet been addressed. Part III of the Act, Section 4, Sub-section 2(h) stipulates that all TVET institutions should put quality management systems in place to ensure that the training they provide is up to standard. Informing this stipulation are two assumptions, namely (a) that technical education is a pre-requisite for the output of a skilled workforce, and (b) that technical college graduates should play a crucial role in the country's economic development.

As indicated earlier, the landscape in which Malawi TVET institutions operate is rapidly changing. Given the demand for TVET since the Malawi government's free primary education policy came into effect in 1994, enrolment figures at TVET institutions have increased immensely. Notwithstanding the length of time that has passed since then, one would have expected quality assurance systems to be well established at TVET institutions, especially if compared with developments in other countries which already have functioning internal quality assurance systems, like ISO 9001, for example. This does not, however, appear to be the case. In fact, the development and/or implementation of internal quality assurance mechanisms at TVET institutions remains largely unaddressed (UNESCO, 2010).

What has to be asked, therefore, is why not? What are the critical factors/issues that hinder the implementation of quality assurance systems at Malawi's TVET training institutions. Whereas much has been written on quality management at institutions like these in developed countries, literature on QMS at TVET institutions in Malawi is scant. Little, if any, information is available on elements regarded as critical to quality management, quality management systems and processes and/or the extent to which they have succeeded. My study is aimed at filling some of the gaps left by this much neglected research area.

1.4   Research questions

As indicated earlier, my research has the exploration of factors/issues that have hindered the implementation of quality assurance systems at TVET institutions as purpose. The central question directing my study is as follows:

> *Given the time that has elapsed from the inception of the TVET quality management regime in Malawi, and also the state of quality management systems in TVET institutions, what could be the possible endogenous and/or exogenous critical factors for this state of affairs?*

To answer the key research question, I asked myself the following sub-questions:

a) How do Technical and Vocational training institutions define quality?
b) Which mechanisms have TVET institutions put in place to ensure internal quality assurance?
c) Which exogenous and endogenous factors have prevented quality assurance systems and processes implementation?
d) What are the implications of the failure to implement quality assurance processes?

1.5 Research purpose and objectives

With a view to finding answers to these questions, I decided to explore the critical issues/factors which hinder the implementation of quality assurance systems implementation at TVET institutions. More specifically, I wanted to describe research participants' experiences of quality assurance practices at their institutions to find out which critical issues/factors they thought prevented TVET institutions from implementing quality assurance systems. In short, I wanted to gain a better understanding of the reasons for the seemingly ineffective implementation of quality assurance practices despite the prevailing legal provision. In conducting this research, I hoped to gain a deeper insight into management challenges related to the implementation of quality assurance practices at TVET institutions.

Considering the central purpose of my study and the key research questions to be investigated, I set myself the following research objectives:

a) To establish how TVET institutions define quality

e) To identify mechanisms which TVET institutions have put in place to ensure internal quality assurance?

b) To analyse TVET Quality Management Systems in Malawi.
c) To examine the effectiveness of quality assurance processes being used at Malawi TVET institutions.
d) To identify the perceptions of stakeholders on quality assurance in the TVET system.
e) To explore the implications of failure to implement quality assurance systems and processes.

These objectives became the focal points within which my study was contextualized.

1.6 Significance and rationale of the study

The purpose of study is to explore the factors that have prevented TVET institutions from implementing quality management systems despite prevailing legal mandates in this regard. From an academic perspective, the research study is aimed at substantially adding knowledge to existing scholarly literature on quality management systems by addressing the gap between literature on these systems in developed countries and literature on the same in their developing counterparts. Informing this focus is the fact that hardly any research has been carried out on the reasons for quality assurance systems not seeming to take off in some developing country contexts. These factors may be endogenous or exogenous or a combination of both. This study explores this phenomenon.

From a management perspective, the results of my study could contribute to the development and/or enhancement of quality management systems at TVET institutions in Malawi. First, as already mentioned, there has been no research or study in this area. My research findings could, therefore, help to close this research gap. Second, my research could contribute to the development of a Quality Management System Framework for the effective implementation of TVET quality management systems in Malawi. Third, my research findings could facilitate consultation and communication among TVET stakeholders, including training providers and decision-makers, thereby contributing to improved quality outcomes at training institutions.

To this end, my study is aimed at increasing existing knowledge of TVET in order to contribute (a) to efforts which have as purpose the implementation of effective TVET quality management systems in Malawi, and (b) to the betterment of the Malawi education system and its national development in general.

Since quality assurance is of necessity context-dependent, an understanding of the TVET background and the QMS in Malawi is critical to the identification and exploration of factors inhibiting effective quality management at TVET institutions, hence information on these form part of my study.

1.7 Research classification

Research is usually classified/categorized as exploratory, descriptive or causal (explanatory). However, just as strategies may be combined, a research design may, however, reflect a combination of more than one class/category and their frames of reference. As illustrated in

Figure 1.1, which follows, the type of research conducted determines how it should be categorized.

Figure 1.1: Research designs
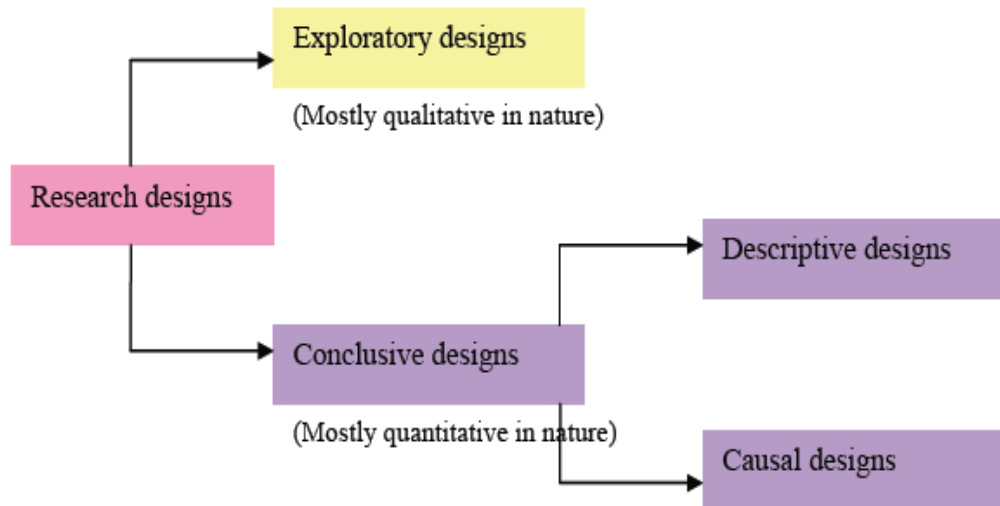
Directed by the aim of my research study, I explored critical issues which affect the implementation of quality management systems at TVET institutions in Malawi. Moreover, considering my research questions and objectives, I decided that an exploratory design would best suit my research purpose (Saunders, Lewis, & Thornhill, 2009; Shukla, 2008).

1.8   Research design

Having selected two TVET institutions, which will be referred to as ATC and BTC, as case studies, I decided to use a qualitative research approach for my inquiry into the key issues to be investigated. Research data was gathered by means of interviews, focus group discussions and document analysis, with leading stakeholders in TVET education (i.e. management teams and academic staff of TVET institutions) being my primary research participants.

Answers to my research questions emerged from in-depth investigations into TVET institutional practices as well as from the analysis of relevant documents. This open-ended and exploratory/ investigatory approach is one of the key characteristics of qualitative research and of this research study.

1.8.1 *Qualitative approach*

The adoption of a qualitative approach to research had several advantages, thus my decision to use it in my study. It allowed for a detailed and comprehensive examination of the issue under study, the use of critical judgment by participants and a scrutiny of the context by me, the researcher, in the analysis and interpretation of data. Since qualitative research approaches have the development of an in-depth understanding of a situation/phenomenon as aim, it seemed particularly appropriate to my aim to broaden my understanding of QMS at TVET institutions in Malawi. Not only did it enable me to examine complicated questions which can be checked against qualitative research criteria but also to explore existing theories on QMS with a view to constructing tentative new ones.

1.8.2 *The exploratory design*

I chose an exploratory design because I wanted to 'dig deep' into the research topic in order to establish exactly what was happening, and to uncover new ideas, opinions, and experiences on quality management systems at TVET institutions. An exploratory design would, moreover, enable me to collect reliable data relevant to the aim of the study (Saunders et al., 2009; Shukla, 2008).

1.9 Research method

The term, 'research method' is an umbrella term used to describe the steps taken to collect, analyze, interpret and validate data during an academic investigation. This would include, for example, the selection of research sites and participants, the instruments /tools used to collect data, the techniques used for data analysis, the theoretical frameworks informing the interpretation of data, and the steps taken to ensure the reliability/trustworthiness of the research findings. All of these, as they are related to my study, are described in the sub-sections which follow.

1.9.1 *Sampling*

Data collection requires a careful selection of participants and locations for study. ATC and BTC were chosen as cases because they were the biggest public TVET institutions in Malawi and thus assumed to implicitly reflect what was happening at other public TVET institutions. I employed a purposive sampling technique because it lends itself to the discovery,

exploration, understanding and development of critical insights relevant to the study concerned. Purposive sampling could be regarded as a type of non-probability sampling which makes allowances for the supremacy of human judgment, especially in the choice of participants for the study (Oppong, 2013).

It is realistically impossible to survey the entire population in any research venture, especially if the population is large. The population of my study -TVET institutions in Malawi – is scattered across all the regions of the country. Conducting a study in all of these would not only have been time-consuming but also extremely costly. Probability sampling provides an opportunity for each one in the population to have a chance and probability of being chosen (Saunders et al., 2009) as a research participant, thus results could be inferred to the entire population. In this study, I employed simple random sampling, which allowed all participant categories to have an equal chance to take part in the study.

With non-probability sampling, the likelihood for each member in the population to be selected is unknown. Generally, this type of sampling does not provide answers to research questions or address the research objectives from the perspective of the population. Because of this, I preferred to use purposive sampling in the selection of management teams and academic staff involved in and knowledgeable about QMS in TVET. They objectively contributed to the theoretical aspects of the study which assisted me to understand QMS in TVET. Not only did the data I collected from them enable me to respond to the key and related sub-questions, but it also contributed to the achievement of my research objectives.

1.9.2   *Data collection*

The research study is interpretive in nature since its objective is to uncover and elicit participants' opinions, interpretations and experience regarding quality management systems at TVET institutions. The adoption of an interpretive stance by the researcher is usually informed by his/her assumption that a reality which is socially construed reflects participants' shared experiences and opinions (Myers, 2009). In order to fully understand the phenomenon I planned to investigate, these experiences and opinions were critical, hence my adoption of an interpretive stance.

In any research, data can be collected from two main sources - the secondary source, which provides already existing data, and the primary source, from which new data is generated,

that is data generated in the research field (Shukla, 2008). My study was conducted at ATC and BTC, and I collected data from research participants, from the contexts and practices I observed, from questionnaires, focus group discussions, interviews, and document analysis, thus using a mix of primary and secondary sources.

1.9.2.1   Secondary data source

Shukla (2008) highlights the fact that secondary data sourcing is sometimes referred to as desk or library research, because data it involves the gathering of information through reading, the reading annual reports, newsletters, magazines, internet portals and government gazettes.   This is the most economical way to conduct research but sometimes the information obtained may be outdated and/or not directly relevant to the topic under study.

1.9.2.2   Primary data source

Primary data can be obtained from the field or persons through questionnaires, interviews, FGIs and case studies (Shukla, 2008). In this study, primary data was used to analyze QMS in TVET institutions. I adopted three different methods to collect the required data. Data from management teams and academic staff was collected through interviews and focus group discussion but also from the institution's documents. The latter supplemented data collected through interviews and focus groups. Moreover, I used in-depth interviews to help explore issues and understand the 'what', 'why' and 'how' part of participant experiences regarding a particular issue (Saunders et al., 2009).

1.9.2.3   Rationale for combining data collection techniques

The combination of data collection techniques, referred to as triangulation, was extremely useful to my research. Triangulation could occur through the use of combined data collection methods and/or sources on social phenomenon being investigated. In my study, data collected from one source was compared with and verified against data collected from other sources. Not only did triangulation facilitate the checking of the consistency of findings obtained by means of different collection methods (Saunders et al., 2009; Bryman & Bell, 2003) but it also deepened and widened my understanding of issues raised by participants.

1.9.3   Data analysis

The analysis of data collected during the course of my research study was supported by the analytical guidelines for case study research suggested by Creswell (2007). These include the provision of "a detailed outline of participants", followed by the analysis of data to generate themes. The exploratory approach adopted also included an "inductive analysis", which required my reducing data into manageable components which was then categorized, examined and ordered in terms of emerging patterns/themes that required further interpretation (Simons, 2009).

According to Cohen, Manion, and Morrison, (2011), the researcher determines data analysis procedures during the planning stages already, and consistently specifies relationships between these and the research objectives or questions. In accordance with these requirements, I used a cyclical content analysis approach which enabled me to analyze collected data cumulatively, and step by step. Qualitative researchers have massive and multiple types of data in order to gain an in-depth understanding of the phenomenon being investigated. By using content analysis, I was able to establish exactly the relationship between ideas and differentiate between generated data. In doing so, I adhered to what Hesse-Biber and Leavy (2006) describe as the simultaneous collection, analysis and interpretation of qualitative data. I commenced with the analysis of data the moment it was available, from the data collection phase, throughout the interpretation phase, right up to, and including, the writing-up phase, in order to avoid being overwhelmed by voluminous data.

1.10   Thesis structure

Chapter One is devoted to a discussion of the rationale for the research study and the provision of an overview of the research to be conducted. Included in this chapter is the background to the research study (TVET reform in Malawi) as well as the research objectives, statement of the problem, research methods, and the significance of the study.

Chapter Two is essentially a summary of literature review so as to provide an overview of theoretical considerations on higher education quality management systems, conceptual issues related to higher education quality assurance, dimensions of quality systems, models for the management of quality in higher education, principles informing TVET quality

assurance systems and the assessment of its functionality, and mechanisms for the management and assessment of QMS.

Chapter Three provides a contextual overview of the TVET system in Sub-Sahara Africa, justifying the role of TVET in social and economic development. Also highlighted in this chapter are ways in which TVET has contributed to the shaping of the social and economic landscape in Malawi. It concludes with a detailed synthesis of the education system in Malawi, referring specifically to government reforms in the TVET sector in order to improve its profile and quality.

Chapter Four is essentially a description of the methodology, research design and methods which I used to conduct the research study, including my research design, research philosophy, approach and strategy. Furthermore, I clarify my reasons for the selection of specific data collection and analysis methods. Since the study is aimed at the exploration of critical issues that have affected QMS implementation in TVET institutions, I took ATC and BTC as case studies for my research, using a purposive sampling technique to ensure cohesion between data collection, data analysis and sampling.

Chapters five and six give a highlight of the findings which are based on the interpretation and analysis of data. Chapter 5 is largely concerned with data analysis on input, processes and also output together with improvements in teaching and learning in TVET institutions. Furthermore, analysis of data on quality assurance implementation of systems, policies and associated procedures are thoroughly discussed in this chapter. The findings in chapter six highlights the findings on present issues that have hindered quality management system implementation in TVET institutions in Malawi. The Chapter again discusses findings of data analysis regarding the models or quality assurance framework that underpins the current quality assurance practices in Malawi's TVET institutions. It addresses the research questions that were raised in chapter one. Finally, chapter 6 also gives a summary, conclusions and recommendations including implications of the study. Furthermore, the chapter includes detailed remarks on methodological considerations and contributions the study has made to the body of knowledge.

In the next chapter, chapter 2, I present the literature review on Quality management systems implementation in TVET institutions.

CHAPTER 2
THEORETICAL CONSIDERATIONS: IMPLEMENTING
QUALITY MANAGEMENT SYSTEMS

2.1   Introduction

According to UNESCO (2013), quality assurance systems serve two major purposes: improvement and accountability. In this study, I argue that quality assurance systems are planned and instituted by accreditation bodies whose main mandate is to improve teaching provision at TVET institutions. In this context, these accreditation agencies aim to improve and ensure accountability at these institutions. I support the notion that effective quality management systems have the enhancement/effectiveness of academic provision at institutions as purpose, and that they do this by enforcing compliance by means of quality audits.

In order to contextualize my position, I focused on quality assurance systems and mechanisms with particular emphasis on TVET. The study was aimed at the exploration of critical issues which hinder quality management implementation at TVET institutions. In this chapter, I give an overview of literature related to quality management systems in higher education, with specific reference to the TVET sector, which forms part of the post-secondary education system in Malawi.

I begin by defining quality and quality management systems, relating these to post-school education. To this purpose, I focus on key QMS (Quality Management Systems) concepts and issues specifically applicable to higher education, inferring their application to TEVET as post-school training. Included in these are quality management systems (2.4), conceptual issues in higher education quality assurance (2.5), models for quality management in higher education (2.6), principles informing TVET quality systems, and the assessment of TVET functionality (2.7).

2.2   Conceptualizing Quality Management

Quality management has, in many countries become a standard feature of most organizations. However, the way in which these organizations understand and manage quality are not necessarily the same. As part of my research I therefore reviewed a whole range of literature, including academic articles, research and government reports to determine what quality is

and how it should be assured and/or managed. It is the results of this review that are presented in this section of Chapter 2.

2.2.1   *Quality as concept*

According to Bobby (2014), there are currently five approaches to the assessment of quality, each informed by a specific definition of quality. Each of these approaches is briefly described below.

- **Quality as that which is exceptional:** In terms of this definition, it is the extremely high standards of institutional products and services which distinguish an institution from other institutions, thus making it exclusive and, by implication, exceptional (Harvey, 2005). The focus of quality assessment is, therefore, on the standard of the institution's products and services.

- **Quality as perfection (or consistency):** In terms of this definition, it is the institution's quality management processes and specifications which reflect its quality: if there are zero defects in these, the institution is regarded as one with a sound quality culture (Commonwealth of Learning, 2009).

- **Quality as fitness of purpose:** The assessment of quality in this approach is aimed at determining whether or not institutional products and services conform to a stated mission/vision, or to a set of specifications, requirements, or standards, including those defined by regulatory bodies (Commonwealth of Learning, 2009).

- **Quality as value for money:** In this approach, quality is assessed in terms of the returns on investment or expenditure and is related to accountability.

- **Quality as transformation:** In this approach, quality is defined as the extent to which institutional products and services effect positive change in student learning (affective, cognitive, and psychomotor domains) on the one hand, and ensure the development of their personal and professional potential on the other (Srikanthan & Dalrymple, 2007).

Linking quality to transformation is a hallmark function of the TVET system, since the system rests on the premise that TVET should have the empowerment of students as purpose. By implication, TVET institutions should ensure that their students acquire the requisite competencies needed for the labour market. Other terms, like perfection, fitness of purpose and value for money are also key features of the transformative approach (Harvey and Knight, 1993,)

Figure 2.1: Defining Quality

| Quality |
| Exceptional: Distinctive learner, excellence | Perfection, consistency: Zero defects | Fitness for purpose: Customer specified mission | Value for money: Efficient/effective | Transformation: Enhancing and empowering the student |
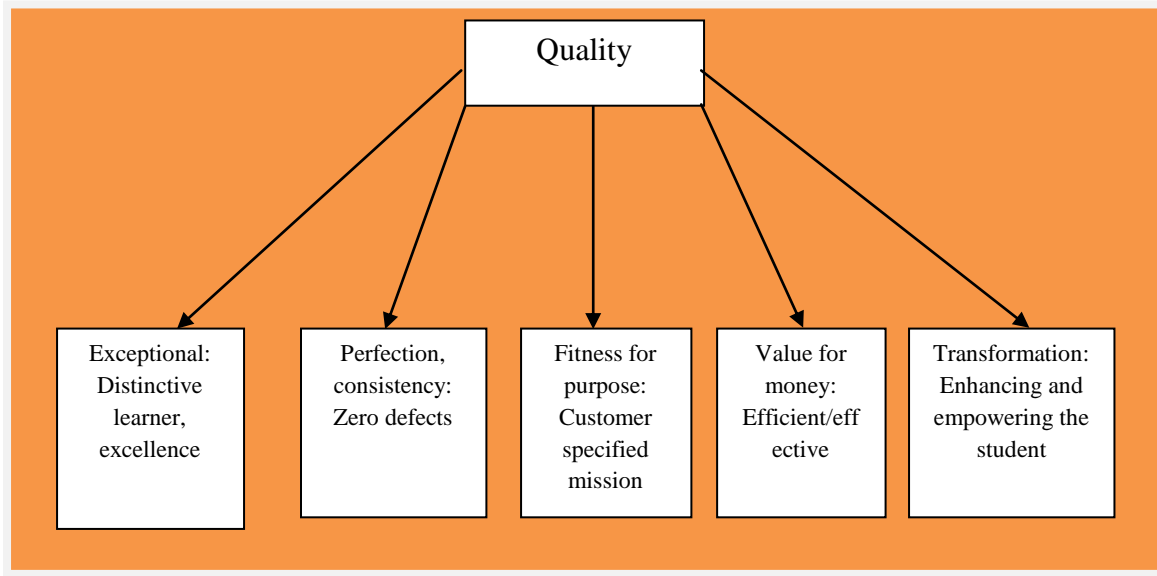
(Source: Watty, 2003)

This brief overview of quality definitions and approaches indicates that quality as conceptualized in the higher education system is a multi-faceted phenomenon. I would argue that quality is also contextual, since the way in which different authors define it is informed by the purpose for which it is used in different institutional contexts. My investigation of TVET quality management systems in Malawi is, however, informed by the 2013 UNESCO definition of quality, namely quality as "fitness of purpose" (UNESCO, 2013), since TVET quality assurance systems are required by law to conform to quality criteria set by its regulatory body.

2.2.2   Quality Management in Higher Education

Managing quality systems in the higher education sector is a difficult task. According to various scholars (Harvey, 2005), this is mainly due to the range of definitions and interpretations of quality in the academic sector. This is especially true in the case of TVET, whose stakeholders, both internal and external, who might have very different views on what quality is and how it should be managed. According to UNESCO (2013), definitions and/or interpretations of quality education are often ambiguous or misleading and, thus, misunderstood. Because of this, the management and assessment of quality has proven to be contentious and challenging.

Historically, various constituents, both internal and external, have had an interest in quality assurance systems and approaches. According to Borahan and Ziarat (2002), for example, quality assurance refers to "planned actions meant to give satisfactory trust that a service or outcome will meet the stated requirements for quality". The significant broadening internationally of higher education provision in recent years has, however, compelled governments to critically reflect on the range of factors which should be considered in relation to the management of quality assurance systems, including drivers towards the enhancement of knowledge and competencies needed for economic improvement (OECD, 2005). Therefore, according to stakeholders, quality is generally driven by government action plans, which pay particular attention to the assessment of systems and processes (Harvey & Williams, 2010). Consequently, quality audits and accreditation, for example (OECD, 2005) are usually regulated by government and/or accreditation agencies whose function it is to ensure adherence to suitable dimensions of quality (Harvey & Williams, 2010).

According to Okebukola (2005), quality provision - academic audits, assessment and accountability – is the benchmark for quality assurance. Higher education institutions, for example, have to exhibit responsibility not only with regard to service delivery and accountability but also with regard to their outcomes and the resources they utilise to achieve these (Okebukola, 2005). Transparency and accountability, according to Harvey (2005), strengthen these quality dimensions by relating them to effectiveness and efficiency.

Current debates on quality management practices within HEIs make it difficult to decide which definition of quality best suits them. The range of activities associated with quality higher education - teaching, learning, research, and administration – complicates the monitoring, assessment and management of their quality. Even so, since quality management is a pre-condition for quality education, it has to be enforced, but with discretion. In other words, the quality management approaches used should be appropriate to the institution concerned and should have the enhancing of quality management practices as purpose. In the case of TVET institutions, quality management should therefore focus on curriculum, processes and resources, all of which are critical to equipping students with the skills deemed necessary in the labour market.

Quality management models mostly used in higher educational institutions help to provide qualitative services or activities to the end users or customers (Farooq, Ullah, & Memon,

2007). Significant benefits of quality management system adoption include: continuous development; enhanced employee confidence; good and ideal quality from customers' perspectives; bridge of faculty and academic staff roles and functions and better teamwork (Ali & Shastri, 2010).

2.2.3   Quality Assurance in the TVET Sector

In this section I present several perspectives on quality assurance, influenced by various educational traditions (Harvey & Williams, 2010), which could/may be used for the management and assessment of quality in the higher education sector and the accreditation or not of higher education institutions based on the outcomes of quality management audits.

UNESCO (2013) claims that the processes used to assess and evaluate quality management systems in the Malawi higher education sector do not conform to universally accepted criteria in this regard. It recommends, therefore, that the use of acceptable processes should be encouraged in order to sustain and improve the provision of teaching, safeguard accountability and facilitate the harmonization of norms across programs, institutions and processes. The development of quality systems which conform to international norms requires a massive investment in training and knowledge acquisition and, by implication, is both expensive and time-consuming. According to UNESCO (2013), developing such capacity is, however, imperative, especially in the higher education sector, since it is the quality of its systems which determines the quality of an institution's knowledge output, and it is the quality of its knowledge output which determines its profile and/or image.

While all quality assurance practices have accountability and enhancement as their primary objectives (Vroeijenstijn, 1995), and are thus informed or directed by quality assurance policies and procedures, the quality assurance methods used by different parties are often different (Boran & Ziarat, 2002; Nicholson, 2011). In some cases, quality assessments are cursory; in others, they may be more detailed. In some cases, assessment is conducted internally, in others externally. Regardless of differences like these, though, no institution can be accredited unless its internal quality assurance management has been audited (externally reviewed) by the accreditation body to which it is accountable.

The term, 'accountability', is used with reference to an organization's responsibility to provide those to whom it is accountable with reasons for and/or evidence of what its

performance and other claims. In the case of higher education institutions, the 'accounting' body could be government (Koslowski, 2006), external stakeholders and/or specific accreditation bodies. Post-secondary institutions are typically accountable to their stakeholders, with specific reference to the ways in which they have used the funds allocated to them by stakeholder bodies. The stakeholders are, therefore, the *ipso facto* quality assurers of this sector.

Since higher education and TVET institutions are required by law to provide quality education, they are, by implication, bound to maintain specified standards. To ensure that this happens, they have to put in place quality assurance systems which not only enables them to maintain and/or improve teaching and learning but also to assess, evaluate and report on – i.e. give account of - their actions. Because the policies and processes that should be used to do so are usually set by the agency responsible for quality assurance and control, this agency has the right and the responsibility to 'audit' the institutions whose quality it has to monitor and evaluate and to 'enforce' corrective actions should this be deemed necessary.

One of the criteria against which institutional quality assurance systems are assessed and evaluated, according to Koslowski (2006), is the extent to which they result in the achievement of 'goals … set to meet desired expectations'. Should remedial action be necessary, the quality assurance body should advise and/or assist the institution concerned to develop an 'improvement strategy' (Koslowski, 2006) which is aimed at the achievement of forward-related outcomes rather than on judgments of previous work achievements. The standards, procedures and techniques employed in quality enhancement processes like these (see Figure. 2.2) should not only expand institutional knowledge and understanding of the concept, 'quality enhancement', but should also lead to the formulation of outcomes and descriptions of quality informed by the goals and standards of the institution concerned (Koslowski, 2006).

Figure 2.2: Defining quality assurance elements
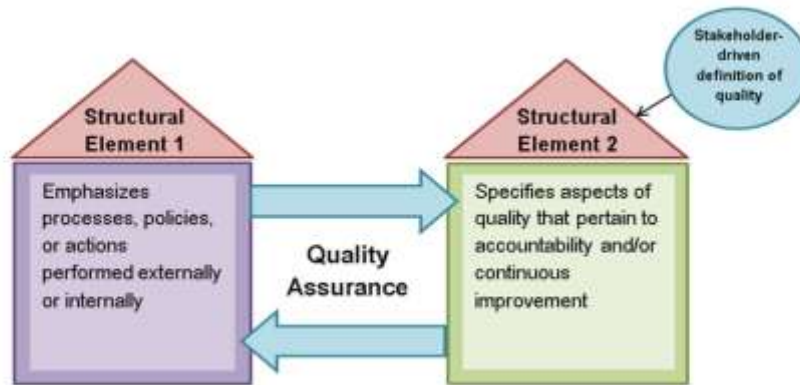
(Source*:* Laura, Sarah, Heather, & Linda, 2015)

Illustrated in Figure 2 are the structural elements of two types of quality assurance, each serving a specific aim. Structural Element 1, represents/illustrates pro-active quality assurance is all about, indicating what institutions should do to ensure the continuous satisfaction of their internal and external stakeholders. One example of such an approach would be to develop and execute procedures aimed at the yielding of pre-determined quality outcomes. Structural Element 2 reflects/illustrates the purpose of responsive/reactive ('after the fact') quality assurance, i.e. assessment and review mechanisms which are aimed at correcting/improving existing standards within the institution and/or to assess/evaluate the extent to which the institutions should be held accountable for the quality of its teaching, learning and management (Koslowski, 2006).

According to Scott (2008), institutional quality assurance systems should enable those responsible for the determination of institutional quality and accountability to measure their outputs (employable graduates) against their inputs (staff and faculty responsiveness). In this regard, according to Tam (2014), quality assurers/controllers could decide to use one of more of four distinct classifications of indicators, namely administrative, instructional, student support services and student performance (see Table 2.1). The first three (administrative, instructional and student support) would indicate the quality of an institution's inputs, while the last one (student performance) would indicate the quality of its outputs.

Table 2.1: Quality indicators

Categories	Definitions
Administrative Indicators	Indicators of institutional administration: its vision, mission, legitimacy, organizational standards, goals and objectives as well as the purchasing of resources to achieve the institution objectives (Commonwealth of Learning, 2009).
Student Support	Indicators of the procedures for and manner in which student complaints are addressed (Zineldin, Akdag, &Vasicheva, 2011).
Instructional Indicators	Indicators of the applicability of educational resources, the competence of academic staff, and the extent to which courses and programs reflect the requirements of industry (Tam, 2014; Wong, 2012).
Student Performance Indicators	Indicators of the way / manner in which students engage with the curriculum, staff and faculty and the extent to which the acquisition of skills and knowledge enables them to find employment (Scott, 2008).

(Source: Laura, Sarah, Heather, & Linda, 2015)

The terms, 'quality' and 'accountability', are often used interchangeably (Koslowski, 2006), However my review of literature on Quality Assurance convinced me that, although quality assurance, accountability and continuous improvement are related to one another, they are not the same (Streubert & Carpenter, 2011). Quality assurance refers to the processes, procedures and systems which should be put in place to ensure accountability and improved education.

2.3   Quality Management Systems in Malawi

MOEST (2009), in its Malawi National Educational Sector Plan (NESP) of 2008 made it absolutely clear that effective TVET is critical to the country's development and should therefore be aimed at equipping secondary school learners with the knowledge and skills required to contribute to the country's economic development. By implication, quality TVET training would provide and satisfy the standards set by the labour market. However, as indicated in the NESP (2008-2017), the introduction of quality assurance as a systemic and institutional imperative in Malawi was a challenging task. Not only was it implementation inhibited by a lack of coordination but also by the mismanagement of funding allocations, outdated curricula, inadequate training equipment, and poor infra-structure.

TEVETA receives a 1% levy from the private sector but there are no satisfactory mechanisms in place to make sure that the allocated funds are directed to the training institutions. TVET

institutions continue to use the old curriculum without ever reviewing its standards, delivery or relevance. The poor infrastructure of TVET institutions limits the enrolment of students. Those who are enrolled have to sit for three types of certificate examinations to qualify for graduation and/or employment. Each certificate relates to one of three programs which are run simultaneously. The parallel offering of multiple programs coupled with the fact that their curricula are outdated, has resulted in TVET institutions producing graduates with competences not meeting industry requirements. Finally, Malawi does not have a TVET training college, hence TVET institutions and secondary schools rely on the Malawi Polytechnic, a primarily academic institution, to provide them with teachers.

2.4   Quality Assurance Mechanisms

Quality assurance is not a new concept: it had been a topic of discussion in academic literature for many years before it was highlighted as a UNESCO conference theme in 1998. At this conference delegates agreed that:

> *"Quality in post-secondary schooling is a multi-dimensional concept, which should embrace all its functions, and activities; teaching and academic programs, research and scholarship, staffing, students, buildings, facilities, equipment, services to community, and academic environment" (UNESCO, 2010)."*

What is evident from this definition of quality is that understandings of quality assurance are underpinned by 'management' thinking. Management thinking, according to Okebukola (2010), focuses on the quality dimensions of input, process and output which, in terms of this kind of thinking, should be the main drivers of the quality assurance system (graphically illustrated in Figure. 2.3).

Figure 2.3: Dimensions of Quality

INPUT	PROCESS	OUTPUT
Students	Teaching and learning processes	Skilled and employable graduates
Teachers	Research	Responsible citizens
Non-teaching staff	Use of time and space	Economic and social development
Managers	Student services	Production of new knowledge
Curriculum	Administration	
Facilities	Leadership	
Instructional materials	Community participation	
Other resources	Management	

(Source: Okebukola, 2005)

As illustrated in Figure 2.3, the input components are students, teaching staff, syllabus and material resources; process components are teaching and learning, internal efficiency, assessment criteria and administrative practices, and output components are external efficiency and the calibre of graduates produced.

2.4.1   Quality Assurance Procedures

Quality in higher education are primarily assured and/or controlled through assessments, audits and accreditation. Whereas assessment focuses on academic provision, audits are aimed at examining and evaluating internal institutional processes and procedures, the outcome of which determines whether or not an institution qualifies for accreditation.

2.4.1.1   Accreditation

According to the American Council on Education (2015), the accreditation of a higher education institutions indicates that its systems, operations and procedures have been assessed and evaluated against specified criteria and that all of these were deemed to be up to standard. Accreditation therefore implicitly confers a certain status, an external seal of approval, on the institution concerned. Having been accredited, it has the right to admit students and award qualifications, provided that it maintains and/or improves on the quality of education it offers (Eaton, 2009). Other benefits of being accredited, according to Prasad

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(2007), include the autonomy to decide which resources to assign to which target areas; to determine who it key stakeholders and/or sponsors should be; to design and use ingenious teaching and learning methods; gaining the confidence of the community, industry, business and professions with regard to the services it renders.

In order to determine whether or not an institution should be accredited, the 'auditors' typically consider its vision, mission, capacity, systems, procedures, programs and resources. Since an institution's 'sovereignty' is an important element in the realization of its mandate – academic quality - academic freedom, leadership and management have a huge impact staff commitment (Eaton, 2009).

Because of this the accreditation process is not only done by an external agency; instead, it includes self-evaluation (done by the institution and its staff), peer reviews (done by academics and management teams of similar institutions) and site visits (by the quality assurance agency and those involved in peer reviews). Based on the outcomes of these processes, the accreditation agency evaluates the evidence and decides whether or not the institution should be accredited (UNESCO, 2004).

Self-evaluations/reviews, according to Vlăsceanu, Grünberg and Pârlea (2007) enable institutions to continually check whether or not they are carrying out its mission and/or achieving the goals in its strategic plan. The results of self-evaluations could then be used as benchmarks for future self-evaluations and/or for peer reviews at their own or other institutions (Eaton, 2009).

External reviews, apart from focusing on institutional eligibility for accreditation, could also be aimed at determining whether or not its graduates are suitably prepared for the careers they want to pursue on completion of their studies. In addition to this, external reviews could be conducted by potential sponsors, international institutions and/or organizations considering the forming of collaborative partnerships with the institutions concerned (Harvey & Williams, 2010).

In Malawi, accreditation serves a dual purpose, namely (a) to make sure that higher education institutions satisfy the required thresholds of quality, and (b) to enhance the quality of post-secondary education institutions.

2.4.1.2   Institutional academic reviews

According to Hayward (2006), the purpose of institutional academic reviews is to check the quality and/or relevance of its teaching, learning, and other administrative services. The process is usually outcome-based, internally driven and is championed by the institution itself in order to make sure that its operations are up to standard and its quality assurance mechanisms are up to date.

Based on insights I gained from the review of quality assurance procedures presented here, I am convinced that the introduction of academic reviews at TVET institutions in Malawi could encourage staff to conduct self- and peer evaluation, activities which could well lead to an improvement in the quality of training in the institution as a whole. The introduction of audits, which could lead to accreditation and, by implication, greater institutional autonomy, could motivate staff to improve not only the quality of their own teaching but also to become involved in the improvement of institutional quality as a whole. This would, however, require proper coordination and/or effective communication channels between TEVETA and TVET institutions (Harvey, 2002).

2.4.2   Internal and external quality assurance

Most quality assurance practices distinguish internal from external quality assurance processes. According to the European Standards for External Quality Assurance (ENQA, 2005), the determination of a rationale for quality assurance systems should precede decisions on the quality assurance procedures to be followed. Furthermore, quality processes should be managed by people knowledgeable on issues of quality assurance, staff members of higher education institutions being one option.

According to (Harvey, 2002), quality management processes should ideally include internal and external quality assessments and/or reviews because, together, they supplement each other. Internal quality assurance includes the development and assessment of institutional policies, systems and programs (Martin & Stella, 2007) to ensure that the institution carries out its quality training mandate in compliance with the standards determined by the external accreditation body. The evaluation of academic activities as well as the monitoring of resources used in teaching and non-teaching settings usually form part of internal quality

assurance while accreditation and quality audits are associated with external quality assurance (see Table 2.2).

Table 2.2: Quality assurance Systems and its mechanisms

Quality Assurance Mechanisms	Example of Mechanisms
External	Accreditation of programs Peer Review Validation Quality Audit International Standards i.e. ISO
Internal	Self-Evaluation Self-Accreditation Educational Assessment Students and staff feedback

(Source: Saruddin, 2013)

The purpose of external quality assurance, traditionally devolved to external accreditation agencies (Skolnik, 2010), is to ensure that academic institutions respond to societal and national needs and/or requirements (VLK, 2006), to establishment higher education operational frameworks which would guarantee their standards (Sanyal & Martin, 2007), and to sustain and protect stakeholder needs by holding higher education institutions accountable (Santiago et al., 2008). In a formalized external quality assurance system, it is compulsory for academic institutions to have internal quality mechanisms in place. In exchange, they are given more autonomy. Informing this exchange is evidence that well-developed quality assurance systems result in sound and healthy quality cultures (Santiago et al., 2008).

The relationship between internal and external quality assurance is illustrated in Figure. 2.4.

Figure. 2.4: Quality, External and Internal Quality Assurance
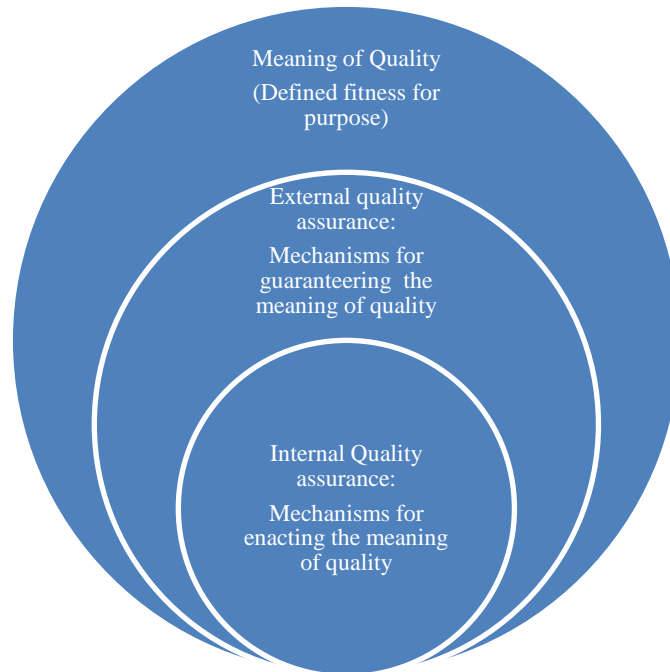
Pragmatically speaking, quality is not an abstract notion: its existence or not can be verified through practically enactment and measurement. The first step in the enactment of quality should be to define fitness of purpose in practical terms appropriate to the educational context concerned. For instance, the definition of fitness of purpose could focus on the training qualified human resources for the labour market, the training of students for research career, the efficient management of teaching provision, or the production of competent graduates which would be able and willing to contribute to economic development (Mishra, 2007). By implication, higher education institutions should define quality within the parameters of fitness of purpose, the purpose being subject to change due to internal and external circumstances.

Fitness of purpose definitions like these, emphasizing the importance of aligning external and internal stakeholders' quality needs and perspectives, could therefore be seen as an external safeguard, protecting higher education institutions against the potentially unreasonable expectations and dissatisfaction of external stakeholders. External quality assurance should, therefore, be regarded as an important and integral part of the quality assurance circle illustrated in Figure 2.4.

Concerns have, however, been expressed about the (sometimes excessive) accountability focus of external quality assurance agencies. In a study conducted by Cheng (2001), academic staff in the United Kingdom indicated that they were not convinced that external quality assurance had much impact on the quality of teaching. Ansah (2010) agrees, citing evidence that an external quality assurance agency in Ghana checks only basic inputs, an evaluation which does not, according to him, have any effect on the improvement of quality in teaching and learning. Nonetheless, some authors (Santiago et al., 2008; Hopper, 2007) are adamant that external quality assurance is in the best interest of higher education institutions, even if it only enhances their autonomy and/or verifies their legitimacy in the eyes of the public.

Based on my review of internal and external quality assurance at higher education institutions I would argue for the implementation of both at TVET institutions. I would argue that external reviews ensure the integrity of the institution, primarily because assuring TVET accountability requires the commitment and full participation of external stakeholders (American Council on Education, 2015). Internal quality assurance mechanisms are, however, critical to institutional improvement. According to Prasad (2007) it is only when training providers acknowledge the need for improvement, that it can be attained because there is an awareness of the rationale for improved quality.

2.5 The impact of quality assurance processes on Higher Education

According to Prasad (2007), the effect of quality processes in higher education sector is not easy to assess. What can be observed and assessed, however, are improved academic provision, institutional organizational processes and academic beliefs about and attitudes to quality assurance processes.

2.5.1 *Challenges in assessing the outcomes of quality assurance processes*

It is always more demanding to assess and evaluate differences brought about by quality assurance processes: what is simpler is to focus on organizational structure. Determining the effect of quality processes on student competence is the most difficult (Brennan, 1999). While a great many evaluation studies and reports have focused on the impact of internal quality assessment by academics and on quality assurance processes used in higher education institutions, their impact on student learning is still not clear (Harvey, 2002).

According to Prasad (2007), changes in organizational set-up are more apparent: policies, processes, functions and roles are identifiable but the scope of their relationship with one another and with educational requirements and set-up are seldom conclusive. Consequently, the focus is on the implementation of quality assurance methods rather than on the standards or 'outcomes' (Prasad, 2007). According to Prasad (2007), the results of external quality monitoring must be transparent so that they can be used as basis or point of departure for the assessment of concurrent events and/or resultant changes to organizational systems in their entirety. Since quality assurance mostly involves inputs, processes and outputs, with their associated procedures and outcomes, accountability and transparency should focus on issues related to these indicators.

Another systemic issue concerns the political and economic milestones which could potentially be set in response to the successful implementation of external quality management systems. Just as TQM managers and other stakeholders, according to Zbaracki (1998), often use the results of internal quality assurance processes to boost their own image, governments and other parties could, according to Stensaker (2003), do the same with the results of external quality assurance processes.

2.5.2   *Effect on teaching and learning*

According to Brennan and Shah (2000), the majority of case studies have paid little or no attention to the monitoring of teaching, primarily because of complaints that it happens at the cost of teaching and learning. Curriculum reviews, student assessment, evaluations of transformation in degree programs, and performance in programs for academics undergoing upgrading, specifically with regard to teaching methodologies have, according to Newton (2001), resulted in major improvements to teaching, indicating that such monitoring should be an essential feature of quality assurance evaluations.

According to Drill (2000), several studies conducted on the outcome of audit procedures in countries like New Zealand, Hong Kong and the UK also indicate that academic audits have led to improved teaching and learning and have simplified the roles teachers should play in enhancing the quality in teaching and learning. Brennan and Shah (2000) found, moreover, that quality audits also positively influenced power relations between students and academic staff. They suggest that one way of doing this is to allow students to give their views on assessment procedures and/or to indicate what they should and should not be studying.

According to Harvey and Newton (2004), many studies on quality assurance are underpinned by the view that quality is about conformity and accountability and, according to Harvey (2005) there is no evidence that external quality monitoring has any impact on the quality of learning because it is motivated by accountability demands. Where there are improvements in students' learning, these could usually be ascribed to other factors, not necessarily credited to the availability or use of quality assurance processes (Newton, 2001), although the latter do create opportunities to initiate legally driven transformation of teaching and learning practices (Harvey & Newton, 2004).

2.5.3   Effect of quality assurance on Higher Education organization

Implicitly supporting conclusions that external quality assurance processes have a minimal effect on the quality of teaching and learning, Stensaker (2003) claims that they focus mostly on organizational issues at higher education institutions. According to Brennan and Shah (2000), they therefore affect power relations, specifically on power sharing in the sense that they lead to improved leadership focusing, as they do on leaders'/managers' responsibilities, internal processes of accountability and the implementation of policies, strategies and disciplinary measures. The outcome of quality assurance system like these is often greater decentralization and, by implication participatory decision-making (Stensaker, 2003).

Ironically, though, the use of external accreditation agencies could in fact, inhibit this given their responsibility to promote adherence to centrally determined standards. In many instances, according to Stensaker (2003), this could result in greater bureaucratization, with higher education institutions instituting line functions and roles and replacing simple tasks with complex ones.

Even so, according to Stensaker (2003), external quality assurance has played a significant role in the creation of greater transparency at higher education institutions, making the 'black box' more open and quantifiable. Not only has quality assurance practices generated more data on higher education and its outcomes than any research studies have ever done but it has led to the publication of and academic debates on the nature of quality, the role of and need for quality assurance, accountability and relevance. The most apparent consequence of the masses of available information on these matters has been the increased vulnerability of departments and their activities to institutional and governmental interference.

2.5.4 *Academic understanding of quality assurance*

According to Dill (2000), studies on academic audit processes in some countries like Hong Kong, New Zealand and the UK indicate found audits stimulate discussions on and increase collaboration within higher education institutions. These findings relate specifically to ways in which teaching and learning could be enhanced. Contrary to these findings are those of Newton (2001), who found that audit systems enjoy little support from academic staff because quality assurance processes force them to work in teams.

2.5.5 *Academics' understanding of quality assurance tools*

Self-review is an exciting experience to academic staff, challenging them to come up with new educational ideas which may improve their academic output (Rasmussen, 1997). Stensaker (2003) disagrees. His experience of a quality audit in Sweden indicated that academic self-reviews are regarded as nothing more than preparatory exercises for external site visits.

2.5.6 *Loss of academic freedom*

According to Newton (2001), external quality assurance and an increased demand for efficiency and effectiveness at higher educational institutions will lead to academic managers prioritizing academic freedom as an organizational requirement. Moreover, institutional requirements to ensure that the institution satisfies external monitoring demands cause tension between academic staff from different departments, especially with regard to curriculum delivery.

2.5.7 *Workload*

Several analysts have noted that assessment systems result in a significantly greater workload for academics (Harvey, 2002) while quality assurance processes require more bureaucratic procedures, more paperwork and more meetings (Rasmussen, 1997).

2.6 Academic understanding of quality assurance Challenges in implementing successful quality assurance mechanisms

In this sub-section I examine the rationale for the implementation of effective and efficient quality assurance processes since these evidently create a number of challenges to higher

education institutions. One of these challenges seems to be stakeholders' misunderstandings of and misperceptions on quality assurance matters. One of these challenges is the "performance or implementation gap". Another is the imposition of regulatory frameworks by quality assurance agencies which, in most cases, require compliance, rather than enhancement.

2.6.1   Perceptions of quality between various stakeholders

Indications are that the perceptions of government and those involved in higher education on the purpose to be served by quality assurance processes, especially those which are externally conducted, seem to differ markedly, as indicated in Table 2.3. Government uses these procedures to ensure the accountability of higher education institutions while the institutions regard them as a means of enhancing the quality of teaching and learning. Consequently, the focus of government is on convincing society that it – the government – is effectively controlling higher education expenditure and the relevance of its programmes. To this purpose, the quality assurance approach is comprehensive, bureaucratic, and regulatory. offered. Higher educational institutions take a more continuous approach. Higher education institutions, on the other hand, although also wanting to satisfy society's needs and/or expectations, believe that it is in ensuring the quality of teaching and learning, not in the regulation of institutional processes by government that this could best be achieved. They do not believe that the 'one size fits all' approach of government can achieve this; rather, they believe, they should have the academic freedom to try out a variety of approaches in order to ensure that students receive the greatest possible benefit from their higher education experience (Watty, 2003). This, they believe, is well-nigh impossible in the prevailing conditions created by the way in which government attempts to control their operations. Hence, according to Vroeijenstijn (1995), the relationship between higher education institutions and government is an adversarial one.

Table 2.3: Stakeholders perspectives on External Quality Assessment

	Government	Higher education institution
Nature of EQA	Summative	Formative
Aims	Accreditation (threshold quality)	Quality improvement
	Accountability to parliament	Accountability
	Steering/planning of higher education:	Self-regulation
	Are the aims of government with regard to higher education reached?	Quality assurance
	Constitutional assurance of quality	
	Comparison assurance of quality	
	Efficiency	
	Information for students and employers	
Instruments	Inspectorate	Self-assessment
	Performance indicators	Peer-review

(Source: Vroeijenstijn, 1995)

The potential conflicts that could arise between these two parties as a result of these two very different views of and approaches to quality assurance could seriously undermine the higher education standards and the commitment of higher education staff to upholding these.

According to Brenan, Peter de Vries and Williams, (1997), there are, however a number of factors that could hinder the effective use of self-assessment as a quality assurance technique. It can, according to him, only be effective if there is no dissension amongst academics and higher education management as to the manner in which curriculum ought to be delivered and the assessment of student competence should be conducted.

2.6.2   The 'performance gap'

According to Newton (2001), the contribution of academics in the development of quality assurance policies is critical since they are the ones who are expected to implement them in the end. The effectiveness of quality assurance systems therefore depends on academics' perceptions of and attitudes to quality assurance. If there are disagreements between academics and higher education management on the one hand and government agencies on

the other with regards to what the policy should be, the chances that it will be effectively implemented are minimal.

2.6.3   Regulatory measures

A key factor contributing to academics' resistance to government requirements regarding quality assurance efforts is their sense that they are being forced to comply with externally-imposed quality measures through assessment and audit review processes. According to Harvey (2002), even though they are 'encouraged' to comply by means of "rewards and sanctions", their sense of "ownership" – of the system and its outcomes – are undermined and, as long as quality assurance "is carried out at a distance from the academics to whom, and by whom, the system is *[to be]* applied", it is unlikely to be effective. Another danger, according to Harvey (2002), is that, as quality assurance processes mature at higher education institutions, the mechanical methodologies of quality assurance may be emphasized at the expense of creative processes.

Notwithstanding the seeming dissension amongst theorists regarding the need for and effect of quality assurance on higher education, I am convinced that it has the potential not only to enhance teaching and learning but also to empower students.

2.7   Management of quality systems in HEIs

Harvey (1995) claims that quality in higher educational institutions could be achieved through firmly embedded repositioning of the culture of these institutions and that various approaches used to this purpose in the industrial sector could be used to this effect at higher education institutions. Three of the more popular models examined by higher educational institutions are the ISO 9000 Standards, the Total Quality Management model and the BSC approach to organizational management.

2.7.1   ISO 9000:2008 Standards

In terms of the ISO (2005) system, quality management is a systemic process, structured in the form of five thresholds: quality management processes, analysis and enhancement, resource management, product realization, and management responsibility (Figure 2.5).

Figure 2.5: The ISO 9001:2008 Standard System

Quality management system: continuous improvement

management responsibility

resource management

measurement, analysis and improvement

produvt realization

Requirements
Customer and other interested parties

Satisfaction
Customer and other interested parties
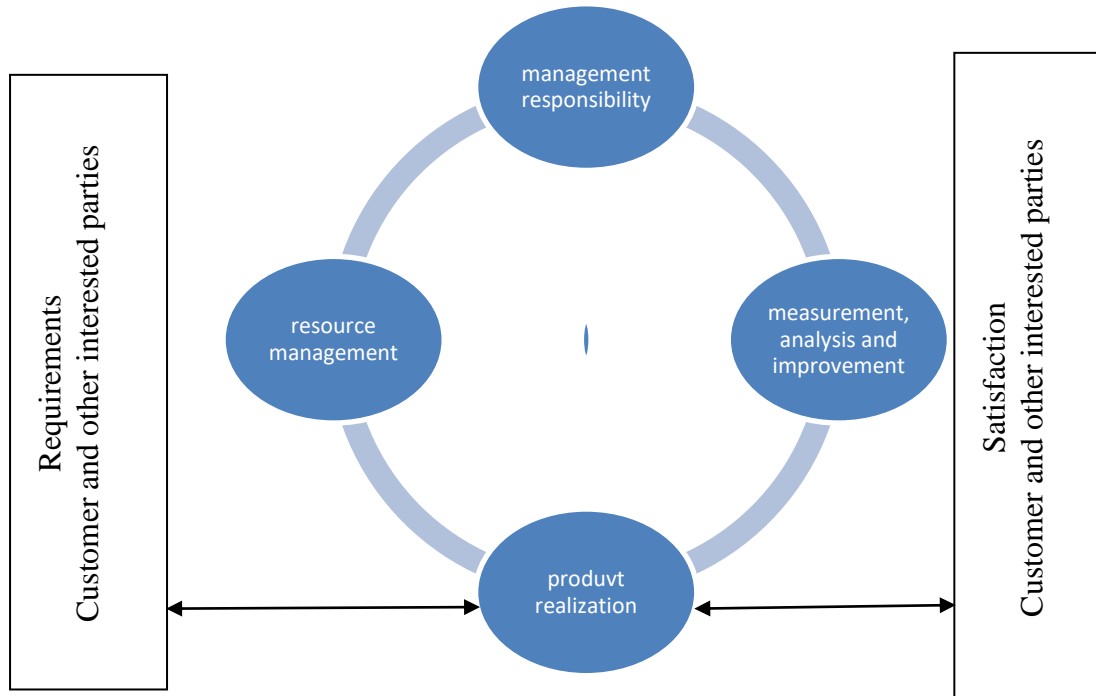
(Source: ISO 9000 Third edition, 2005)

Informing the ISO 9000:2000 model is the premise that the effective establishment and execution of quality managements is based on at least the following:

a) The identification/determination of the customers' requirements prior to the development of a quality assurance policy and institutional goals.

b) The interpretation of procedures and duties required to achieve the quality goals needed.

c) Deciding on and allocating resources to achieve the quality requirements.

d) Instituting approaches to estimate how efficient and effective each of the identified processes is.

e) Implementing actions to establish efficient processes.

f) Establishing criteria to avoid non-compliance and remove identified risks.

g) Creating and executing processes to enhance the organization's quality management process.

However, according to Csizmadia, Jurgen and Don (2008), several criticisms have arisen regarding the implementation of ISO Standards at higher education institutions. One of these

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criticism is that the "ISO system requires a broader view of the production process of the higher education system" which, in turn, requires more regulation (Rosa, 2007). If HEIs wish to implement it, according to Rosa (2007), it should be undertaken as a continuous improvement process.

According to Brookes and Becket (2007), several HELs – in the UK, Australia and New Zealand - which have started to implement the ISO standard model have noted its benefits with regard to the establishment of cost-effective accountability procedures, the adoption of productivity-oriented improvement-driven approaches, the consideration of a number of stakeholders' needs, and the use of data as basis for quality improvement. The application of these standards was, however, confined to the administrative services of these institutions rather than to their academic functions.

2.7.2   *TQM systems*

The key feature of the Total Quality Management (TQM) model is that it combines several processes to develop an organizational system in which everyone contributes to the overall quality of services and products. According to Pandi, Rao and Jeyathilagar (2009), the model has been enthusiastically used as quality management tool across relatively diverse sectors, education included. Some countries have even instituted national awards, the Malcolm Award being an example, for the effective and efficient implementation of TQM principles in the computation-oriented structure of management systems.

2.7.2.1   Key TQM elements

Quality is an essential feature of private and public organizations. In terms of the Total Quality Management (TQM) model quality could be assured only if customer requirements and expectations are met. This could best be achieved, in terms of the model, by reducing costs, focusing on key processes, continuous improvement and the involvement of every employee in the organization (Bergman & Klefsjo, 2003).

The effective implementation of TQM in an organization requires dedicated and committed leadership. According to Bergman (2003), management within the organization must take into account organizational goals and objectives of the organization, strategies must be in place, the organization must be in good financial standing and have adequate resources available to realize the vision and execute the mission of the organization. By implication, the

knowledge and commitment of organizational leaders and the existence of a 'quality culture' are essential to the successful implementation of the model. Such a culture would be customer-oriented and process-focused. Decisions would have the continuous improvement and commitment of staff as purpose (Figure 2.6).

Figure 2.6: Display of Core values in Total Quality Management

(Source: Bergman & Klefsjo, 2003)

As indicated in the clarification of these values which follow, they have very specific meanings in the context of the TQM model.

Customer focus: In TQM this means that the organization must not only know the needs of customers but also how to address those particular needs. By implication all the customers of the organization must be content with its vision and mission. Moreover, although an organization's focus is typically on external customers, the aspirations of internal customers (i.e. the employees) must, in the TQM approach, also be considered and addressed because they are the ones who, in the long run, determine productivity.

Decision-making: In TQM this refers to the way in which management makes and implements decisions to achieve the organizational mission. For example, if a higher education institution wants to develop a new program, it must be in possession of adequate

information on the needs of society and the nation. This requires the systematic collection of data on the needs through tracer studies (Bergman & Klefsjo, 2003).

Process: This refers to a set of activities which are routinely carried out in an organization. Processes involve clearly stated inputs, such as materials, which are transformed into desired outputs, like the goods and services meant for customers. Three types of processes should be used: key processes that focus on the needs of external customers in the development and distribution of the actual product; secondary processes, aimed at the provision of required resources for core processes, such as information processing and information technology; management processes, like the making of key decision to meet and improve organizational performance.

Continuous Improvement: In TQM cycles, this is critical because increases in productivity are dependent on the extent to which the product satisfies the needs of external customers. Thus, the quality of products and services must be continuously improved and/or enhanced. In order to ensure that this happens, processes, products, and methods have to be continuously improved without increasing budgetary allocations (Bergman & Klefsjo, 2003).

What is important in this entire process is that the essential values informing the model should consistently be related to one another and that the appropriate mechanisms to support them should be in place and functional. In short, to achieve quality in a TQM organization, the committed involvement of employees in the execution of its mission is imperative. It is due to the absence of this value amongst academic staff that, according to (Bergman & Klefsjo, 2003). Why TQM principles at higher education institutions have been applied solely in their administrative and support divisions.

2.7.3   Application of BSC

The Balanced Scorecard approach was pioneered by Kaplan and Norton (1992). Focusing on the creation of a balance between internal business processes and customer; financial and learning needs. Based on the premise that, in order to succeed an organization has to recognize the relationships between operational activities and outcomes (external measures and financial aspects), BSC has as purpose the introduction of performance strategies which assist organizations in their attempts to establish connections between its strategy and its operations.

Figure 2.7: Balanced scorecard model

Financial
To succeed financially, how should we appear to our stakeholdesr

Vision and strategy

Customer
To achieve our vision

Internal Business Processes:
To satisfy or shareholders and customers, what business processes must we excel at

learning and growth
To achieve our vision,how will we sustain our ability to change and improve

(Source: Kaplan and Norton, 1992)

Indications are that organizations that are willing and able to objectively assess their performance are better positioned to review their systemic strategies. Only if they have a clear understanding of what an indicator is and how it could be used to identify strengths and weaknesses in their funding, operational, learning and growth systems can organizations realize their full potential. By implication, organizations with a strong drive to explore the relationships between these will probably be more successful that those who are unable or reluctant to do so.

2.7.4   EFQM Model

The European Foundation for Quality Management (EFQM) model is aimed at the improvement of organizations through the integration of measures and outcomes during decision-making stages. According to Campatelli, Citti, and Meneghin (2011) EFQM "promotes the use of a standard management model capable of bringing the organization to excellence and a standard evaluation process that could be applied to all types of organizations, regardless of the sector, size and structure."

In using EFQM organizations commit themselves to the use of quality operational processes in the analysis of its outcomes/outputs. Such commitment, according to Calvo-Mora, Leal

and Roldan (2005) is informed by the belief that excellence in organizational work operations may lead to greater employee and customer satisfaction. This, in terms of the model, requires leadership that enhances and activates organizational strategies and the management of staff, resources and various processes (see Figure 2.8). The organization's capacity to effectively handle those aspects is thus directly proportional to the value it places on quality, and the extent to which it invests in staff development/learning.

Figure 2.8: EFQM Excellence system

Learning, creativity and innovation
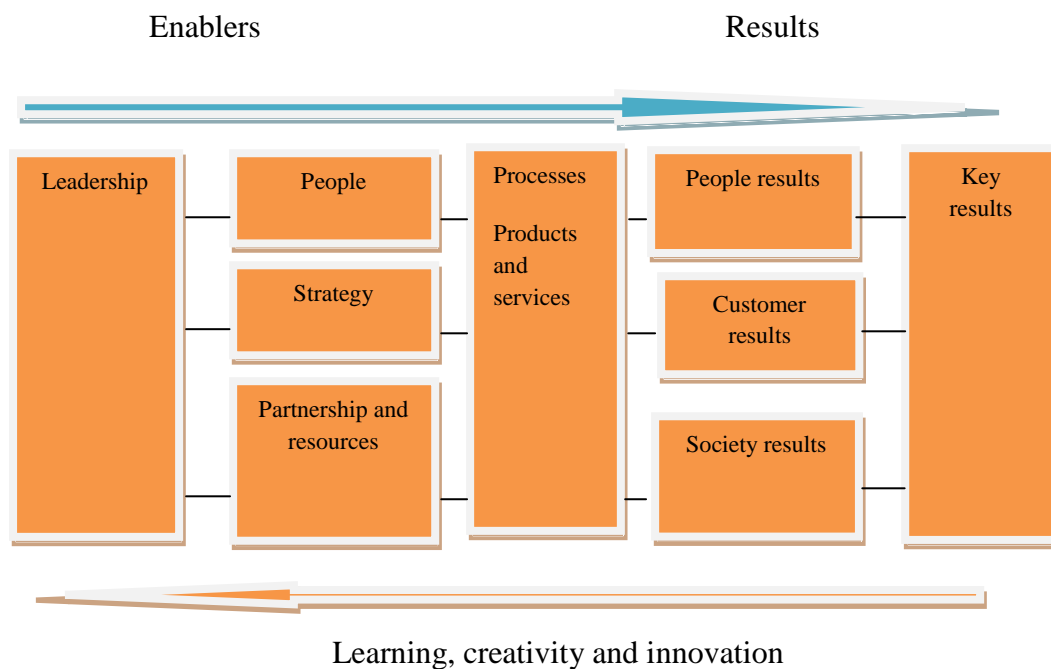
(Source: EFQM, 2010)

EFQM, which has mostly been applied in the industrial sector, did not initially find favour with academics or higher education management (Rosa, 2007). However, growing concerns about and societal demands regarding their accountability have led to their reconsidering their initial position. Influencing this change was the supposition that this model provided a "different framework for the global evaluation of the organization: one that "strongly supports the implementation of continuous improvement process" as the model

2.7.5   The Transformative Model

The models most commonly used for quality improvement at higher education institutions in the UK is the Transformation model (QAA, 2009). Unlike other models, this one focuses on the transformation of learning Giroux, (2001), hence its emphasis is on learner-centeredness, with students accepting co-responsibility for the quality of teaching and learning (Harvey,

2006). According to Giroux (2001), the transformation quality model emerged from a convergence of critical pedagogical positions, all of which are premised on the belief that students should not only engage with knowledge but should also create and develop the capability to interpret ideas and/or to create new knowledge that will help them make informed decisions about society.

In terms of his model, therefore, quality and transformation are one and the same thing (Harvey & Knight, 1996). Although its implementation is complicated, it could however, according to Srikanthan and Dalrymple (2003), minimize the challenge posed by academics' resistance to quality assurance procedures, something which governments have simply ignored (Harvey & Askling, 2003). A key challenge in this regard is the high cost of resources needed for transformation and the monitoring of academic quality, which inevitably leads to an escalation of tuition fees (Molesworth et al., 2009) and eventually to a decrease in student enrolment.

Having taken note of the benefits and challenges associated with the use of these Quality Management Models, I tend to agree with Brooks and Becket (2007) that they are more suited to the assessment of non-teaching functions at HEIs than they are to the assessment of academic activities. I am therefore inclined to suggest that TVET Management should rather focus on the creation of quality management systems and the acquisition of resources critical to quality improvement. They should also ensure that all concerned are informed of the rationale for and the procedures to be used in the process, thus gradually gaining academic support for their efforts in this regard (Brooks & Becket, 2007).

If I were to choose a model, I would opt for the Transformative Model because, in my view, it is student-centred, promotes lifelong learning, and commits students to the continuous development of career-oriented competence. Also, since TVET institutions in Malawi are using competence-based approaches as their modes of delivery, the transformative model should easily fit into the system, further develop students' critical thinking ability, and enhance the kind of transparency critical to the establishment of healthy relations between teachers and students.

2.8 Theoretical TVET frameworks

2.8.1 *Quality assurance in TVET*

TVET has recently been politically acknowledged as a sector with the potential to deliver graduates able to contribute to the country's economic development (Gondo & Dalwfuwa, 2010). The Malawi Growth and Development Strategy (MGDS) (2007-2018), that it is becoming easier for TVET graduates to gain employment and more and younger people are joining the TVET sector to acquire skills and knowledge associated with different occupational trades. Implied in this recognition is that TVET is carrying out its mandate to provide the youth with the skills and knowledge required in the labour market. Also implied is that TVET quality is improving, thus strengthening its inter-dependent relationship with industry (UNESCO, 2006). One could infer from this trend that quality assurance systems are having an impact on TVET, making it more demand-driven and ensuring the provision of more employable young people.

Informing notions of TVET quality are three principles, namely that (a) there should be established articulation routes between areas of specialization to facilitate students' changing from one specialization to another; (b) curricula should reflect a responsiveness to the requirements of industry in terms of content, and (c) it should equip students with the knowledge and skills they require for employment in the labour market.

It is to these purposes that quality assurance is advocated as a necessary feature of the TVET system, particularly with regard to the design and delivery of training. TVET institutions are now required to establish quality assurance systems which stimulate quality assessment, improvement and monitoring, enable periodic self-assessments which will results in the continuous improvement of TVET quality. In fact, according to Navaratnam and O'Connor (1993), the implementation of quality assurance is the key to TVET success.

The Hong Kong Vocational Training Council (VTC) has gradually been introducing quality assurance mechanisms into its institutions since 1998 (Lim, 1999). Informing its introduction are four requirements, namely that: (a) institutions should have quality assurance policies which reflect their institution's commitment to a quality philosophy and beliefs that support this; (b) quality management systems should spell out the structure for administering management practices, including performance indicators to check efficiency and

effectiveness; (c) the assessment system should ensure that the outcome of management practices, especially on delivery of teaching and learning, can be checked, and (d) monitoring processes should be aimed at ensuring the institution's capacity to implement plans critical to improvement.

2.8.2   *Principles of a TVET Quality Assurance System*

The general principles of a TVET quality assurance system are no different from those informing general quality assurance: in both, the main objectives are to improve quality and to instil trust in society. The development of a quality assurance system should therefore start with a determination of what its outcome/s should be.

With regard to TVET curriculum revision, this would, as Atchoarena and Delluc (2002: 184-185), argue, imply that curriculum developers should take into account working conditions and occupational standards, conduct consultative meetings with employers, and expose teachers to training and employment issues in addition to orientating them to new technologies and industrial realities. This should ensure that the revised curriculum would be more relevant, responsive to change, and aimed at the development of the competencies critical to employment, economic and social development.

Of particular importance, according to Atchoarena and Delluc (2002), is to ensure that TVET curricula reflect the needs and values of the people in its country, not those of former colonial powers and/or current donors. According to them, most French-speaking countries in Africa (Mali & Cote d' Ivoire) base their curriculum on the educational models of their former colonial masters – France, Canada and Belgium – because they are still dependent on financial aid from these countries. The Malawi educational system, too, still reflects the influence of British colonization (Atchoarena & Delluc, 2002; Mbewe, 2002).

I would argue, therefore, that a good TVET education and training system should focus on dependable labour market needs, especially in key occupational trades. Because such training is demand-driven it needs to be planned in partnership with industry, which could identify training needed in the sector. Regarding TVET access, the ideal is for enrolment procedures for trainees to be simplified to facilitate access. Also, TVET facilities should be developed in such a way that they are not only accessible but also adequate for the accommodation of

larger numbers of students. Closeness, accessibility and training provision are essential drivers of TVET infrastructure development.

Recent development in TVET development indicate that TVET institutions prefer to use indicators rather than outcome measures as criteria against which performance can be measured (Coates, 2009). Quality indicators, according to Blom and Meyers (2003), "are signs that there is evidence of the presence or absence of particular qualities". According to Coates (2009), there three quality indicators in particular, are useful in TVET. They are the development of competence, learner engagements, and employer satisfaction. The engagement of learners in training, according to Atchoarena and Delluc (2002) plays a key role in the achievement of quality results because it focuses learner attention on the critical skills/competencies, and the quality of these needed in industry. Employer satisfaction, as a quality indicator, emphasizes the responsibility and right of the employer to decide on the quality of knowledge and competence required, thus supporting the TVET institutions in their attempts to deliver employable graduates.

The availability and adequacy of resources have traditionally been major constraints in the offering of quality TVET training (Kachilika, 1992). According to Atchoarena and Delluc (2002), education in most of sub-Sahara Africa is under-resourced, with the largest percentage of the budget being spent on primary education (Kadzamira & Rose, 2001) and just about nothing on TVET. The introduction of Free Primary Education (FPE) in Malawi, for example, has led to the financial suffocation of other education sectors regardless of their national import. Quality education without quality resources is basically impossible and, with the rising costs of these the TVET sector has to strategically plan how to acquire these. Institutional leaders have to think of creative ways to generate money for resources and managers have to budget for the acquisition of these on an annual basis. All of this requires innovative thinking (from students, staff and stakeholders alike), creative leadership, and the frugal, accountable management of finances and resources.

2.8.3   *Theoretical issues: Quality assurance and TVET*

According to Oni (2007), the TVET sector should enable learners to acquire the technical competences, knowledge, attitudes and values which would prepare them for the labour market or to become self-employed entrepreneurs on completion of their training. According to Badawi (2013), TVET is "an inclusive term, comprising all aspects of educational and

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training, [*including*] the study and attainment of competences linked to occupational trades in various sectors of economic and social life".

Ladipo, Akhuemonkhan, and Raimi, (2013) and Maclean (2011), adding to this, observe that TVET has been integrated into the national policy agenda on education as a means of poverty eradication, job creation, and as a means to sustain development. In addition, effective TVET could serve as a barometer for the restraint of social rejection in the society considering that most young people are jobless and cannot afford higher tuition fees helping the youth, and even adults, to become self-reliant and create jobs for themselves and other people (Okolocha, 2012).

According to Okolocha, 2012, most people view TVET as a system of education and training for less intelligent people; even policy makers, according to Amodu (2011) are not excluded from this negative perception. The repercussions of negative opinions like these for TVET are low enrolment figures, gender disparity, and insufficient allocation of resources. Contrary to this, if well marketed and well supported, TVET could play an important role in national economic growth, the promotion of general education and the eradication of poverty.

If, as theoretically conceptualized, quality assurance is basically the execution of procedures planned by people in power/authority to make sure that teaching and learning address societal needs (Igborgbor, 2012), and if quality assurance policies help decision makers to develop strategic goals and needs and to evaluate new measures which can help solve and assess the efficiency of strategies and good quality assurance system should focus on key processes like funding, accessibility, relevance and quality (King, 2011). Various TVET institutions and countries have already adapted their quality assurance systems and processes to address the socio-economic needs. For example, the USA introduced accreditation as a quality assurance mechanism; Australia established the Australia Universities Quality Assurance Agency to control the quality of education and training at higher educational institutions (Mohsin & Kamal, 2012), and Nigeria created agencies to develop and monitor quality assurance systems in higher education institutions (Onyesom & Ashibogwu, 2013).

2.9   Conceptual framework

In accordance with commonly accepted research practices, my study is conceptually located in a specific theoretical framework. The theoretical framework which informed my study is

graphically represented in Figure 3.1. It was this framework which guided me in the collection, analysis, explanation and interpretation of my research data (UNESCO, 2012).

Figure 3.1: Theoretical framework for evaluating TVET performance
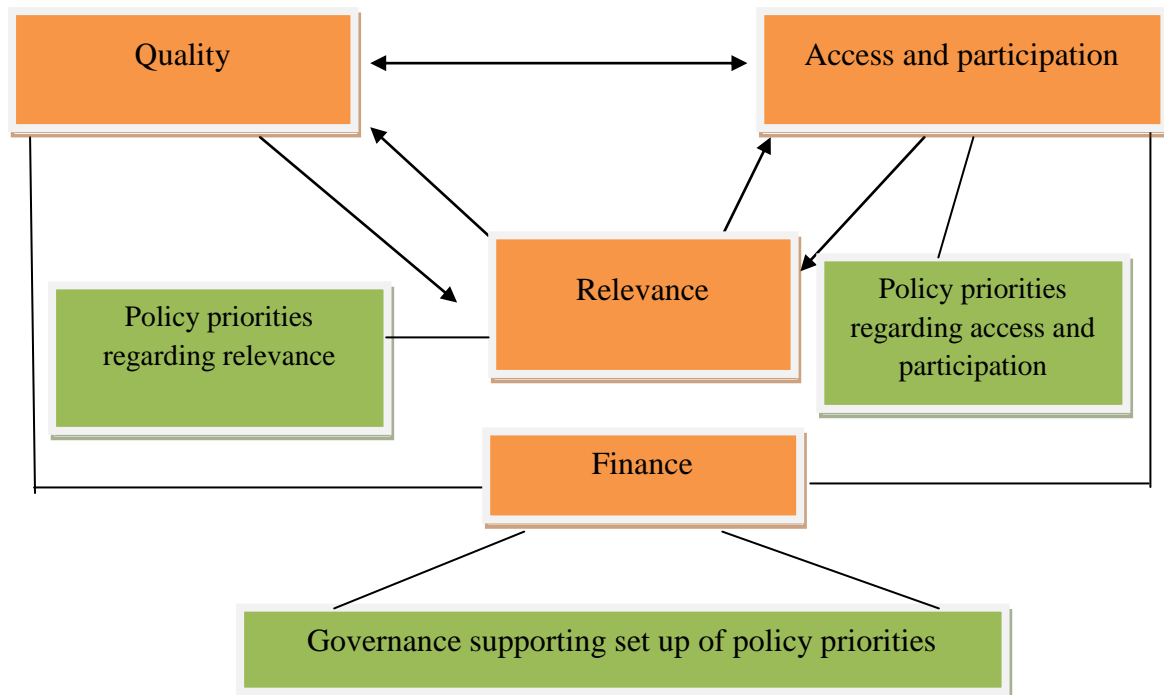
(Source: Inter-Agency Working Group on TVET Indicators, 2012)

The theoretical framework I used to evaluate TVET performance (illustrated in Figure 3.1) rests on the premise that the effectiveness of TVET depends on its *relevance* – that is, whether or not it addresses the needs of industry, the aspirations of students, the perceptions of the public, and the developmental goals of the government. The first step would therefore be to develop a whole range of policies which would ensure that systemic goals will be achieved. Policies would have to address governance and management issues at all levels and in all areas – finances, access, curriculum development and delivery, recruitment and promotion of staff, institutional management, et cetera – to ensure the quality of education and training at TEVET institutions. The quality indicators in each of these areas are briefly described hereafter.

3.4.1 Finance

Financing in TVET systems is generally dictated by guidelines related to the management and distribution of resources. Decisions on whether or not financial support will be provided should depend not only on the economic position and accessibility of resources but also on decision-makers' commitment to assure relevance, equity and quality in the TVET sector.

Decisions in this regard should, therefore, be informed by the extent to which the available financial support would ensure these.

3.4.2   Access and participation

This indicator could be used to determine the extent to which the TVET system enhances equity and, thus, increases training opportunities for vulnerable groups. One way of doing so is to check the criteria for access/enrolment as well as the participation of stakeholders. Since both of these reflect important TVET objectives, namely to equip students with the competence they would need to find employment in the labour market, improve their quality of life, and develop to their full potential, they contribute to the relevance of TVET.

3.4.3   Quality

This indicator focuses on the adequacy of TVET policy with regard to teaching and learning issues and/or activities. More specifically, it could be used to determine whether or not TVET teaching and learning is such that it equips students with the competence (knowledge, skills and attitudes) required by industry. Important in this regard is the imperative to conduct regular quality checks on all systems and processes to ensure that policy directives are being carried out and that every effort is made to ensure the quality of teaching, learning and assessment.

3.4.4   Relevance

This particular indicator is used to determine whether or not TVET responds to labour market needs. The critical policy element in this case should be a consideration of the relationship between labour market needs/demands and the content and outcomes of TVET programs. To be relevant, TVET programs need to develop in students the skills required for employment in the labour market. To this purpose, policies should ensure that various processes that would facilitate school leavers' transition from school to TVET are in place and effectively utilised.

Having used these indicators in my review of TVET in Malawi, I detected various concerns on the side of industry, especially with regard to what seemed to be the declining skills capacity of technicians and artisans entering the labour force. Implied in these concerns are indications that TVET institutions do not offer the training needed/required by the industrial

sector. In order to rectify this situation, the entire range of stakeholders - TEVETA, TVET institutions and industry - should probably advocate for the abolition of the current tripartite TVET qualification and curriculum system in favour of one in which they are harmonized. Not only might that lead to better quality standards but it would also enhance the TVET profile.

Informed by the principles informing this model (Figure 3.1), I would argue that it is the governance and management of TVET reform in Malawi which will determine whether or not it will be successful. Key to good governance, I would argue, is the existence and/or establishment of good governance systems, policies and procedures. This implies (a) that account should, at all levels of the system, be taken of the need for transparency, participation and accountability, and (b) that the focus should be on quality assurance, especially as regards decision-making and the allocation of responsibilities. Given the roles to be performed by various stakeholders, these considerations are critical to an institution's organizational planning. Since there is as yet little evidence that the existing TVET system in Malawi meets this criterion, I would argue that the current TEVET Act should be amended/reviewed to ensure the forming of public-private partnership and related policies in the vocational training sector.

2.10   Conclusion

In this chapter, I focused on issues related to the review of TVET conceptual frameworks and practices. More specifically, I analysed and compared different theorists' understandings of and views on quality and quality assurance in general and at TVET institutions in particular. Included in the summary of my literature review are opinions, theories and reflections on quality assurance principles, approaches, and indicators and the role they could play in the development of effective TVET systems.

In this regard, I argued that quality assurance in TVET is meaningful if it addresses student leaning, that quality indicators rather than outcome measures should be used for the assessment of quality, that learner engagement enhances student learning, and that HEIs should use accreditation processes to gain stakeholder confidence. To this purpose, I argued, institutional audits are necessary to the improvement of academic and administrative services, while faculty and staff development are critical to effective curriculum delivery and teacher-student relationships. Finally, I argued that good quality management systems should

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be established at as basis for effective planning and continuous improvement at all levels within TVET institutions.

Leadership in higher education institutions, according to Kells (1992), is critical to quality management, especially when it comes to the initiation and enhancement of external quality monitoring mechanisms. According to Stensaker (2003), however, the contribution of leaders alone is inadequate: if they fail to fully implement external quality mechanisms, it will result in frustration with internal quality improvements. My study, as indicated in Chapter 5, found the opposite. I would argue, therefore that institutional leadership is critical.

As to management, Atchoarena and Delluc (2002) point out that the State traditionally supervised and regulated TVET in sub-Saharan Africa but it was not clear which government ministry or department ought to be the overseer of this branch of the education system. To minimize such confusion, some countries such as Togo created a Ministry of Technical Education and Vocational Training in order to ensure better coordination between technical education and vocational training (Kanoko, 2000 in Atchoarena & Delluc, 2002).

An effective TVET system is an essential pillar for a good economy. TVET institutions should, therefore, according to MacDonald, Nink and Duggan (2010) ensure that the training it provides is labour-responsive, accessible to trainees, of a high quality, meets standards, equips students with hard and soft skills, and is sustainably funded. It therefore requires good management and inspirational leadership.

In the next chapter, chapter 3, I present the contextual view of TVET system in Malawi.

CHAPTER 3
CONTEXT OF TECHNICAL AND VOCATIONAL TRAINING IN
MALAWI

3.1   Introduction

According to UNESCO-UNEVOC (2013), the focus of TVET should be on the acquisition of competencies required by various occupational trades of the industrial sector. This sentiment is also reflected in the TEVETA Malawi Labour Market Report (2009), which states that TVET is the only system of training which has the potential to unlock the economic potential of the nation. The Report indicates, however, that the TVET sector in Malawi is "afflicted" by numerous challenges (TEVETA Malawi, 2009).

Having noted both the potential of TVET and the challenges associated with its delivery in Malawi, I used this chapter to describe, in broad terms, the TVET system in Sub-Sahara Africa. My specific focus is on the way in which TVET has shaped the social and economic landscape in Malawi, indicating the role that it could play in the upliftment of the economic status of the Malawian nation.

The chapter starts with a review of existing literature on the education system in Malawi. Included in this review is a description of the challenges affecting the Malawi education sector in general and the TVET sector in particular. With regard to the latter, I provide a synthesis of a TVET reform initiative launched by the Malawi government to improve the quality and profile of TVET and the institutions at which it is offered.

3.2   TVET in sub-Saharan Africa

According to Ngome (1992), Sub-Saharan African countries initiated TVET programs in the 1970s to equip the youth with the kind of practical skills required by industry. In doing so, the governments of these countries believed that they would be making it easier for young people to find employment in the industrial sector once they had completed their training. Accepting as their premise that TVET is critical to economic development, most governments in Africa have included a TVET agenda as part of its poverty reduction strategy. This included the development of and the establishment of TVET institutions in their countries, the latter based on the TVET models used by their former colonial masters. Informing these models are two broad objectives which, according to UNESCO (2007),

should guide/direct all TVET initiatives should be guided. Two of these objectives are to train the workforce for self-reliance and employment, and to enhance the efficiency and productive capacity of the informal sector. Informing these two objectives is the belief that TVET could play a critical role in the socio-economic development of a country by equipping the population with the requisite employment competence (skills, knowledge and values).

In most sub-Saharan African countries, TVET programs are school-based. In some of them, Kenya and Burkina Faso, for example, TVET training is integrated in the normal school in the syllabi, with learners who had completed primary school education are automatically enrolled in TVET. In other countries, Ghana and Swaziland, for example, learners are enrolled on completion of junior secondary education. The administrative role of TVET is allocated to government ministries of education, labour or technical education. In addition to this, Ministries of Health, Transport and Agriculture offer other specialised programs which are directly supervised by specific line departments (UNESCO, 2007).

The importance of Primary School Education is specifically emphasized in the UN Millennium Development Goals (MDG) (GoM, 2008). Neither secondary education nor TVET are mentioned in these goals (Fluitman, 2002). The exclusion of TVET could be ascribed to either the absence of donor support or the lack of political will, or both. Consequently, African governments are effectively forced to modify existing education programs in order to strengthen the human resource capabilities of vulnerable youth (Fluitman, 2002).

TVET, according to Atchoarena et al., (2002), is fundamental to the development of the skills needed to improve a country's productivity because it also strengthens the competency of those in the informal sector. Using this premise as base, one could therefore argue that a country's productivity would increase in proportion to the number of people who are equipped with skills in economic sectors like agriculture, for example. TVET has, however, been severely criticized over the years for not contributing sufficiently to the realization of this vision. In Malawi, for example, according to Atchoarena and Esquieu (2002), the TVET sector is criticized not only for its its failure to provide students with the kind of training needed for employment in the industrial sector but also for the fact that the fees for TVET training and the resources needed to study there are inordinately expensive. It is not, however, only in Malawi where these criticisms are voiced: TVET institutions in several

African countries have simply not gone to the trouble of modifying their programs to ensure that they are aligned to the needs and/or requirements of the industrial sector, hence TVET graduates can still not find employment. The spin-off is that many parents now prefer to send their children to universities, believing that these will prepare their children for employment in 'white-collar' jobs with more status and better remuneration (The Commonwealth of Learning, 2001).

3.3   TVET in Malawi

As is the case in other sub-Saharan countries, TVET in Malawi is perceived as a means towards social and economic development. I therefore start my overview of TVET in Malawi with a description of the socio-economic context in which the people of Malawi have to make a living and the education context in which they can prepare themselves for employment. By contextualizing TVET in this manner I hope to convey the underlying reasons for the country's continuing emphasis on TVET as a pathway to development.

3.3.1   *Socio-economic context*

According to the 2006 National Statistical Office report, Malawi is one of the poorest countries in the world, having a GDP per capita of $156 (net income per year). Consequently, its government faces a myriad of problems with regard to the stabilization of the economy, the improvement of education and related facilities, and the finding of solutions to problems like the HIV/AIDS pandemic, the establishment of donor confidence in its fiscal discipline (CIA, 2006), et cetera. Current statistics indicate that the labour force in Malawi comprises approximately 4.5 million people, with more or less 300,000 Malawians – educated and uneducated - entering the labour market every year (AfDF, 2001). The bulk of these people are employed either in the agricultural, service or industrial sectors (see Table 3.1).

Products produced in the agricultural sector are tea, potatoes, tobacco, cassava, and maize. People also farm with goats and cattle (CIA, 2006), thus ensuring the availability of meat, milk and cheese. Industrial products include cement, sugar, and tobacco (CIA, 2006). Even so, unemployment is high, especially in the formal sector (Phekani & Mtambo, 1997).

Table 3.1: Labour market statistics

	% labour force	% GDP
Agriculture	90	35.9
Industry	Na	14.5
Service	Na	49.5

(Source: CIA, 2006)

3.3.2 Demographic and social factors

Malawi, as a land-locked nation, is situated in south-east Africa. Twenty percent of the country is entirely covered by water. According to the 2008 population census, conducted by the National Statistics Office (NSO), the national population was estimated at thirteen million people, an increase of 39% since the 1987 census. In order to provide primary education for all by 2018, the Malawi government therefore had to enrol an additional 4.8 million children, 45% more than the increase anticipated in the 2008 report (NSO, 2009). Not only did this increase put pressure on the primary school system but also on the secondary and higher education systems. TVET in particular, was faced with a major challenge since the potential demand for TVET education would by far exceed the number of students that could be accommodated in existing institutions, all with limited capacity.

The government was therefore faced with a dilemma. While, according to SADC, the development of a country was proportional to the percentage of its people who were economically active. Since economic activity is usually higher in urban than in rural areas, at least 37.9% of a country's population should live in urban areas. In Malawi, only 17% of the population lived in urban areas at the time but, because of the relatively high economic activity in urban areas – much of it in the informal sector - the demand for education that would enable urban dwellers to find employment and/or start their own enterprises in these areas was in high demand, increasing at a much faster rate than in rural areas (TEVETA, 2009).

3.3.3   The Malawi Education System

The current literacy rate in Malawi is 41.6%, with the majority of its people having completed primary school education. Since 1994, considerable changes have taken place in the Malawi education system, one of which was the launching of universal primary education. This change led to an abrupt increase in primary school enrolments, with a ripple effect on secondary and higher education enrolment. Another change was the transfer of the TVET Directorate from the Ministry of Education to the Ministry of Labour (Phekani & Mtambo, 1997).

- **Secondary education system:** Secondary education in Malawi comprises four years: Forms 1 to 4. Students can either enrol at public (conventional or community) private schools. Those attending public schools have to sit for two government examinations, a Junior Certificate Examination at the end of Form 2 and the Malawi School Certificate of Education (MSCE) at the end of Form 4 (Phekani & Mtambo, 1997). Students who pass the MSCE qualify for enrolment at various higher education institutions and/or TVET. Private institutions, established over a number of years in various areas run British-based courses and write examinations related to these.

- **Higher education sector:** There are a number of higher education institutions (HEIs) in Malawi. The University of Malawi, which encompasses the Malawi Polytechnic, College of Medicine, Chancellor College, and Kamuzu College of Nursing, was established in 1965, and offers various Bachelor's degree programs. Other universities, established more recently, include the Mzuzu University (situated in the northern region), the Lilongwe University of Agriculture (in the central region), and the Malawi University of Science and Technology (in the southern region) (Phekani & Mtambo, 1997).

- **TVET institutions:** Due to its small-scale economy and the increase in its population growth, Malawi cannot absorb all the university graduates into the labour market. Consequently, the government had to expand its focus to consider not only the preparation of the youth for formal employment but also their preparation for self-employment and/or employment in the informal sector. It is this shift in focus which necessitated the government to urge the informal sector to create more jobs and to train young people for employment in this sector.

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Consequently, some TVET institutions, the Salima and Phwezi Technical Colleges being cases in point, started to add informal training programs to its existing formal training programs (Phekani & Mtambo, 1997).

Whereas private TVET institutions in Malawi enrol approximately 18,000 students per annum, the maximum number of students that can be accommodated by public TVET institutions is limited to 1,500. The result is that, even with a secondary school certificate, the majority of young people do not have the opportunity to pursue further 'formal' education and training. To address this problem, the Malawi Ministries of Labour, Trade, and Industry, established a number of Vocational Training and Skills Centres, which have the development of young people's entrepreneurial and/or self-employment skills as purpose (AfDF, 2001).

3.3.4   TVET reforms in Malawi

While most countries allocate the responsibility to coordinate skills training policies with other government initiatives to their Ministries of Labour, it is still the responsibility of the education system to supervise, organize, manage and align initial technical training to general education in accordance with their government's educational and political strategies, which may change from time to time. (Lannert, 1999 in Atchoarena & Delluc, 2002). In Malawi, however, the Ministry of Education has, since its establishment, been the line ministry for TVET.

Soon after Malawi's attainment of multiparty democracy in 1994, the Malawi education sector developed a comprehensive draft document known as the Policy and Investment Framework (PIF) to guide the education sector at both policy and strategic levels in the period 1995-1998. TVET barely featured in this document and was completely removed from the revised Framework (MOE, 2001). The reason given for this was that TVET had been transferred to the Ministry of Labour, hence the development of TVET policy became the responsibility of this Ministry (MOE, 2001).

In January 1999, following the transfer of TVET, the Ministry of Labour presented Parliament with a draft TVET Bill. The Bill was passed as an Act (the TEVET Act no 6 of 1999) on the 14th of February in the same year, 1999. A key stipulation of the Act was that an autonomous body - the Technical Entrepreneurial, Vocational Education and Training Authority (TEVETA) – should be established by the Ministry of Labour to improve/enhance

the management and governance of the TEVET system, the forming of partnerships between TEVETA and industry being mentioned as one way of achieving this (UNESCO, 2010). The primary mission of TEVETA, according to this Act, should be to change the existing unfocused, supply-led TVET system into a responsive and demand-driven TEVET one which had the stimulation of economic growth as its primary purpose.

In Malawi's long-term economic plan, Vision 2020, the Malawi Government restates its belief that the development of human resources was a critical determinant for the country's growth towards better welfare and prosperity (GoM, 1997). Earlier activities, especially after independence, had prioritized the development of a cohort of officials capable of replacing expatriate personnel. It soon became clear, however, that the number of skilled artisans and technicians emerging from this initiative was not commensurate with the country's development requirements. Informed by this realization, and in concert with the new thinking informing its 2020 vision, the Malawi government therefore redirected its energies to the transformation of the education system. More specifically, as was the case in many of the SADC countries since the late 1990s, its focus was on the restructuring of its TEVET system.

What emerged from this restructuring were changes to the then TEVET philosophy and pedagogy as well as to TVET governance procedures and structures. Specific actions included the devolution of management responsibilities to TVET employers, the introduction of dual training systems, the promotion of entrepreneurship and self-employment, the creation of outcome-based systems, and the review of funding sources and principles.

- **Devolution of management responsibilities to employers**: Until 1999, formal TVET was the exclusive domain of government and the church. Following the formation of TEVETA there was a notable shift towards the establishment of a national consultation and coordination system with the emphasis shifting from Ministry-based governance to the forming of public policy-making partnerships.

- **Introduction of a dual training system**: Although dual mode training was nothing new to Malawi, the dual system resulting from the restructuring of the TVET system was 'new' in that it ensured (i) increased employer participation in training; (ii) the integration of artisan/apprenticeship training into the national training and qualification system, and (iii) that public TVET institutions would be opened up to the informal sector (recognizing, for instance, the need to either

supplement 'On the Job' training programs with formal training or to infuse formal training into these).

- **Promotion of entrepreneurship and self-employment**: Prior to the passing of the TEVETA Act, entry into and participation in the informal sector were viewed by many as a second-best option. The perception of graduates and the general population alike was that employment in the formal sector was reserved for those with formal training. With the formation of TEVETA, entrepreneurship was highlighted as a cross-cutting skill, to be integrated into all programs of study, 'branding' it as the 'gateway' to poverty alleviation and the achievement of the Millennium Development Goals (MDGs).

- **Creating Outcome-based systems:** Although Malawi curricula are now modular, outcome- and competence-based, the development of a SADC-compatible and comparable national qualification framework, aimed at increasing competitiveness and regional comparability, has been slow. In fact, a National Qualifications Framework has yet to be developed. In 2004, anticipating its development, TEVETA developed a number of TEVET rules which could serve as basis for the development of a Technical Qualifications Framework which would, it anticipated, be integral to a generic National Qualifications Framework.

- **Review of funding sources and principles**: The review of funding sources and principles brought about three major changes related to the funding of TEVET in Malawi. First, the abolition of the Industrial Training Fund and the introduction of a levy confirmed the government's commitment to greater employer participation in TEVET matters. However, as is the case in many countries in the region, there was a lack of consensus amongst employers regarding the way in which the levy should be determined – i.e. whether it should be based on an output-related formula-funding scheme or whether it should be wage-bill related. Second, TVET institutions have since the establishment of TEVETA been given increasing latitude with regard to the promotion of income-generating activities at the training provider level. This has resulted in an exponential growth in parallel programs, the proceeds of which are mainly shared by training institutions and their staff.

Changes were also made to the certification system. There are currently three parallel national TEVET Examination and Certification Bodies: TEVETA, which issues a TEVETA certificate; the Malawi National Examinations Board (MANEB), which has the authority to award both a Malawi Craft Certificate and a Malawi Advanced Craft Certificate to qualifying 'graduates', and the Ministry of Labour, which is responsible for the National Trade Test. As was the case before the establishment of TEVETA, international examining bodies, like the City and Guilds of London, and Pitman, although not officially part of the Malawi TVET system, also conduct examinations and issue certificates at designated centres (UNESCO, 2010).

Notwithstanding calls from various quarters to have the system harmonized, this 'dual examination and certification system' continues because, according to participants at a TVET policy review workshop, the responsible authorities are resisting the enforcement of TEVETA governance decisions and deadlines. Stakeholders acknowledge, however, that there are indications of a greater openness towards the potential harmonization of these two systems (UNESCO; 2010).

Indications from this cursory review of attempts to reform TEVET in Malawi are that in practice, very little has actually changed. This, I would argue, could be due to the lack of expansion to the TEVET infra-structure since independence, a factor which, based on my review of literature on TVET systems across the world, is critical to TVET development in general and to the development of the TEVET sector in Malawi in particular.

3.5   Conclusion

In this chapter, I presented the results of my review of literature dealing with issues of quality and quality assurance. My review convinced me that Watty's definitions (2003) of quality as "fitness of purpose" and quality as "transformative" are particularly appropriate to TVET. Transformative quality, according to the Canadian Council on Learning (2009), empowers students to learn and acquire the necessary skills and knowledge. By implication, teaching and learning at higher education and TVET institutions should have the enablement of students as purpose, instilling in them the knowledge and skills relevant to their prospective industrial or professional careers (Tagoe, 2008).

Insights gained from the synthesis of my literature review convinced me that good quality assurance practices are necessary for QMS implementation. Included in such practices are procedures that ensure the relevance of curricula, the quality and availability of requisite resources, sound management and governance, accountability and transparency, a focus on key educational processes, academic staff commitment, committed leadership, and student involvement. In short, as argued by Delluc (2002), Harvey (2002), and Stensaker (2003), the quality of TVET management systems are dependent on adequate funding, effective management and governance, good leadership, and adequate procedures and monitoring.

The effectiveness or not of quality assurance systems are typically determined by means of institutional assessments (Woodhouse, 1999; Dill, 2000; Brennan & Shah, 2000; ENCA, 2003; Frederiks et al., 1994; Thune, 1998) and/or institutional audit (Woodhouse, 1999; Dill, 2000), the results of which would determine whether or not the institutions concerned qualify for accreditation (Woodhouse, 1999; Dill, 2000; Eaton, 2004; Hayward, 2006). My literature review convinced me that, in order to ensure quality TVET, institutions should use both internal and external quality assurance approaches to ensure the coherence of methods, a clear demarcation of responsibilities, transparency, and motivation of trust in the initial and continuous TVET system.

I also support Woodhouse (1999), who argues that "policies, attitudes, actions and procedures necessary to ensure that quality is being maintained and enhanced" are key features of transformative management models. In order to improve, maintain and sustain the quality of TEVET institutions it is therefore imperative that they not only have the requisite policies in place but that those responsible for institutional management ensure that the policies are effectively implemented.

One of the key insights I gained from this review was that "accountability" is a key element of quality assurance: it is the foundation on which improvement rests. Accountability and improvement are therefore inter-dependent and inseparable components of all quality assurance systems and procedures. Informed by this insight, I argued, therefore, that if the TVET sector in Malawi wanted to improve its profile and by, implication, change current perceptions that its training is irrelevant, transparent and accountable quality assurance systems and procedures should be established and used. Moreover, having noted the importance attached to quality assurance in Higher Education Institutions globally, I am

convinced that all quality assurance measures – externally and internally, must of an international standard (Tagoe, 2008).

In the next chapter, I discuss the research methodology and design that I have employed in the study.

CHAPTER 4
RESEARCH METHODOLOGY AND DESIGN

4.1   Introduction

In this chapter I highlight the methodological aspects and methods I employed in the study, further explain the theoretical framework which was presented in Chapter 2, and indicate how the two concepts relate to the phenomenon that was investigated. Saunders et al. (2009) note that good research provides a roadmap of the way in which research questions were answered by relating to the rationale for the methods used in the particular research design. As indicated in Chapter 1, I adopted a qualitative approach to realize my objectives because I deemed it appropriate to an investigation which was aimed at understanding the ways in which quality management was implemented at TVET institutions in Malawi.

Section 4.2 of this chapter is devoted to a consideration of my research methodology. In Section 4.3 I highlight aspects related to the research design, providing a summary of all the procedures and processes involved and also discuss the research paradigm. I outline the methods I used in the study in Section 4.4, following this with a description of the techniques used to collect and analyse data and to address trustworthiness issues and ethical considerations.

The gap in the knowledge of quality management system implementation, particularly in the context of public TVET institutions in Malawi, is discussed in Chapter One of my study, with details in this regard provided in the summary of my literature review in Chapter Two. Implied in the existence of this gap is an inadequate understanding of quality management system implementation at TVET institutions by stakeholders in Malawi. My study was specifically aimed at the exploration of this aspect of the phenomenon, QMS implementation, with a view to strengthening stakeholders' knowledge base in this regard.

4.2   Research methodology

Generally, the methodology chosen for research is informed by the researcher's epistemological position. According to Hesse-Biber and Leavy (2011), methodology is the "link that connects the researcher's philosophical views (on epistemology and ontology) and

methods (tools and perspective). Furthermore, the research methodology provides the researcher with an outline of the phenomenon under investigation, suggests which research methods should be used, and links the researcher and the people involved in the study with one another.

In essence, the purpose of research is to solicit data which will facilitate the researcher's interpretation of the phenomenon concerned. By implication, the researcher has to follow a systematic plan of action in order to obtain the requisite responses from research subjects. The choice of a research methodology is therefore largely dependent on the research questions, which have the elicitation of in-depth information from participants on the phenomenon being investigated – the implementation of TVET quality management systems in this case - as purpose.

The purpose of my study was to explore critical issues that hinder the effective implementation of quality management systems at TVET institutions. It is not easy to understand the systems without exploring the reasons for people's actions in the implementation of systems like these (Blaikie, 2010). According to Polit and Hungler (2008) it is in the collection, assembling and analysis of data – the research methodology, in other words – that such understanding is acquired.

According to Burns and Grove (2011), methodology refers to the design, sampling, context, data gathering and analysis in a research study. Maxwell (2006) on the other hand, defines it as a logical sequence of methods that supplement each other, generate data, and align the research findings to the original research questions in such a way that the objectives of the research are realized. Methodology, according to Halloway (2012), therefore serves as a framework for the principles and theories informing the research procedures and methods used in the investigation.

In my research study, the researcher defined research methodology as a plan of action - how I will conduct my research. This includes its logical order and the ways in which I will address the problem being investigate. I also explain the rationale of using the various methods employed in the study (Hesse-Biber & Leavy (2011).

Informed by the above, I have therefore, adopted phenomenology as a research methodology. According to Streubert and Carpenter (2011), phenomenology is a science which aims to

explore and describe a phenomenon, that is, as things are seen or perceived as lived examples. Phenomenologists believe that the exact definition or meaning of methodology tends to narrow the creativity of researchers (Burns & Grove, 2011) whereas Litchtman (2010) defines it as the study of the real-life experiences of individuals, their knowledge of a specific phenomenon, for instance, what people do and/or why they behave in a particular manner (Cilesiz, 2010). I used phenomenological research in order to answer the central research question of my study, namely:

> *Given the time that has elapsed from the introduction of the TVET quality management regime in Malawi and the state of quality management systems in TVET institutions, what could be the possible endogenous and/or exogenous critical factors for this state of affairs?*

In qualitative research study, phenomenological research studies which emphasize the use of interpretivism are generally committed to capturing the exclusiveness of experiences (Yin, 2003) and is therefore grounded in ideological aspects. The key research questions focus on an understanding of the essence and structure of the phenomenon as perceived by the people under investigation - the essence and structure of quality management system implementation in TVET institutions in this case.

Phenomenology requires the application of qualitative techniques in collecting and analyzing research data. Therefore, conscious motivation than subconscious experiences, is a key consideration in phenomenology which is aimed at revealing significant similar characteristics of that experience (Goulding, 2005). The key issue in my research study is to explore critical issues that have hindered quality management system.

The phenomenological research approach is ideal for the purpose of my study, which aims to explore and describe critical issues that hinder quality management system implementation in TVET institutions. Generally, phenomenology explores individuals' lived experiences regarding a particular phenomenon (Creswell, 2012). Basically, it seeks to achieve a broader understanding and knowledge of the essence of the meaning of people attach to their daily experiences (Holloway, 2003). It thus allows participants to generate their own meaning or their lived experiences.

This methodology enables participants, through in-depth interviews, to express their own understanding of their lived experiences of quality management implementation in their institutions. In view of the above, I considered phenomenology as an appropriate methodology for my study. A further justification for my choice is that the objective of my research study is to solicit stakeholders' views and their understanding of quality management systems in TVET institutions in Malawi. It is therefore necessary to allow them to freely share their experiences and ideas in focus group discussions and the answering of open-ended questions.

4.3   Empirical research investigation

Research is empirical if the phenomenon being investigated involves the systematic collection and analysis of data and interprets it in terms of a specific research paradigm, which is what I did in my study.

4.3.1   Research paradigm

A research paradigm is a sequence, plan or a system used to observe a natural phenomenon from the world view which directs the inquiry (Polit & Beck, 2010). Guba and Lincoln (2001) note that a paradigm is a set of beliefs or ideologies which act as benchmarks for the management of activities which, in my study, is the exploration of critical issues that have hindered quality management systems implementation in TVET institutions.

Although paradigms in research which is conducted in naturalistic settings, usually remain hidden, they still influence the way in which research is conducted, hence they have to be clearly stated (Creswell, 2007). The genesis of qualitative and quantitative research approaches includes various research paradigms, including positivism and constructivism (Denscombe, 2010) but, according to Holloway and Wheeler (2010), the most common paradigm used in qualitative research is constructivism / interpretivism. This paradigm, according to Creswell (2011), helps researchers to locate themselves in a research study in such a way that their interpretation proceeds from their own historical or personal experiences. Moreover, according to him, a phenomenon should be interpreted in the context of the environment in which it occurs. Since the purpose of my study was to gain a thorough understanding of my research participants' knowledge of and experiences with quality management systems as a phenomenon, I used interpretivism as my theoretical frame of

reference, a qualitative approach for the collection of data, and a case study design to ensure that my study of the phenomenon was environmentally contextualized. According to me, this approach lent itself best to the generation of knowledge on quality management systems in TVET institutions. Since no research has to date been done on the quality management phenomenon in a TVET context. The knowledge generated through my study could therefore contribute to existing knowledge on the quality management phenomenon in general and provide new knowledge on the phenomenon in TVET settings.

4.3.1.2   Interpretive research paradigm

The interpretive research paradigm lends itself to the understanding of people's experiences and views (Babbie & Mouton, 2010). Interpretivism, being human-science oriented, therefore seeks to explore the difficulty of social phenomena in order to gain understanding. Its primary objective, according to Rubin and Babbie, (2010), is to understand and interpret events and experiences as well as the values which people attach to them. Interpretivists believe, moreover, that the social world cannot be grasped through the use of principles informing natural sciences research, hence the social sciences need a separate research philosophy. The principles informing interpretivism, according to Blumberg, Cooper and Schindler, (2008) are that (a) people construct the social world and give subjective meaning to it; (b) the researcher/investigator forms part of the observation, and the interests of people drive research. In short, therefore, interpretivists seek to understand and interpret real life experiences I order to explain these in meaningful terms.

According to Saunders et al., (2009), the philosophy informing a research study should explain how knowledge is developed and how people view or think about it. He emphasizes that knowledge is informed by three philosophies - positivism, interpretivism and realism. My research study is interpretivist in nature, thus, as observed by Remenyi and others (1998) and Saunders (2009), its focus is on 'the detail of the situation to comprehend the real life or, rather, the reality of life working behind it'. According to Saunders (2009), interpretivism helps the researcher to collect in-depth information from participants about their expectations, feelings, and perceptions.

According to Myers (2009), the premise on which interpretivism rests is that reality is achieved through social interaction (constructivism) that is, observing and interpreting information about the phenomenon under investigation. Observation entails the collection of

information on events; interpretation entails meaning of the information collected, thus interpretivism emphasizes the social contextualization of the study (Reeves & Hedberg, 2007). Its focus is on the analysis and comprehension of the natural world from the subjective perceptions of people. It follows that interpretivism relies on the perception and interpretation of the social meanings people attach to phenomena rather than on establishing or speculating about the reasons for these. Its significance lies in the opportunities it creates for researchers to interpret context-related meanings and individual experiences (Neuman, 2000).

I adopted a constructivist philosophical stance in my research of human experiences and the ways in which they are interpreted because of its flexibility, and the opportunity it gave me to make sense of people's experiences within the context of the study (Grove, Burns, & Gray, (2013). Whereas positivist research inquiry relies on experience, experimentation and observation to establish concepts to be produced (Myers, 2009), interpretivist research/ inquiry aims at understanding and interpreting social meaning that is gathered during interactions between the researcher and the participants (Hesse-Biber & Leavy, 2011).

This paradigm is significant because it assisted me not only to fully understand and clarify people's perceptions, actions and translations but also to determine the reasons for differences in their behaviour. Differences in people's understanding and/or explanation of a phenomenon or experience cause them to behave differently, either because of different conditions or because of difference in their adaptation to physical, social and economic needs.

My decision to locate my study in an interpretivist paradigm was also a practical/pragmatic choice since I did not have to explain issues in broad terms; instead, I could interpret them with reference to my research findings from studies. In this regard, I endeavoured to integrate social constructivist and phenomenological approaches to assist me in the design and methodology of my study as well in the collection and analysis of my data. These paradigms are generally interrelated and mutually supportive of each other since all of them are aimed at understanding and interpreting ontological assumptions (reality) and epistemological assumptions (knowledge) from the view of the participants being studied (Savin-Baden & Major, 2013; Maree, 2010). Furthermore, these paradigms, being ideal for qualitative research, impacted on my study in that it enabled me to give the participants who were being studied a 'voice', something which, by implication, empowered them.

Participants' realities and knowledge were neither pre-clarified nor envisaged (Savin-Baden & Major, 2013; Maree, 2010) because, true to the social constructivist paradigm in which my study was lodged, I did not presuppose that their realities were "objectively established, but is socially constructed" (Maree, 2010). What people assert to know is affected by their optimism about reality and what they regard as knowledge within the framework of society (Mugenda & Mugenda, 2003). Moreover, the social constructivist paradigm supports the notion that the researcher is not separated from the research and that research findings are constructed rather than discovered (Maree, 2010). By using the social constructivist paradigm, I gained a better understanding of reality as well as knowledge about the phenomenon being investigated within the context of the participants' ideas, practices, and beliefs. That is, I understood the way meanings are constructed by participants and apprehended how such meanings are presented and used through language and action (Savin-Baden & Major, 2013).

Interpretivism rests on the premise that a researcher cannot neutrally observe phenomena from outside; s/he views it from the inside, through peoples' direct experiences. Additionally, causal connections which may be organized in research study through natural science may not be established in the classroom environment especially where learners and their teachers make meaning of the phenomenon. Hence, the objective of science in interpretivism is to explain, understand and simplify social reality through the lens of participants' involvement (Cohen et al., 2007). In using this research paradigm, I aimed not so much to explain but to understand. I wanted to interpret the ways in which institutional management, academic staff and TEVETA officials view and implement quality management system in TVET institutions.

I described the paradigm I used in some detail, describing my research design, data collection and analysis procedures and sampling methods. Later in this chapter I also indicate the steps I took to ensure credibility and trustworthiness, including adherence to ethical considerations.

4.3.2   *Qualitative research approach*

Burns and Grove (2011) define qualitative research as a holistic and inductive-oriented method aimed at the interpretation and understanding a theory or a phenomenon. Its primary focus is on the interpretation of experiences, language and words rather than on numerical figures or scientific measurements. Researchers who adopt qualitative research have

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therefore developed human experiences from a holistic point of view, a view which enables them to acquire a distinctive and in-depth understanding of the situation and, consequently, to 'paint a dynamic picture of participants' real-life experiences (Holloway, 2010).

According to Veal (2005), qualitative research, as a method of inquiry, entails the collection of a large amount of data from a comparatively small number of participants. Moreover, according to Denzin and Lincoln (2011), qualitative research positions enable the observer to attach several interpretations to the way in which participants visualize the world. Data which is collected through this process thus helps researchers to grasp people's views and perceptions, including the broader understanding through which they operate and live (Myers, 2009).

In my study, the researcher collected data from various sources because I wanted to fully understand the extent of the challenges experienced by TVET institutions in their implementation of quality management systems. Therefore, given the scope and objective of my study, I used interviews (open and semi-structured), focus group discussions and questionnaires as data collection instruments for my qualitative research investigation. Collected data was organized to identify possible trends, enabling me to analyse major categories of data, using a comparative analysis approach to help me identify patterns, code data and categorize research findings.

4.3.2.1 Features of Qualitative research

As this is a qualitative research study, the researcher endeavored to adapt a holistic and person-centered approach in order to explore and understand peoples' experiences without focusing on particular beliefs. The researcher therefore explored experience from participants' perspectives in order to interpret their words, an approach which led to my getting involved in and becoming a part of the phenomenon being investigated.

Holloway (2005) asserts that qualitative research is dynamic and developmental and does not make use of formal, structured instruments. Rather, it involves the logical collection of subjective data, which is organized to identify research characteristics and the importance of human experiences. Being designed as a multiple-case study, my research was carried out at two institutions, namely ATC and BTC. Firstly, qualitative research allowed me to establish a level of understanding about quality management system in TVET institutions. Secondly, it

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allowed me to employ various data gathering methods such as focus group discussion, in-depth interviews, and document analysis. Thirdly, since my research study is largely interpretive, qualitative research enabled the researcher to refine data through a personal lens located in the context of TVET quality management systems.

In qualitative research, data collection techniques are unstructured and flexible, gather verbatim information. Burns and Grove (2003) observe that qualitative researchers:

- use an inductive approach as it develops ideas and insights from sequential data;
- use emic interpretation as their means of enquiry to make sense of participants' views;
- discover and subjugate meaning when they get immersed in data collection;
- aim to understand the phenomenon being studied;
- extract themes to analyze data;
- concentrate on relationships between concepts and elements, using a holistic unit/approach in the analysis of data;
- use words, not numerical data, for data analysis, and
- conduct their research in the natural environment where participants work and live.

Qualitative research seeks to discover and explore ideas on a problem about which little information is known. The problem is usually a dilemma concerning the elements and aspects of the problem being studied. Myers (2009) notes that qualitative research aims to assist researchers in their attempts to understand participants involved in their research as well as the social environment they live. In qualitative research studies, various knowledge claims, strategies of inquiry, data gathering techniques and analysis are employed (Creswell, 2003). The research questions I raised in Chapter 1 indicate the researcher's aim to understand the social phenomenon - quality management system - from the participants' point of view.

Since qualitative research is interpretive in nature it enables researchers to paint a holistic picture of participants' views in their natural environment (Creswell, 2007). The purpose of qualitative research is to describe, explore, and understand a phenomenon in its original state. My research questions are therefore quite broad, creating room for me to understand the experiences of participants with the key phenomenon in mind (Creswell, 2007).

In my research study, the adoption of a qualitative research methodology enabled me to study people's lives and experiences with regard to the implementation of quality management systems at the TVET institutions where they were employed. Denzin and Lincoln (2011) argue that qualitative researchers generally adopt a naturalistic and interpretive stance to the emerging themes, allowing them to explain these from research participants' point of view in order to extract the meaning they attach to their experiences.

The researcher chose this research approach in order to explore and describe the experiences of TEVETA officials and TVET academic staff with quality management system implementation at TVET institutions. This was done through semi-structured interviews, focus group discussions and questionnaires. Through this approach, the researcher came to understand their experiences concerning challenges that are hindering quality management system implementation at these training institutions. The qualitative research approach was therefore suitable to the capturing of the experiences and opinions of academic staff in TVET institutions as well as TEVETA personnel regarding the implementation of quality management systems.

4.3.3   *Research design*

Kothari (2011) describes research design as a means of collecting and analyzing data which focuses on the relevance the research study while taking into account the procedural aspects of research study. Adding to this, Kothari (2011) explains that research is conducted within the conceptual framework of the study which determines the pattern for the collection, analysis and evaluation of data. Research design not only directs the processes required when conducting research, summarizing the "significant steps" (Myers, 2009) but also connects the research problem being studied to a suitable methodology and the practical methods needed to collect and analyze data (Ghauri & Gronhaung, 2010). It follows that a researcher's design should therefore include a detailed summary of all processes needed in the research, starting from the problem statement, through operational connotations and up to the final data analysis.

4.3.3.1   Aspects of the research design

In my research study, I used an exploratory and descriptive qualitative research design.

Exploratory research design: Burns and Grove (2011) define exploratory research as research that seeks to discover new concepts, gain new insights and improve knowledge of the phenomenon under study. In this study, I wanted to explore the factors that hinder the effective implementation of quality assurance at TVET institutions, hence my formulation of research questions and objectives. According to Saunders et al., (2009), exploratory research study designs help researchers to understand, investigate and clarify in-depth experiences of the phenomenon under study. My study led me to new ideas and an in-depth understanding of the reasons why academic staff in TVET institutions describe, understand and experience quality assurance mechanisms in the ways they do.

According to Kothari (2011), exploratory research aims to uncover participants' ideas and perceptions and provides researchers with the opportunity to review various characteristics of the problem under study. In my endeavours to explore quality management systems and practices in TVET institutions and to uncover implementation modalities, I critically reviewed, explained and analysed various aspects and relationships that hindered the effective application of quality management systems in TVET institutions in Malawi.

A research study is significant if, as a researcher, you simplify and explain the problem under study. My research purpose and questions informed my decision to use an exploratory research design for my scrutiny of quality assurance systems within public TVET institutions in Malawi because, as Robson (2002) observes, the prime purpose of exploratory research is to discover 'what has happened, to seek understanding, and to evaluate occurrences in a new light'.

Some of the ways in which exploratory research can be carried out, according to Saunders (2009), are reviews of literature, interviewing participants in their areas of expertise, and facilitating focus group interviews, thus giving exploratory researchers the advantage of flexibility and adapting to change. In this research study, the researcher adopted an exploratory research design to acquire new insights, increase knowledge, and/or discover new ideas regarding the quality management system implementation in TVET institutions. The researcher therefore entered the research field with the intention to gain more knowledge and to produce new data concerning contextual experience (Burns & Grove 2011:313; Creswell 12).

Descriptive research study: Polit and Hungler (2004) define descriptive research as a study attempting to describe the characteristics of people, groups and situations in order to paint a picture of a condition as it naturally occurs. It is used to describe existing practices in order to develop theories about the logic by which they are informed. The researcher adopted a descriptive research in my research study in order to be able to describe the views of participants regarding quality management systems, with specific reference to critical issues that hinder their implementation. The researcher adopted the approach to collect data on the experiences and opinions of academic staff in TVET institutions as well as of TEVETA officials involved in assuring the quality of such systems in TVET institutions.

Burns and Grove (2003) observe that descriptive approaches to qualitative research enable researchers to gather precise data and to paint a detailed picture of the phenomenon being studied. In this research study, the researcher used the descriptive approach to provide an accurate and authentic description of the experiences and views of academic staff in TVET institutions as well as TEVETA officials. As suggested by Streubert and Carpenter (2003), the researcher used a descriptive research approach as the key to unstructured qualitative and open interview questions, facilitating and coordinating participants' descriptions of their experiences of and opinions on the practice and implementation of quality management system. The researcher intuited and applied these descriptions in ways that ensured an unhindered unfolding of the reasons informing their opinions and/or experiences and, in viewing these from their point of view, becoming fully immersed in their life-worlds.

4.4   Research methods

4.4.1   *Study population and sampling*

A population is a collection of all the elements a researcher is studying and about which s/he is trying to draw conclusions (Best & Kahn, 2006). Sampling is employed to provide a general picture and representation of the characteristics of the population (Blaxter, Hughes & Tight, 2010).

Sampling is conducted with the purpose to represent the characteristics of the population on the problem (Blaxter, Hughes & Tight, 2010) without having to include the whole population in the study. According to Weiss (1998) sampling could be random or non-random. I used both sampling methods in my study.

Having established my population – TVET – the researcher used purposive, non-random, sampling to select three cases as focus of my study – the regulatory body (refered to as RB) and two TVET institutions (namely ATC and BTC) - institutions as my sample. RB was purposively chosen in the sense that, as the body responsible for the regulation of quality assurance systems in TVET institutions in Malawi, the researcher assumed that its officials would be knowledgeable about quality assurance in general and the quality of TVET institutions in Malawi in particular. The selection of the two TVET institutions was also purposive in terms of efficiency (accessibility, cost and time) but also because they were the two biggest public TVET institutions in the country and offered the widest range of programs. The first of these, which the researcher named ATC, is located in the central region of Malawi, the second (BTC) in the southern region. the researcher chose more than one institution as cases because it would enable me to collect richer, more comprehensive and robust data on the implementation of quality assurance systems at public TVET institutions in Malawi. The specific choice of these two institutions was based on four assumptions. Firstly, they are the most favoured choice of many students owing to their location within the cities of Malawi and as such have higher enrolment rates than the rest of TVET institutions. Secondly, they offer a wide range of programs. Thirdly, they made it easier for the researcher to manage the scope of my study given the limited time and resources the researcher had to complete: it would have been impossible for me to involve all the training institutions. Fourthly, because they were accessible in terms of the location, I could easily access participants and documentation for data collection process.

Yin (2014) observes that cases are regarded for use when the behaviour of the people who take part in the study cannot be influenced and in instance where contextual issues have to be addressed, especially when they are pertinent to the study. According to Yin (2014), multiple cases ensure that the phenomenon is fully investigated and the crux of the matter revealed. This strategy was ideal for the study as I could collect more, and explore in depth, data about participants' experiences (Yin, 2014) regarding critical issues that affect quality management systems at their institutions. Since the researcher analysed case study data to obtain answers to my research questions, and also to explore alternative clarifications of challenges regarding the implementation of quality assurance systems at institutions, this approach was ideal for my study. It helped the researcher to understand the various relationships among

different processes of quality management systems suitable for TVET institutions and to gain a deeper understanding of quality management practices and their implementation.

Having selected my cases, the researcher purposively selected (a) key officials working for RB (from the Quality Assurance Directorate), (b) key people holding management positions at the two TVET institutions (Principals, Heads of academic faculties/departments, and Bursars); (c) academic staff and (d) policy documents, institutional strategic plans, reports, quality assurance manuals, guidelines and external verification tools and instruments. The researcher then adopted and used a multi-stage sampling technique to choose representative departments and academic staff. First, the researcher determined which departments each institution had in place. Next, from each institution, the researcher randomly selected six departments (administration, engineering, commercial, construction, applied science and automobile), one section from each department, and three academic staff members from each section. Again, from each TVET institution, the researcher also purposively included the Heads of department of all six the departments previously selected because I assumed that they would be responsible for quality assurance in their respective departments. To ensure that my research participants were all quality assurance knowledgeable, the researcher did not include any person with less than two years' working experience in the TVET system, and/or not trained in quality management systems. Gender is not usually considered as a sampling but the researcher purposively – for equity reasons - used it in my sampling of research participants.

Table 4.1: Interview for RB participants

S/N	Category of participants	Population Size	Population sample
1	Management team	8	4

Table 4.2: Focus Group participants

Institution	Category of participants	Population Size	Population sample
ATC	Management	6	6
	Academic staff	36	12
BTC	Management	6	6
	Academic staff	40	15

Table 4.3: Open-ended questionnaire for academic staff

Institution	Population Size	Population sample	Response rate	Sampling technique	Sampling type
ATC	36	15	10 (67%)	Non-probability	Purposive sampling
BTC	40	15	12 (80)	Non-probability	Purposive sampling

The researcher used purposive sampling to select members of management and academic staff who are knowledgeable about quality management system. In my research, the study sample comprised RB officials, academic staff and members of management at ATC and BTC. To be eligible for selection, they had to have worked in their respective institutions for over five years to ensure that they understand how TVET institutions operate and their relationship with RB, they had to have undergone quality management sensitization training, and they had to have had knowledge of the Malawi TVET Act.

Purposive sampling allowed the researcher to include participants in the study who met my pre-determined criteria. It also enabled the researcher to include knowledgeable participants at various systemic levels - academic staff, management teams of TVET institutions, and RB officials who are available and willing to take part in the research study. His purposively-selected research participants, being conversant with Quality Assurance Systems, were able to provide me with information relevant to my research purpose, aims, questions and objectives (Babbie & Mouton, 2010).

The central research question for my study is:

> *Given the time that has elapsed from the introduction of the TVET quality management regime in Malawi and the state of quality management systems in TVET institutions, what could be the possible endogenous and/or exogenous critical factors for this state of affairs?*

This question is aimed at determining what a holistic picture of quality management systems and practices at TVET institutions in Malawi would look like. Investigations aimed at holistic explanations and descriptions are typical of qualitative research (Creswell, 2012). If these investigations are conducted at multiple sites it would therefore be possible to tentatively generalize the findings of such studies to the population as a whole. This is especially true in the researcher's case because he also consulted documents on quality assurance and its management in the population as a whole, not only at RB and the two TVET institutions in my sample.

The rationale for the researcher's study was to get a picture of the TVET population, therefore my research sample/s had to reflect the population being studied so that the results of the study as well as the lessons learnt in the process could be inferred and/or applied to TVET population as a whole. ATC and BTC were chosen for study as they are the largest technical colleges in Malawi.

Given this possibility, it should be possible preliminary theories (Yin, 2009) on the factors that hinder quality assurance implementation at TVET institutions in general, not only in Malawi but in the SADC region and or in developing countries in general. According to Yin (2009), in order to develop preliminary theories, case study researchers have to base their research design and data collection techniques on existing theories, which is what I have done. Moreover, having looked at quality assurance processes through a qualitative lens gave me an in-depth knowledge and understanding of quality assurance in TVET in general and enabled me not only to critically interpret the current status quo of quality assurance in Malawi TVET but also to suggest ways in which problems in this regard could be addressed.

4.5   Data gathering techniques

To obtain data for qualitative research inquiry, I used a range of research instruments - interviews, focus group discussions and questionnaires. Burns and Grove (2003), define data

collection as the systematic and precise collection of data which is applicable to the research problem, indicating that methods like focus group discussions, interviews, document analysis and questionnaires could be used. Given the purpose and extent of my research, I used research survey and document analysis techniques to source research data. The survey technique was used with the intention to generate research data regarding the attitudes, characteristics and perceptions of a diverse range of issues related to the implementation of quality management systems in TVET institutions. The survey research method included interviews, self-administered questionnaires and focus group discussions. Document analysis was used to give me a background understanding of an environment that is fundamental to quality management systems in TVET institutions.

In this research study, an interpretive stance was used because my goal was to obtain participants' views, interpretations and experiences of quality management systems in TVET institutions in Malawi. Interpretivism assumes that realism is socially constructed through social interactions to allow participants to share their meanings and experiences (Myers, 2009). To better comprehend realism, my research included two TVET institutions, namely ATC and BTC. Additionally, the researcher conducted one-on-one interviews with RB staff since TEVETA regulates technical and vocational training in the country. Qualitative research methods were employed to collect data through focus group interviews and document analysis.

Data gathering techniques in this research study were supported by the main research question and related sub-questions. The researcher employed interviews, focus group discussions and document analysis as my primary data collection instruments and semi-structured interviews to gain a better understanding of QMS from participants from participants' point of view since the researcher wanted to 'dig deeper' into the social context (Myers & Newman, 2007) and clarify events, experiences and views. According to Yin (2009, document analysis is particularly useful in that it assists the researcher to interrogate evidence provided by participants.

4.5.1   In-depth interviews

The researcher, probed and uncovered detailed explanations from RB management by employing an in-depth interview technique. As recommended by Marshall and Rossman (2010), a tape recorder was employed in this activity in order not to miss issues raised during

the interviews. The focus group discussion was conducted with management and academic members of staff in TVET institutions.

The selection of the study sample was purposive in that the researcher selected participants - RB officials, management and academic staff – who were cognizant of teaching, learning and general administration issues at their institutions. In preparation for the interviews, the researcher developed various semi-structured interview schedules which were administered to RB officials, academic staff and management of TVET institutions. Informing these was the rationale to solicit relevant research data concerning participants' individual perceptions, opinions, values and meanings concerning quality management system implementation in TVET institutions. Open-ended questionnaires, in particular, enabled me to gain rich and deep insights of the issues being studied. Six members of management and twenty-four academic staff drawn from ATC and BTC responded to the questionnaires and four RB officials were interviewed.

4.5.2   *Focus group discussions*

After conducteing one-on-one interviews with RB management, the researcher also organized four focus group discussions: one for the institutional management team and another for academic staff of the two institutions. For the management teams, the researcher assembled a total of 6 participants for each of the two institutions, whereas for ATC a total of 12 participants were assembled and BTC has 15 participants assembled. Focus groups are important as they generated varied views and opinions concerning specific issues among individuals with common experiences (Myers, 2009). Focus groups had to respond to 'how' and 'why' questions, which yielded abundant and deep explanations regarding people's opinions and the ways in which they attach meaning and interpret their understandings (Kamberelis & Dimitriadis, 2011).

Data was generated in the interaction of the participants in the group. As a researcher, I solicited their views and experiences and all the deliberations were recorded. Because focus group interviews allow participants to work together, interacting with one another, rich data is generated (Ritchie and Lewis, 2004). Focus group interviews also took place in a natural environment, with participants influencing discussion just as they would in real life (Case & Kreuger, 2000).

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The key issue with focus group interviews is that participants are involved in issues, and this strengthens their disclosures, with their perceptions and attitudes emerging from their interaction with one another. Informing the use of focus group discussions is the assumption that they unleash inhibitions which may prevent participants from releasing vital information, thus generating broader, more detailed information on the issues being discussed (Maree, 2009).

In order to facilitate a successful focus group discussion, the researcher should possess adequate interview skills because s/he has to uncover participants' hidden attitudes and opinions. Included in these skills are the ability to keeping participants awake and alert, motivating them to respond, minimising time wasting, being receptive to others' views and quick to pick up issues which require clarification (Myers, 2009). Since the researcher had been a teacher in some TVET institutions previously, this made it easy for him to establish a rapport with both management and academic staff of the two institutions.

Thomas & Nelson (2005) observe that focus group interviews "can be a good and effective data gathering technique as the researcher collects information from several people at one time". Furthermore, the interview techniques used allow data to be collected quickly and at minimal cost. Moreover, focus group discussions facilitate the generation of data expressed in participants' own words, the capacity to develop deeper insights about the issue under study, and to give participant the opportunity to respond to and build on one another's responses, thus coming up with ideas that they might not have thought of in one-on-one interviews.

Regardless of the researcher's limited funding, focus group interviews enabled the researcher to collect quality data because participants, in checking and/or pointing out false or incorrect information provided by their fellows, serve as quality controllers (Thomas & Nelson, 2005). These advantages enabled me collect a wider range of opinions, experiences and views from lecturers on quality management system implementation in TVET institutions in Malawi.

A notable disadvantage of focus groups meetings is that some people may be unwilling to give their opinions and views in a group of people, or that power struggles which may arise among participants could disturb the proceedings (Thomas & Nelson, 2005). To avoid such challenges, the researcher grouped participants of the two training institutions into two groups, namely academic staff on their own and management teams on their own in order to

allow them flexibility and freedom to express their views in discussions without fear of repercussion. Other limitations of focus group interviews, according to Thomas and Nelson (2005), are that (a) they are generally conducted with small numbers of participants, thus limiting the researcher's chance to generalize the whole population; (b) the interviewer has little control over the kind of information generated, and (c) some participants may dominate the discussion, resulting in biased data. To prevent these challenges from undermining the quality of my data, and to ensure its dependability and trustworthiness, I triangulated focus group data with data generated by other means, like questionnaire and interviews.

Focus group discussions were conducted with the management and academic staff of the two institutions, and each interview was digitally being recorded (MP3) for ease of locating information and important perceptions concerning the quality management systems within institutions. The researcher conducted the interviews in English, since this is the official language of communication.

4.5.3   *Open and closed -ended questionnaires*

Both Open and closed-ended questionnaires are commonly used in qualitative research as they provide a format which gives respondents the freedom to answer in any way they wish (Burck, 2005) and provide significant insights into personal behavior (Burton, 2000). The researcher has then to make meaning of the responses given, establish suitable categories in which to place them and code them for analysis purposes. The rationale for my use of both open and closed questionnaires was to generate information regarding respondents' characteristics and their opinions (Burton, 2000).

In view of the above advantages, the researcher administered open and closed-ended questionnaires in my research study to collect data from academic staff at ATC and BTC. The research assistant who was engaged in the research study distributed the questionnaires. The questionnaires included issues on quality assurance systems, especially on pertinent areas of quality dimensions like curricula, staff development, teaching and learning, financial resources, assessment and academic staff.

4.5.4   *Document analysis*

Documented materials can also be used as sources of information. Document analysis is done in order to enrich and enhance results generated through focus group discussion, interviews

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and questionnaires and also helps to triangulate research results with findings. Apart from the techniques described above, the researcher also collected data from relevant printed and recorded materials provided by the Ministry of Labour and Manpower Development, RB and TVET institutions. Documents in this case involved the study and review of official documents compiled and maintained by organizations (De Vos et al., 2011). The researcher analyzed documents to obtain information on the TVET system in Malawi, especially on how TEVET policy influences quality training in TVET, staff development, infrastructural development in institutions and staff recruitment.

The documents used in this research study included institutions' strategic plans, TEVET policies and Acts, admission guidelines, financial records, statistical reports, annual reports, legal frameworks and process records (Cohen et al, 2011; De Vos et al., 2011). The reason for selecting these documents was to get detailed information on institutional strengths, weaknesses, opportunities and threats with regard to specific activities aimed at ensuring quality TVET. Hence, these documents assisted me in my exploration of internal quality assurance as implemented in TVET institutions.

4.6 Data analysis

4.6.1 Qualitative data analysis

Most of the interviews and focus group discussions (FGDs) were captured on computer as they occurred and this process was further enhanced by a proof-reading of detailed notes. All the interview transcripts were then cleaned, organised and up-loaded on Atlas software, which allows for the organisation of data and establishment of relationships between families and networks of qualitative data. The key stage of any qualitative data analysis requires reading through all the data in order to get the overall meaning, tone and depth of the information obtained (Creswell, 2009). Participants' responses were read through in detail in order to draft the various categories for coding.

Adapting the hermeneutic-classificatory-content analysis, where analysis of the content of the discussion is extended into some classification of the emerging categories, was followed by establishing a relationship between the networks of codes (Babbie & Mouton, 2001). The relevant quotations were then linked to the codes, while keeping a careful record of emerging

issues through the use of memos. Categorical aggregation of issues emerging from coded texts and analysis of evaluation materials was then pulled together in a narrative discussion.

Cohen and others (2011) observes that the researcher determines data analysis procedures right at the planning stages, and ensures that these are consistent with relationships specified in the research objectives or questions. In accordance with these principles, the data analysis process in this study was an iterative and reflexive process which involved the categorization and manipulation of data to find answers to my original research questions. Hesse-Biber and Leavy (2011) view qualitative data collection, interpretation and analysis as a simultaneous process. I commenced the data analysis process right from data collection phase, by interpreting and writing in order to avoid being overwhelmed by voluminous data at her end. Using an inductive data analysis approach, I identified important data categories as well as patterns and relationships through a process of discovery (Hesse-Biber & Leavy, 2011). More specifically, the researcher collected data from participants, edited it, and organized it to ensure its relevance. Since my research is case study based, it created huge amounts of data from various sources, something which made the analysis and coordination of data more challenging (Johnston, 2010).

Data analysis demands that researchers live with or get immersed in the research data. Data analysis is therefore carried out to safeguard the distinctiveness of individual participants' experiences while at the same time allowing a clear understanding of the problem being studied to emerge. This starts by listening to participants' explanations and then checking and reading the transcriptions verbatim (Henning, 2004).

With qualitative data analysis, it is more demanding to come up with a clear picture during data collection and analysis since initial analysis happens during the data collection process, resulting in the identification of areas on which more data is required. According to Ghauri and Gronhaug (2010), the collection and analysis of qualitative are mostly carried out interactively, with data which has been analysed raising new questions and thus more data collection. In this study, answers that were generated during the interview process were dictated and data categorized and this formed part of the data analysis process.

4.6.1.1 Content analysis

The researcher employed content analysis in the analysis of data gathered from in-depth interviews and focus group discussions. Moore and McCabe (2005) acknowledge that with qualitative study, data is gathered and categorized in themes for comparability purposes. The rationale for using content analysis is that it assists in the reduction and simplification of collected data collected, while at the same time processing results that can be measured. However, human error is unavoidable in content analysis since there is a risk of misinterpretation and resultant unreliable findings (Krippendorff & Bock, 2008).

Case studies generate a large amount of data because participants are given the opportunity to explain and clarify issues freely and verbatim, thus researchers could be overwhelmed with data when attempting to analyse it (Ghauri & Gronhaug, 2010). To overcome this, content analysis is used to check uniformity in the collected data (Myers, 2009).

According to Hesse-Biber and Leavy (2011), a research study typically begins with a topic, is followed by the formulation of questions, the initiation of data code, and the checking, adding and categorization of coded data. These steps then act as benchmarks for the interpretation and analysis of data. Blaxter, Hughes and Tight (2010) claim that coding, labelling, annotating, selecting and summarizing help researchers to manipulate and reduce the amount of the data set, and brings certain attention to 'valuable' pieces of data. Re-reading the data will help the researcher to identify codes, categories and themes, and reflect on his/her interaction with the participants (Cohen et al, 2011). The data assisted me, as a researcher, to analyse significant themes, patterns, ideas and concepts (Babbie & Mouton, 2010; Durrheim, 2004; Hesse-Biber & Leavy, 2011).

Burns and Grove (2003) define data analysis as a process in which data is organized and reduces to generate research findings that need to be interpreted by the researcher. The analysis of my research data was a nine-step process in which I:

a)   carefully read and merged all transcriptions and took down notes.
b)   all the raw data which shared similar features were grouped into categories
c)   after thoroughly checking the transcripts, arranged matching topics by grouping them.
d)   developed statements to define categories/codes.

e) coded data to identify sequence and patterns as recorded information. According to Baker & Foy (2008), classification is different from coding: in classification, categories are created, whereas in coding, raw data is assigned to the right category.

f) observed the arrangement of data to see the emergence of new codes.

g) discovered expressive wording of topics which were converted into codes. The idea behind this was to reduce the list of codes that were similar to one another.

h) grouped research data from each code or category together to conduct an initial analysis.

i) recorded data where necessary.

The descriptive phase is quite significant in qualitative research. Burns and Grove (2003) argue that this is a preliminary stage in which the researcher gets familiar with research data. In analysing data, the researcher replayed the voice recorder after conducting the interview to make sure that the researcher could hear the voice, pauses, tone and individual responses. The researcher transcribed the information on the voice recorder word for word, including exclamations, pauses and laughter.

The use of codes is one way to differentiate, assemble and integrate data to ensure that information is well organized for easy analysis. Content analysis is a regular strategy which helps to build understanding during a step-by-step data analysis (Hesse-Biber & Leavy, 2011). During the course of this process the researcher creates develops new perceptions at different levels of expression at each stage of the cycle and makes use of the information to build more knowledge and information. The design is summarised in figure.4.1 below:

Figure 4.1: Flowchart for content analysis: Qualitative inductive model
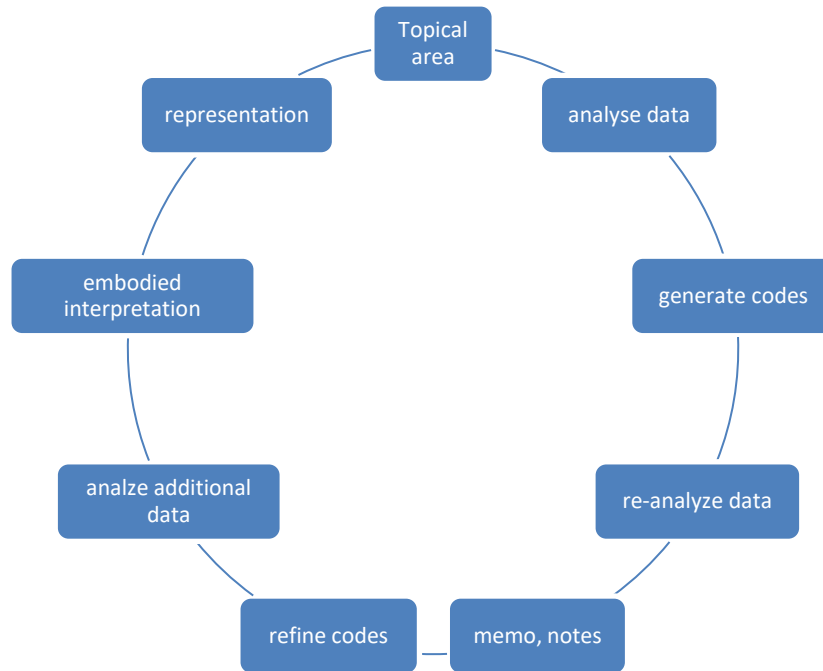
(Source: Hesse-Biber & Leavy, 2011)

According to Burns and Grove (2003), analysing data extends beyond description since data is changed and modified. In this case, this led to a discovery of important descriptions, characteristics and interconnections among various aspects of data. The researcher identified patterns and themes from research data, and used coding to transform and expand data.

4.7 Issues of trustworthiness and quality

According to Streubert and Carpenter, (2011), trustworthiness is a process during which the reliability and validity of qualitative research study is established. A research study is trustworthy if it represents the views and opinions of participants. This is only possible if the views of participants are properly recorded and represented (Streubert & Carpenter (2011). Therefore, trustworthiness is confirmed when the researcher validates the information generated.

In various research studies, the main concern is on how to ensure the validity and reliability of findings. According to Webb (2000, as noted by Baker & Foy, 2008), validity refers to the degree whereby a tool measures what it is supposed to. Alternatively, it is defined as the degree to which the idea, measurement or conclusion reflects the real world, whereas

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reliability is concerned with the consistency of getting or yielding similar findings under different situations (Baker & Foy, 2008)

4.7.1   *Validity*

In qualitative research, there is excessive concerns about internal validity since qualitative processes are not measured through scientific inquiry, and large amounts of data are collected by verbal means. Thus, data checking is difficult. Moreover, large amounts of data pose a real danger to internal validity, hence the researcher has to be very observant. In this research study, focus group discussions generated the greatest amount of differentiated data because, in most cases, the researher was forced to ask for clarification on issues that emerged from the discussions. This occurred especially where people had divided opinions on a specific issue. To address divergent views, the researcher had to check different responses for similarity in sequence.

According to Amerson (2011), internal validity can be achieved by using different methods like explanation building, matching of patterns, and working on rival explanations. To achieve internal validity, the researcher made sure that multiple sources of information and evidence were used. The researcher also made sure that participants review of data was recorded to for authenticity. This is in line with Amerson's (2011) argument that "validity is developed by using various sources of evidence and also by having key informants review cases studies or findings". Hence, the researcher kept safe all recorded interviews and focus group discussions and referred to these when analyzing data to check inconsistencies. To address ambiguous statements during interviews and focus group discussions, the researcher sought views and opinions from respondents.

Devlin (2006) defines external validity as the extent whereby to which certain research study findings are generalized to other populations, and also the extent to which the outcome of the study applies to populations not studied (Dul & Hak, 2008). In my study, I collected data from two TVET public institutions, namely ATC and BTC and also from the TVET Authority. Although, this population sample seems insufficient to generalize findings, the findings emerging from my study might stimulate further research since it presented the diverse views of stakeholders in the two selected TVET institutions and the findings may be replicated to other TVET institutions.

Curran and Blackburn (2001) cites seven maxims for ensuring validity in qualitative studies. Five of these were applicable to my research study, namely that:

a)   The problem statement should be precisely and clearly expressed

b)   Assumptions and beliefs alike should be clearly and precisely stated.

c)   The research methodology should be clear, adequate and systematic and that a multiple case study should have been adopted.

d)   Data analysis should be accurate, especially with regard to components of interpretation and the rationale behind the linking the components.

e)   The research study should indicate whether or not the findings should receive further attention.

In order to ensure the external validity of my study, the researcher clearly articulated the research problem in Chapter 1 and the researcher communicated this to all participants involved in the research study. The research questions and objectives were well formulated and explained in Chapter 1 and the research methods were described in adequate detail. The researcher used content analysis and interpretation (see next chapter) and, to gain a better understanding of the phenomenon being investigated, the researcher reviewed literature on quality management systems in higher education and in the TVET sector. This exposed me to what was happening in other countries and sufficiently broadened the researcher's knowledge about TVET characteristics, theories and the Malawi TVET system for me to conceptualize a framework for my research study. Not only did the researcher check and recheck my data and had discussions on issues under study with participants at both ATC and BTC, but also triangulated research findings by using various data sources, methods and research findings. Finally, the researcher provided a detailed summary, indicating the results of the study, and made recommendations (the last chapter) for redress and further research.

4.7.2   Reliability

Silverman (2005) defines reliability as the degree of consistency of scores or findings that are obtained, how consistent the findings from different participants are, ranging from the administration of one tool or instrument to another. Whereas quantitative research defines reliability in terms of uniformity of findings or measures, qualitative research observes that reliability results ought not to be sidelined (Silverman, 2005). Therefore, with qualitative research, reliability relates to the views and opinions of observers. Silverman (2005) further

indicates that reliability is significant for the following two reasons: to obtain replicability of findings and also to provide requirements for validity. According to Silverman (2005), four types of reliability are applicable to qualitative research:

a)   Inter-interviewer, inter-observer, inter-analyst reliability and inter-recorder reliability. This occurs when there is an agreement between or among two or more observers during the data collection process, and also the degree to which analysts collaborate to identify data patterns needed for coding and classification.

b)   Intra-interviewer, intra-observer, intra-analyst reliability and intra-recorder reliability. This occurs when there is consistency in the collection of data by interviewers; observers to the degree of consistency in the selection of data segments in order to classify, code and categorize.

c)   Stability is the degree to which the attitudes or observed behavior of participants are repeated.

d)   Internal consistency is the extent to which there is homogeneity in the strategy, schedule or scheme used during the data collection process, and the placement of data patterns in each classification.

According to Neuman (2003), the internal consistency of data collection is defined during field observation, when the researcher checks whether or not the collected data is realistic. If it adds up, if there is consistency, if it fits properly in observable behavior in different situations and over a period of time, it is internally consistent. External consistency is obtained through the confirmation of collected data through various methods and from different sources. Reliability is, however, according to him, affected by the research questions, cognizance, opinions and insights of participants. The researcher should check participants' views and procedures against other outlooks (political, economic, personal and legal) and then seek feedback. Hence, any divergent view in the phenomenon over a period should arise from observed differences rather than from data collecting processes (Cuneo & Sanders, 2010).

4.7.3 How Trustworthiness was maintained

To ensure the reliability of my research findings, the researcher firstly contacted interviewees at least two days before the date of the interviews, to verify and justify the appointment and to again to remind them of the topic of my study. The researcher also informed them to bring

any necessary documentation that would help them during the interview. The researcher then took down notes to record the proceedings. Secondly, during focus group discussions, all conversations were taped with an audio recorder and field notes were made. Thirdly, the researcher compared data which was collected from various sources for authentication. The researcher later established categories and codes to capture data. With the help of the research assistant, the researcher re-examined a sample of research data and later attached additional meanings to the categories. Finally, the researcher shared transcriptions with all the participants to check and make necessary corrections, thus ensuring that they were fully involved and felt that they owned the findings.

4.8   Ethical procedures used in protecting participants

Ethics refers to moral ideologies or beliefs in planning, outlining, writing and conducting a research study with necessary moral values by referring at what is right or wrong (Baker & Foy, 2008). When conducting qualitative research, ethics generally include protecting and respecting participants in the research study (Robson, 2002). Contentious practices, like getting into other people's private affairs or offering inducements to people are issues of great concern which require attention by professional bodies (Baker & Foy, 2008). Robson (2002) identified persuading non-consenting people, deception, concealing or hiding information for research, exposing participants to mental and physical stress, and infringement of self-determination as major concerns in this regard.

The researcher took three aspects of ethics into account during my research process, namely respect for democracy, respect for people and respect for truth. Respect for democracy refers to the freedom to obtain and give out information without fear or favour. Respect for truth means that researchers should not deceive themselves and others deliberately. Respect for people means that researchers should respect a person's rights, dignity and privacy in during data collection (Robson, 2002). Ethical procedures like honesty and ethical behaviour are critical when dealing with participant information, hence they need to ensure confidentiality, consent and privacy.

4.8.1   Confidentiality

Polit and Hungler (2008) observe that confidentiality is when information given by participants is not disclosed to the public or any other person. In this study, the researcher

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ensured that the information I got from participants concerning their experiences with quality management systems in TVET is not divulged to the public. In this context, anonymity of the institution or participants is protected by making sure that there is no linkage of data to any institution or person interviewed. The researcher achieved confidentiality by making sure that the actual source of data is not disclosed by not using codes rather than names to identify information sources.

4.8.2   Informed consent

The researcher obtained permission from the University of Pretoria to conduct my research prior to commencing with the study. Once the application for ethics approval was granted, the researcher sought approval from the Ministry of Labour and Manpower Development responsible for managing TVET institutions in Malawi, where my research was conducted.

According to recommendations by Rossman and Rallis (2012), Creswell (2012) and Marshall and Rossman (2010), the researcher also endeavoured to obtain individual permission from research participants that the researcher could tape-record their responses to interview questions and/or the information they provided during focus group discussions. The researcher also assured participants of their confidentiality and privacy. This is an important part of the research activity because it paves the way for participants to cooperate and allow them to freely and genuinely participate in the research exercise (Marshall & Rossman, 2010; Creswell, 2012).

4.8.3   Privacy

Privacy is assured when an individual has the freedom to decide on the time and the extent to which private information will or will not be disclosed (Burn & Grove, 2011). The researcher protected participants' privacy by not disclosing their names during the collection, recording or reporting of information.

4.8.4   Right to withdraw from research study

Prior to collecting data, The researcher informed participants that they were free to withdraw from the research study at any given time if they so desired. This information was also contained in the declaration form they signed before commencement of the research study.

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4.9   Conclusion

Chapter 4 gives a summary of the design, methods and methodology that the reseacher used in the research. The research design served as a road-map, guiding me in the collection and compilation of data towards my eventual research findings. It also helped to direct and positively incline participants to the entire research study. To realize this goal, the researcher explained clearly what the research was all about, what prompted the reseacher to conduct this study and, more importantly why the researcher chose this aspect to study. The researcher also explained how he would conduct the research study.

The major philosophy by which my research is informed is interpretivism. The researcher used it because of its flexibility, especially during focus group discussions, which assisted me, as a researcher, to become an integral part of the study. The study population comprised TEVETA officials as well as management teams and teachers at ATC and BTC. Data collection techniques included focus group discussion, interviews, and document analysis and these methods were expanded from one technique to another in order to generate rich data from participants.

In analyzing data, detailed qualitative procedures, which included inductive data analysis, were used to identify significant data categories and other relationships. These were explained in this chapter, as were the steps I took to ensure the trustworthiness of my research findings, which are presented in Chapter 5. In the next chapter, chapter 5, I present and interpret the research findings which I obtained from participants.

CHAPTER 5
DISCUSSION OF DATA

5.1   Introduction

As indicated in Chapter 2, the implementation of quality management systems in TVET institutions is the key to promoting quality teaching delivery. Quality assurance mechanisms act as a hub around which gaps related to quality training in TVET could be addressed.

As I indicated in Chapter 1 to 4, the objective of my research was to explore and describe quality management systems in public TVET institutions by holistically analysing critical issues affecting the implementation of such systems. To this purpose, the researcher had to explore and describe the experiences and opinions of academic staff and management team

from the institution's perspective. The researcher also sought out the views of TEVETA officials since TEVETA, as the TVET regulatory agency, is mandated to regulate TVET in the country.

In this chapter, the researcher presented both the data collected at the two institutions I selected as my research sites (see Chapter 1). In order to do so, the researcher made use of focus group discussions, interviews, open-ended questionnaires, and document analysis (see Chapter 4). The researcher then coded and categorized participant responses, a process which assisted me in the identification of key themes related to my original research questions.

My findings are presented in seven parts/sections. In Section 5.2, The researcher describe in detail the three targeted organizations - ATC, BTC and TEVETA. The researcher highlights and provides a detailed analysis of the programs offered by the two training institutions and explain the mandate and the pillars upon which TEVETA, as a regulatory quality assurance agency, is founded. In Section 5.3, using the available data, I analyse the quality of training in TVET institutions. Aspects analysed include the quality of inputs, the characteristics of respondents, the quality of teaching staff, and the quality of resources used for training. In Section 5.4, based on insights which the resarcher gained from participants, and the resaercher gives a detailed analysis of the quality of training processes in public TVET institutions. Informing this analysis are the results of evaluation of the resources used, the adequacy of facilities and services and the quality of teaching provision in public TVET institutions. In Section 5.5, the researcher analyses the extent to which the training institutions and TEVETA are acquainted with quality management system practices and processes and the manner in which implementation takes place. I discuss the adequacy of internal quality assurance processes in TVET institutions in Section 5.6, provide and highlight the efficacy of quality assurance processes in TVET institutions in Section 5.7 and, finally, based on my interpretation of participants' views and experiences, present the factors that hinder or facilitate quality management system implementation in TVET institutions in Section 5.8, I.

5.2   Profile of organizations

5.2.1   Brief description of technical college A (ATC)

ATC is a TVET institution owned by the government. Based in the southern part of Malawi, this technical college offers a range of technical and vocational training programs pitched at Certificate and Diploma levels. Three of the examination bodies responsible for the issuing of certificates and/or diplomas, namely the TEVETA, the Malawi National Examinations Board (MANEB) and the National Trade Test (NTT), are locally based. The fourth one, the City & Guilds of London Institute (CGLI), is an international accreditation body. The institution

The aim of the college is to provide access to as many deserving students as possible – the disadvantaged, physically challenged, day scholars and boarders. Boarding facilities for students coming from distant places are provided by the college and its infra-structure is such that it can accommodate the physically challenged. Moreover, its academic staff possesses the (adequate and relevant) attributes and competences needed to handle students with learning challenges, disabilities included.

The institution is structured in terms of three faculties: Construction, Commercial, and Engineering. The Construction Department runs programs in Painting and Decoration, Electrical Installation, and Plumbing. The Commercial Department offers financial courses in Accounting, Marketing, Information Technology, Secretarial Studies, Human Resource Management, and Rural and Community Development. All of these are run at both a certificate a diploma level. The Engineering Department offers courses in General Fitting, Automobile Mechanics, Air-Conditioning and Refrigeration, and Electronic Engineering.

5.2.2   Brief description of Technical College B (BTC)

BTC equips students with technical education skills and other competences for professional roles in various production areas. The institution was opened with the objective of equipping the youth with technical and vocational skills in order to meet the needs of the industry. At that time, three courses were introduced, namely Brick Laying, Carpentry and Joinery, and Plumbing. Between the 1960s and 1980s the institution expanded and introduced a number of new programs: General Fitting, Motor Vehicle Mechanics, Welding and Fabrication, Electrical Installation, Machine Woodworking, Vehicle Body Repair, Accounting and

Secretarial Studies. At the same time, Carpentry and Joinery, and Brick Laying, were relocated to a different technical college.

In 2001, the institution, in partnership with the International Telecommunications Union and CISCO International, introduced a Computer Networking Course in in response to the advent of the Information Age and incorporated Computer Awareness (an introductory computer course) into all its programs.

Currently discharging its services through its Administration and Academic Departments, the BTC is one of one of the largest public TVET institutions in the country, with a boarding capacity of 960 students. As one of the key human development institution in Malawi, its mission is to produce graduates of a high standard, people capable of contributing to industrial, commercial and social development in Malawi.

5.2.3   Brief description of the TEVET Authority

The TEVET Authority (TEVETA) is a government regulatory agency established in terms of a 1998 policy which resulted in the promulgation of a TVET Act passed in the Malawi Parliament in 1999. Established as an independent, autonomous body, it was mandated to regulate technical and vocational training in Malawi. More specifically, create an integrated technical and vocational training system in Malawi, one which was demand-driven, comprehensive, flexible, accessible and transparent enough to serve both the urban and the rural masses in the country.

Informing this mandate was the imperative to provide the country with the human resources it needed by, amongst others, establishing an environment for the training of a skilled workforce capable of spearheading the nation's socio-economic development nationally and internationally. In order to ensure that this happened, TEVETA not only had to reform TVET from a system that was supply-oriented to one which was demand-driven but also had to integrate TVET learning and training conducted in different contextual set-ups. By implication, an education and training system that had always been program and content-based had to be changed into a modular, competence-based education and training (CBET) system. It was to facilitate this shift that the TVET Qualifications Framework (TQF) was developed.

TEVETA is founded on four strategic pillars, namely Access and Equity, Quality and Relevance, Governance and Management, and Funding and Financing, each of which is briefly described hereafter.

5.2.3.1 Access and Equity

This pillar represents the TEVET Authority's commitment to ensure that all learners, regardless of their origin and status, have access to TVET curricula and training standards, including individualized education programs. The focus is on the equitable offering of technical, entrepreneurial and vocational training programs to all learners - males, females, the underprivileged and the physically disadvantaged.

5.2.3.2 Quality and Relevance

This pillar reflects the TEVET Authority's commitment to ensure that all TVET programs are relevant and premised on market demands and that learner competence will be assessed against standardized and documented performance outcomes document. Since these processes will be evidence-based, the quality of TVET programs should improve.

5.2.3.3 Governance and Management

In terms of this pillar, the TEVET Authority shall put in place efficient internal structures and management frameworks. All TEVETA operations shall be guided by principles of good corporate governance and management systems regimented by supportive organizational structures, internal management policies and regulations, and the monitoring and evaluation of operations.

5.2.3.4 Funding and Financing

In terms of this pillar, the TEVETA shall ensure financial sustainability through the generation of the requisite resources, the competence of personnel, and the diversification of its funding sources. This strategy will enable TEVETA to pursue the activities necessary to the achievement of its strategic objectives.

TEVETA facilitates several training programs but some of the key ones include the following: Apprenticeship Training Program (ATP), Private Sector Training Programs (PSTP), and the Informal Sector Skills Development Programs (ISSDP).

- The Apprenticeship Training program (ATP) is offered at 11 training colleges: Soche, Salima, Namitete, Mzuzu, Livingstonia, Phwezi Rural Polytechnic, Nasawa, Lilongwe, Malawi Government Press and Printing, and MIRACLE Technical College. Students are enrolled on a cost-sharing principle.

- The Private Sector Training Programs (PSTP) program are offered at private training institutions. Courses offered in this sector are aimed at equipping students with skills in the workplace. Program/course development is a three-staged process: first, an analysis of training needs; second, the coordination of training program development, and third, the upgrading and running of refresher training programs. Training costs are subsequently reimbursed.

- The Informal Sector Skills Development Program aims to improve the standards of technical, vocational and entrepreneurial skills in the informal sector. The key activities under this program include: Facilitating skills training with various stakeholders and partners; facilitating of Small Enterprise Development Programs; establishing and implementation training programs in Community Skills Development Centers (CSDC); facilitating On-the-Job-Training (OJT); and facilitating the implementation of development partners supported projects.

Currently two approaches are adopted to TEVET training in Malawi: the traditional approach and the competence-based approach, commonly referred to as CBET. In the latter approach the emphasis is on skills development, i.e. the ability to perform tasks in accordance with industrial standards' knowledge acquisition. i.e. the ability to articulate the theory behind the learning outcome, and attitude, i.e. the ability to show professionalism in handling oneself and one's job assignments. Unlike the traditional approach, CBET emphasizes both institutional and industrial training.

5.2.3.4 TEVETA Officers' Profile

Four TEVET Authority officers were interviewed for the purposes of this study. The first interviewee (T1) had worked at the TEVETA for over 15 years, the second one (T2) was responsible for overseeing the management of TVET training provision, the third had to ensure the quality TEVET service delivery of programs and the fourth (T4) had to enhance and promote the quality of TVET.

I used a semi-structured interview which was designed to gather information on the interviewee's knowledge of and experience in the quality management system and practices which the TEVET Authority was establishing at TVET institutions in Malawi.

5.3 State of training in TVET Institutions

The focus of this section is on the analysis of data on the quality of technical and vocational TVET institutions in Malawi. Having collected data from several sources, I analyzed it qualitatively and quantitatively to indicate how inputs, processes and outputs are inhibited and impact on learning in TVET institutions. The sub-sections which follow respectively focuses on the analysis of data on the quality of TVET input, process, output. Conclusions drawn from the analysis of the data are presented in Section 5.3.5.

5.3.1 Quality of inputs in TVET

It is believed that quality training in TVET institutions demands adequate investment in human capacity and financial provision as well as in the availability of physical resources. In my research study, the quality and adequacy of staff (this includes their qualifications and skills), and the availability of physical and financial resources are regarded as significant input dimensions for TVET institutions. The analysis of data is informed by the assumption that the assurance of input quality is a required condition for the provision of quality TVET training. This sub-section deals with the review of data on the characteristics of respondents, academic staff and resource availability.

5.3.1.1 Characteristics of respondents

Although this was not one of the purposes of my research study, data generated on this aspect reflects the demographic features of the population sample and evaluate the effect on my research findings. Demographic data comprised elements such as sex/gender, educational qualifications, academic rank, areas of specialization and years of service in the institution. A total number of 60 academic staff, including Heads of Departments at TVET institutions took part in the research study. For simplicity reasons, respondents were arranged and grouped together because all of them are involved in teaching regardless of the fact that some of them are Heads of departments while others are Heads of sections. In fact, those who attain headship positions are typically promoted from the lower ranks of Lecturer or Assistant Lecturer.

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Participants were asked to indicate their gender and all 60 participants responded. Of the 60 who responded, 16% were female; the rest were male. This supports Lifanda et al, 2004 who reported that although technical and vocational courses are historically male-dominated, more females are currently joining the profession.

Regarding their years of service in the institution, participants were requested to tick the required field provided (check Appendix F). Again, there was a 100% response rate. 20% of the respondents indicated that they had less than two years of service; 30% reported 3-4 years of service; 40% reported 5-10 years of service and 10% reported that they had more than 10 years' experience in TVET institutions. What the data indicated was that the years of service rendered by academic staff varied greatly, with half of them (50%) had four or less than four years' experience.

Regarding their areas of specialization, participants were asked to highlight their specialties by ticking the required option. Once again, also, all the participants, drawn from nine programs of study, responded. Of these, 13.3% of the participants were respectively drawn from each of the following: Accounting and associated subjects, Journalism, and Business Studies; 10% from each of the following programs: HIV and Aids Management, Plumbing, Electrical Installation, Welding and Fabrication and Human Resources Management. As regards their academic qualifications, 36.7% of the academic staff had diploma qualifications, 63.3% had Bachelor's Degree and none had a Masters or a PhD.

Table 5.1: Respondents' Demographic data

N: Number = 60

Characteristics	Variable	N	%
Qualification	Diploma	22	36.7%
	Bachelor's degree	38	63.3%
	Masters	0	
	PhD	0	
Academic rank	Assistant lecturer	18	30
	Lecturer	30	50
	Senior Lecturer	0	
	Head of Department	6	20
Sex	Male	50	83.3
	Female	10	16.7
Department	Commercial	22	36.7
	Construction	12	20
	Automobile	12	20
	Engineering	14	23.3
Area of specialization	Accounting	8	13.3
	Sciences	8	13.3
	HIV/AIDS management	6	10
	Journalism	8	13.3
	Plumbing	6	10
	Electrical	6	10
	welding & fabrication	6	10
	Human Resources management	6	10
	Business studies	6	10
Years of service	Below 2 years	12	20
	3-4 years	18	30
	5-10 years	24	40
	above 11 years	6	10

Figure 5.1: Participants' Qualifications
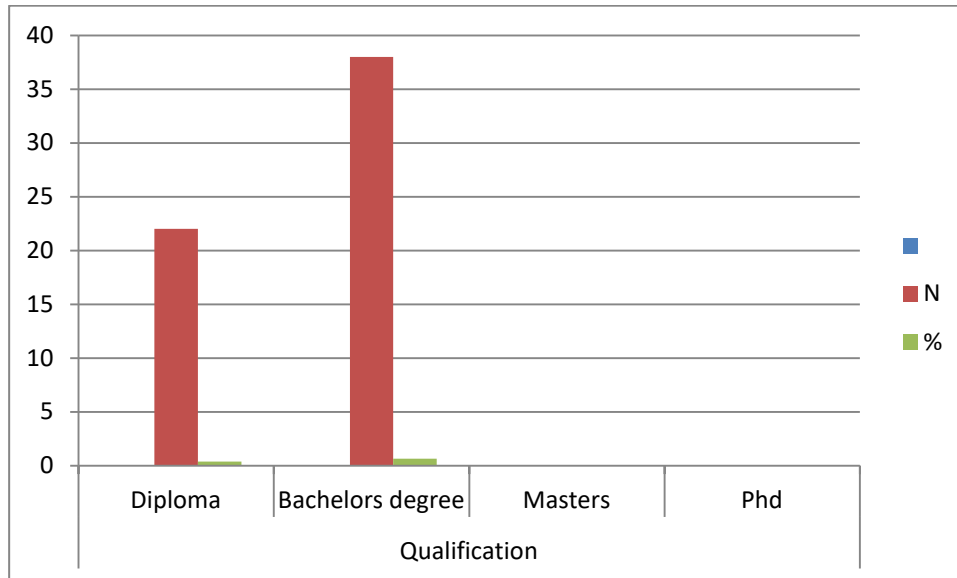
Indications from the data analysis represented in Figure 5.1 are that over 50% of teaching staff in both ATC and BTC have Bachelor's Degrees while approximately 37% have Diploma qualifications. The proportion of Masters and PhDs is non-existent. Interviews with management indicated, however, that most of the Bachelor's Degrees held by academic staff are unrelated to their fields of specialization; they are, in fact, Science subject related. By implication, the teaching staff of TVET institutions is unqualified if assessed against the standards set by TEVETA since these require academic staff to hold a qualification higher than the exit level of the program in which they are teaching. These findings reiterate those of the NESP Report (2008), which concluded that one of the key challenges impacting on the quality of TVET is a lack of practical competence amongst TVET academic staff. This lack, according to the report, could be ascribed to the non-existence of a TVET training college.

Figure 5.2: Academic rank of participants
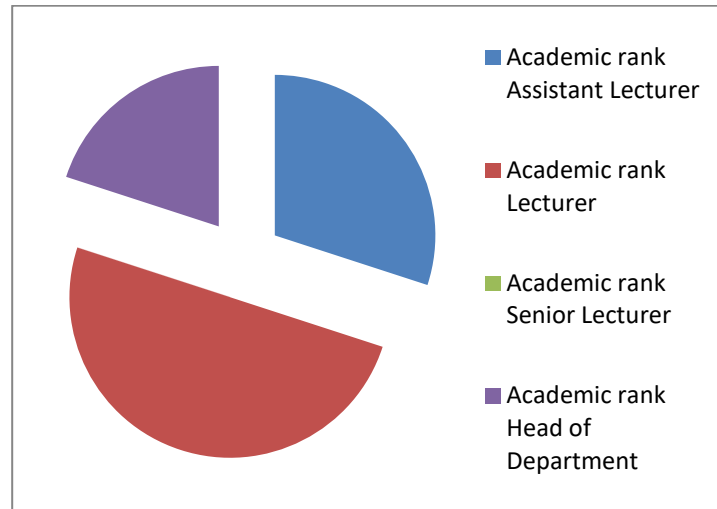
Figure 5.3: Respondents' Years of Service
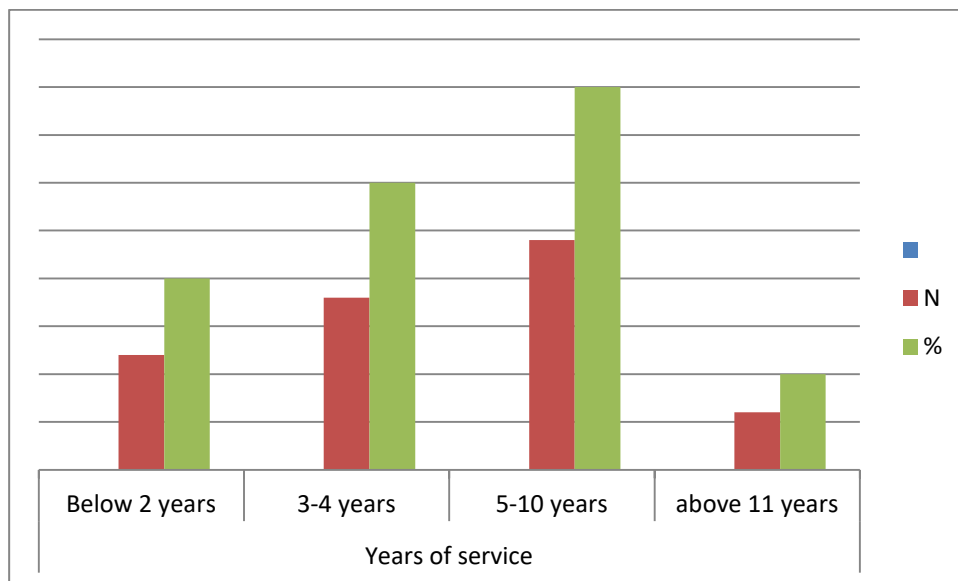
5.3.1.2 Access for training in TVET Institutions

Indications from the documents I analyzed are that students' entry into TVET institutions is limited to Malawi School Certificate of Education holders (Annexure I), with the exception of some affirmative criteria to consider females and the physically challenged. Each year, the TEVET Authority receives over ten thousand applicants nationwide, a number far exceeding the limited space available - about 1,600 for formal apprenticeship training (World Bank 2010). TEVETA recruits students for the formal training in TVET institutions (Annexure I).

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In addition, TVET institutions recruit students (through parallel programs) who do not require boarding space since they find their own accommodation.

Although apprenticeship programs funded by TEVETA are the only ones directly managed by the TEVET Authority, the total number of training programs at both ATC and BTC are significantly higher, since they also run non-apprenticeship programs. Besides TEVETA-recruited students, these institutions also admit parallel students, some of whom also study similar apprenticeship programs. Even together, according to UNESCO (2010), the percentage of learners entering formal TVET programs are still very small - about 2% of those who complete secondary education.

The TEVET Act (1999) mandates the TEVET Authority to perform some of the following functions: the coordination and facilitation of TVET opportunities and training (f) the impprovement of access to TVET programs for all people, including the disadvantaged (g) the provision of sustainable and adequate financing mechanisms for TVET, and (h) the promotion and regulation of the quality of TVET provided by training institutions.

Based on these findings, it could be concluded that TVET institutions, including ATC and BTC, should ensure that they adhere to the quality requirements stipulated in the TEVET Act. However, indications from my document analysis are that both these institutions will have to overcome a number of challenges in order to ensure the quality of teaching and learning they provide. More specifically, my document analysis indicates the absence of critical quality assurance documents such as strategic plans, quality policies and manuals and admission requirements at these institutions. Their non-existence was confirmed by thhe managerial staff at these institutions during the focus group discussions.

Based on the findings, I therefore conclude that student admission to TVET institutions is based on a centralized system emanating from the TVET policy, implying that TVET institutions do not have the autonomy to decide on the number, qualification, preparedness and quality of candidates eligible for enrolment in TVET programs. As participants from both ATC and BTC reported, the centralized system disempowered TVET institutions from enrolling eligible students in the TVET programs. Furthermore, interviewed academic staff from the two institutions expressed their concerns about both the centralized system and the TEVETA recruitment system. As some participants indicated, enrolling incoming students without verification of their suitability by the TVET institutions was like 'planting a seed on

a rocky ground'. What these findings suggest is that academic staff do not consider the recruitment system currently conducted by TEVETA as appropriate to the enhancement of quality training at TVET institutions, and may impinge on the quality of their teaching and learning.

5.3.1.3   Resources at TVET institutions

Quality teaching and learning cannot be attained without the availability of teaching and learning resources. Resources comprise finance as well as teaching-learning facilities (such as laboratories, libraries, learning support services and equipment). The Ministry of Education, through the National Education Sector Plan (2008) affirmed that the poor management and operation of TVET institutions resulted in limited funding and that this has contributed to the inadequate and obsolete equipment they have to use for teaching and learning. Details in this regard are provided in the numbered lists which follow.

Poor Condition of Machines, Tools, Instruments, Books and Materials: Facilities such as workshops, laboratories and libraries have dilapidated over time. The poor condition of the equipment, machines and supply stock of tools and material (**see Table 5.2**) has significantly affected the quality of training at these TVET institutions. Some of the machines - lathes for both Woodwork and Metalwork, for example - are generally in a manageable working condition although general service is still required (**Table 5.2**). However, according to the findings as displayed in Table 8, the general condition of tools and instruments as well as teaching and learning materials at both ATC and BTC, is extremely poor and this has negatively affected the quality of teaching and learning provision in TVET.

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Table 5.2: Condition of Machines, Equipment, and Materials

	Lathe	Shapers	Drilling machine	Band saw	Circular saw	General tools tools & instruments	Materials &TD paper	Institution outlook			
	GF	GF	WWM	GF	CJ	WWM	CJ	AMM	GF	PL	
ATC	S	S	S		S	S	P	P	S	S	P
BTC	G	S	S		S	S	P	P	P	S	P

Note: National outlook analysis was done on average conditions of each material resource across the target TVET institutions.

KEY: GF: General Fitting   AMM: Automobile mechanics

WWM: Wood Work Machining   PL: Plumbing

CJ: Carpentry & Joinery

G: Good   S: Satisfactory

P: Poor

(Source: Khowoya, 2008)

According to participants at ATC, they noted that despite this seemingly good-looking machinery, a number of these are old and not in a very good working condition. The findings of my research indicate that, apart from minor services by the technical teachers themselves, there has never been any formal maintenance of these machines since they were installed. The lack of formal and regular maintenance services has contributed to their overuse and long overdue maintenance and service will render future restoration of some of the machinery very expensive and difficult. **Both particpants at ATC and BTC agreed that** in most TVET institutions the drawing equipment is obsolete. Technical Drawing being a practical subject, requires quality equipment but the above shown status of equipment has significantly affected the provision and quality of teaching and learning at these TVET institutions.

Research participants indicated that the ATC does not have even a single drawing instrument and the students are asked to improvise by using non-accurate mathematical instruments.

Most respondents expressed frustration with resource mobilization at their TVET institutions, indicating that it was not of a sufficient standard to produce quality graduates. The group explained thus:

> *TVET institutions use outdated equipment for training. It is always a challenge for students to acquire the necessary skills on old machines and yet there is new technology in the industry. Obviously, there are more new cars with new technology on the market and training should therefore reflect this. The curriculum needs to be revised regularly every 3-5 years to maintain currency.*

The group explained, moreover, that complaints by industry that the practical skills of TVET graduates were inadequate contributed to the latter's low self-confidence when they entered the industry. According to the group, TVET institutions' lack of modern technology, which was critical to adequately preparing students for the world of work resulted in graduates having to undergo intensive, practical training at the workplace in order to align their skills to those required by industry.

According to the management of both institutions, the new TEVET policy (2013) highlights several strategies which could be considered to support the effective implementation of quality management systems at TVET institutions. Included in these are enhancing the capacity of TVET teachers at all levels, providing TVET institutions with relevant and adequate training equipment, ensuring the availability of qualified and adequate TVET teachers, and developing legal and institutional frameworks for the TVET sector.

5.3.2 *Quality of training processes in TVET*

In the afore-going section, I indicated the challenges which participating TVET institutions face with regard to the required input - human and physical resources. Since the achievement of learning objectives depends on the quality of curriculum delivery, I would argue, therefore, that the required training inputs have to be improved because the inadequacy of existing ones inhibits the provision of quality training at these institutions.

This sub-section focuses specifically on what actually happens in TVET institutions in terms of curriculum delivery and, by implication, in ensuring that quality training is achieved. The findings presented here emerged from an integration of qualitative and quantitative data obtained from two sources in particular - the National Education Sector Plan (2008) and the Malawi TVET Policy Review (UNESCO, 2010). First, I present research findings on teaching and learning provision, following these with findings on staff recruitment processes and the utilization and quality of facilities used.

5.3.2.1 Quality of teaching and learning provision

Teaching and learning in TVET is paramount to the objective of TVET institutions. The output of TVET institutions, that is, the level of skills and competencies acquired by students, depends on the quality of teaching provided. Teaching in TVET consists of various activities that are immersed in each institution's mission. The TVET academic calendar, the relevance of programs offered (as perceived by industry), the wide range of teaching-learning activities and methods used, and the curriculum delivery standards in general are perceived to be some of the universal features of teaching and learning.

Although the improvement and maintenance of quality were prioritized in past strategic plans, several challenges which have consistently hindered quality TVET provision in the country have not been overcome (National Education Sector Plan, 2008). The most critical of these are under-funding, inadequate training facilities, poor equipment, inadequate training resources and high student/teacher ratios (MOEST, 2008).

Some of the academic staff interviewed were dubious about the effectiveness of the TVET harmonized curriculum which was launched by the Ministry of Labour in January 2017, claiming that, much as it is good, it was done in a hurry, without extensive consultation with stakeholders. Because of this, they argued, assumptions about the extent to which the harmonization process will enhance the quality of TVET outputs across TVET institutions in the country cannot as yet be verified. Others supported it, pointing out that (a) it 'standardized' curriculum content and delivery across institutions, and (b) TEVETA had consulted all the major stakeholders, including industry, training institutions, the Malawi National Examinations Board (MANEB), the National Trade Testing Services and the University of Malawi. TEVETA respondents were also adamant that the harmonization

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initiative was an acceptable and positive move in the sense that it reduced/erases the multiplicity of TVET qualifications, thus brining 'sanity to the TVET landscape'.

5.3.2.2   Recruitment and staff development processes in TVET institutions

The quality of teaching and learning is directly related to the availability, qualifications, and competence (experience and capacity) of academic/teaching staff.   The analysis of my research data indicates that all of these are challenges which affect the quality of teaching and learning at TVET institutions.

The results of my document analysis indicate that there is a severe shortage of teachers across Malawi TVET institutions. In 2010, only about 55% of established teaching positions were filled (World Bank, 2010). Because of this, according to my research participants, the teacher-student ratios in most academic departments at these institutions are very high, thus affecting the quality of teaching and learning. Moreover, according to the World Bank (2010), most TVET teachers are inadequately qualified and/or incompetent.

The main reason for both these deficits in the TVET system pre-service training. There are no teacher training colleges in Malawi focusing on the training of TVET teachers TVET (MoL, 2013). Consequently, TVET institutions rely heavily on the Malawi Polytechnic to provide them with staff members who can teach technical subjects (MOEST, 2008-2017). Data generated in the course of focus group interviews and questionnaires indicate that most of the teachers in TVET institutions graduated from the University of Malawi (The Polytechnic) and/or from TVET institutions. The teacher training offered at the Polytechnic is theoretical in nature, aimed as it is at the preparation of potential teachers in the practical subjects taught at secondary schools. It does not have the training of technically skilled, hands-on teachers for TVET sector as purpose; hence its graduates are not equipped to teach TVET subjects. The result is an overreliance on theoretical training in TVET institutions.

These views were confirmed during the participant focus group discussions which formed part of my study. Institutional managers complained that, in most cases, teachers recruited by government were inadequately qualified or pedagogically competent. Most of those teaching the fundamental subjects - Mathematics, English Communication and Technical Drawing – had little if any technical training hence, according to respondents, lacked the requisite pedagogical skills necessary at TVET institutions. Those with a technical background, often

TVET graduates themselves, had the knowledge to teach technical subjects but not the pedagogical skills needed to do so effectively. In both cases, as one respondent indicated, they sometimes felt completely 'lost'. Even those with Bachelor's degrees or higher education diplomas are either un- or under-qualified if their qualifications are measured against TEVETA standards. According to these standards, academic staff at TVET institutions should have a qualification higher than the exit level of the program they are teaching. If they only have a diploma their qualification level is too low; if they have a Bachelor's degree unrelated to the program they teach, they are effectively unqualified. To make matters worse, opportunities for industrial placement and continuing training for TVET teachers are limited, and TVET institutions have no procedures in place to enhance the capacity of their academic staff (MOEST, 2008).

The current scenario for in-service and initial teachers in TVET institutions thus requires urgent intervention (UNESCO, 2010; National Education Sector Implementation Plan, 2008). According to the latter (MOEST, 2008),

> *"There is no coherent policy for teacher education for TVET which would help to address high demand for qualified teachers in TVET institutions. Additionally, failure to address the need for qualified teachers and instructors for TVET has affected the quality of teaching and learning provision in TVET institutions (MOEST, 2009)"*

As indicated in my literature review, the quality of teaching staff is critical to effective curriculum delivery across all types of institutions. In the absence of sustained attention being paid to the improvement of TVET teacher quality, the potential effectiveness of TVET reforms will be severely compromised. Other problems which have negatively affected the quality of TVET training are lack of TVET institutional autonomy, inadequately qualified teaching staff, low funding levels, absence of technical teacher training college, lean management and governance structure, and the non-existence/unavailability of recruitment policies (TEVET Policy, second edition, 2013). It is to these I turn in the sections which follow.

Administrative structure of TVET institutions

All public TVET institutions have organizational structures with clear lines of authority, typically divided into two main departments – Academic, and Administration and Finance

(MOEST, 2011). The Academic Department is further divided into several interrelated departments, each with its own Head/s of Department who are answerable/accountable to the Deputy Principal of the institution. Supporting the Heads of Departments are Senior Instructors, Instructors, Assistant Instructors and Workshop Assistants. A Bursar oversees all the activities of the Finance and Administration Department, and supervises all its staff - clerical, matron, stores, accounts assistant, secretarial, security, maintenance and others.

TVET institutions recruit teaching and support staff in addition to those staff members who are recruited by government through Public Service Commission (MOE, 2001). According to stipulations by the Ministry of Labour (2011) in the Administrative Handbook for Technical Colleges in Malawi:

> *"The Principal and management of Technical Colleges should ensure that employees are recruited in accordance with the provision of the Employment Act (2000), Pension Act (2011) and all other labor procedures. It is a must that management of Technical Colleges follows stipulated recruitment procedures and that members of staff are recruited in line with the Employment Act. Management should ensure that members of staff have a good and supportive working environment. The members of staff should be clear about the working conditions, policies, systems and procedures of the Technical Colleges."*

Moreover, according to the same Ministry of Education Handbook, staff development, as one of the main activities with the institution, should co-ordinate the needs of individual members of staff with the functions of the college. Its purpose is, therefore, to assist the staff to assume, perform and develop their functions effectively. The objectives of the staff development program could be: (a) to increase and up-date previously acquired knowledge by further training, which should lead to improvement in teaching skills and knowledge of subject content; (b) to ensure that career development is in place at the institution; (c) to make provision for experienced staff to fill key posts, and to organize training for younger staff members - as part of capacity building but also as a succession plan, in terms of which they would eventually replace those currently in senior posts.

In this regard, according to MOEST (2011), the management of TVET institutions:

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"Need to develop clear staff development policy and strategy. From the strategy, the Principal should be able to develop a staff development plan based on the identified capacity gaps amongst members of staff and future development of the Technical Colleges. Developing a staff development plan requires that the Principal has a clear system of identifying capacity gaps and training needs of staff in the College. Based on the identified capacity gaps, future growth of the college, the Principal can recommend capacity development for staff, and this can be in the form of training courses (short or long-term), attachments, exposure visits and others."

Situational analysis of TVET teacher training

The University of Malawi currently has a department dedicated to the training of TVET teachers and graduates, known as the Polytechnic College Campus. In addition to this, the Department of Technical Education at the Polytechnic offers three undergraduate degree programs, namely a Bachelor of Science (Technical Education), Bachelor of Education (Technical) and a Bachelor of Education (Business). The targets of these programmes are teachers who teach technical subjects at secondary schools.

Graduates from this 'college' constitute a small portion of TVET teachers in TVET institutions. Most of the TVET teachers, however, graduated from TVET institutions and were later offered teaching positions at these institutions (Chimpololo, A., Kapiri, F., 2012). According to Chimpololo (ibid), the majority of TVET teachers acquire their skills on the job, at the TVET institutions where they teach, using their occupational skills and competence rather than pedagogical knowledge. After their recruitment they are allocated to experienced mentors whose task is to orient them to the methodology of teaching. The development and introduction of TVET-oriented programmes in the Polytechnic's Department of Technical Education could be seen as constituting a response to (a) stakeholders having raised questions concerning the competence of TVET teachers who graduated from TVET institutions, and (b) concerns by other sectors about TVET teachers who did not have the requisite pedagogical skills to become good teachers but only did so because there was a scarcity of jobs in the labour market (Alide, 2007).

According to UNESCO's World TVET database (UNESCO, 2013), 50.9% of the teachers at public TVET institutions in Malawi have Bachelor of Science degrees in Technical Education, 36.6% hold diplomas in Technical Education, 10.7% have certificates in

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Technical Education and 1.8 hold other qualifications. With these statistics suggest is that about 49.1% of TVET teachers have a diploma or lower qualification. It follows that most of these TVET teachers were either trained or through their attachment to/association with industry. Th appointment of teachers like these could be due to the relatively low staffing levels at TVET institutions, which indicate glaring gaps existing in most across institutional departments (see Table 5.3 for a summary of filled positions at seven of the public TVET institutions in Malawi (data provided by the Directorate of Technical and Vocational Education and Training, 2013).

Table 5.3: Status of filled positions in public TVET institutions

STAFFING LEVELS IN TECHNICAL COLLEGES				
College	Department	Established posts	Filled posts	
			Male	Females
Lilongwe	Commercial	9	4	5
	Automobile	8	5	0
	Construction	7	6	0
	Engineering	14	5	1
Livingstonia	Commercial	7	1	0
	Automobile	7	3	0
	Construction	-	-	--
Mzuzu	Commercial	11	5	1
	Automobile	5	2	0
	Construction	7	5	0
	Engineering	-	-	-
Namitete	Commercial	9	2	0
	Automobile	-	-	-
	Construction	9	4	1
	Engineering	-	0	-
Nasawa	Commercial	7	3	2
	Automobile	8	3	0
	Construction	9	6	0
	Engineering	8	2	1
Salima	Commercial	9	2	1
	Automobile	5	1	1
	Construction	7	6	0
	Engineering	8	3	0
Soche	Commercial	9	3	2
	Automobile	5	0	0
	Construction	7	9	2
	Engineering	-	-	-

(Source: DTVT, 2013)

Table 5.3 above indicates that all the public TVET institution have a serious staff shortage. According to statistics, 38% of the teaching positions at Lilongwe Technical College are vacant, 64% at Livingstonia, 43% at Mzuzu, 39% at Namitete, 44% at Nasawa, 52%; at Salima, and 24% at Soche. Moreover, 17 of the total 187 TVET teachers across institutions (9%) are females, suggesting that the seven public TVET institutions mentioned here are not performing well in terms of gender empowerment.

According to research participants, academic staff members are either temporary or government-appointed. Government-appointed staff members are recruited by the Ministry of Labour, which was given the mandate to do so. Participants mentioned two problems in this regard: firstly, the Ministry delayed the recruitment of teachers in TVET institutions, and secondly, the only criterion seemingly informing the selection of 'ministerial recruits' was their possession of a TVET qualification. The problem with this, according to academic staff participating in my study, was that these recruits usually did not know how to teach because none of them would have received any training related to the planning and delivery of lessons and/or the assessment of learner competence. Temporary staff members are typically appointed by the TVET institutions themselves and, at the time of my research, these teachers represented the bulk of TVET staff. Although many of these staff members had been trained as teachers, and might be well versed in the planning and delivery of lessons in general, they might not be able to adapt these to the teaching of technical TVET subjects in which they had not themselves been trained.

Both these categories of teachers - government-appointed and temporary teachers – therefore needed training in the teaching of TVET subjects and the assessment of TVET students' competence. No such training was, however, offered by TVET institutions: what was offered was an experienced 'mentor' who was responsible for imparting the requisite 'advice' to one of more 'mentees'. When training is made available - by other institutions, external bodies and/or organizations, according to research participants at BTC, temporary staff members are side-lined in favour of giving government appointees the opportunity to attend.

> *"When the institution has an issue of general concern, we speak the same language, but when there is something good, they say you are temporary teachers and as such you don't qualify to undergo training".*

In order to justify their claim, BTC members cited an instance when the African Development Bank (ADB) funded a Higher Education Science and Technology (HEST) project, making funds available for training, the Ministry refused to allow some of the teachers identified as trainees to attend, notwithstanding the fact that the University of Malawi had provided these teachers with admission letters. In addition to this, the ministry advised ADB not to release funds to pay for their attendance, resulting in some people, who were not permitted by the Ministry to go for study, now facing disciplinary charges.

Most of these problems, according to BTC research participants, could be satisfactorily addressed if TVET institutions were granted the autonomy to recruit and appoint teachers. Since the institutions knew exactly what the shortfall was and what the ideal applicant should know and be able to do if appointed, selection would be much more purpose-focused. The result, according to them, would not only be the appointment of teachers who were qualified to teach the subject concerned but also the possibility to decrease currently high teacher-student ratios.

Similar sentiments were highlighted by academics from ATC, who argued that staff development is important because it aligns the needs of individual members of staff with the functions of the institution. They explained that, if well executed, it helps the staff to assume, perform and develop their functions effectively. According to this group of academics, staff development programs help to increase and up-date staff members' previously acquired knowledge through further training, thus improving their teaching skills as well as their knowledge of subject content. Such development, according to ATC academic staff, is an important part of capacity building and career development, proactively making provision for experienced staff to fill key posts and to organize training for younger staff members who would eventually be able to replace those in senior posts.

To achieve this, academics from ATC argued, the principal, with support from the Heads of Department, needs to develop a clear staff development policy and strategy. The strategy could then serve as basis for a staff development plan which would address identified capacity gaps amongst members of staff as well as the future development of the institution. In order to do so, they argued, the principal should have a system in place which would enable him to identify capacity gaps and staff training needs in the institution. Having done so, the Principal could then recommend ways in which staff members could be capacitated,

whether this be in the form of training courses (short or long-term), attachments, exposure visits, or other means.

They indicate that there might be one problem in this regard, though. According to them, those who were not on good terms with their immediate supervisors or institutional heads were seldom, if ever, recommended for workshops or courses relevant to their field: managers would rather send someone who would not do anything there, simply because they were on good terms with their superiors. Moreover, whenever there a training opportunity presented itself, managers would first look at the material benefit associated with it and if there were any, they would go themselves, regardless of whether or not it was their area of specialization. When the group was asked whether there was a training budget, they indicated that they had that there was but that in reality it was only on paper. To illustrate what they meant with this, they cited examples where certain teachers were denied access to training funds while others were given preferential treatment. In one case, according to them, a teacher asked for financial support to do a Bachelor's degree. This person's request was denied, but a month later the institution paid for two people to enroll for Masters' programs.

The management of ATC and academic staff alike indicated that the institution did not have or need either a staff development policy or a staff development plan, since capacity-building was centralized. Institutions had no say in who should attend capacity building programs or what kind of capacity-building was needed. Decisions like these were the prerogative of the Ministry of Labour and Manpower Development. Moreover, according to this group, even if the institution developed its own staff development plans, the ministry would still have the final say. Even so, according to participating academics, that permanently-appointed teachers were regularly always considered for capacity building but, due to low funding allocations, very few people benefit from training opportunities. Temporary staff members were never considered. Because they were recruited by the institution, not the Ministry, sending them for training was not considered to be an investment in 'institutional' capacity building. Like their BTC counterparts, the ATC group also regarded this as unfair discrimination against temporary staff members. Also citing the Higher Education Skills Training (HEST) Project as a case in point, they indicated that the non-release of funding by the bank was due to a dispute between the Bank and the Ministry regarding the nature of capacity building needed. The Bank insisted that studies at Masters and PhD levels would be most beneficial while the

Ministry maintained that diplomas and Bachelors' degrees were more appropriate. Consequently, the Bank refused to release the funds.

The group further noted that staff development is significant because it co-ordinates the needs of the individual members of staff with the functions of the institution. They explained that, if well executed, it would help the staff to assume, perform and develop their functions effectively. According to the group, staff development program helps to increase and up-date previously acquired knowledge by further training, which should lead to improvement in teaching skills and knowledge of subject content.; to ensure career development is in place at the institution and also to make provisions for experienced staff to fill key posts and to organize training of younger staff to eventually replace those currently in senior posts as part of capacity building but also succession plan.

To achieve this, the respondents argued that the principal with support from the Heads of Department need to develop clear staff development policy and strategy. From the strategy, the Principal should be able to develop a staff development plan based on the identified capacity gaps amongst members of staff and future development of the Technical Colleges. However, developing a staff development plan requires that the principal has a clear system of identifying capacity gaps and training needs of staff in the College. Based on the identified capacity gaps, future growth of the college, the principal can recommend capacity development for staff, and this can be in the form of training courses (short or long-term), attachments, exposure visits and others.

Asked to comment on the qualifications of academic staff at their institutions, academic staff participants expressed their unhappiness, indicating that most of the teachers, especially those in the Continuing Education Section, were under-qualified since they only had teaching certificates or qualifications equal to the exit levels of programs of which they were in charge. One of the reasons they gave for this was poor remuneration, thus institutions could not recruit suitably qualified academics as teachers. They acknowledged, however, that this problem cut across most public TVET institutions in Malawi, which resulted in teachers at these institutions being overloaded in respect of their teaching schedules.

Participating TVET academics and management agreed that there were academic staff members without the requisite knowledge and/or expertise who, because of this, failed to

teach their subjects very well. Academics blamed pre-service teacher education for this, with one of the participants arguing that:

> *"Technical Education training at the Malawi Polytechnic is not targeting the current technical syllabi in TVET institutions. There is more in-depth training in Mathematics and Sciences than technical skills. In most cases graduates of the program acquire more theories and very little or minimal practical work."*

Academic staff of BTC bemoaned the inadequacy of the skills component of training, having observed that new graduates feel unprepared to handle practical work in the workshops.

> *"Although we have learned to do welding, for example, it has only been in theory. We have never done it in practice and how does one expect such a technical teacher to perform in that area? As a result, we find TVET curriculum difficult to teach."*

BTC Management agreed with this, referring to the fact that TVET academic staff members prefer to teach academic subjects such as Mathematics and Sciences rather than trade-related subjects, even if they were incapable of doing it well. Even those that teach trade-related subjects fail to perform as required.

The views expressed by both BTC and ATC management corresponded with the views of some of the participating staff members of the TEVET Authority. One of them intimated, for example, that practical training currently offered at the Malawi Polytechnic was not as intensive as that previously on offer. Another TEVET member, elaborating on this, argued that:

> *"In the past, a full day was allocated for each one of the three practical subjects, weekly, in order to fully acquire the necessary practical skills. As such the complaints of incompetence on the part of graduating technical teachers were non-existent. However, currently that system has changed and one cannot expect the output to be the same. The current syllabus at the Polytechnic is not comprehensive enough for teachers to teach TVET courses in technical colleges properly, as a result it is true to say that most academic staff in TVET institutions would prefer to teach Mathematics and Science because of that kind of background. The original training was a perfect one for technical teachers to teach TVET subjects such as wood work and metal work as compared to the current one that takes into account other needs."*

These findings indicate that there are no staff development policies at TVET institutions. Furthermore, there is too much centralization concerning capacity building of teaching staff. Due to high staff turnovers, staff shortages, low funding levels, low remuneration for academic staff, and public service regulations which inhibit institutions to recruit qualified staff, academic staff has a heavy workload. Furthermore, upgrading programs tend to benefit permanent academic staff only.

All academic and management staff interviewed from both institutions agreed that there is a shortage of experienced and qualified academic staff across both public TVET institutions. The data generated in interviews and focus group discussions were confirmed by my document analysis, which indicated that staff shortages and the inadequacy of qualified academic staff is a general problem across TVET institutions, as is the lack of motivation. All of these have serious implications for the quality of teaching and learning provision and, by implication, the establishment, maintenance and sustainability of quality management systems.

5.3.2.3   Utilization and quality of training facilities

BTC currently has twenty-four lecture rooms of various sizes, the biggest accommodating up to 80 students. Classes are run from 8.00 am to 4.30 pm during the day, and from 5.00 pm to 7.30 pm in the evening. Class time-tabling is done in such a manner that the existing lecture space accommodates all classes during the hours available to the delivery of existing programs.

The institution has an academic staff complement of 22 permanent and 24 temporary academic staff members. There are four faculties, namely Engineering (offering Mechanical Engineering, Refrigeration, Electrical; and Automobile Engineering); Construction (offering Plumbing, Painting and Decoration, and Brickwork), and Commercial (offering Marketing; Administrative Studies, Accounting, IT Networking, Human Resource Management, and Business Studies. Enrolment is limited to a total of 960 boarders and 1800 day-scholars.

The institution's library accommodates up to 80 students, but it does not have a collection of e-books, nor does it subscribe to e-journals. Although the library is small and can accommodate only 80 students at a time, all students have access to its use at their convenience. They are allowed to borrow books and make use of them from wherever they

are. The library has a system that controls movement of books while minimizing the risk of them getting stolen or lost.

In order to mitigate the space limitations due to the size of the library, BTC has made a decision to move to the use e-resources. The institution currently has two computer laboratories, where students get tuition on accounting packages and IT-related programs, and sit for computer-based examinations. Although the network transmission capacity is good enough to support both staff and students, computer applications are not licensed and WI-FI is only available to staff. Management explained that computers will in time be loaded with appropriate software that will enable students to access relevant books from wherever they are for learning purposes.

The institution also has an IT Section, which falls under the Commercial Department. It is manned by two technicians who are responsible for the proper maintenance and upgrading of the ICT infrastructure. However, the lack of ICT Policy and Governance limits the efficiency and effective running and upgrading of the ICT infrastructure. Furthermore, due to an increased demand for IT support services, the two staff members mentioned earlier are unable to provide the surge of IT services required by students and staff, hence the section is, in fact, inadequately staffed.

There is not enough office space to accommodate teaching and support staff, hence academic staff members have to share offices. According to participants, lecturers are not supplied with laptops; instead, each department has a single computer which has to be shared by all concerned. Because of this, and the fact that classrooms are not fitted with screens on which to project slides, teachers cannot utilize the latest technology for teaching purposes.

Finally, plans to increase classroom space are at an advanced stage. The building of four additional classrooms is currently being financed through the Higher Education Science and Technology Project (HEST) which, in turn, is funded by the African Development Bank. Construction work is currently underway at the back of the administration building. In addition to this, formal arrangements exist where third party resources are used for learning. The construction of an ICT, library and Business Centre (see Figure. 5.8) is also currently under way. This, too, is funded by the ADB as part of its Higher Education Science and Technology Project (HEST).

Figure 5.8: Construction of ICT, Library at BTC

(Source: Infrastructure Education Management Unit, (EIMU) Lilongwe, 2012)

Management at ATC explained that physical space is very confined and that this has a detrimental effect on the learning experience of large groups. The academic staff complement consists of 18 permanent and 27 temporary academic staff members. There are 28 lecture rooms, housing four faculties: Engineering (offering Mechanical Engineering, Refrigeration, Electrical, Welding and Fabrication); Automobile Engineering (offering Automobile Mechanics, Panel Beating and Spray Painting); Construction (offering Plumbing and Woodwork Machining), and Commercial (offering Marketing, Administrative Studies, Accounting, Journalism, CISCO Networking, Human Resource Management, and Business Studies).

The institution has a total enrolment of 2,000 boarding students plus 2,500 day-scholars. Classroom space seems generally adequate, although there is a lack of larger lecture theatres to accommodate big classes. While some classrooms do not have data or overhead projectors, academic members of staff who want to have access can book them out. The computer laboratories are well-equipped for a variety of teaching methods.

Space for students to interact socially and/or to support peer-to-peer learning is, however, limited, with sport facilities and common rooms where students can gather between lectures unable to accommodate large numbers of students. General outdoor space where students might congregate is also extremely limited.

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I also observed that space in buildings that accommodate staff is confined. Staff members have to share offices, something which impacts negatively on their ability to do teaching preparation and/or to work on their research because there is a strict requirement that they have to be on campus from 08h00-17h00 every day. The confined space available also impacts negatively on support staff, notably the limited library spaces available.

Library hours are relatively restricted. Library and academic staff participants suggested extending its opening hours and the time allotted for ICT per user (currently users are only allowed two hours each per computer, which is inadequate). Staff dedicated to the management of the library and ICT facilities include relevant material but it is notably sparse in terms of quantity and range (for instance, few books written by African scholars or about African media).

The IT infrastructure is adequate for formal teaching as there is access to electronic information in terms of the number of computers for students (120) and the support provided by support staff. There are also 20 computers for staff use but neither students nor staff have access to Wi-Fi. Again, access to IT infrastructure for libraries and space for learning outside the classroom are limited. Some complaints about speed were raised, but there is no doubt this is not confined to ATC alone. There are four laboratories with 120 computers that accommodate a maximum of 240 students sharing computers but only 40 computers are connected to the Internet. Sometimes students bring their own computers.

According to documents checked, there is no clear and/or adequate information on institutional capacity, facilities and resources. Furthermore, none of the following relevant documents are available at the institution: Institutional Strategic Plan, Infrastructure Development Policy Plan, Asset Management Policy, Admissions, Library Collection Development Policy, or Procurement Guidelines. Because of their non-existence, it would be well-nigh impossible to draw viable conclusions on institutional capacity, facilities and resources and/or make management decisions related to these.

I also learned that, according to the view of management, some of the learning resources and physical facilities are inadequate, as they are not of the appropriate size and number to support quality teaching, learning and research. Through interviews with academic staff, and a tour of the facilities, I observed that the infrastructure is not up to standard. The following are some of the concerns expressed by participants regarding these: (a) laboratories are

sometimes used as classrooms and, because of this, they are not available, when required, to those who wish to use them as laboratories; (b) classrooms are often overcrowded, and (c) workshops are adequate for small groups of students only.

In an interview with management, I was informed about a number of challenges, the first being that available office space was inadequate. Offices for academic staff had been designed to accommodate fewer staff than those presently employed. In addition to this there was not enough support staff to ensure that the offices were regularly cleaned. The second challenge was technological in nature: staff had to share computers, a situation which posed a risk to the security and integrity of examinations and other assessments, and the fact that unlicensed software is used due to a lack of money to procure licensed software. Also related to the lack of funds was the non-existence of an appropriate student management system. The third challenge related to the accommodation of students, both in terms of teaching and in terms of accommodation. According to management, not only were lecture rooms inadequate but there were not enough chairs and desks to accommodate the increasing number of students and neither was there enough residential accommodation for the students who needed it. As was the case at BTC, construction of laboratories, classroom blocks and offices (figure. 5.9) were, however, under way, funded by the ADB as part of its Higher Education Science and Technology Project (HEST).

Figure 5.9: HEST project Construction of Laboratories, and Offices

(Source: Infrastructure Education Management Unit (EIMU), 2012)

Indications from the data collected on facilities are that these, as well as the necessary support services were inadequate, posing a key challenge to the delivery of quality teaching and learning at the participating TVET institutions. Library facilities, for example, are critical to quality teaching and learning at TVET institutions. They should, therefore, be stocked with a collection of good books relevant to TVET teaching and learning, and students should be able to borrow these in order to complete assignments. This is not, however, the case at these two institutions: most of the participants indicated that the books in their libraries are outdated and that reading space in their libraries is a major problem.

Laboratories, too, are critical to TVET learning. At these two institutions, according to most participants, there are either no laboratories or they are in a state of disrepair and/or did not include reliable internet facilities. According to them, inadequate funding has greatly contributed to this state of affairs and there is a big mismatch between the facilities available and the number of students enrolled.

According to the management of both institutions, TVET institutions in general face enormous challenges in ensuring that the minimum teaching and learning resources, facilities and other support services are available for teaching and learning provision. In this regard, they questioned the efficiency and effectiveness of the funding model on the basis of which financial resources are allocated to the different academic departments, claiming that it resulted in teaching and learning which was not up to standard. By implication, quality of graduates that should emerge from TVET institutions are not what it should be. It is this aspect which is the focus of the sub-section which follows.

5.3.4   *Quality of training output*

5.3.4.1   The Current Status of TVET Certification System in Malawi

There are currently three parallel national examining and certifying bodies in the Malawi TVET system: Competence Based Education and Training (CBET), introduced and managed by TEVETA; the Malawi Crafts Certificate, administered by the Ministry of Education, and the National Trade Test, administered by the Ministry of Labour. Besides these three bodies there are also international examining bodies such as the City and Guilds of London, and Pitman, which conducts examinations and awards certificates to students in designated centers across the country (UNESCO, 2010).

The status quo has so far remained like this despite a lot of calls from various quarters to have the system harmonized. Participants at a TVET policy review workshop attributed the continuance of this fragmented system to a lack of willingness by responsible authorities to enforce government decisions and deadlines on changes that have to be made. They acknowledge, though, that there are signs of "openness to move forward" with the requisite changes (UNESCO, 2010).

5.3.4.2   Establishment of the NTTC Department in the Ministry of Labour

The need to train craftsmen and women was first noted in the 1950's, when the then colonized Malawi was still known as Nyasaland. At that stage, the Nyasaland Railways and Public Works Department conducted departmental Trade Tests and issued their own certificates. When the need for trade certificates grew across companies and other government departments, a Trade Test Scheme was established. This Scheme, which was mandated to assess and certify those who were formally and informally trained in various trades became operational in 1956 (Ministry of Labour, 2007).

In terms of current governance arrangements, National Trade Test Certification on trades offered in TVET institutions is one of the responsibilities of the Ministry of Labour. The National Trade Test (NTT) system is a three-level qualification system and was the first to be instituted in Malawi. Practical and theoretical components are assessed, with the greatest emphasis being placed on practical skills. Admission to the test is 'open' meaning that candidates who want to write the examinations need not to have attended a training program in order to sit for the test.

5.3.4.3   Establishment of MANEB

In 1969 the Malawi government passed a law through parliament in terms of which a body known as the Malawi Certificate Examination Board was established. The Board was given the mandate to administer and develop secondary school examinations in partnership with a UK-based examination board known as the Associated Examining Board (AEB), The first examination administered by this Board in Malawi took place in 1972. Seven years later the Malawi Certificate of Education Board was changed to the Malawi Certificate Examinations and Testing Board (MCE and TB). The new body (MCE and TB) went on to administer secondary school examinations with the AEB until 1989, when the handover was "completed." (Chakwera, Khembo & Sireci, 2004, p. 1).

According to Chakwera and others (2004, p. 2), the change to a single, central authority which would be responsible for the development and administration of all public examinations took place following an evaluation of examinations in Malawi in 1984. In 1987, Parliament, having noted the results of the evaluation, approved legislation related to the merging of the examinations section of the Ministry of Education with the MCE and TB, thus forming the Malawi National Examinations Board (MANEB). Currently MANEB not only manages the major educational testing programs in Malawi but is also responsible for the development and administration of Teacher Certificate Examinations and the Craft Examinations for technical schools.

The Crafts and Advanced Crafts Certificates, which were introduced in the 1980s, in terms of a two-level qualification system and, unlike the NTT, is program-based. Student qualify for a Crafts Certificate on completion of a two-year formal TVET training program and for an Advanced Crafts Certificate on completion of a four- year TVET training program.

5.3.4.4   Establishment of TEVETA

TEVETA was set up as a regulatory body in 1999. Informing its establishment was the intention to coordinate and facilitate all TEVET activities and to promote technical, entrepreneurial, and vocational education and training. The TEVET Act. No. 6 of 1999 in accordance with which it was established stipulates 18 functions for TEVETA two of which were the focus of this study. They are (a) the development of qualifications and standards for any occupation, trade, skill, technology that will meet the needs of the labour market, and (b) the regulation of the way in which TVET examinations are conducted and the issuing of TVET certificates. To this purpose, TEVETA established within its structure an Assessment and Certification Unit which awards TVET certificates (using the CBET mode of delivery) on a 4-level credit point scale introduced by TEVETA in 2005. Any training offered through a specified program leads to a formal qualification (UNESCO, 2010).

5.3.4.5   TVET Examinations and dropouts

Data on TVET examinations and student dropouts were collected during the course of the interviews the researcher conducted with academic staff members of the two targeted TVET insitutitons. What I learnt from these interviews was that students enrolled for apprenticeship training at TVET institutions sit for MANEB-based examinations (Malawi Craft), National Trade Tests (NTT) administred by Minitry of Labour, and TEVETA-managed Competence-

based Education and Training (CBET) examinations. According to BTC management staff, Trade Test Examinations are conducted in two categories - practical and theory. To qualify for a certificate, candidates have to pass 75% of the practical subjects in all trades and grades and 50% of the theoretical subjects for Grade 3, 55% for Grade 2, and 60% for Grade 1 in all trades. Examinations are written twice a year, in March and November, with candidates being assessed in the following trades: Auto-Electrical, Bricklaying, Carpentry and Joinery, Cabinet Making, Diesel Fitting, Electrical Installation, General Fitting, Motor Vehicle Mechanics, Plumbing, Panel Beating, Printing, Spray Painting, Sheet Metal Work, Turning, Upholstery, Refrigeration Mechanics, Welding and Fabrication, Wood Work Machining, and Boiler Making.

While the MANEB examination has practical phased tests, examinations in technology and associated subjects are conducted at the institution once a year, at both the craft and advanced levels. Data available in documents at the time of my study indicate that enrolment in Craft examinations over the past six years has increased, but that the number for females is relatively low compared to the number of male students (Table 5.4). My document analysis as well as data from interviews with the management of ATC and BTC indicate that dropout rates for Craft, Trade Test and CBET examinations are generally low (around 8%). According to the research participants, students drop out due to a variety of reasons, the most common being gaining admission to other higher educational institutions with more attractive training packages, or opting to utilize available employment opportunities.

Table 5.4: Malawi Craft enrolment in TVET institutions

Program	2015 Craft certificate			2014 Adv. certificate			2014 Craft certificate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Brickwork	108	16	124	55	3	58	76	3	79
Carpentry	86	7	93	51	4	55	52	2	54
M.V. mechanics	189	16	205	90	11	101	144	6	150
WW machine	0	0	0	2	0	2	5	0	5
Mechanical trade	85	6	91	51	4	55	91	15	106
Electrical trades	123	27	150	36	4	40	99	14	113
Plumbing	43	8	51	17	1	18	32	11	43
Welding	51	6	57	18	1	19	48	1	49
V.B. repair	11	1	12	9	0	9	7	0	7
painting	14	5	19	11	2	13	3	4	7
Total enrolment	710	92	802	340	30	370	557	56	613

(Source: MANEB, 2015)

The National Trade Test examination is a three-tier National Trade Testing system administered by a department in the Ministry of Labour called the National Trade Testing Services (NTTS), and the qualification is acknowledged by the industry Assessment involves theory and practical assignments, with skills acquisition being specifically emphasized. Students who are admitted to sit for the Trade Testing examinations do not require prior knowledge in a specialized training field.

My research findings indicate that students recruited by government through TEVETA also acquire additional qualifications through the Malawi Craft and National Trade Test and that an increasing number of students are enrolling and writing National Trade Test examinations (see Table 5.5).

Table 5.5: National Trade Test enrolment in TVET institutions

| NO | Series | Blantyre | | | Lilongwe | | | Mzuzu | | | Total | | | Grand total |
		Grade 3	Grade 2	Grade 1	Grade 3	Grade 2	Grade 1	Grade 3	Grade 2	Grade 1	Grade 3	Grade 2	Grade 1	
1	2012 March series	935	474	154	734	465	176	491	304	91	2160	1243	421	3824
2	2012 Nov series	1317	705	309	1034	518	259	425	329	182	2776	1552	750	5078
3	2013 March series	0	0	0	0	0	0	0	0	0	0	0	0	0
4	2013 Nov series	1147	668	285	1111	730	275	616	435	151	2874	1833	711	5418
5	2014 May series	754	323	135	360	343	105	225	166	68	1339	832	308	2479
6	2014 Nov series	897	601	260	902	630	316	466	395	168	2265	1626	744	4635
											11414	7086	2934	21434

(Source: NTTS, 2017)

My findings indicate, moreover (see Table 5.5), that enrolments for Trade test examinations in TVET institutions have increased over the past five years despite the fact that former students are admitted to public TVET institutions to pursue TEVETA managed CBET examinations.

Management of both ATC and BTC highlighted several issues they had with the multiple certification system in TVET institutions as problems. Included in these are administrative challenges, human resources, and finances. Administrative challenges included time-tabling; monitoring, assessing and evaluating students' performance; allocation of subjects to lecturers, and the coordination of these in the day-to-day preparation for these three qualifications. According to them, administrative challenges are mainly due to the fact that the three qualifications represent different approaches to teaching, learning and assessment, CBET being learner-centered while the other two (NTTC and MANEB) are traditional and teacher-centered.

As regards human resource challenges, participants mentioned inadequate teaching staff and inadequate levels of funding from government as escalating problems which have a negative

impact on the provision of quality teaching and learning at TVET institutions. In order to effectively manage all three qualifications simultaneously, according to interviewees, TVET institutions require more funding than that currently allocated to them. In order to justify this claim, interviewees explained that if, for example, a student chose to pursue all three qualifications he/she would have to do some practical models in all three areas. This meant that the student would require three sets of materials, which constitutes an extra cost to the institution.

Another cost issue was the large amount of stationery necessary to prepare students for the kind of examination used by each of the three qualifications systems: NTTC uses a multiple-choice type of questioning, especially at Grade 2 and 3 levels, while MANEB uses structured and/or essay type questioning. To ensure that students would be familiar with all the styles they had to be extensively exposed to all of them before attempting the examinations. In addition to this, the stationery needed to keep records of student achievement is also costly: three sets of records have to be kept for students who sit for all three examinations, placing a great deal of pressure on the available stationery resources. Since, as mentioned earlier, institutional funding is already insufficient, it becomes very difficult to successfully deliver three simultaneously running curricula.

Further analysis of qualitative data was done to control the validity of these claims. What emerged from the subsequent analysis was a marked dissatisfaction and/or concern concerns amongst respondents (academic staff and TEVETA) regarding the dwindling of TVET output quality. My findings clearly indicate consensus amongst TEVETA, ATC and BTC that the quality of teaching and learning is a major challenge in public TVET institutions In the words of one of the respondents from BTC:

> "It's unfortunate that the crop of students enrolled in TVET institutions is going down in terms of quality. Much as I enjoy teaching, my level of satisfaction is low because most of the students we teach cannot express themselves thoroughly well in English and are incapable to do tasks assigned to them in the workshop and it is high time that TVET institutions had introduced weeding mechanisms similar to what university of Malawi does."

His views were supported by another interviewee who indicated that even the academic staff and administration of the TVET institution at which he was employed, regarding the quality

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of their graduates as being quite low. ATC interviewees added to this, emphasizing the importance of maintaining quality outputs (graduates) since, according to them, it was the quality of graduates which determined government, industry and stakeholder perceptions of TVET standards. By implication, these perceptions would have an effect on TVET profiles and their future sustainability.

5.3.5   *Conclusion*

In this section, I presented the findings emerging from my analysis of data on the quality of training at TVET institutions. The findings indicate that TVET input, processes and outputs are limited by several challenges at public TVET institutions. One of the findings is that current admission requirements are flawed in that they do not allow institutions to determine and/or verify students' eligibility for enrolment in terms of their existing qualifications and/or work experience (Fig 13: Training opportunities in TVET institutions). Respondents argued that the legal framework does not allow TVET institutions any autonomy to make decisions in this regard. Instead, they are compelled by the ministry to enrol students recruited by TEVETA even when these students do not qualify for access. Not only does this practice contravene institutional access requirements but, since it has resource implications it could potentially have a negative effect on the provision of quality of teaching and learning at TVET institutions.

The research findings presented here further suggest that lecturers at public TVET institutions are not well motivated, trained and/or engaged in enhancing the quality of training. Although there are gaps in the qualification of academic staff, inadequacy of qualified academic staff dominates TVET institutions. These findings are supported in the UNESCO (2010) report which highlights the fact that many academic staff members hold qualifications equivalent to the exit level of the programs they manage. TVET institutions do not have the mandate to recruit teaching staff: decisions are made centrally, by the Ministry of Labour. This inhibits the identification of qualified teaching staff by institutions. Thus, what is a key pre-requisite for quality learning provision is missing in TVET institutions. In the absence of motivated and qualified academic staff, it is therefore highly unlikely that TVET institutions would be able to provide quality teaching and learning.

Teaching and learning processes, which are the keys to learner transformation, are hindered by several problems in TVET institutions. There is little, if any, consolidation of theory and

practice since most students are unable to undergo placement in the industry. Furthermore, teaching and learning is negatively impacted by a shortage of available resources when measured against the increasing enrolment of students (UNESCO 2010). These challenges obviously impact on the quality of training in TVET institutions.

The observations made by academic staff reflected conclusions in the National Educational Sector Plan (2008) that the inadequate physical and financial resources hampered quality training, constituting a major challenge to TVET institutions. It is easy to realize what it requires to offer engineering programs without basic facilities like equipment/machinery, libraries, laboratories and student support needs.

In short, my research findings on this aspect of TVET teaching and learning indicate that the very existence of TVET institutions are threatened by challenges relating to the quality of TVET input processes and outputs and environments which are not conducive to effective teaching and learning. What are the implications of these findings for quality management systems and practices at TVET institutions? It is this question that I attempt to answer in the sub-section which follows.

5.4   Quality and internal efficiency in tvet institutions

5.4.1   *Quality of training provision in TVET*

Indications from my document analysis are that there are serious concerns on the declining level of skills of artisans and technicians from TVET institutions in Malawi (MOEST, 2009: 71). This was confirmed by the academic staff who participated in my study. According to them, it is imperative for TVET institutions to align their curricula, training techniques and review mechanisms to those of industry. Steps that could, according to MOEST (2009), be taken in this regard are summarized in Table 5.6.

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Table 5.6: Improve quality and relevance of TVET

5.1 Provide relevant skills to academic staff through continuous training	5.1.1 Provide in-service training to Directorate of Technical and Vocational Training (DTVT) and Technical colleges staff
	5.1.2 Attach instructors to industry
	5.1.3 Train instructors to degree level
5.2 Conduct regular curriculum reviews to match national needs and modularize courses	5.2.1 facilitate curriculum reviews, development and harmonization meetings
	5.2.2 facilitate development and introduction of programs
5.3 Reintroduce vocational subjects in primary curriculum to provide income generating skills	5.3.1 review and develop the curriculum 5.3.2 Rehabilitate workshops in secondary and primary schools with technical and vocational wings 5.3.3 Rehabilitate technical wings in teacher training colleges 5.3.4 Analyze and provide training tools and materials 5.3.5 Recruit and recruit TVET teachers in primary schools
5.4 Provide adequate training materials	5.4.1 Procure and supply training materials
5.5 Upgrade training machines and equipment	5.5.1 Service and repair existing machines and equipment
	5.5.2 Procure new training equipment and machines
5.6 Strengthen planning, monitoring and evaluation of programs	5.6.1 Conduct quarterly monitoring and evaluation of implementation of technical college budgets
	5.6.2 Prepare annual work plans and budgets
	5.6.3 Inspection of technical colleges

(Source: MOEST, 2009)

Management of both ATC and BTC were asked to describe some of the general practices that, according to them, either hindered or enhanced quality provision at TVET institutions. According to one participant, the general feeling is that the quality of TVET teaching and learning is below standard. Some of the pertinent factors that contributed to this situation, according to management, were unqualified teaching staff, poor preparedness of graduates coming to TVET institutions, old training equipment, inadequate teaching and learning materials and the challenges posed by the running of parallel curricular programs and examinations.

My document analysis revealed that the quality of TVET training is adversely affected by inadequate and inappropriate qualifications of teaching staff (Table 5.7) as well as the shortage of qualified staff at these institutions. ATC data indicate that about 60% of the available teaching posts were filled while the figure for BTC is 55%. Some of the vacant positions were occupied by temporary teaching staff recruited directly by the institutions.

Also, as indicated earlier, there are no teacher training colleges in Malawi that can train academic staff for or at TVET institutions. Most of the ATC and BTC teachers are graduates from the University of Malawi (The Polytechnic) or graduated from same TVET institutions. The University of Malawi offers a Bachelor of Technical Education meant for teachers who teach practical subjects at secondary schools. Moreover, the polytechnic curriculum is aimed at equipping these teachers with theoretical knowledge, not with the skills required by TVET teachers. Consequently, there is an overemphasis on theory at TVET institutions. Steps have, however, been taken to address this problem: the government and TEVETA, with the support of development partners such as the African Development Bank through its Higher Education Infrastructure Science and Technology (HEST) project, are jointly running upgrading courses which have the skills development of TVET teachers as purpose. (See **Annexure K**).

Table 5.7: Qualifications of Teachers in TCs (2007)

Highest qualification	% of all regular teachers in TVET colleges
Bachelor of Science in Technical Education	50.9
Diploma in Technical Education	36.6
Certificate in Technical Education	10.7
Others	1.8
Total	100.0

(Source: Education Statistics 2007)

During focus group discussions, both ATC and BTC management indicated that academic staff recruited by government were in most cases not appropriately qualified to handle TVET programs: they were better qualified to handle associated subjects such as Mathematics, English Communication and Technical Drawing.

On equipment availability, data indicated that both ATC and BTC use outdated and obsolete equipment. Most of the training equipment available in these institutions was provided by donors, such as the British government, in the 1980s, when apprenticeship training was introduced in Malawi. In addition to this, the Malawi government procured some equipment from India between 2008-2010 for all public TVET institutions and TEVETA also bought some equipment to support them.

Although, as indicated in my data, processes aimed at the accreditation of TVET programs are not yet in place but the TEVET Authority was, at the time of my study, working on an accreditation manual with a view to instituting such processes.

According to data obtained both from my document analysis and in management interviews and focus group discussions, the Ministry of Labour is responsible for the administration and management of public TVET institutions. It I therefore up to this Ministry to ensure that TVET institutions have enough qualified academic staff members, sufficient equipment and tools, and adequate facilities. It is also up to the Ministry to provide additional training as stipulated in the TEVET Act. The Department in the Ministry of Labour in which this responsibility is vested is the Department of Technical and Vocational Training (DTVT) but, due to insufficient financial resources and the absence of qualified inspectors, it has not been effective in the execution of these responsibilities.

5.4.2   Governance and management in TVET institutions

According to UNESCO (2006), the TEVET Act (1999), in terms of which the TEVET Authority was established, created the legislative framework for such an Authority. The Authority was established as an autonomous body to respond to and meet the requirements of a range of stakeholders – the education sector, the private formal and informal sectors, and the labour sector. In terms of the 1998 TEVET policy of 1998 and the TEVET Act of 1999, the Authority's mandate was to develop policy, regulate TVET, quality assure and facilitate training. It was not, however, required to be directly responsible for the delivery of training. In addition to this, the Ministry of Labour, through the Directorate of Technical and Vocational Training (DTVT), was given the mandate to oversee the implementation of TEVET policy and to coordinate infrastructure development at TVET institutions.

Indications from my research findings were that the management and governance of TVET institutions pose a greater challenge to TVET planners than anticipated. According to a report by the World Bank (2010), the management and governance in TVET generally create considerable problems for policy makers. Skills development cannot be achieved and implemented without the involvement of the industrial sector. In order to ensure that TVET training responds to labour market requirements, people who are TVET knowledgeable must be involved in the organization, planning and implementation set-up of the TVET system. According to information available, fundamental problems in the TVET system have escalated, with TVET institutions battling to live up to expectations due to staff shortages, un- or under- qualified academic staff, insufficient and inadequate teaching resources, the running of parallel TVET programmes resulting in different qualifications, and inadequate apprenticeship placements. Specific challenges in this regard, some of which are listed below, makes it impossible for them to creatively address these challenges.

- TVET institutions are forced to open three different bank accounts in order to reflect revenue received from Treasury and the TEVET Authority as well as income generated by institutions themselves. Tuition fees obtained from parallel students are kept into parallel unit accounts and they are allowed to flexibly use funds from these to pay for unexpected expenses.
- TVET institutions are required to provide boarding to government-recruited students and this constitutes a large share of institutional budgets (**See Table 11**).

- There is a high staff turnover at TVET institutions, with qualified staff joining competing industries in pursuance of better salaries. Moreover, institutions lack the autonomy to directly recruit academic staff since this is centrally done at ministerial level.

5.4.3   TVET Funding mechanisms

According to UNESCO (2013), the TVET system derives its funding from various sources: from public expenditure, tuition fees, TVET levies (calculated at 1% of payroll) and donors (Fig. 5.13). TEVETA largely depends on TVET levies to finance TVET activities, including training at TVET institutions. Information availed from the Authority indicates that the TVET levy is not effectively managed: not all employers, government for example, pay their levies. This validity of this information was confirmed during my interviews with officials representing the Authority. According to them, the private sector contributes over 80% of the total TVET fund (Table 5.8) which, according to them, is commendable.

Table 5.8: TVET funding sources

(Value of currency in Malawi Kwacha)

	2003/3	2003/4	2004/5	2005/6	2006/7
Levy from public sector	30,000	30,000	25,000	44,850	23,373
Levy from public sector	31,589	97,153	160,331	211,100	248,659
Other income	25,039	22,230	19,771	14,234	12,421
Donor support	5,351	19,546	14,930	25,480	13,224
Total income	101,979	168,929	220,033	295,663	297,676

(Source: TEVETA Secretariat)

5.4.4   *Access to TVET provision*

Projections included in the National Education Sector Plan (MOEST, 2009) suggest that there will be an increase in Malawian youth seeking access to TVET between 2008-2017 and that, to accommodate these numbers institutional infra-structure will be rehabilitated. According to the World Bank (2010), current gender disparities in the education system, including TVET, will also have to be addressed, since female students at TVET institutions represent less than 13% of TVET graduates. Although females make up 52% of the country's population, there is a problem in this regard: more than 50% of women are illiterate, thus making it impossible for them to study at TVET institutions.

Malawi has seven public TVET institutions, three of which are grant-aided and managed by churches, and the rest government-owned. All the institutions recruit students (formal recruitment) through TEVETA. However, TVET institutions also recruit their own students as an income generating stream and these students pay much higher tuition fees than those recruited through TEVETA. Admission of formal students depends on bed space available in boarding facilities., thus limiting public TVET institutions from admitting more students. Enrolment is, moreover, negatively affected by inadequate TVET equipment and infrastructure, thus it remains low - at 35 per 100,000 people, the lowest in the SADC region (World Bank, 2010).

Data on access and gender in TVET programs indicate that females are more inclined to enroll in parallel programs which focus on the acquisition of 'soft skills', whereas males dominate programs focusing on technical trades which have more males than females. To address this imbalance, TEVETA introduced some affirmative action plans, which resulted in an increased proportion of females obtaining Malawi Craft, and Malawi Advanced Craft Certificates - from 11% in 2003 to 25% and 23% respectively in 2007. Trade Test records indicate that there was also an increase in the number of females registering and completing traditionally male-dominated programs such as Brick work, Electric Installation and Automobile Mechanics (World Bank, 2010).

Table 5.9: Number of Regular and Parallel Students **(2007)**

	Male	Female	Total
Regular	1,288	522	1,810
Parallel	2,179	818	2,997
Total	3,467	1,340	4,807

(Source: Malawi Education Statistics 2007)

In accordance with the National Education Sector Plan (2009), TVET is supposed to benefit the youth in and out of school with a view to satisfy the needs of industry. Several challenges currently inhibit TVT institutions from doing so. In the first instance, the general operation and management of TVET are unsystematic, resulting in the inadequate funding of and poor linkages between and among the range of TVET stakeholders. Consequently, institutional training facilities are sub-standard. The management and governance 'machinery' being inadequate, resulting in TVET institutions receiving 1% of the levy meant for the provision of training.

In the second instance, TVET institutions continue to use the old curriculum, also due to inadequate funding. Not only does this contribute to the delivery of TVET graduates who are unable to perform as expected in industry, but it also forces them to follow three different programmes and sit for three different examinations in order to improve to meet industrial requirements.

In the third instance, there are no technical teacher training colleges dedicated to the training of TVET teachers; instead, TVET institutions depend on the Malawi Polytechnic to provide them with technical teachers but, given the theoretical orientation of the Polytechnic, these teachers are biased in favour of the teaching of the Sciences and Mathematics.

In the fifth instance, due to inadequate funding, TVET institutions have neither adapted their curriculum – to mainstream Science and Technology – nor amended their infra-structure (boarding facilities, in particular) in an attempt to rectify current male-female imbalances. Because of their inability to respond to equity issues like these, their student intake numbers have dropped.

Documents, to which I had access during the course of my study, the National Education Sector Plan (2008) and TEVET Policy (2013) in particular, were used as basis for the assessment and evaluation of quality management practices at TVET institutions. Using the four pillars on which these rest - governance, access and equity, quality and relevance, and funding mechanisms – as reference points, I came to the conclusion that here is hardly any evidence that the principles informing these strategic pillars are prioritized at TVET institutions.

Firstly, as regards governance and management, my empirical research findings suggest the need to review the TEVET Act, enhance/expand private sector involvement in TVET, reform the governance mechanisms of TVET, and improve the internal efficiency of the TVET system in order to sustain and develop an efficient and effective TVET system in Malawi.

Secondly, with regard to quality and relevance, my analysis of documentary evidence suggests the need for proper inspection and supervision mechanisms, the rehabilitation of infra-structure and adequate staffing, all of which are critical quality management factors. Data generated during interviews indicate the need to improve staffing levels, management, the provision of teaching, learning and equipment and, as participants indicated, the alignment of curriculum delivery to the demands and requirements of industry.

Thirdly, the empirical findings of my study supported the notion that access and participation in TVET is an important strategic pillar in enhancing TVET provision. My findings indicate that access and participation at TVET institutions are poor with insufficient numbers of students having access to training at TVET institutions. This is due to limited bed space and

inadequate infrastructure. Management of both ATC and BTC were of the view that strategic priorities needed to promote access include the construction of more TVET institutions, the empowerment of vulnerable groups in society with employable skills, and the strengthening of linkages with general education to ensure a clear pathway to TVET.

5.5   Quality assurance mechanisms at TVET institutions: past and present

According to UNESCO (2010), the history of quality assuring training at TVET institutions in Malawi could be traced back to the time of their establishment in the 1960s. ATC was the first institution to be established in 1963, as a government institution. This was followed by BTC some years later. As government was responsible for determining the requirements of these institutions regarding admission of students, recruitment of staff, curriculum development and review, conditions and methods of teaching and assessment criteria, the Ministry of Education, academic departments within institutions and industrial training unit were the main players involved in the assurance of quality training. According to documents sourced from the two institutions, institutional academic calendars, student recruitment, the apprenticeship scheme and examination system model were some of the policy mechanisms created to assure quality training. This indicates that, although there was no formal quality assurance system in place, TVET institutions had some internal mechanisms aimed at maintaining the quality of training, thus the responsibility to ensure quality was largely left in the hands of the academia within TVET institutions (TEVETA, 2004).

Although the establishment of internal quality assurance processes was the responsibility of the department responsible for technical and vocational training in the Ministry of Education there is no documented evidence indicating the existence of a regulatory framework at either institutional or national levels during the period before TVET reform in 1999. As time progressed, it became evident that graduates from TVET institutions did not have the skills required by the industry, hence the latter argued that TVET institutions were not producing graduates who are required in the labour market. It was this state of affairs which prompted the government to evaluate the entire TVET system.

The first step was to review studies conducted and funded by the Danish International Development Agency (DANIDA). This review indicated that the Malawi TVET system was incoherent, fragmented and did not address the needs of industry. Neither did it have

sustainable funding systems in place, notwithstanding the inclusion of several stakeholders in the system.

The second step was the development of a government TEVET policy (in 1998) and, later, in 1999, the TEVET Act. Since its inception, TEVETA has facilitated the implementation of TEVET policy in order to promote quality TVET in Malawi. The TEVET Act, having put in place a legal framework for the development and implementation of quality assurance mechanisms at TVET institutions led to whole-scale systemic reforms, including reforms to curriculum development, assessment and funding mechanisms (TEVETA, 2004).

The TEVET Act promulgated in 1999 serves as the foundation for quality improvement at TVET institutions in Malawi (TEVETA, 2004). At the heart of the TEVET Act is the provision of quality training, that is, ensuring that training produces graduates who are capable of fulfilling the needs of industry. In this context, assuring the effective implementation of the TEVET policy and Act is the TEVETA mandate. It is because of this regulatory framework that TVET institutions are required to establish and use internal quality assurance mechanisms to ensure the provision of quality teaching and learning at their institutions.

5.6   Adequacy of internal quality assurance processes at TVET institutions

As indicated in the preceding section, my research findings indicate that the quality of TVET input, processes and output is hindered by several challenges, thus compromising the quality of teaching and learning at the two TVET institutions targeted in my study. These findings bring the adequacy of quality assurance mechanisms at TVET institutions into question. The main issue of this section is, therefore, to critically assess the actual quality assurance processes prevalent at TVET institutions, using the results of my qualitative and quantitative data analysis as basis. The section following this one presents my findings on the assurance of quality through the improvement of the key training processes that impact on teaching and learning. The effectiveness of these concluded this section, whereas the overall conclusions are presented in the final section.

In the first of these three sections, I used data collected from TEVETA officials, academic staff and management of the two institutions separately to find out the extent to which they, as members of the TVET system, were acquainted with the quality management system and

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its implementation in their particular institutions. It is on their responses in this regard, collected during interviews and by means of questionnaires – that the subsequent sub-sections focus.

In order to obtain relevant and rich data for my study, I organized two focus group discussions at each TVET institution: one for academic staff, and one for the management team. Questions posed to academics attached to one institution were also posed to their counterparts in the other institution. The same rule prevailed for the management focus group discussions. In each case the views expressed were subsequently synthesized in relation to the questions asked.

My research findings indicate that the quality of TVET training is hindered by a number of challenges, thus raising questions about the adequacy of quality assurance systems and their implementation. My aim with this study was therefore to identify and critically analyze the reasons for this failure. To this purpose, I collected data from multiple sources.

As outlined in previous sections, TVET institutions in Malawi have to institute and implement internal assurance improvement mechanisms. The adequacy of internal quality assurance processes is directly proportional to the degree by which training institutions focus on enhancing the quality of training. In this study, research data on policies, institutional arrangements, methods and procedures aimed at enhancing the quality of training at the two TVET institutions were analyzed.

5.6.1   *Utilization of quality assurance methods and procedures*

In this section the researcher presented an analysis of data on the experience of TVET institutions in the application of quality assurance methods, procedures and mechanisms. The researcher presented academic staff with a list of criteria to determine the extent to which they understood/interpreted the application of quality assurance methods, procedures and instruments at TVET institutions.

Table 5.10: QA methods and procedures as perceived by academic staff

QUALITY ASSURANCE METHODS AND PROCEDURES AS PERCEIVED BY ACADEMIC STAFF				
Methods	**ATC**	**BTC**	**YES**	**Total**
Need assessment for program/curriculum design	30	30	15	60
Regular program/curriculum evaluation/ review	30	30	10	60
Assessment of learning outcomes	30	30	60	60
Consultative meetings with key stakeholders	30	27	24	57
Institutional self-assessment	30	30	10	60
External examiner	30	28	45	58
Alumni survey	30	30	18	60
Exit interviews with prospective graduates	28	30	20	58
Colleague evaluation of teaching	30	25	32	55
Student evaluation	28	30	55	58
SWOT analysis	30	30	12	60

Several parameters were set in this regard in order to determine which quality assurance methods and procedures were used by each of these TVET institutions. Table 5.10 above indicates the findings of the data illustrated quantitatively. The findings reveal that student evaluation and assessment of learning outcomes are the commonly used methods for assessing quality in TVET institutions. Assessments of program design, regular program and curriculum reviews, consultative meetings with key stakeholders, and institutional self-assessment had low ratings, implying that these methods are not widely used at these institutions. Interviews I conducted with academic staff in order to determine their satisfaction with the methods and procedures employed at their TVET institutions indicate

some dissatisfaction: the extremely low parameters indicate that TVET institutions do not fully utilize quality assurance methods. Most of the academics interviewed indicated that there were no procedures in place with regard to the development and publication of manuals; no regular staff meetings were held either at institutional or departmental level, and there was no prospectus or academic almanac at either or the two institutions. Even the orientation of new academic staff is not well coordinated since recruitment is centrally controlled from the Ministry of Labour and Manpower Development. This suggests that TVET institutions either do not have established procedures or mechanisms in place to facilitate academic staff involvement in various training activities within the institutions, or that they do not use the ones which are in place.

According to academic staff from ATC, their institution has a Quality Assurance Committee which looks into all academic issues but that they had never seen the steering guidelines. The committee, according to them, only meets when it wants to discuss examination issues. Implied in this is that the committee is clearly not functional so it might as well be non-existent. According to them, although their institution does not have a quality manual in place it is in possession of relevant documents. These documents are, however, not given to, or shared with academic staff. They indicated, moreover, that although there were no specific institutional procedures in place they, as individuals, sometimes set standards that students should follow in an attempt to improve the quality of academic offerings. An example of this is to insist that students should complete all the tasks set in order to achieve all the learning outcomes required for them to pass a module.

Contrary to this, TEVETA respondents indicated that TEVETA had a range of methods and procedures in place to assure the quality of training at TVET institutions. According to one participant, TEVET subsidizes the resource requirements for public and private training institutions in a number of ways.

- First, TEVETA has a training subsidy for every student attending training at institutions across the country to ensure that TVET institutions buy training equipment and tools relevant to the training provided since these tools impact positively on learning.

- Second, through the sub-committee of the Board, the capacity of trainers is considered in terms of supporting both long- and short-term training. Consultations are also in the

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pipeline through the Ministry to possibly establish a technical teacher training college in Malawi as is the case in other countries like Zambia and Zimbabwe.

- Third, the registration of training institutions helps institutions to recruit qualified trainers which will make training institutions to deliver quality teaching. TEVETA therefore safeguards the budget to make sure that funds are going into actual training.

- Fourth, whenever a specific gap is identified with regard to the delivery of learning outcomes, TEVETA has a budget which allows training institutions to outsource the delivery of training to support learning. Also, trainers are given opportunities to develop by attaching them to industry to enhance and build their skills while maintaining their currency.

As to whether TEVETA conducts institutional audit, the respondent indicated that TEVETA had not as yet developed a TVET Audit Framework, it had:

> *"At one time, TEVETA instructed institutions to put in place Quality Assurance Committees but they are not vibrant. However, TEVETA conducts CBET audits in order to check teaching and learning delivery in TVET institutions. However, institutional goes hand-in-hand with accreditation which has not yet taken off."*

Another TEVETA added that the Authority had some guidelines in place, citing the setting up of a Sector Advisory Committee whose role it was to identify the training needs of the industry. As to methods and procedures, TEVETA participants indicated that research data on what is to be done had been collected and was available; that guidelines for implementing and assuring quality have been developed, and that monitoring and inspection were key methods used by TEVETA to assure quality training. TO4 echoed these sentiments, adding that TEVETA had developed implementation guidelines for assessment, curriculum development and the registration of training institutions.

Indications from these interviews and focus group discussions were, therefore, that TEVETA had methods and procedures in place to assure quality. These included the provision of a TVET subsidy for training, the registration of TVET institutions, TVET funds to support training, the development of TVET guidelines, tools and research initiatives to identify gaps in training, and CBET audits and monitoring. Participants insisted, however, that institutions do not carry out exit interviews and do not conduct alumni surveys to evaluate the quality of programs offered at their institutions.

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5.6.2   Institutional self-evaluation

The TEVET Act (1999), Section 11(g), mandates the TEVET Authority to regulate technical and vocational training in Malawi. The Act requires the authority to prescribe rules and guidelines with respect to the registration and accreditation of TVET institutions and programs and also to conduct inspections of TVET institutions. The regulatory framework is aimed at ensuring that TVET institutions develop and implement internal quality assurance processes in that it requires every TVET institution, both public and private, to periodically carry out quality assessments and self-evaluations of its teaching provision, programs and all support processes. They are, moreover, required to conduct these processes in accordance with the stipulations of the TEVET Act (1999). According to both UNESCO (2006) and the World Bank (2010), there is, however, a gap in the regulatory and operational governance of the TEVET Authority because it has not become the fully overarching regulatory body it was originally intended to be.

Institutional self-evaluation is a new phenomenon in TVET institutions in Malawi notwithstanding the fact that the TEVET policy of 1999 stipulates that TVET institutions should carry out institutional self-evaluation as required by TEVETA. What emerged from participant interviews and my analysis of documents is that TVET institutions have never conducted any self-evaluation related to the relevance and quality of their programs. Neither has there been a comprehensive review of the programs offered to determine whether or not they provide the kind of graduates needed in the industrial sector. Furthermore, institutions do not carry out periodic assessments or SWOT analyses to check on and/or identify their strengths and weaknesses; hence their strategic plans serve no function whatsoever.

Interviews with academic staff indicated that they primarily use student evaluation as an indicator of quality assessment at their institutions. It was clear from the focus group discussions that academic staff were unaware of other methods that could be used in the evaluation of student improvement. On the one hand, this signals the inability of academic staff to sensitize students to the role they could, and should, play in the enhancement of institutional quality. On the other hand, it signals the inadequacy of current quality assurance practices at their institutions.

TEVETA participants implicitly reiterated what academics thought and felt. According to them, TVET institutions did not self-evaluate education and training at their institutions. One

of them, TO1, said that some institutions do carry out self-evaluation and that institutions are supposed to submit periodic reports to TEVETA but that this does not happen. Another, TO3 said that he did not know whether self-evaluation as done at training institutions.

> *"If you go to the institution and meet the Principal, and ask how far training delivery has gone in terms of module coverage, it's like he is not in the know and in most cases the Principal does not know how far students have progressed. How can he address challenges if he is not knowledgeable of the progress of the training? In other words, TVET institutions are supposed to be managed by technical managers rather than administrative managers who only have keen interest in issues of procurement rather than lesson planning, schemes of work."*

According to these participants, the root of the problem was the prevalent conflict between TEVETA and the Directorate of Technical and Vocational Training (DTVT). Since institutions are more accountable to DTVT than to TEVETA, it is difficult for TEVETA to instruct training institutions to conduct self-evaluation exercises.

5.7 Efficacy of Quality Assurance processes in TVET institutions

As indicated in the TEVET Act of 1999, the aim of internal quality assurance at TVET institutions is the promotion of quality teaching and learning. In this section, I therefore focus on the effectiveness of quality assurance processes, presenting my findings on the effectiveness of current quality assurance systems in terms of the extent to which they achieve the objectives they were supposed to.

Regarding institutional engagement, academic staff members were asked to assess the implementation of quality assurance activities at their institutions against the list of parameters given. What emerged from this assessment are indications that neither institutions fully execute any of the listed activities. Although, according to participants, staff meetings are regularly held, discussions do not really focus on quality assurance issues. Moreover, according to them, their institutions do not have well-developed teaching evaluation systems aimed at the identification of strengths and weaknesses, hence they do not know what these are and/or whether corrective action is necessary. In this regard, one of the participants indicated that there was also no system or procedures aimed at the monitoring of teaching

and learning to determine what is effective or ineffective, and/or whether there should be any rewards or penalizations in this regard.

As for curriculum review, participants indicated that their institutions did not conduct curriculum reviews but that TEVETA facilitated and championed curriculum review processes. The lack of documented evidence - curriculum review and/or benchmarking reports – confirmed their comments in this regard. They indicated that authentic quality assurance processes should involve all the stakeholders in an institution. Concerning this, ATC and BTC participating academics ascribed the fact that this was not happening to poor institutional leadership and the subsequent lack of commitment by academics to engage in quality assurance activities. Informing these comments was general agreement amongst participants that effective leadership and staff commitment are crucial to the effective implementation of internal quality assurance processes at TVET institutions, as were collaboration and the sharing of responsibility with various stakeholders. My analysis of questionnaire data indicates, however, that none of this happened at these two institutions.

Further indications from my data analysis were that there were no staff recruitment and student admission policies that would enable institutions to recruit qualified staff and/or admit students as per their plans. This, according to participants in focus group discussions, was because TVET institutions did not have the autonomy to recruit staff of their choice; instead, the Ministry instructed them which staff to appoint, while TEVETA recruited students and decided who should or should not be admitted to which institution.

My overall findings indicate, therefore, that TVET institutions do not have formal and effective internal quality assurance mechanisms in place to promote the quality of training. By implication, current implicit and informal practices aimed at assuring the quality of TVET instruction had little chance of making any difference to the quality of TVET training and the quality of graduates emerging from these institutions.

5.7.1 Survey findings

Concerning institutional engagement, staff members of the two institutions were asked to assess the implementation and effectiveness of quality assurance activities against specific parameters. Their responses indicated that there was no implementation of quality assurance activities at either institution. More than half of the BTC and approximately two-thirds of the

BTC respondents referred to it as "inactive" notwithstanding the fact that some structures had been put in place to this purpose. When asked about the engagement of their departments in quality assurance activities about 60% of the BTC and 70% of the ATC respondents indicated that engagement was minimal.

As to institutional self-evaluation, with specific reference to whether or not it should be informed/directed by the four TEVETA strategic pillars, participating academics staff indicated that they thought the four pillars could improve the TVET profile in the country. The pillars could also, according to participants, help to shift the current, supply-oriented TVET system to a demand-driven one. However, according to them, the pillars informing funding, quality and relevance did not seem to be effective since there are no indications that TVET operational activities – the establishment of quality structures, capacity building of staff through staff development and teaching and learning provision – are improving.

In addition to this, according to participants, TVET teaching and program evaluation mechanisms do not lend themselves to the identification of gaps and/or areas of strengths which could indicate which corrective steps should be taken and/or where rewards to be bestowed for teaching of good quality. Elaborating on this aspect during focus group discussions, participants complained that "lecturers are not monitored during teaching and there is no checking of lesson planning by the head of academics", and "there are no evaluation tools to check progress of teaching and learning but the institutions rely on verification tools developed by TEVETA". These comments confirm the findings I presented in Section 5.5, namely that the instruments needed to enforce and assess the effective implementation of quality assurance practices are lacking at these two institutions; instead, they depend on TEVETA manuals to guide them.

The objective of functional quality assurance systems should be the promotion of quality teaching and learning. This does not seem to be the case in current quality assurance practices at the two TVET institutions targeted by my study. Research findings indicate that the TEVET Act of 1999 required TVET institutions to set up and implement effective internal quality assurance systems to improve internal institutional teaching and learning processes since quality promotion is about the continuous improvement of education and training through teaching and learning. While the TEVET Act provides lays the ground for policy which could direct/guide the establishment of quality assurance structures, mechanisms,

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procedures and processes, there is no evidence of this happening at TVET institutions. By implication, there is a gap between what is required and what TVET institutions are actually doing with respect to assuring and ensuring the quality of their training.

In confirming documentary data, interviewed participants from TEVETA and TVET institutions disclosed that neither do TVET institutions carry out self-evaluation exercises nor does TEVETA conduct periodic quality audits. The reason for this may be that TVET institutions have not been sensitized to, or trained in ways of conducting institutional self-evaluation, while the TEVETA staff component seems inadequate for the facilitation of quality assurance processes.

An appropriate and effective quality assurance system focuses on key educational processes which positively impact on student outcome. However, this is not the situation in the current quality assurance systems of the target TVET institutions. The findings suggest that the quality of training processes, i.e. teaching and learning provision and assessment methodologies, is ineffective in terms of enhancing student learning outcomes. Furthermore, existing practices aimed at ensuring and assuring the quality of training – staff evaluations of teaching, reviews of curricula, and institutional self-evaluation - are not working well to enhance quality training.

A consistent quality assurance policy, coupled with effective institutional arrangements, creates the ideal condition for effective quality assurance. My research findings indicate, however, that the development of quality assurance processes, policies and structures at TVET institutions is non-existent and that there are no formal committees with the responsibility to conduct quality evaluations. Further to that, TVET institutions do not have the capacity to conduct self-evaluations as required by TEVETA, and student enrolment and staff recruitment policies are not available. The reasons for this, according to participants, is that, since the mandate to recruit students' lies with TEVETA, and staff recruitment is centrally done by Ministry of Labour and Manpower Development, institutions do not need policies or structures in this regard. Consequently, the policies and structures that help to support and improve quality training are missing at public TVET institutions.

A successful quality assurance system is one which promotes sharing of information with all stakeholders regarding quality of training in TVET. This includes published reports.

Analysis of documents in TVET institutions showed that there is lack of well-established systems that promote accountability. In summary, my overall findings were that the conditions required for good practice that support quality assurance are not representative features of current quality assurance practices at public TVET institutions. This indicates a gap between what TVET institutions are currently doing and the expected good practices required for quality assurance. Hence, the prevalent and existing quality assurance practices in TVET institutions are ineffective and inadequate.

Regarding curriculum review, TVET institutions have adopted procedures and mechanisms developed by TEVETA because, according to participants, TEVETA does not carry out its mandate to periodically review the curriculum and/or to conduct needs analyses which involve stakeholders from industry and other training institutions, Because of the inefficiency of TEVETA, TVET programs are rendered ineffective in terms of their alignment to the requirements of industry.

In conclusion, my summarized findings show that TVET institutions lack the formal, functioning internal quality assurance mechanisms needed to spearhead the provision of quality teaching and learning. As indicated in Section 5.3, the quality of inputs, processes and outputs of TVET institutions is hindered by limited physical and financial resources, thus institutions are unable to upgrade the quality of their training and/or enhance student learning.

5.7.2   *Models underpinning current quality assurance practices*

Following the findings revealed, TVET institutions do not have formal quality assurance systems as presented in the previous section and this section describes some of the models that could be used to this purpose. To determine whether any of these models are used at these institutions, academic staff was asked to explain whether their respective TVET institutions are using any of the following quality management models to ensure the maintenance of quality academic offerings: TQM, ISO, Balanced Scorecard, or EFQM, all of which were described in my review of literature summarized in Chapter 2.

Table 5.11: Quality management models as perceived by staff

MODEL	ATC		BTC	
	Yes	Total	Yes	Total
ISO 900	0	30	0	30
TQM	0	30	0	30
EFQM	0	30	0	30

Focus group discussions with academic staff indicated that neither of the two institutions participating in my study was using any quality management framework or model to quality assure their programs and/or to establish institutional quality assurance mechanisms. According to one of the BTC participants, *"the institution does not have a quality assurance model for use. But we implement regulations developed by TEVETA"*. This was supported by another participant from the same institutions, who added that they, *"as members of the institution ... do not fully know what quality assurance models are and that could be the reason for failure to conduct institution self-evaluation as this rests with TEVETA to sensitize TVET institutions on what models of quality assurance to implement"*.

What these comments indicate is that the two institutions concerned do not have quality management frameworks or models in place, probably because they have no knowledge of any such model or the ways in which models like these could enhance the quality of institutional training. Despite this, they are still required, as stipulated in the TEVET Act and the policies of the TEVET Authority to develop and implement quality assurance mechanisms based on models.

5.7.3   *Comparing actual to good TVET quality assurance practices*

The term, 'actual quality assurance practices' refers to what is currently happening at TVET institutions, while 'good practices' refer to what quality assurance literature considers the norm for appropriate and effective quality assurance. This norm is constituted by a number of conditions, described in the sub-sections that follow, which are regarded as critical to internal quality assurance.

5.7.3.1   Involvement of leadership and staff

According to MOEST (2009), quality TVET delivery is negatively affected by the manner in which the allocation of equipment at TVET institutions is determined and managed (currently centrally determined rather than needs-led), ineffective school leadership, the sub-standard delivery of the curriculum, and the unavailability of teacher training, all of which cripple service delivery in institutions. TVET institutions currently rely on traditional technologies, and while these are significant, the use of information and communication technologies (ICT) is undetectable in TVET programs. This is a major problem given that, in a few years' time, there will be a demand for graduates with IT and generic skills in all Malawi industries.

Effective quality assurance processes require the active involvement and commitment of all employees. Academic participating in my study, when asked for their opinions on institutional leadership and the commitment to quality assurance activities, indicated their dissatisfaction with both. BTC management staff emphasized the important role that institutional leaders play in fostering commitment to the achievement of quality teaching and learning. Their institutions had a Principal who, according to them, was responsible for the overall administration and management of the institution, including issues of quality assurance. Assisting him in this regard were the Deputy Principal, Heads of various faculties, and a Quality Assurance Committee. Together, according to these participants, these managers had to ensure that all the necessary resources were available and that the staff was motivated to meet their objectives. According to them, leadership is a key factor in the implementation of quality assurance, therefore the leadership at their institution should accept the responsibility to establish and manage requisite quality assurance systems, procedures and mechanisms. They indicated, though, that at their institution, the fact that teachers had not been sensitized to the role that quality assurance systems play in the improvement of teaching, learning and institutional 'products' (graduates), hinder the establishment of such systems. In fact, a lack of cooperation from academics, who use their teaching workloads as a reason for not spending more time on quality assurance activities, makes it very difficult for the Quality Assurance Committee to carry out the task.

When asked to suggest ways in which awareness could be increased, these participants, who represented institutional management, agreed that leadership was an important factor in this regard, and that it is the responsibility of institutional leaders not only to convince staff members of the need for quality assurance systems but also to ensure that these are

implemented and utilized. In other words, institutional leaders should have a strategic vision regarding the institutions they manage, and be able to take the necessary steps towards the realization of this vision. They added that TEVETA had put a strategy in place to guide management in the implementation of quality management processes. It had also developed a curriculum to guide teachers in the continuing education stream towards quality teaching and learning. According to them, departmental heads work loosely with external, TEVETA-assigned verifiers, who use verification forms to check assessment of students, to quality check teaching and learning provision. As far as they were concerned, therefore, leaders at their institutions were doing their job to the best of their ability.

Regarding the governance of TVET institutions, participants hinted that most leaders at TVET institutions did not have the requisite management skills to manage institutions. They attributed this to a lack of refresher courses and the fact that most TEVET institutional managers lack the necessary technical and vocational acumen. In this regard, they complained that some leaders at TVET institutions were not promoted on merit but mostly due to their connections with high authorities, a practice which, according to them, had a negative effect on internal quality assurance implementation.

On how to promote the process of implementing QA at departmental level, the respondents argued that leaders should do this by monitoring teaching and learning, having meetings with staff, and engaging students in informal discussions. They indicated that, although student feedback forms were available, these were not used; instead, external verification of student feedback is facilitated by TEVETA. Elaborating on this explanation, participants referred to the operations of the CBET committee. This committee, which serves as a bridge between TEVETA and TVET institutions, is responsible for the collection of data on module coverage. Whenever TEVETA therefore wants information from the institution, they go through the committee, but there are always problems with staff members who are unwilling to cooperate with TEVETA, and/or provide them with misinformation. A case in point is that, when teachers are asked to fill in assessment forms to show that assessment had taken place, they falsified information because they had not conducted any assessment. As a result, the system is undermined and quality suffers.

The roles and functions of management, including departmental heads, according to ATC management included the monitoring and evaluation of teaching and learning, ensuring that

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every request from academic staff is attended to and processed, ensuring the recruitment of qualified teachers, and looking into the welfare of staff. When asked whether the current way of doing things in the institution contributed to the promotion of quality, these participants expressed the view that:

> "There is no satisfaction of staff due to inadequate funding; while there is inadequate funding, there is no prioritization even with the limited available resources; what is budgeted is not what is procured and there is high staff turnover especially in academic wing."

The ATC management participants argued, moreover, that internal quality assurance implementation is dependent on the regulatory forces from government. Accreditation, for example, was a significant tool to force TVET institutions to dedicate their efforts on ensuring the quality of their output by setting up internal quality assurance system. Moreover, according to them, institutions would work even harder at this if the results of accreditation were made public, since their accreditation would end out a positive message about the quality of the institution, thus enhancing their image/profile, and ensuring the confidence and support of their shareholders.

On the importance of leadership in the implementation of internal quality assurance, the majority of respondents support the notion that institutional leaders play a key role in enhancing the quality of teaching - through monitoring and evaluating the teaching process, recruiting qualified staff, ensuring that resources are available, motivating staff and driving the strategic vision of the institution – and getting 'buy-in'/ commitment from teaching staff in this regard.

My research findings implicitly validate these sentiments, indicating that ineffective supervision and poor commitment by institutional heads negatively affects internal quality assurance implementation. What these findings uncovered was that the TVET institutions included in my study had not embraced the promotion of quality assurance. Instead, data collected indicate the failure of institutions to develop quality assurance tools for teaching and learning and/or to conduct regular self-evaluation exercises. As illustrated in the summary table 5.10, institutions do not as a rule engage in any quality assurance activities and, even if they have supervision mechanisms and/or processes related to internal quality assurance in place, these are ineffective. In addition to this, there is little, if any, evidence of

shared responsibility, coordination, staff involvement or effective leadership in their implementation of quality assurance.

5.7.3.2 Devolution of responsibility

The management team of ATC indicated in their response that the issue of roles and responsibility starts from the recruitment of especially members of academic staff, who are directly recruited by the institution. According to them, there is a clear devolution of responsibility in the institution, and management is there to make sure that the right people are recruited for teaching positions. They added that management is involved in the monitoring of the teaching and learning processes taking place in various academic departments and that, to this purpose, they use schemes and records of work as frames of reference. Furthermore, the Academic Head has the responsibility to make sure that lesson plans are available and that teaching staff do attend classes. Heads of departments who form part of the management team are responsible for the development of departmental registers and also have to ensure that teaching is progressing well. They are also responsible for the supervision of section heads: the latter are required to deliver reports to their Heads of Department on every activity related to program delivery in their sections, The Heads of Department then then report these to the Academic Head. Moreover, Management has to ensure that the necessary resources for teaching and learning are available, acquiring these in accordance with the need of the department concerned. In doing so, they ensure the quality of teaching and learning.

In short, according to the ATC management team members who participated in my research, their functions include the acquisition of learning materials, the supervision of classes, attending to disciplinary issues, allocating workload to academic staff based on their capability, ensuring that equipment is available for teaching, and providing a conducive learning environment. Asked whether they used feedback forms during supervision and monitoring, the group responded that the institution does not use feedback forms as they are not available.

BTC management team participants confirmed that the Academic Head plays a key role in ensuring that quality is devolved. S/he does this by delegating activities to Heads of Department who, in turn, work hand in hand with section heads. According to them, the Heads of all departments work closely with section heads and teachers and have the authority

to make decisions related to their departments, by recruiting teachers and reviewing curricula, for example. According to them, this facilitates decentralization within the institution.

Management of both institutions added that the provision of learning materials enables teachers to ensure quality teaching and learning. The role of management in this regard is to make sure that people with the right skills are allocated to the different classes.

With regard to the devolution of responsibility, management strongly shared the view that the following factors contribute positively to the implementation of quality assurance processes: the acquisition of learning materials, supervision of classes, attending to disciplinary issues, allocating workloads to academic staff, availability of facilities for learning, and a conducive learning environment.

5.7.3.3   Degree of centralization

MOEST (2009) reports that public TVET institutions are locked in a centralized system of management, with little or no autonomy. Evidence of this is that not only are teachers are appointed and deployed centrally, but planning for the provision of equipment also takes place at central level. New equipment is not procured in response to institutional needs or requests, but as and when such is available. The same goes for the rehabilitation of old equipment. Centralization is also evident in the way funds are allocated, preventing TVET managers from being creative of innovative. They are not, for example, allowed to create their own networks or partnerships with industry.

Management of BTC indicated that, at their institution, there is dual centralization, from government on the one side and from continuing education on the other. In the first instance, according to them, the institution is subject to the government, hence whatever the institution does is dictated by the responsible Ministry, through the Department of Technical and Vocational Training. Consequently, there are things that the institution cannot change because decisions have already been made at ministerial level: all the institution has to do is carry out the orders. Decisions involving larger expenditure, for example, require authority from the ministry while those involving continuing education are dealt with at institutional level.

In the government stream, the institution runs TEVETA facilitated programs, thus it is TEVETA which recruits students and allocates them to different TVET institutions, so the

institution does not have power to change anything but implement the decision of TEVETA. Under the continuing education program, there are parallel programs which are run and coordinated by the institution, hence most decisions are taken at institutional, for example the recruitment of teaching staff, students, and the setting up of fee structure for continuing education students. Continuing education is headed by a Coordinator, responsible for managing continuing education programs, and the registrar, who administers the programs. Centralization from the side of Continuing Education was, according to participating members of the ATC management team, more flexible: the system is more decentralized hence some decisions may be made at institutional level. These include decisions on the recruitment of students, and some of the academic staff.

With regard to strategic planning, respondents indicated that the institution has a strategic plan in place but has not yet developed work plans aligned to their strategic plan. They admitted that the delay was due to laxity since the institution has not yet inducted staff on the operationalization of the strategic plan.

Regarding people in charge of quality assurance activities in the departments, the management of BTC observed that the set-up at the institution makes the Heads of Department responsible for quality assurance in their departments. However, the group explained that the institution also has three committees which oversee operational activities within the institution. The first committee is the *Academic Committee,* which includes the Academic Head as Chairperson, Heads of Department, the Coordinator of Continuing Education and the Registrar. This committee is mainly responsible for quality assurance. The second committee is the *Quality Assurance Committee,* comprising mainly teachers who are not members of management. According to management of BTC, the Quality Assurance Committee is appointed by management and reports to the Academic Committee, and is primarily responsible for attending to students' problems. The third committee is the *Competence Based Education and Training (CBET) Committee,* which is specifically responsible for TEVETA programs.

Asked if these committees have guidelines in place, the group indicated that there are terms of reference in place for the committees but for the CBET committee, the institution is using guidelines provided by TEVETA; they have not developed any specific institutional guidelines for these committees. On how to organize the institutional quality structure, the

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management of BTC hinted that although a decentralized system was good, it was necessary to first harmonize existing systems because there were challenges related t decentralization in Continuing Education. According to them people have a laissez faire attitude because of the centralized system: they are not self-motivated; they have to be pushed to execute their responsibilities. As a researcher, I was interested in the cause of this laissez faire attitude: respondents explained that there are many issues at play, ranging from funding inadequacy, resource constraints, and communication ineffectiveness to leadership inefficiency. One member of the group had this to say:

> *"I have been here for two terms but have never seen anything to do with schemes of work for both government recruited and continuing education students. But when we are told that inspectors are coming from the ministry, everyone will do and nobody cares about it."*

To address these challenges, the group felt that the institution should (a) adopt a decentralized system of decision making; (b) provide effective leadership at both institutional and DTVT levels to facilitate and improve institutional quality assurance, and the Academic Head should ensure that schemes and records of work were done (currently this was not the case).

They further explained that no one was responsible for QA activities in departments as the Heads of Department took care of general administration only. Asked about the strategic plan, the group observed that the institution does not have a functional strategic plan since it expired, but that every department is mandated to identify needs and then seek permission to purchase those items depending on availability of funds. Management was then asked how best to organize quality structure in the institution. Their response was that the institution should make teaching and learning resources available, empower teachers in terms of capacity building to maintain currency, ensure that there are adequate funding resources, put a communication structure in place to facilitate an easy flow of information, an make sure that it is the responsibility of every teacher to deliver quality teaching.

My research findings confirm the views of management that in TVET institutions, the following issues have a positive bearing on quality assurance development: a decentralized system of decision-making and the existence of a strategic plan to facilitate IQA processes and effective leadership. Furthermore, my findings indicate that no one is in charge of QA

activities in TVET institutions, Heads of Department being in charge of general administration. My research findings also confirmed that the laissez faire attitude of staff could be ascribed to centralization.

Both groups were asked to give their input on whether the TEVET policy which was enacted in 1999 to enhance and improve quality in the TVET system has influenced implementation of quality assurance system in TVET institutions. The management of BTC observed that the TEVET policy is a binding quality document and that institutions are its implementers. In the words of one of the BTC management team members:

> *"Whatever institutions do is a result of compliance arising from the TEVET policy. In those days nobody knew the contents of the policy but now there is some awareness where the authorities visited the institutions and discovered that the majority of the people within institutions are not aware of the TEVET policy."*

Furthermore, the group emphasized that the TEVET policy depends on four key priority areas which are: quality and relevance; research and development; access and equity; and governance and management. However, they claimed that institutions have limited access to training due to an increasing number of people applying for training, resulting in a "lack of space". As indicated earlier, Malawi has very few TEVET institutions: the government has not built any technical colleges since 1971, hence denying the youth to access training. It was also revealed during the discussion that there is no technical teacher training college to train technical teachers.

BTC Management further hinted that on quality and relevance, quality training is affected due to a fragmented and uncoordinated system. This is manifested in outdated curricula, the existence of multiple curricula and qualifications, and weak mechanisms for the monitoring and regulation of adherence to the TEVET Qualifications Framework (TQF).

Although research and development were, according to respondents, key elements of the TEVET policy, institutions do not conduct research aimed at the collection of data on labour market requirements, thus hampering innovation and creativity in TVET institutions. According to respondents, the lack of creativity and innovation in the sector has resulted in institutions providing skills that are irrelevant to the requirements of the industries they are supposed to serve. Allied to this, according to respondents, was that the effective

implementation of quality TVET has been negatively affected by governance and management challenges: the lack of autonomy of TVET institutions, poor coordination, inadequate funding, limited numbers of qualified teaching staff, and the absence of technical teacher training colleges.

According to the group, TEVET policy has not effectively influenced quality TVET in the country. They hinted that the policy is weak and ineffective. Although it looked good on paper its implementation has always been a challenge. One of the factors 'derailing' its effective implementation at TVET institutions was the inadequacy of human and financial resources at these institutions. Another was that TVET institutions did not have adequately qualified teachers. The third factor, according to respondents, was a lack of commitment to the implementation of the policy. The fourth factor, probably related to the third, was the conflict between TEVETA and the Ministry, the latter having been mandated to develop/stipulate TVET policy while the former is responsible for its implementation. The fifth barrier to effective policy implementation was political interference: every government that comes into power moves the Directorate of Technical and Vocational Training from one ministry to another, disrupting TVET strategic plans and priorities.

> *"In 1996, the Malawi policy on Technical, Vocational and Training was transferred from the obvious mandated holder – Ministry of Education to Ministry of Labour. This did not go well as technical education in secondary schools was still left under the Ministry of Education. However, this anomaly and its effects were noted and the policy brought back to the relevant ministry in 2005 when another government came to power. A number of positive developments started showing up. In 2012 after the change of government, the policy was shifted again to the Ministry of Labour; the future of many sectors seems to be bleak again. It may be necessary to have a closer look at this battle between the two ministries on this directorate. Malawi's economy is heavily dependent on agriculture and little focus is aligned to TEVET sector. Shifting Technical and Vocational Training from Ministry of Education, as the rightful Ministry to offer education and training, to Ministry of Labour isolates and disturbs the various activities of the sector even the more."*

According to respondents, TVET would be better placed in the Ministry of Education. When asked as why the policy was transferred and what the consequences of the move were, the group had this to say:

> "The transfer of any department from one ministry to another is the prerogative of the president. When the transfer was being done, the expectations were that through the Ministry of Labour, the department of technical and vocational training would interact better with the labour market."

The group argued that policy interventions in Malawi are neither properly articulated nor effectively aligned to national development strategies and that this constitutes a partial failure of institutional programs. Thus, policy changes were one of the major causes of the current poor performance of the TVET sector in Malawi.

They further explained that the TEVET policy urges institutions to establish internal quality assurance systems and be more concerned about the creation of institutional quality cultures. However, for TVET institutions to embrace a quality culture, TEVETA needs to enforce strict regulatory mechanisms for program accreditation because most TVET institutions do offer programs which require industry requirements. Respondents were adamant that the inability of TVET institutions to create quality cultures and/or to implement quality assurance systems and procedures were cause by ignorance: staff members did not understand the contents of the policy hence TEVETA needed to explain its rationale and objectives. Moreover, policy directives, like the need to increase access; ensure equity, quality and relevance, and issues related to governance have a bearing on finances. They argued that, while these are the pillars on which TEVET policy rests, these pillars can only be erected (metaphorically speaking) at institutions if they have the requisite resources, and if staff capacity is improved as a matter of course rather than as the exception.

Notwithstanding these complaints / concerns, respondents acknowledged that TEVETA had thus far done a good job in upgrading the capacity of automotive trainers in mechatronics: the problem is that there is no equipment for mechatronics in TVET institutions and this has undermined the quality of teaching in this subject. As to how to ensure the effective implementation of TEVET policy, the group suggested that the provision of adequate resources should be prioritized. In addition, institutions should establish councils and senates

which will help to facilitate the effectiveness and implementation of the policy at institutional level.

The management of ATC indicated that the TEVET policy had played an important role in fostering quality assurance processes in training institutions, citing the development of a new TVET curriculum which had resulted in the harmonization of TVET curricula. However, according to them, there were some challenges in its implementation, regulatory functions and certification being cases in point. On what institutions should do to effectively implement the policy, the group suggested that there should be adequate awareness about the TEVET policy and that adequate financial resources should be availed to sustain the operations of the institution.

What emerges from these comments is expertise plays an important role in and has an impact on IQA. Interviews with management and academic staff of both institutions indicated that the effectiveness of TEVET policy is negatively affected by inadequate resources, lack of commitment by decision makers and management of TVET institutions, political interference, failure to conduct research, limited access to training, a fragmented and uncoordinated TVET system, the lack of autonomy of TVET institutions, absence of technical teacher training colleges, and limited numbers of qualified teachers. The effectiveness of TEVET policy, according to them, therefore depends on the integration and mainstreaming of the TVET system through a broad spectrum of policies with the objective to enhance and promote skills development at all levels, including TVET institutions.

These findings indicate that the TEVET policy is a quality document and that its effective implementation will enable institutions to create a conducive environment if they have access to adequate resources, committed teaching staff and other stakeholders. It was noticeable from the findings that the success of TEVET policy depends on increased access and equitable provision of TEVET; the quality and relevance of TEVET offerings in terms of the demands of industry; the establishment of effective information management systems based on research, and last but not least, an effective financing and funding mechanism in a coordinated governance and management TEVET system.

5.7.3.4 QA process

BTC Management indicated that the institution had developed a strategic plan with an explicit mission and quality standards as required by TEVETA. When they were required to define quality, management covered a broad range of quality dimension. They explained that quality in TVET institutions has many aspects, including admission requirements, good facilities, like library well-stocked with books, qualified and adequate teaching staff, a curriculum that responds to industry needs, good governance practices and the output that meets industry needs and expectations. Thus, according to the group, quality is multidimensional.

Regarding methods and procedures to ensure quality teaching provision, the group explained that guidelines and tools were available from TEVETA which could help teaching and learning. They were quick to explain, though, that their institution does not have guidelines of its own. They further said:

> *"We once attended a quality management workshop and managed to interact with people from private institutions. The structure used by private institutions is clear and straight forward as they have guidelines and procedures in place. However, this is not the case with public institutions as they do whatever pleases them."*

When asked about monitoring mechanisms, the group observed that the institution does not have an effective monitoring and evaluation system due to its lack of guidelines. Further to that, the institution does not have a data storage server hence most of the important information is individually stored as the institution website is also not regularly updated. When asked about evaluation instruments, the group agreed that the institution does not have instruments for program evaluation or tools for conducting alumni surveys. So, in this case, they admitted that the institution does not therefore conduct surveys to check industry's demands.

On the issue of satisfaction with quality training, the group observed that progress towards achieving quality standards is very slow due to staff attitudes, low funding and a lack of capacity building. They emphasized, however, that there seemed to be some positive development from government's side regarding the running of infrastructure projects at institutions. Similar issues were echoed by the management of ATC regarding quality processes at their institution.

This group confirmed that the institution decided to adopt a tailor-made system taken from its strategic plan, though now expired, to support internal quality assurance processes and at the same time comply with TEVETA requirements. In their view, the institution uses TEVETA guidelines as their quality assurance guide. Asked to elaborate on monitoring instruments used by the institution, the MFG1 explained that monitoring tools are significant as they keep track of the institution's performance in pursuit of a quality management system. However, they indicated that the institution does not currently collect student data on their learning progress whilst in industry, and neither does the institution have statistical data on dropout rates, alumni and industry feedback. This has a negative impact on their achieving and implementing internal quality assurance. The group observed, moreover, that the institution does not have an information management database to store information for quality assessment but plans are underway to establish the system.

On challenges facing TEVETA in undertaking quality assurance processes, all the participants from TEVETA were of the view that TEVETA faces various challenges in its pursuit to assure and ensure quality training. They explained that their Quality Assurance Division was understaffed and lacked exposure to quality assurance initiatives in higher education. The respondents further observed that their documentation was incomplete and that there was no acknowledgement from training institutions that quality assurance is an important and serious dimension of quality delivery. Also, its awareness drive was not up to scratch.

One participant from TEVETA was of the view that there was a reluctance to and laxity in establishing structures like quality assurance bodies for TEVETA. The participant said that TEVETA, as a regulator, is not supposed to be issuing certificates and that this impedes on quality training. Furthermore, the respondent observed that there was a lack of capacity building in TEVETA, that people in different offices within TEVETA tend to perform similar functions when they go out to visit training institutions, and that, because TEVETA does not manage the recruitment process well this has led to the organization not having the right people to perform their roles. For instance, people are not fully equipped to do what they are supposed to do and some do not even know what the other department is doing.

Both respondents shared similar views on TEVETA challenges. They argued that there was a lack of understanding of quality management system and processes by the staff, and

inadequate resources to implement quality management systems. When asked to clarify on resource inadequacy, the respondent claimed that most of the resources are channeled towards the Training Directorate, for example, the orientation of trainers in harmonizing curricula rather than in quality assurance activities

From the findings, little has been observed and acknowledged in terms of quality assurance processes, especially with regard to curriculum evaluation and review, quality guidelines, research development and survey, stakeholder feedback and self-evaluation reports. It was also clear that staff had not been sensitized to strategic plan implementation and that institutions do not carry out internal audits.

The study, through document analysis, also established that TEVETA conducts quality assurance processes through several dimensions in order to enhance quality provision in the sector. Firstly, it recruits and admits students to all public and private TVET institutions in the country. From the year 2013 to 2015, the demand for training in TVET institutions was on the increase. For example, 1,283 trainees were recruited, 889 of which were males and 394 females against a national target of 1,245. However, of these, 381 trainees did not report for training in TVET institutions (29.7%), 258 males and 123 females. This was an increase compared to the previous year where 35.3% of the recruited trainees did not report to institutions. All in all, 9,148 applications were received compared to 5,322 in the previous year. Table 5.12 below provides a summary of recruitment by trade.

Table 5.12: Recruitment of Apprentices by Occupation

Occupation	2015			2014			2013		
	Male	Female	Total	Male	Female	Total	Male	female	Total
Administrative studies	55	129	184	47	95	142	20	65	85
Automobile mechanics	88	33	121	77	26	103	102	21	123
Bricklaying	170	16	186	172	23	195	141	9	150
Carpentry	209	16	225	172	7	179	162	7	169
Electrical Installation	58	24	82	39	22	61	45	19	64
Welding	44	6	50	40	15	55	71	7	78
Food production	12	28	40	3	18	21	10	13	23
General Fitting	33	8	41	19	1	20	39	13	52
Total	669	260	929	569	207	776	590	154	744

(Source: TEVETA, 2015)

Secondly, the Authority inducts trainers from both TVET institutions and industry to build their skills capacity and competence for training and assessment to make sure that the delivery of Competence Based Education and Training (CBET) is effective. For example, in 2015 the Authority inducted 151 trainers from TVET institutions against 164 trainers who were targeted, while 225 trainers from industry were inducted. Table 5.13 gives the details.

Table 5.13: Induction of TVET teachers on pedagogical approach

Region	Institution		Industry	
	Target	Actual	Target	Actual
North	24	24	24	38
Centre	70	30	40	49
South	70	97	80	138
Total	164	151	144	225

(Source: TEVETA, 2015)

Moreover, the CBET approach requires trainees to be attached to industry in order for them to acquire industry skills because certain modules can only be delivered through on-the-job training. In the year 2015, 1,649 apprentices were attached to industry for practical training whereas the target figure was 1,304. Table 5.14 provides the breakdown of apprentices.

Table 5.14: Attachment of Apprentices to industry

Region	Annual target	Achieved		Total
		Female	**Male**	
North	320	55	262	317
Centre	500	354	408	762
South	484	127	443	570
Total	1,304	536	1,113	1,649

(Source: TEVETA, 2015)

Besides trainees, trainers from TVET institutions are also attached to various industries to make sure that their skills and knowledge are enhanced in their various fields of specialization. All this is done to make sure that quality training provision is guaranteed. A total of 35 trainers from various TVET institutions were attached to industries to maintain industrial currency in 2015 alone. Table 5.15 below provides the details of trainers' attachment.

Table 5.15: Attachment of TVET trainers to industry

Region	Annual target	Achieved		Total
		Female	**Male**	
North	16	9	10	19
Centre	15	6	10	16
South	10	0	0	0
Total	41	15	20	35

(Source: TEVETA, 2015)

TEVETA also conducts monitoring and inspection at both institutional and industry level in order to check training progress. In 2015, 6.590 students were inspected both in institutions as well as industry and the table 5.16 gives the specific details of monitoring and inspection per region.

Table 5.16: Inspection and monitoring of TVET institutions

Region	Annual target	Achieved		Total
		Female	Male	
North	2,800	695	2168	2,863
Centre	950	206	499	705
South	2,758	1127	1895	3,022
Total	6,508	2,028	4,562	6,590

(Source: TEVETA, 2015)

In 2015, a total of 1,279 students were registered for training at TVET institutions. The Authority conducts a head count in all TVET institutions to check how many students are enrolled for training. The number of females remains low in comparison with the number of males. Table 5.17 provides a summary of students registered in one year.

Table 5.17: Summary of Apprentices registered in TVET institutions in 2015

No	Name of college	Number of students		
North		female	Male	Total
1	Mzuzu Technical College	35	132	167
2	Livingstonia Technical College	38	122	160
3	Phwezi Women Training Centre	40	17	57
4	Phwezi Rural Polytechnic	1	54	55
5	Miracle Technical College	23	43	66
Centre				
6	Don Bosco Youth Vocational Institute	13	60	73
7	SOS Vocational School	1	32	33
8	Lilongwe Technical College	34	82	116
9	Namitete Technical College	9	36	45
10	Salima Technical College	25	45	70
South				
11	Andiamo Vocational School	9	24	33
12	Thondwe Village Polytechnic	19	65	84
13	Blantyre Technical	1	7	8
14	John Paul II Leadership & IT Institute	12	41	53
15	TEEM Technical College	13	29	42
16	Nasawa Technical College	25	95	120
17	Soche Technical College	39	58	97
	Total	337	942	1,279

(SOURCE: TEVETA, 2015)

To ensure that students have received necessary training, the Authority provides Level 1-3 TQF certificates to those who have finished all the modules during training. Though there are some challenges observed in awarding certificates, such as inadequate staffing, the Authority in 2015 awarded certificates in various program categories (Table 5.18).

Table 5.18: Summary of Certificates Produced in 2014/15 for TVET students

Level	Number	Gender	
		Male	**female**
TQF Level 1	1080	699	381
TQF Level 2	463	428	135
TQF Level 3	-	-	-
In-house training	68	60	8
Private sector	635	579	247
Informal sector	1854	1156	688
Registration certificates		8	
Accreditation certificates		Nil	

(Source: TEVETA, 2015)

On attachment to industry, in order to provide more access for students, the Authority pays an attachment allowance since some industries are unwilling to take them on board due to financial challenges (Table 5.19). These students are also provided with tools to make sure that they become self-reliant upon completion of their training. In 2015, a total of 941 students received tools instead of the target of 1,850 students (Table 5.20)

Table 5.19: Attachment Allowances Paid TVET students by TEVETA

Region	Annual target	Achieved		Total	Amount (MK)
		Female	**Male**		
North	320	19	105	124	15,524,093
Centre	500	178	298	476	77,326,280
South	771	78	215	293	40,790,344
Total	1,591	275	618	893	133,640.717

(Source: TEVETA, 2015)

Table 5.20: Number of Apprentices Provided With Tools

170

Region	Annual Target	Total
North	400	195
Centre	1,000	592
South	450	154
Total	1,850	941

(Source: TEVETA, 2015)

TEVETA also collects levies from the private sector in order to implement and support both off-the-job and on-the job training. TEVETA raises its funds largely through the TEVET Levy which is collected from both the public and private sector. The TEVET levy is funds equal to one percent (1%) of the basic payroll of the employer. For the period 2010-2015, TEVETA raised a total sum of K2.6 billion ($3.6 million) against a target working figure of K2.7 billion ($3.7 million). Table 5.21 below gives details of funds raised.

Table 5.21: Summary of TEVET LEVY collected (MK' million)

ITEM/YEAR	2010	2011	2012	2013	2014	2015
Total income	1,135.78	1,392.35	1,462.41	1,840.15	2,646.60	2,593.36
Levy	954.97	1,178.08	1,431.99	1,653.24	2,406.26	2,492.60
Other	180.81	214.27	30.42	186.92	240.34	100.76

(Source: TEVETA)
(Source: TEVETA, 2015)

In summary, TEVETA implements quality assurance processes through a variety of programs, such as the recruitment of apprentices, inducting trainees to make sure that they receive the necessary training, inducting trainers both from institutions and industry to make sure that delivery of training is effective, attaching both apprentices and TVET trainers to industry to equip them with skills and new technology, carrying monitoring and inspection of TVET institutions to check progress of training achieved, instituting a bursary scheme for the needy and the girl child, subsidizing training in TVET institutions, and payment of allowances to and provision of tools to apprentices who access training in TVET institutions to make sure that they become self-reliant upon completion of training. Finally, the TVET levy is collected from both the public and private sector to support training provision.

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5.7.3.5 Impact of the TEVET Act and policy

Malawi's TVET system has been in place since 1956. However, when Malawi started post-colonial development at all level of the education system, the TVET sector was sidelined. Inevitably, from the 1960s to the 1990s, the TVET sector did not receive the attention due to it and it was thus plagued by diminishing skills ascribed to reduced training standards, inadequate learning and teaching materials, obsolete technology/old equipment, unqualified and inadequate technical teachers, low involvement by the private sector and poor funding mechanisms. Hence, it became imperative to create a vigorous TVET system which would be demand-driven and would involve the private sector in the development and implementation of a TVET curriculum that responds to diverse labour market needs (GoM, 2007).

Following studies funded by DANIDA and GTZ funded, Cabinet made a decision on the 10th of May 1997 to set up an independent body to manage and coordinate TVET in Malawi, but under the Ministry of Labour and Vocational Training. After a series of stakeholder consultations, conferences and study tours, the TEVET policy was formulated in 1998. In July 1999, the TEVET Bill was passed into law and eventually became Act Number 6 of 1999. This Act (TEVET Act No 6 of 1999) was promulgated to replace the Apprenticeship Act of 1965 and the Industrial Act which was passed in 1972 (TEVETA 2008). The Act led to the establishment of an Authority mandated to promote the quality of TVET management and to make sure that training provision was aligned to industry. According to UNESCO (2010), the Authority is mandated by the Act to, *inter alia*, improve TVET access for the disadvantaged people; meet the needs of industry by equipping trainees with employable skills, thus maximizing TVET efficiency through the relevance of its TVET programs; enhance the quality of training in TVET institutions, and to review and monitor TVET policy.

When asked about the impact of the TEVET Act, most academic staff interviewed were positive that that TEVETA was able to buy and provide training equipment which would help improve quality teaching provision in institutions. This includes the purchase of some advanced equipment for specific programs. However, institutions still have old equipment which does not match with the new technology as demanded by the industry.

Regarding TEVETA's achievement of the objectives for which it was developed, the consensus amongst TEVETA officials was expressed by one of the respondents, who indicated that:

- TEVETA has managed to reach at least 70% of the objectives for which it was originally established: it has rolled out the registration program of TVET institutions as per the TEVET Act of 1999 and stakeholders are aware and sensitized. Before registration rules were gazetted some institutions were employing non-qualified trainers.

- The achievement of these objectives has had a positive impact on the promotion of quality, especially with regard to the registration of TEVET institutions. Accreditation guidelines have, however, not yet been rolled out but were in a draft stage.

- In terms of training, the harmonized TVET curriculum has been launched for implementation in TVET institutions and this implies that no TVET institution in Malawi will use the Trade Test or Malawi Craft curricula, only the universal TVET curriculum which has adopted CBET as its mode of delivery.

- As to monitoring, TEVETA does monitor institutions but the authority does not conduct frequent labour market surveys to identify gaps as demanded by the industry. Institutions are monitored primarily to check on their progress with program delivery. Additionally, TEVETA has revised the entrepreneurship manual.

- In terms of funding, TEVETA has put in place a funding mechanism through the TEVETA Levy to ensure that the system runs sustainably. The funding is provided by the private and public sector and TEVETA has commissioned the Malawi Revenue Authority (MRA) to collect the TEVET levy. Also, the government plays its part to provide funding to TEVETA although it may not be adequate.

- In terms of Human Resources, TEVETA has three regional offices to make sure that decision-making is decentralized and that the implementation of TVET programs is easier and faster. Further to that, there are TEVET desk officers throughout the country at district levels and this has a positive bearing on program accessibility at district level.

- In terms of accessibility through public training institutions and community technical colleges, TEVETA has increased the enrolment of students into training programs for access and TVET skills on the market, paying special attention to gender equity and the creation of a bursary scheme for the less privileged to make sure that access to training is equitable.

Another TEVETA official was of the opinion that TEVETA has gone some steps further by, for example, issuing TEVET certificates, and that stakeholders are appreciating the role TEVETA is playing in enhancing quality TVET. Secondly, TEVETA has developed and gazetted registration rules and guidelines for the registration of TVET institutions, hence more TEVET institutions are registering and complying with these rules. However, accreditation of programs has not yet commenced as standards are not yet in place.

With regard to the extent to which TEVETA has achieved its original objectives, all the TEVETA officials agreed that:

- awareness of TEVETA and its functions has increased, and that the private sector appreciates the acquisition of skills which will help productivity in the country.
- access to the informal sector has also improved with more stakeholders taking part in skills training.
- in terms of quality, it's a mixed bag as some people in training institutions are not aware of what needs to be done and more capacity building is needed.
- there are challenges in terms of role conflict between TEVETA and the Ministry. For example, the Ministry manages training institutions while TEVETA develops guidelines for improving quality. Furthermore, TEVETA cannot direct training institutions and tell them what to do because TEVETA is not their employer. This has brought serious challenges in ensuring quality teaching and learning provision on the ground.

One TEVETA argued that, since all countries globally had to comply with the Dakar Declaration to reform TVET, Malawi also complied. The respondent highlighted the fact that TEVETA had run the extra mile to, for example, reform the TVET curriculum into a Competence-based curriculum; to register training institutions and, consequently, improving the learning environment, and, through the policy, addressing key areas like access, equity and funding mechanisms as means towards the achievement of its objectives.

Most of the TEVETA officials agreed, moreover, that the TEVETA objectives have helped to promote quality TVET in Malawi. Common themes cited by interviewees included the development of guidelines for the registration of TVET institutions; the monitoring and inspection of institutions; the institution of a TEVET levy for training, and TVET curriculum. One of the themes that was highlighted was the increased patronage of the private sector,

while the least cited themes were the bursary scheme for needy students and the increase in student enrolment.

On the general operations of TEVETA, participating officials had different opinions/views. Some felt that TEVETA could do better, that there were in terms of its operating procedures. One of the respondents said that TEVETA needed to build capacity in terms of developing guidelines and operating procedures that could be used to check quality at TVET institutions. For example, if institutions were not complying, there should be a document to check non-compliance against regulations and curriculum development. Respondent TO3 felt that they, as TEVETA, were not organized since there were no functional guidelines in place to assess the quality of TVET and neither did TEVETA have an audit framework for the accreditation or not of training institutions.

All TEVETA respondents were emphatic that TEVET policy has played a major role in the implementation of quality assurance systems at TVET institutions in Malawi. They explained that the policy, amongst others, has provided the nation with a QA authority. One of the respondents was of the opinion that the authority is capable of providing platforms for people to share experiences, discuss challenges and provide solutions to problems in the TEVET sector. He also pointed out that the policy had provided a platform for the provision of the kind of training demanded by the industry as well as for the development of a curriculum in which industry took the lead, to ensure the relevance of training and, by implication, to make sure that TVET graduates are employed by the industry. All the respondents agreed, moreover, that the policy not only provided a platform for employment but also highlighted issues related to entrepreneurship, suggesting that graduates from TVET training institutions could also create employment for others. He explained that, through the policy, the TEVET Authority is able to train students, subsidize training materials, sponsor needy students and buy training tools; attach students to and pay allowances for training in the industry; support training institutions through infrastructure development, training equipment and the capacity building of trainers, review TVET curricula, etc. and make institutions aware of the quality assurance drive.

Additionally, TEVETA participants explained that TEVETA has engaged development partners to support a number of areas where TEVETA has challenges, e.g. the capacity building of trainers. The African Development Bank and World Bank have, for example,

supported TEVETA in the training and upgrading of trainers to make sure that they acquire the necessary skills and competences to teach/impart skills, and institutions with regard to infrastructural development. Participants' observations on the influence of TVET policy on the implementation of quality assurance mechanisms at TVET institutions were that it had brought in private public partnership so that there are more players in the sector; the mode of training it propagates has given training institutions some autonomy since they can decide which programs to run. All participants shared similar views that the private sector is able to participate in TVET curriculum development and take on board apprentices for training. Again, institutions are sensitized of quality assurance drive.

Findings revealed that currently TEVETA had a problem in the sense that quality assurance is not paramount to the organization. According to one of the respondent:

> "It's coming secondary and failure to understand the activities of Quality assurance; it becomes a problem to conduct quality assessment in training institutions."

Alluding to the fact that TEVETA had recruited people who were not familiar with the TEVET system, this respondent argued that there were people at TEVETA who though the Levy was a collection body, some equated it with Human Resources, and some as planning and monitoring. Using this concern as a point of departure, respondents identified what they considered to be policy challenges. Included in these was the hasty way in which the TEVETA curriculum process was handled in order to meet pre-determined time-frames. According to the group, even the industry had problems with TEVET CBET certificates, preferring the old Trade Test and Malawi Craft certificates. Another challenge was that TEVETA wanted to perform all the roles itself - conduct monitoring, assess, collect and distribute the TEVET levy, and certify of students who complete studies in TVET institutions. They equated this to a goalkeeper/player and coach scenario.

On whether TEVETA had any difficulties implementing TEVET policy, there was agreement that they had, particularly with regard to stakeholder buy-in; the increased demand for training versus the insufficient number of training institutions to handle and accommodate all the youth who are completing secondary school education; the inadequate TEVET fund; the absence of technical teacher training colleges; the landscape of technical teachers in the country, which leaves a substantial gap, and the negative perception of people towards

TEVET because they it as a second choice, preferring academic programs. A glimmer of hope was, however, visible in that, with the positive political will at the moment, more donors were coming in to support the sector.

One respondent claimed that TEVETA's lean structure also posed a problem. According to him, the role of TEVETA should not be implementation but the regulation of quality assurance. He mentioned the mindset of trainers, most of who were used to the old paradigm, as a problem. These responses gave me a better insight into the challenges associated with the implementation of the policy. They observed that there are signs and symptoms which are clearly seen to everyone. Also, according to them, the trainers feel more accountable to DTVT than to TEVETA.

On problems that have derailed the implementation and management of quality management systems at TVET institutions, TEVETA officials admitted that these processes have been hindered by inadequate resources in training institutions. One respondent, citing Mauritius as an example, indicated that every training institution in that country which is implementing a quality management system (QMS) is ISO certified and well-resourced to pursue QMS. In Malawi, according to respondents, people's mindsets and the systemic culture have hindered QMS implementation. For example, resources were diverted to other non-prioritized area, thus affecting quality in important areas.

In order to mitigate these challenges, respondents suggested that the government should construct technical teacher training colleges to supplement the training colleges for school teachers which it had built in every region in the country. It should also construct five new community colleges with support from China because they act as feeder institutions to public TVET institutions although they currently outnumber public TVET colleges in Malawi: 7 TVET colleges to ten community colleges.

One of the TEVETA officials also cited role conflicts between TEVETA and the Ministry, inadequate financial resources for institutions because they receive very little subsistence from government. Additional bottlenecks to QMS implementation were the attitudes of trainers and other players towards TEVET teaching methodology; a weak implementation monitoring system due to the absence of a TVET Audit framework; a lack of capacity-building especially with regard to adequate structures in place, for example having a planner at ministerial level to coordinate skills and assessment. Moreover, TVET institutional

managers were perceived to be lacking in leadership skills because most of them are not educationists and trainers as pedagogically inadequate. Another issue was multiple certification.

Interviewed management and academic staff indicated that for the policy to be effective there needs to be a thorough needs assessment to identify gaps between training and industrial requirements. Moreover, institutions should be actively involved in decisions that affect the recruitment and training of students.

TEVETA staff's lack of expertise was again cited as a reason for the poor implementation of institutional quality management systems since they were the ones who have to conduct quality assessment but they are led by people who have no knowledge of technical and vocational training. To deal with this challenge, they recommended that TEVETA should appoint people who were well qualified people in technical and vocational areas and would therefore understand how to implement a TVET quality management system. Further to that, adequate funding and autonomous institutional governance were needed to change the way things are done at TVET institutions.

Concerning challenges related to the policy environment and resource mobilization, respondents indicated that one notable problem at institutional level was the lack of proper communication channels, especially at management level. They attributed this to a lack of cooperation within the management cycle, citing failure to produce class time-tables in time as an example. At ministerial level, the Directorate of Technical and Vocational Training is often time reactive rather than pro-active, visiting training institutions in response to problems only and the modalities it uses to promote teachers seems to favour and promote teachers from one particular institution, sidelining all others.

5.7.3.6   Funding and Financial Suffocation of training

In 2010 the World Bank reported that the TEVET system in Malawi was funded from various sources - donors, fees, household contributions, a TEVET levy of 1% from payroll, and indirect funding by industry, and that public expenditure on TVET includes recurrent and capital funds. The CSR (2009) also mentioned additional public expenditure for TVET regulatory mechanisms (from the TEVET Authority), for National Trade testing, and the Malawi (Advanced) Craft examinations administered by Malawi National Examinations

Board. According to the World Bank (2010), TEVETA budgeted MK 405, 919,000 as capital expenditure between 2007-2008 but only MK24, 843,000 was used on modernizing Trade Testing facilities. Recurrent expenditure on the seven public TVET institutions in 2008 amounted to MK 168, 724,305 for 1,100 formal students in TVET institutions (Table 5.23). As the figures indicate, TVET institutions like ATC who accommodate many parallel students, have a lower unit cost. However, effectiveness in delivery and institutional management is hindered by some regulatory mechanisms which prevent institutions recruiting teachers and compelling them to appoint teachers provided by the Civil Service Commission only.

Furthermore, according to the World Bank (2010), with procurement through public funding, TVET institutions are subjected to regulations which demand that formal procurement processes are adhered to and this leads to unnecessary delays which, in turn, impact negatively on the quality of training. UNESCO (2010) adds to this that the present funding system is inadequate in fostering institutional leadership and performance orientation in TVET institutions, because it requires institutions to refer to central government even for minor decision making.

In order to improve the quality of training, the Authority provides a training subsidy to all TVET institutions. In 2015, for example, the TVET subsidy paid to TVET institutions for 1,978 trainees amounted to K123 million (equivalent of $172,000). Table 5.22 gives the details.

Table 5.22: Payment of Training subsidy for Needy Students

Name of institution	Annual Target	Number of trainees			Amount (MK) Total
		Female	Male	Total	
Don Bosco		55	189	244	10,711,875.00
Lilongwe Technical College		106	266	372	6,498,750.00
Namitete Technical College		44	117	161	3,026,250
Salima Technical College		66	166	229	4,796,250.00
SOS Vocational Centre		15	53	66	4,957,500.00
Andiamo Vocational School		10	16	26	4,847,000.00
Nasawa Technical College		25	88	113	6,945,000.00
Soche Technical College		33	65	98	2,655,500.00
Blantyre Technical College		1	7	8	272,000.00
Malawi Children's Village	1866	5	14	19	2,522,000.00
Thondwe Village Polytechnic		12	48	60	8,015,000.00
John Paul Leadership and IT Institute		13	41	53	3,638,000.00
TEEM Development Centre		10	27	37	3,362,000.00
Government Press		5	10	15	225,000.00
Miracle Technical College		21	33	54	8,050,000.00
Phwezi Rural Polytechnic		13	127	140	26,543,750.00
Mzuzu Technical College		55	16	71	14,322,000.00
Livingstonia Technical College		23	82	105	4,635,000.00

(Source: TEVETA, 2015)

Furthermore, to increase access to TVET training, the Authority gives bursaries to the needy who cannot afford tuition fees. These students are identified and selected through the institutions themselves (Table 5.23).

Table 5.23: Payment of Training Subsidies to TVET Institutions

Name of institution	Annual target	Number of Trainees			Amount (MK)
		Female	Male	Total	
Andiamo Vocational School	343	1	5	6	52,000.00
Nasawa Technical College		2	15	17	354,000.00
Soche Technical College		2	13	15	170,000
Malawi Children's Village		0	5	5	54,000.00
Thondwe Village Polytechnic		3	8	11	178,000.00
John Paul Leadership and IT Institute		0	1	1	14,000.00
Miracle Technical College		3	10	13	363,000.00
Phwezi Rural Polytechnic		0	13	13	560,000.00
Phwezi Women Training Centre		8	11	19	700,000.00
Mzuzu Technical College		4	12	16	462,000.00
Livingstonia Technical College		0	14	14	546,000.00
Lilongwe Technical College		0	21	21	460,000.00
Salima Technical College		0	27	27	518,000.00
Namitete Technical College		0	21	21	463,000.00
Don Bosco		0	16	16	140,000.00
SOS Vocational Centre		0	17	17	115,000.00
Total	343	23	209	232	5,150,000.00

(Source: TEVETA, 2015)

Also, since TVET programs are male- dominated, the Authority makes sure that female students get interested in TVET courses by giving bursaries to girl children to make sure that they do not drop out from training for whatever reason. In 2015, a total of K1 million ($1,400) was provided to 79 of the 114 females targeted. See Table 5.24 for details.

Table 5.24: Payment of Bursaries for Needy Girls

Institution	Annual target	Achieved	Amount (MK)
Miracle Technical College		8	112,000.00
Phwezi Rural Polytechnic		8	112,000.00
Phwezi Women Training Centre		8	112,000.00
Mzuzu Technical College		8	112,000.00
Livingstonia Technical College	114	8	112,000.00
Lilongwe Technical College		16	209,000.00
Salima Technical College		13	182,000.00
Namitete Technical College		3	42,000.00
Don Bosco		3	15,000.00
SOS Vocational Centre		4	20,000.00
	114	79	1,026,000.00

(Source: TEVETA, 2015)

ATC and BTC Management participants complained that technical and vocational training was expensive to run, hence the small financial allocation made to TVET institutions for their daily running is insufficient. The allocation is also the same every year regardless of inflation and other factors affecting the economy, with some institutions consistently receiving slightly more than others. These comments confirm research findings by Atchoarena (2002) that technical education in Sub-Sahara Africa is given very little financial priority. The general cry of respondents was therefore that the Ministry of Labour and Manpower Development in conjunction with the TEVET Authority should consider revising existing budgetary provisions for TVET training.

The Management teams of both institutions were adamant that TVET remains a very significant component of the country's economy because it provides potential students with the opportunity to survive considering that not everyone would get the chance to go to university. To this end, the recommended that financial allocation ought to be increased to service and manage training at TVET institutions in Malawi. It follows that the views of both groups on the importance of funding in implementing quality assurance activities would be the same. Both argued that funding was critical to the effective implementation of internal quality assurance activities because it was time-consuming and expensive to satisfy the criteria for accreditation and to do so implies the availability of highly skilled human resources – those people who have to champion QA activities, collect and analyze self-evaluation data, and write the requisite reports.

They also re-emphasized the expenses associated with the provision of technical education given its hand-on, equipment-dependent nature: it focuses on skills which require the use of resources and equipment appropriate to a rapidly changing dynamic world if quality is not to be compromised. According to these participants, their institution is currently facing serious financial challenges: it receives about 40% of what they had budgeted for from government and they are always faced with problems when allocating money to suppliers (Table 5.25) and they owe creditors over one hundred million kwacha ($140,000). Much of the funds received through subsistence is channeled towards feeding students, thus training suffers. Asked as to how the institution intends to solve this challenge, the group indicated that they hoped the government would come to the rescue of the institution as they have been requested to submit debt invoices to Treasury so that they could pay their debts. However, they were quick to say that previously the government had made a similar promise but never paid.

When asked to explain how these problems hinder the implementation of a quality management system, they argued that in order to ensure quality, the institution must have adequate resources, both human and financial, teachers must be supported through the provision of the resources they need because learning modules have practical tasks which call for these. According to them, most of their students are now 'half-baked' due to inadequate resources.

For effective implementation of quality management system, the group did not adequately undergo QMS since their institution was lagging behind in the utilization of appropriate QA mechanisms. In this regard, a change of attitude was important given that most of teachers were unmotivated. In addition to this, the budget had to be improved and the institution should be given more autonomy, especially with regard to the financial matters. Currently, it is not even allowed to go to TV and Radio stations to advertise programs; only printed adverts in the media are permitted.

Similar sentiments were expressed by the ATC management of ATC. This institution also faced serious budgetary challenges. According to National Educational Sector Plan (2008), there has been a planned increase in recurrent expenditure for TEVET activities since 2007-2017, however the recurrent expenditure has been very low compared to other sectors of

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education. This means that the overall budgetary costs towards the TVET sector has been inadequate to address the needs of the sector (Table 5.26).

Table 5.25: Treasury cash flow for Public TVET colleges 2016/2017

Institution	Budget allocation in Malawi Kwacha	Total enrolled students	Unit public expenditure in Malawi kwacha
Lilongwe	136,200,000.00	3,600	220,000,000.00
Soche	136,800,000.00	4,200	210,000,000.00
Mzuzu	112,500,000.00	3,200	180,000,000.00
Namitete	79,500,000.00	2,500	150,000,000.00
Livingstonia	88,500,000.00	2,200	160,000,000.00
Salima	105,600,000.00	2,400	175,000,000.00
Nasawa	105,900,000.00	2,500	180,000,000.00
	765,000,000.00	20,600	1,275,000,000.00

(Source: Min of Labour) (NOTE: $1= K715)

Table 5.26: Summary Total Public Allocations to TCs, 2007/8

Institution	Budget allocation (in MK)	Total enrolled students	Unit public expenditure (in MK)	Regular students only	Unit expenditure (regular trainees only in MK
Lilongwe	28,031,679	2,288	12,252	574	48,836
Soche	23,530,614	435	54,093	155	151,810
Mzuzu	15,652,396	486	32,207	236	66,324
Namitete	18,723,328	217	86,283	73	256,484
Livingstonia	35,346,919	348	101,572	176	200,835
Salima	23,095,926	680	33,965	492	46,943
Nasawa	24,343,443	353	68,962	104	234,072
Total	168,724,305	4807	35,100	1,810	93,218

(Data Source: World Bank CSR 2009)

These findings suggest that adequate funding plays a significant role in the implementation of IQA processes. As shown in the table, the availability of resources enhances IQA implementation, and funding is critical to the development of infrastructure and teaching facilities. Again, funds availability motivate staff in achieving QA.

5.7.3.7   Curriculum

On curriculum development, the Authority develops TVET curricula in close collaboration with training institutions and the industry (TEVETA, 2015). This is done to make sure that training provision matches the needs of the industry. In 2015, different curricula in tailoring ICT and Wood work were developed from Levels 1-4. (Table 5.27)

Table 5.27: Modules and Standards Developed

Target occupations	Achieved occupations	Levels	Remarks
	Tailoring	1	Fully done
ICT	ICT	4	Fully done
	Agro processing	1,2,3 and 4	Fully done
	Wood interior design	4	Fully done
	Wood interior design	1,2,3	Fully done
	Entrepreneurship	1,2,3 and 4	Fully done
Tour guide		All levels	Not yet done

(Source: TEVETA, 2015)

During the focus group discussion with management and academic staff of both ATC and BTC, both groups were asked to explain how TVET institutions monitor programs. The Management of BTC observed that so far there are two streams, that is, TEVETA-sponsored and Continuing Education students. According to them, TEVETA monitors the TEVET programs but the institution also does its part by making sure that curriculum is effectively implemented. The group hinted that the curriculum implemented in institutions need to be reviewed since it did not address the needs of industry. They pointed out that there are new emerging technologies in the industry. The group had this to say:

"Since TVET institutions focus on training the youth for employability, the skills gained should be aligned to the labour market requirements to make sure that mismatch of competences is eliminated. TEVETA should therefore carry out labour market survey to guide institutions on the kind of programs to offer".

However, the group admitted that with the government's initiative to harmonize TVET curricula, more actors will now get involved, the Malawi National Examinations Board (MANEB) and the National Trade Test (NTT), for example, and that this would stimulate changes to the way in which things had been done up to this point in time. Monitoring, assessment and certification would have to change and, in Continuing Education, the onus would rest on institutions because most of the programs offered are using external examining bodies who cannot therefore conduct monitoring. On the harmonization of TVET curricula, the group explained that thus far, the government had launched the harmonized curriculum but institutions had not yet been informed about whose responsibility it would be to assess and certify the new curricula.

Management of ATC also made their input on curriculum implementation challenges, observing that TEVETA, whose responsibility it is to regulate technical and education training in Malawi, has done a labour market survey on TVET graduates in Malawi and, if these research results were implemented, they would lead to quality teaching provision. What is lacking, though, is the publication of the research results because the reports should be inclusive and have a positive impact on institutional training. The group also hinted that the issue of curriculum is politicized as decisions are made at ministerial level and instructions are given to institutions to implement them. They complained that institutions are currently forced to adopt Competence-based Education and Training methodologies, which demand a lot of resources; yet funding from the ministry is very meagre and this impacts heavily on quality.

When asked whether institutions have the capability to develop the curriculum, the group stated that most TVET institutions in the country do not have the capability to design and develop their own curriculum but that all institutions use the curricula developed by TEVETA. They explained that TEVETA engages institutions in collaboration with the industry to develop the competence-based curriculum. They also expressed their

dissatisfaction with the way TEVETA liaises with industry because the TVET curriculum is not fully aligned to dovetail with, and address, labour market needs.

On challenges faced by TEVETA to implement a Competence Based Curriculum, respondents from TEVETA were of the view that TEVETA faces a number of challenges in fully implementing the Competence-based approach as a mode to skills acquisition in training institutions. Included in these challenges are the multiple existence of TVET qualifications, which has impacted negatively on CBET implementation. The CBET approach emphasizes the collection of evidence on skills acquisition and learning that has taken place but this demands a lot of documentation. There was thus resistance from institutions to implement CBET, with most of them preferring to use the traditional mode of delivery (which is time bound). There is a laissez-faire attitude amongst some trainers with regard to the implementation of CBET and that there is a felt need to change this mindset.

Respondents clarified their position by saying that in some countries in West Africa, trainers were threatened with dismissal if they didn't comply with the new policy of training methodology. Hence trainers do not document their paperwork to show that learning has taken place and this is the major challenge so far. According to one of the respondents,

> *"Most trainers just fill the assessment forms that students have achieved the learning outcomes without necessary assessing students. TEVETA has on several times engaged institution management to ensure that trainers do assess students to make sure that students acquire the competences required. Additionally, TEVETA has managed to simplify the assessment tools so that trainers should not have difficulties in assessing students and again, bi-annually, TEVETA conducts refreshers courses to equip trainers with pedagogical skills required in teaching and learning".*

He added that, following the launch of the harmonized TVET curriculum, the government plans to set up an independent body responsible for TVET certification which will report to Ministry of Education as the mother ministry. A TEVETA respondent emphasized that, for an institution to offer CBET programs, it should have an adequate number of trainers, something which is currently not the case. Trainers also complained about extensive paperwork in the assessment of students in a CBET mode of delivery. One of the TEVETA respondents indicated that TEVETA is not mandated to impose CBE on TVET institutions; this is the responsibility of the responsible Ministry. Since this is not happening, it is difficult

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for institutions to determine the consequences and benefits of CBET compliance. Furthermore, the respondent observed that higher educational institutions globally have adopted a CBET mode of delivery, the nursing profession included. In other words, the major challenge is the mindset of the stakeholders, the responsible ministry, and training institutions.

One of the respondents observed that private institutions are doing a good job since they were not being influenced by anybody. When asked how institutions could address these challenges, the respondent highlighted the need to clarify the respective roles of the Ministry and TEVETA and to replace multiple TVET certification with a unified harmonized curriculum. According to TEVETA respondents, the same Ministry currently manages the Trade Test and TVET CBET curriculum, and that the implementation of CBET in TVET institutions is largely attributed to trainer attitudes, multiple certification on the landscape, inadequate resources (training institutions depending more on the TEVET levy than the funding from government, neither of which is sufficient; lack of capacity for trainers to provide quality teaching and learning, and poor structures in training institutions to support training.

On monitoring, the Management of ATC observed that TEVETA conducts theoretical monitoring in that it simply checks whether or not forms are filled in correctly, without necessarily checking if students really did the tasks. According to the group, the same applies to community technical colleges which were launched in 2014, and yet these institutions do not even have competent teachers.

Regarding teaching and learning resources and facilities to match the curriculum requirements in TVET institutions, ATC Management stated that resources were inadequate and that resource facilities, like libraries, have an outdated stock of books. Regarding facilities in institutions, the group agreed that most TVET institutions have an inadequate and poorly maintained building infrastructure and that workshops and laboratories have obsolete and old equipment. The lack of teaching and learning resources and/or equipment hinders quality assurance implementation.

On suggestions to improve monitoring of the curriculum, the group noted that quality teaching would only be realized if Heads of departments in institutions were trained in curriculum implementation through refresher courses; if industry were involved in

curriculum delivery, since some modules are industry-based; if institutions were to develop monitoring tools, like students/lecturer feedback forms, to help identify gaps prevalent in teaching and learning, and if such forms were also developed for use by the industry.

ATC Management also hinted that teachers should be required to conduct periodic skills assessments in order to ensure that TVET programs are developed to address the dynamic changing needs of the industry. They observed that most trainers do not have computer skills, hence short courses would sensitize them to the requirements of industry rather than waiting for curriculum reviews. Additionally, the group noted a mismatch between TVET products and the employees needed in the labour market. This major challenge, according to them, is largely due to a poor partnership between industry and TVET institutions: whereas TEVET policy advocates a demand-driven approach to training, the present training at TVET institutions is supply-driven, thus it may not address the manpower needs of industry. In summary, TVET institutions offer programs without necessarily checking whether or not the industry needs such skills, hence respondents recommended that institutions should create feedback mechanisms from industry to assist the institutions to easily evaluate their level of training.

Indications from these responses are that management supports the view that a lack of capacity in curriculum design, coupled with inadequate resources negatively affect curriculum delivery. Also, the development of monitoring tools and a strong linkage between industry and institutions are crucial to curriculum implementation.

From the discussion of quality assurance models at TVET institutions it is clear that these institutions do not have specific quality assurance frameworks or models for application in place to support their internal quality assurance implementation. Under these circumstances, it is a big challenge for TVET institutions to successfully achieve strategic institutional goals including the establishment of quality assurance processes.

5.8 Factors that hinder/facilitate implementation of QA in public TVET institutions

The aim of this section is to explore the impact of critical factors on the choice and practice of quality assurance processes in TVET institutions. The reason for this section is that the promotion and implementation of quality assurance systems in TVET institutions is the

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responsibility of the TVET institutions themselves. As outlined in the theoretical framework, factors specific to effective quality management system implementation in TVET institutions are management and governance, access and equity, quality and relevance and funding mechanisms. In this section, data analysis on internal factors that influence quality management implementation in TVET institutions focus on leadership commitment, availability of resources, quality and adequacy of staff, and availability of infrastructure and equipment. External factors include quality of basic education, legal and regulatory framework

Qualitative data obtained from various sources were utilized for this study. The section starts with analysis of survey data. The other section gives the findings of qualitative data on both internal and external factors that negatively impact on quality assurance implementation in TVET institutions. The last section provides concluding reflections.

5.8.1 *Findings of survey data analysis*

In this section, I present the results of survey data analysis regarding academic staff's observation of internal and external factors that enable or hinder the practice or implementation of assurance system in public TVET institutions. In this case, members of academic staff were asked to give their views concerning TVET institutional factors that allow or hinder the practice or implementation of quality assurance systems.

The findings of the survey from academic staff of both institutions suggested the following as some of the enablers for effective implementation of quality assurance systems: commitment of staff; periodic monitoring of programs; availability of TEVET Act and policy and needs assessment to identify gaps. However, factors like institutional governance, resources, leadership among others were perceived as hindrances to quality assurance implementation.

Furthermore, participants of both ATC and BTC noted that the necessary conditions required for effective implementation of quality management systems include the following:

- Need to conduct needs assessment to identify gaps prevalent in the institution.
- Institutions should carry out period monitoring and evaluation of programs to be in line with industry requirements.
- Institutions should develop communication strategy to assist staff to know what is happening within and outside the institution.

- Monitoring should be both internally and externally driven. On this, the group elaborated that in most cases people from the ministry only tend to visit training institutions whenever there is a crisis to solve.

5.8.2   *Results of interview data analysis*

In this section, I analyzed data which was obtained from interviews of academic and management staff and themes were drawn from indicators that were included in the theoretical framework of the study.

Both groups from the target institutions shared similar responses. They observed that the prevalent challenges are both internal as well as external and they include the following:

- Lack of commitment by people who are in influential decision-making. The group said *"sometimes even they themselves they get lost in whatever they are supposed to do and what is prioritized is not what is implemented"*.
- Inadequate funding. The group explained that currently they do not even know how much the institution has been funded from government. Additionally, priorities are not driven towards training and that in academic side; they even fail to have stationery. According to them the institution is focused on feeding students.
- Staff is not motivated as some are not paid their salaries in time, for instance, December 2016 salary was paid mid-January 2017.
- There is no staff development plan in place and as such, academic members staff are not able to go for further training especially temporary academic staff.
- Lack of communication strategy or policy for the institution
- Failure by the institution to identify gaps

Academic staff of ATC also discussed at length on placement of students in the industry. They argued that the modality of attaching students to the industry is not well coordinated as different students get attached to companies even without considering whether that particular company has the required skills for the student to acquire. They explained that students need to get attached to the industry as per the module requirement and this greatly affects quality of graduates.

When I asked the group whether work plans are in place at the institution, this is what they had to say:

"At sectional level e.g. commercial department, work plans are developed but academic staff are not inducted on the development of the work plans".

Academic staff of both ATC and BTC echoed similar views. They both explained that some challenges are inevitable, for example, recruitment of students is a challenge that is hard to tell that the particular student is capable or not for the program of study. The said:

"Borrowing a leaf from the university of Malawi, it is proper if TVET institutions also introduced weeding mechanism and also that students should be writing supplementary examinations to make sure that only capable students are retained".

Academic staff of both ATC, believe that this is one of the quality checks which will help improve the quality of output from the institutions. The group further noted that the issue of capacity building especially in TVET institutions is a challenge because most of the trainers have degrees which are not related to the programs they are handling. They suggested that trainers should be given consideration to build their technical skills specific to the programs they handle. They gave an example that some academic staff that holds certificate in Automotive Mechanics but have Bachelor's degrees in Public Administration and get remunerated at the level of a degree holder and this affects quality as well.

Academic staff of both ATC felt that institutional management should involve academic staff in decision-making. They explained that in most cases management bring issues to subordinates (academic staff) without seeking their views first and if something goes wrong, the blame goes to the teachers. This is partly attributed to absence of Quality assurance committees in respective departments within the institution.

Academic staff of both ATC recommended that students should be attached according to module coverage as stipulated in their training. They observed that as teachers, they do not participate or monitor their students in the industry, and hence no feedback is given to the institution on the progress of the students while in industry. They went further to say that TEVETA normally gets feedback and teachers do not know anything of how students are performing while at the industry. On another note, academic staff further raised the issue of Higher Education Science Project **(HEST)** which is funded by African Development Bank **(ADB).** The group observed that the project only targets teachers who are government employees leaving aside temporary academic staff. They argued that in TVET institutions,

the majority of academic staff is that of temporary teachers who are recruited direct by the institution and not the government and yet when it comes to staff development they are not considered. The group gave an example of automobile department which is run by temporary academic staff because those on full time went for studies outside the country.

5.8.2.1   Internal factors

Management and academic staff were asked to give their views regarding TVET institution's internal factors that hinder implementation of quality assurance systems in their respective TVET institutions. The results are summarized below:

5.8.2.1.1 Institutional leadership

Management and governance in TVET institutions is guided by the 1999 TVET Act and the revised TEVET policy (2013). The revised TEVET policy provides the implementation for effective management and governance mechanisms to provide building frameworks for monitoring processes in TVET sector. UNESCO (2010) argues that TVET system in Malawi has several governance challenges which require attention. They observed that stakeholder involvement, accountability, transparency should be the cornerstone for TVET reform. Furthermore, the review of TEVET Act should be expedited and government should embark on consultative processes to incorporate lifelong learning policy and medium-term development programs in order to integrate both formal and informal learning. However, challenges relating to management capacity and leadership skills in TVET institutions have been highlighted in many government documents such as NESP (2008), TEVET policy (2013) and UNESCO (2010). The National Education Sector Plan (2008) argues that inadequate leadership skills, experience, and commitment of institution management were seen as one of the key bottlenecks for improvement of quality training in TVET. In line with this, both management and academic staff were asked for their views and opinion concerning the role of governance and leadership in the effective operation of TVET institutions and also in implementing quality management systems in TVET institutions. The analysis of data is presented below.

Technical College A (ATC)

Established in 1963, ATC is the oldest and biggest public TVET institution in the country. Analysis of the institution indicates that ATC does not have a written and approved quality

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assurance policy. The Technical College handbook, developed by the Ministry of Labour provides direction concerning staff (especially on roles and responsibilities, promotion and recruitment); training (student admission, academic calendar, programs offering and teaching loads); general academic administration and organization and discipline. A closer look at the handbook shows that policy direction concerning quality enhancement and assessment including quality of teaching and learning provision are not clearly detailed. This indicates that public TVET institutions do not have quality manuals and policies vis-à-vis the requirements of TVET institutions to have internal quality assurance systems as per the TEVET Act of 1999. It was further observed that the institution does not have a functional strategic plan in place. The strategic plan provides a roadmap for the institution. This clearly indicates lack of initiative by the institution to establish a structure and policy for quality assurance.

Interviews from both staff and management indicated that there is manifestation of leadership incapacity as there is inadequate cohesiveness between management and staff due to unavailability of some key policies and guidelines like training plan and development which are deemed to improve quality of training provision in TVET institutions. Interviews from both management and academic staff shared the same notion that there is lack of shared vision and linkage between management and staff due to absence of some key documents such as strategic plan for the institution. One member of management observed the leadership problems emanating from autonomy of the institution. He argued as follows:

> *"Surely, autonomy of the institution is significant for the institution in order to effectively operate; and institution brings accountability. Due to lack of autonomy, TVET institutions are facing more challenges such as inadequate staffing, unavailability of qualified staff and funding challenges."*

The argument raised by interviewees indicates that government involvement is appointing TVET institution leadership is negatively affecting quality TVET provision. Interviewees perceive and believe that if institutions are to be granted autonomy, there would be effective implementation of institutional programs which would lead to enhanced quality delivery of training.

On the other part, management attributed the challenges to unpreparedness and unwillingness by academic staff to carry out roles and responsibilities. One participant from management explained the situation as follows:

> *"ATC has several problems because most of teaching staff members have the feeling of 'know-it-all attitude' and again they are unwilling to take extra responsibilities. A leader may have a good vision but some people frustrate it due to unwillingness. Academic staff members should be willing and ready to take other responsibilities otherwise there will be stagnation at some point"*

This seems to indicate that even academic staff members have their own share for ineffective leadership and governance in TVET institutions. As one participant indicated, if the teaching staff lacks ownership for running of the institution, then they become part of the problem. It was observed during interview that there are currently no mechanisms in place to check processes including whether teaching provision and research are being done and this negatively impacts on implementation of quality management systems in TVET institutions.

Most participants further observed that there is a problem also on continuous development of trainers. According to their discussion, some modules are industry related and need to be covered and assessed in the industry. In this case, some teachers do not have the competences or skills to deliver such modules because they have not been exposed to the industry to upgrade their skills and that sometimes it does happen that students who get attached to industry acquire some new technology which their teachers do not have. This affects their teaching since the institution does not send trainers/lecturers to the industry to upgrade and maintain their currency. The group observed that management tend to send the same trainers to the industry time and again and yet some people have never attended a single one. The group also cited low remuneration package of academic staff as this leads to high attrition rate as people opt to go for greener pastures.

The arguments highlighted above seem to suggest that TVET institutions are operating without good management and governance systems that may help create a proper environment for effective development and implementation of viable quality management systems in TVET institutions. It does indicate that TVET institution leadership may not be instrumental to enforce what is stipulated in the TEVET act in terms of enhancing and implementing effective quality management systems.

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The arguments also show lack of coordination and team-spirit between management and academic staff members. Under such working environment, it is difficult to achieve the desired quality culture as stipulated in the TEVET Act. The failure to develop quality assurance mechanisms in the institution is a reflection of leadership incompetence and lack of commitment to enhance quality. Unless leadership in TVET institutions takes the drive to facilitate, develop and implement quality management systems, engagement and commitment of staff will not prevail. This is contrary to what is expected from leadership of TVET institutions as stipulated in the TEVET act of 1999 and TEVET policy (2013). This seems to suggest that management approach to issues of quality assurance systems, as outlined by Brennan, Shah & Luckett (2006), is not effective at ATC. The results therefore suggest that leadership and governance in TVET institutions is viewed as an enabler to quality management system implementation since it provides an enabling environment in the development and implementation of institutional policies and mechanisms to assure quality in the institution.

Technical College B (BTC)

Just like ATC, BTC is also a public institution which falls under the Ministry of Labour and Manpower Development. The institution however has strategic plan but the document is not functional and staff were not inducted on the operationalization of the strategic plan. Similarly, the institution does not have quality assurance unit, quality manual or policy in place. A closer evaluation of the institutional documents reveals that the institution lacks instruments to enforce and assess effective implementation of quality assurance practices but instead depend on TEVETA manuals. The institution also lacks mechanisms to enhance communication, transparency and staff commitment to improve teaching and learning. This could be due to shortage of staff and capacity

Internal quality assurance processes include policy documents, institutional arrangement and strategies that outline responsibilities for quality improvement. Findings from document analysis and focus group discussion were analyzed to check the extent to which institutional arrangements and policies enhance IQA implementation. According to the findings from respondents, there is a noticeable difference in ratings between ATC and BTC as academic staff is not much aware of quality assurance policy for the institutions.

The study revealed that TVET institutions do not have quality assurance polices but rather rely on documents prepared by TEVETA. The group further elaborated that there are no established policy arrangements for program development, conduct of examinations and moderation processes and this has greatly affected the quality of training.

During interviews with academic staff revealed that staff recruitment and student admission policies are not available to enable institutions to recruit qualified staff and admit students as per their plans. This view was also supported during focus group discussion where the findings revealed that institutions lack autonomy to allow institutions recruit staff of their choice. Instead institutions receive staff upon ministry's instruction and admit students recruited through TEVETA.

The other illustration of leadership deficiency according to focus group discussion is lack of cohesion in enforcing and implementing institution's policies that are seen to promote quality training provision. The respondents from both management and academic staff agreed that there is lack of proper linkage and shared vision between management and the entire staff. Interviewees cited several reasons for poor leadership and management in properly running the institutions. These included: lack of institution's autonomy; capacity of leaders and how and how they are appointed and assigned their responsibilities and preparedness of academic staff for change. Most of the respondents shared their views that the main challenge is lack of credibility, capability and legitimacy of people assigned to manage and lead the institutions. As one of them observed, "Some of the people that are promoted to these positions are questionably capable as they do not have the required management skills to handle technical and vocational training system.

On the other hand, respondents from management teams attributed the problem to lack of preparedness or readiness on the part of the academic staff to carry out their responsibilities. This seems to affirm that academic staff has also contributed to leadership failure in TVET institutions. They observed that there is lack of adequate mechanisms in place to check if things are going well, and whether members of academic staff are teaching and students learning. According to their observations, this has a major implication in the implementation of quality assurance systems in TVET institutions.

The observations cited above indicate that TVET institutions are operating in the absence of proper management system that provides an enabling environment for adoption and

implementation of quality assurance systems in TVET institutions. The findings from the questionnaire further suggested that effective leadership and staff commitment is crucial for implementation of internal quality assurance processes in TVET institutions. Additionally, collaboration and shared responsibilities with various stakeholders are important ingredients for implementing quality assurance systems. However, findings from questionnaire indicated that these important dimensions are not in place in TVET institutions.

Asked about their views on institution governance and leadership, interviewees from both management and academic staff observed that there is lack of leadership commitment at all levels of the institution and this includes failure to follow up and evaluate training programs effectively. As they put it, there are no mechanisms to check training progress. Most of staff interviewed indicated that there is lack of commitment from both management and staff to implement quality management systems. One management participant shared similar observations as follows:

> *"The institution does not have a quality assurance unit to facilitate and drive quality management systems and there are also inadequate resources to run the institution properly. If the institution was to be granted autonomy, the situation would improve since decision-making will be decentralized."*

The arguments brought up by both management and staff do suggest that quality assurance mechanism in the institutional structure is weak to effectively provide meaningful improvement in quality assurance practices. Under such circumstances, implementation of quality management systems depends on the effectiveness of the leadership in the institution. One of the participants observed that according to NESP 2007, having qualified teaching staff, empowered staff and transformative academic staff, availability of policies and establishing quality assurance units are some of the indicators for leadership commitment to develop and implement quality management systems. This seems to suggest that leadership and governance in TVET may be considered as an enabler to implementation of quality management systems as it shows commitment in making sure that there is implementation of quality management systems and mechanisms. Theoretically, the drive and commitment to institutional leadership to develop and implement structures and policies for quality management system go in line with managerial capability to issues of quality assurance.

5.8.2.1.2 Commitment of academic staff

It is assumed that assuring and ensuring quality training in TVET demands commitment and total engagement of staff, students and other stakeholders. Qualitative data associated with commitment of staff was analyzed and the findings are provided in subsequent sections.

Both academic and management staff observed that there is lack of engagement and commitment of staff in adopting and implementing quality assurance processes in TVET institutions. The majority of academic staff members prefer to be engaged in teaching part-time jobs to generate extra income since the remuneration package is low. One respondent elaborated as follows:

> *"The behaviour of teachers is worrisome. Some teachers use the name of the institution as emblem to get part-time work outside. TVET institutions have become jungles for the disorderly. Because most teachers are engaged in part-time jobs, they neglect what they are employed for, and quality of training is poor."*

Many reasons were cited for the current situation which among others includes: low salaries; inadequate staff development mechanisms; lack of promotion as most people stay at one grade for many years, and lack of reward mechanisms. Remuneration of academic staff is poor, and this leads to teachers engaging in part-time work in order to supplement their financial needs. Another reason for disengagement is lack of incentives for academic staff. As one respondent puts it, there is absolutely no reward for those performing well and also no penalty for those found in the wrong. In TVET institutions, people who work hard with good qualifications are never promoted but those who do not work hard and with qualifications not relevant to technical and vocational training are promoted. According to their arguments, this habit drains away commitment and brings disengagement and de-motivation to many academic staff.

Regarding effectiveness of quality assurance processes in TVET institutions, the findings indicated that quality assurance practices are not disseminated to the institution community. Furthermore, the results from questionnaire showed that the quality culture in TVET institutions concerning student learning, achievement of mission and promotion of teaching and learning is generally low. The implication with the observed quality culture is that quality assurance processes are not shared and communicated to stakeholders and that quality

practices are not associated to student learning improvement. Hence, the existing practice of TVET institutions is not oriented to quality enhancement

In general, the findings observed that staff commitment and engagement is lacking, even though institutions do have a good mix of competent and qualified staff. This greatly affects the practice and implementation of quality assurance system in TVET institutions.

5.8.2.1.3 Resource availability for quality assurance

UNESCO (2010) observes that insufficient funding towards TVET institutions is hampering progress of training. According to their arguments, the TEVET Act (1999) provided the direction to develop joint funding for the TEVET system which would enhance training. In the past decade, the Authority has managed to lobby and move organizations to pay the 1% TEVET levy but the government is not compliant with the legislative mandate regarding the TEVET levy. The funding mechanisms for TEVET are inadequate to bring quality TVET delivery. Hence, students in TVET institutions do not get the required training provision due to unavailability of training equipment and inadequate skills by academic staff. And further to that even if there is an increase in funding levels of the TVET sector, the government gives priority to other pubic investments (UNESCO, 2010).

According to responses from academic staff of ATC, the institution faces inadequate funding and runs under little resources. Additionally, the group observed that since TEVETA is mandated to promote and champion quality, they sometimes contradict themselves. For example, if you want a good product, you should make sure that enough resources are provided. The group noted that subsidy for each student from TEVETA is very inadequate as some programs like General Fitting and Automotive Mechanics demand more funding to buy teaching resources. Another noticeable challenge is the recruitment of students as some students who get admitted into the institution fail to perform in class. This means that the crop of students admitted into TVET institutions reflect on the quality of education attained at secondary school level.

The establishment and implementation of quality assurance systems in TVET institutions demands physical, human and financial resources. Availability and use of these key resources is regarded necessary but not required condition to ensure quality training in TVET.

Many of the respondents including those in management observed that lack of resources is one of the hindrances to implement TVET policies and procedures that would help to ensure and assure quality training. One respondent from management agreed that there is an acute shortage of teaching and learning resources including facilities in TVET institutions due to inadequate subvention from government. The resources available do not match with student enrolment and this makes the institutions unable to adhere and implement policies necessary for assuring and ensuring quality of training.

The findings discussed suggest that TVET institutions have inadequate resource requirements for training and this poses a challenge for effective implementation of quality assurance system in TVET institutions.

5.8.2.2   External factors

This section provides findings of the data analysis regarding the impact of external factors on the practice of quality assurance system in TVET institutions. Interviews with management and academic staff were conducted and considered for analysis.

5.8.2.2.1 Legal and regulatory framework

Legal frameworks are formulated by government to help as primary factors in guiding the conduct of technical and vocational training in Malawi. This dictates the nature of relationship existing between the government and TVET institutions. The two key components of the legal framework include regulative and legislative components. Regulative components are those issues that concern quality assurance and accreditation whereas legislative components include government policies upon which TVET institutions are supposed to follow and abide.

The Malawi TVET Act of 1999 is the legal framework for the operation of Technical and Vocation Education and Training in Malawi. This decree provides all the requirements for the establishment and operation of TVET institutions in Malawi. Concerning quality assurance, the Act requires the setting of a TEVET Authority to regulate and promote TVET system in the country as well as establishing internal quality assurance systems or models in TVET institutions. The question therefore is how the TEVET Act of 1999 influences quality assurance implementation in TVET institutions as observed by academic staff and management.

The majority of staff interviewed observed that the main problem is not the TEVET Act but that of enforcing what is stipulated in the Act. This implies that the challenge is not implicit to the Tevet Act itself but lack of commitment on all players to put the Act into action. Hence, the Tevet Act is seen as the enabler for the establishment and implementation of internal quality assurance mechanisms in TVET institutions, as it demands institutions to do so.

In the case of ATC, majority of staff and management shared the common belief that TEVET act has some loopholes and lacks enforcement. Furthermore, staff and management from BTC also shared the same sentiments that TEVET Act lacks regulatory enforcement to make sure that TVET institutions have developed and implemented quality management systems. In this case the TEVET Act is seen as an enabler for development and implementation of quality management systems in TVET institutions since it requires TVET institutions to do so.

According to World Bank (2010), TEVETA was established with the following mandate: to facilitate and promote demand-driven TVET system; to integrate the disjointed TVET provider system; harmonize multiple qualifications into a unified qualification; to regulate the conduct of training provision and develop quality assurance mechanisms and regulation in order to enhance sustainability of TVET by transforming Industrial Training Fund into TEVET levy system. Hence, the establishment of TEVETA was meant to provide policy direction, quality assurance and regulation of the TVET sector.

Conducting Institutional quality audit based on self-evaluation is the characteristic of the quality assurance mechanism of Malawi TEVET Authority, for example, TVET institutions are required to carry-out self-evaluation, followed by quality audit by TEVET based on Institutional self-evaluation results. With this legal framework, TVET institutions are not subjected to quality audit nor are their programs accredited. Most of staff and management of both ATC and BTC explained during interviews that TVET institutions do not conduct self -evaluation as required by TEVETA guidelines.

In general, the findings suggest that TEVETA has not been instrumental in enforcing the responsibilities and duties assigned to it by the TEVET Act.

5.8.2.2.3 Quality of basic education

World Bank (2010) notes that the secondary school system in Malawi has about 10,258 teachers and 8,026 are employed by the government. And with public secondary schools, there are more teachers in Community Day Secondary schools (CDSS) (60%). However, the main challenge in secondary schools is the issue of under-qualified teachers (60%) and most of them work in CDSS which have unqualified teaching force of about 81% and 27% in Conventional secondary schools. Previously, teachers who were trained to teach in primary schools were sent to teach in secondary schools due to the expansion of secondary school subsector. Furthermore, funding to secondary schools is given to Conventional Secondary Schools and CDSSs. ORT funding to these schools is based on a different set of criteria rather than on the number of students enrolled and is always inadequate (World Bank, 2010). Based on the available data, the quality of teachers therefore has a significant impact on the quality of secondary school graduates since the subsector feeds the TVET institutions.

Most respondents observed that most students are permitted to join TVET institutions with poor grades that cannot make them withstand the hard work required in some engineering courses. This has implication on the quality of education delivered at secondary school level.

It is understood that quality of learning is determined not by efforts demonstrated by a single cycle of learning or training but through a combined outcome of skills and competences in the cluster processes in the entire education and training system. Quality in TVET institutions is closely connected to quality of education at the lower levels of the education system. If quality has been compromised at the primary and secondary levels, the consequence is inevitable on the quality assurance processes in TVET institutions.

Most academic staff interviewed attributed students' learning challenges in TVET institutions to poor preparation in the lower levels of the education system. As elaborated by one of the management members interviewed, the challenges within TVET institutions are diverse:

> *"The decline of quality education and training begins from secondary school. Unless secondary schools produce good output, it indicates on TVET institutions. The students admitted in TVET institutions are so astounding that they fail to solve simple secondary school mathematics, let alone to compose and write simple essays."*

The findings therefore complement the argument that from secondary education level, most students enrolled are not at the required level to join TVET institutions and pursue some engineering courses. This indicates the whole inability of the basic education to prepare students for technical and vocation education and training.

5.9   Interpretation of data / Research findings

Taken together, my research findings suggest that the establishment and implementation of quality is a recent phenomenon in Malawi TVET institutions. One of the key findings is that, despite the stipulation in the TEVET Act that quality assurance mechanisms should be established at TVET institutions, the two public TVET institutions included in the study have not as yet done so. Indications from these comments are that there is a big gap between the actual and ideal quality assurance practices of TVET institutions: they are not performing as required, especially not with regard to the quality of training. It was also clear that these institutions do not conduct self-evaluation exercises to monitor progress made in the quality of their teaching and the quality of their institutions; instead, institutional assessment is carried out by TEVETA during its monitoring and inspection of institutional quality assurance systems.

Regarding the devolution of responsibilities and centralization, my research findings suggest that TVET institutions have effective systems in place for the devolution of responsibilities. This was evidenced in their organizational structures in which the Academic Heads oversee all academic issues while the Heads of departments are responsible for the general administration of their departments as these relate to the quality of teaching and learning. Heads of departments, according to my findings, also supervise section heads and teachers. My study also revealed that the Academic Heads have the authority to make some internal decisions - to recruit temporary academic staff, for example. Thus, indications are that the management of institutions are largely responsible for enhancing the quality of teaching and learning and they do this by delegating work to Heads of sections and teachers. Teachers prepare academic work plans, which are submitted to management through Heads of departments.

As regards centralization, my findings indicate that most of the critical decisions are made centrally, at the Ministry, with institutions only allowed to make operational decisions, like the recruitment of temporary teaching staff and the purchasing of teaching and learning

materials. The quality assurance structure in its totality is therefore centralized in nature since strategic decisions are made 'at the top', at ministerial level, without any input from those who will be most affected by these decisions.

The overall impression of TEVETA's success in achieving TVET quality is that its performance is negatively affected by a number of factors, the most prominent being institutions' inability to develop guidelines and operating procedures, and the absence of functional TEVETA guidelines and a TVET audit framework for the assessment of TVET quality and the accreditation of institutions. Informing/causing all of these, is the lack of knowledge and/or expertise in quality management, quality assurance and/or the TVET system amongst TEVETA officials, institutional managers and academic staff, much of which could be ascribed to ineffective recruitment practices.

The findings further reveal that TEVETA's challenges arise from a lack of exposure and understanding of quality management systems; an inadequate drive towards awareness of quality management systems; incomplete documentation of quality management activities or processes and tardiness by TEVETA to establish quality assurance bodies. To a lesser extent, inadequate resources to implement quality management systems and understaffing have also negatively affected QMS implementation.

On CBET implementation, indications are that CBET as a mode of delivery in TVET institutions poses several challenges, among which are multiple certification of TVET qualifications; resistance from institutions to implement CBET; inadequate numbers of academic staff; too much paperwork in conducting assessments, and a lack of capacity-building of trainers. Poor infra-structure at training institutions were less of a hindrance to CBET implementation. On how to mitigate these challenges, the findings suggest that there is need to clarify the roles of Ministry and TEVETA, to do away with multiple certification of TVET, to come up with a unified, harmonized curriculum.

In respect of curriculum delivery, my findings revealed that institutions do not periodically review their curricula, since they depend on TEVETA to carry out this exercise. Inadequate resources also hamper curriculum implementation: institutions do not, for example, have monitoring tools in place to check curriculum progress. Neither do they have instruments or processes in place to monitor program delivery. On ways to address and improve monitoring

and delivery of programs, participants suggested that teachers should prepare lesson plans and develop schemes of work while institutions should develop monitoring tools.

With regards to funding, findings have shown that adequate funding is key to internal quality assurance implementation. According to institutions, inadequate funding from government and training subsidies from TEVETA make it difficult for them to achieve a quality culture as much of the budget goes towards boarding.

As regards TEVET policy, institutions confirmed that the policy has played an important role in promoting quality assurance mechanisms in institutions. They cited registration of training institutions which is aimed at promoting a quality culture. However, the findings revealed that although some milestones arising from the policy have been reached, the following challenges have affected policy implementation: inadequate resources, role conflict between ministry and TEVETA, and political interference. It was claimed that every government that comes into power moves the policy holder from one ministry to another, disturbing the implementation of strategic priorities of the TVET sector. According to institutions, inadequate awareness of the policy made it difficult for them to embrace internal quality assurance processes.

On quality assurance processes, findings indicate that low funding levels undermine the implementation of quality management systems in TVET institutions. Key indicators for assuring quality seem to be effective monitoring and evaluation systems; the development of quality guidelines; availability of instruments for program evaluation; committed staff on quality matters, and an information management database for storing institutional data. In other words, achieving quality is manageable if there is staff commitment and if students are engaged in teaching and learning provision.

In summary, my research findings indicate that the prevailing quality assurance practices in TVET institutions are inadequate and ineffective especially in terms of promoting the key processes that support training. This therefore raises questions regarding factors that hinder the implementation of quality management systems at TVET institutions.

5.10   Conclusion

In this section, I attempted to explore and highlight about the TVET quality assurance situation in Malawi and how implementation of quality assurance mechanisms in the target

TVET institutions is conducted. Interview, survey and documentary data were obtained from various sources and analyzed.

Respondents from TEVETA who were interviewed agreed that TEVETA objectives have helped to promote quality TVET in Malawi. They cited the development of guidelines for registration of TVET institutions, monitoring and inspection of institutions, TEVET levy for training and harmonization of TVET curricula. The other theme that was highlighted was increased patronage by private sector. The least cited themes were bursary scheme for needy students and increased of students' enrolments.

One of the key findings revealed that most of internal factors which are taken as enablers for the practice of quality assurance system in TVET institutions are missing in the Malawian context.   Internally, findings demonstrate that leadership of TVET institutions could not be key in enforcing implementation of internal quality assurance mechanisms as required by the TEVET Act. Lack of commitment and capability is the hallmark for effective leadership in TVET institutions. There is lack of proper linkage between management and academic staff especially in providing goals and direction to assure and ensure quality. This indicates that leadership in TVET institutions in not performing well with regards to establishing and implementing policies related to quality assurance as stipulated in the TEVET Act.

Implementing quality assurance mechanisms requires the commitment, engagement and capacity of both staff and students. However, TVET institutions include other staff who are competent but not engaged. This implies that TVET institutions have a challenge to adopt and implement internal quality assurance processes especially where staff commitment and engagement is not aligned to competence or vice versa.   Resources unavailability is another hindrance in implementing quality assurance system in TVET institution. This challenge maybe attributed to limitations of leadership of TVET institutions.

Another notable finding in this section revealed that the practice and implementation of quality assurance in TVET institution is largely attributed to external factors. One other noticeable factor impacting on the quality of TVET is the quality of education delivered at secondary school level. It is highly likely that the practice of quality assurance processes by TVET institutions alone cannot bring required change, unless secondary school education capacitates and moulds students for TVET. The findings have shown the failure of secondary

education system to prepare students for technical and vocational training. This proposes that poor basic education is a hindrance to quality assurance practice in TVET institutions.

Furthermore, the findings indicated that quality management system implementation has been derailed by such factors such as inadequate resources in institutions; role conflict between ministry and TEVETA, inadequate TVET fund; mindset of trainers in institutions and poor leadership skills by managers in training institutions. However, the results do indicate that weak monitoring systems; lack of capacity building of people championing QMS and lack of capacity building of trainers are not major drivers that have hindered quality management system implementation. In order to mitigate these challenges, respondents suggested that government should construct technical teacher training college in order to build capacity of teachers in training institutions.

Concerning the legal framework, the TEVET Act is seen as an enabler since it provides for the setting up and implementation of internal quality assurance processes in TVET institutions. The main problem observed is lack of enforcement of the Tevet Act and policies are also contributing to lack of vibrant and effective regulatory body (in this case TEVETA) to ensure and promote quality TVET. TEVETA, which regulates TVET system in Malawi, could not be instrumental in spearheading the establishment and implementation of internal quality assurance processes in TVET institutions. It lacks competency and capacity to execute quality assurance roles as stipulated in the TEVET Act.

Regarding the TEVET policy, the findings showed that the policy has positively influenced quality assurance implementation in TVET institutions. The results indicated the following major impacts of the TEVET policy: Provided platforms for people to discuss challenges and provide solutions in TVET sector; training is implemented as demanded by industry; Curriculum developed with industry taking lead; Provided platform for entrepreneurship innovation; institutions supported with infrastructure development; support for capacity building of trainers; subsidy for training materials and sponsoring needy students; review of TVET curricula and awareness of quality assurance drive in institutions. However, Provision of autonomy to training institutions and enhancement of private-public partnership did not play as major influencers of the policy to implementation of quality assurance processes. However, the policy has never been without challenges. The findings reveal that the policy has been negatively affected by: Absence of technical teacher training college; negative

perception of people towards TVET; Mindset of trainers towards CBET and stakeholder buy-in.

In general, therefore, the findings propose that with lack of enabling internal and external factors, it is a big challenge to adopt and successfully implement quality assurance practices in TVET institutions. In the last chapter that follows, chapter 6, I discuss the findings from the previous chapter, and I also come up with conclusions and suggested recommendations for the study.

CHAPTER 6
FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1   Introduction

As explained in Chapter 1, my study aimed to explore Quality management systems in TVET institutions in Malawi, looking specifically at issues that hindered the implementation of QMS. The central question that guided my study was:

> *"Given the time that has elapsed from the introduction of TVET quality management regime in Malawi and the state of quality management systems in TVET institutions, what could be the possible endogenous and /or exogenous critical factors for this state of affairs?"*

Specific questions that were significant to this central question are addressed later in this chapter. Informed by the rationale for the chapter, I therefore give a summary of insights I gained from my literature review. Regarding the central research question highlighted above, I henceforth present in some detail, the findings of my research study on issues that have hindered quality management system implementation in TVET institutions in Malawi. Finally, I present my conclusions, further considerations on and recommendations for improved quality management system implementation.

The key limitation of my research study was that research data which were gathered from academic staff and management of TVET institutions, and also stakeholders from TEVETA, were purposefully selected. The perspectives presented by academic staff, institution management and stakeholders from TEVETA may or may not be the same if they were presented by academic staff from other public TVET institutions. Hence, the purposive sampling technique which was adopted hinders the generalizability of the research findings of my study of the two target TVET institutions.

6.2   Research agenda

Despite its broader application to TVET, there are questions left unanswered with regard to how quality management systems could improve the fundamental processes of TVET that impact on teaching and learning.   I my study the researcher endeavored to explore critical issues that have affected QMS implementation in TVET institutions. To guide and manage

collection of data and analysis, the central research question was broken down into sub questions:

a)   How do Technical and Vocational training institutions define quality?

b)   What are the attitudes of staff in TVET institutions towards developing and implementing internal quality assurance processes?

c)   How do attitudes of teaching staff affect internal quality management systems implementation?

d)   What mechanisms have TVET institutions put in place to ensure internal quality assurance?

e)   What exogenous and endogenous factors have prevented quality assurance systems and processes implementation?

f)   What are the implications for failure to implement quality assurance processes?

The first research sub-question emerged from a related literature review on quality assurance in the Higher education sector, with a specific focus on TVET in Chapters 2 and 3. In Chapter 2, the researcher argued that effective training provision in TVET is explicitly or implicitly influenced by the diverse meanings attached to quality since there is no single, absolute definition of the term. It is suggested by participants in TVET institutions that quality assurance implementation in TVET is effective when the core processes that affect teaching and learning are addressed. Hence as explained in Chapter 2, QA is defined as a structured and systematic system aimed at paying continuous attention to quality in terms of its maintenance and improvement. This includes paying attention to policies, procedures, resources and actions dedicated to the regular improvement of the entire spectrum of teaching and learning provision.

Good quality assurance practices were taken from the literature review to assist me in achieving the purpose of the research study. One of the insights gained from my review of literature was that various theories are based on the contention that a good quality assurance system results in improved teaching and learning provision. At TVET this is particularly true in the case of institutions who feel they 'own' the QA system and/or when quality assurance agencies play a crucial and supportive role. It was also clarified in my review that a good quality system in TVET focuses on core education inputs, processes and outputs which impact on teaching and learning. This implies that good quality assurance practices need to

focus on key educational processes and enhanced teaching and learning, leadership commitment and involvement, staff and student commitment, adequate resources, availability of policies and structures, and transparency and accountability. The input processes and output realm were used in my research study as foundation for the analysis of quality assurance systems and practices in TVET institutions.

The theoretical framework of the research study was developed from QMS literature and the main concepts which evaluate TVET performance were used as discussed in Chapter 2. The framework comprises the following indicators: governance concepts which depend on institutional arrangements and various roles of stakeholders; finance, access and participation, quality and relevance. The theoretical framework rests on the understanding that policy makers and stakeholders must endeavor to combine priorities related to equity, quality and relevance to determine and allocate financial resources appropriate to institutional governance in specific settings.

Quality management systems and practices in TVET constitute the key dependent variables of the research study put to use especially in terms of availability and the yielding of intended results to ensure quality TVET. Quality TVET is envisioned through quality of education inputs, processes and outputs which impact on teaching and learning. TVET specific and external factors include the following independent variables of the study: organizational leadership, institutional effectiveness, cultural change, institutional vision and mission, staff and students. The legal framework, regulatory structure and socio-cultural factors are some of the external indicators required.

In this research study I employed an exploratory research design in order to gain new insights, discover new ideas and increase knowledge of the phenomenon under study. The qualitative approach was used to discover and explore ideas on the problem at hand - the failure of QMS implementation in TVET - and to collect large amounts of data from a limited number of participants sampled. Two public TVET institutions, namely ATC and BTC were included in the research study. Questionnaires, focus group discussions and interviews were utilized to collect data for the study. The key empirical findings and results of the research study are summarized and conclusions drawn from the in the sections that follow.

6.3   Analysis of findings

The findings presented in the previous chapter will, in this chapter, be related to the objectives of my study. It is significant to remember that the key objective of the study was to explore critical issues that have hindered the implementation of quality management systems at TVET institutions in Malawi. It is also important to remember that the purpose of and rationale for the study are closely to each other. The importance of effective quality management system implementation in TVET institutions is fundamental to the production of skilled manpower for the growth of the country's economy.

Data on quality management system implementation was generated from a review of international and national literature, surveys of academic staff and management, interviews and focus group discussions with management and academic staff and some key stakeholders from the QA Authority in Malawi. Input from stakeholders helped to ensure that the findings were genuine and appropriate to the Malawian context. Furthermore, data concerning quality management systems was generated from management and academic staff of TVET institutions and TEVETA officials.

The research design presented in Chapter 4 of this study included an exploratory and descriptive study of quality management systems in Malawi TVET institutions. The theoretical framework (Figure 3.7, page 57) and research questions guided the analysis of data generated by TVET management and academic staff as well as officials from the QA Authority. Questionnaires were completed by 55 academic staff members attached to the two target TVET institutions. The voice-recording of the interviews and focus group discussions were transcribed and read numerous times in order to distinguish and identify emerging themes for coding purposes (Cohen et al, 2011).

Data triangulation from the sources described (Yin, 2009) helped to collaborate findings and generate themes in order to develop realistic viewpoints on ideal versus realistic quality management system practices in public TVET institutions in Malawi. Several conclusions on these were drawn from the triangulation of data presented in Chapter 5.

During my study, I identified the five key themes which are used as framework for the recommendations made in this chapter. These themes are as follows:

a)   Resources and facilities in TVET institutions

b)   Quality assurance methods and processes

c)   Recruitment and staff development

d)   Parallel TVET qualification and curriculum

e)   Governance and management in TVET

6.3.1   Resources and facilities in TVET institutions

Quality management system implementation requires the existence of adequate facilities and resources to provide teaching and learning. Questionnaires answered by academic staff revealed that there are inadequate resources and facilities to support training provision in TVET institutions: the general condition of tools, and the teaching and learning materials, are in a poor state and this has contributed to the quality of teaching and learning provision in TVET. Additionally, most of the academic staff interviewed explained that workshops do not have workshop assistants and the conditions of equipment and facilities at these workshops are poor due to irregular maintenance. Academic staff further believe that under normal situations, TVET institutions would be adequately supported with teaching resources to ensure that teaching and learning provision is enhanced to meet the requirements of the industry. The questionnaire further confirmed the views of academic staff who observed that TVET institutions are using outdated equipment for training and it is always a problem for students to get the necessary skills on old machines while there is new technology in the industry.

6.3.2   Quality assurance methods and processes

Quality assurance processes at TVET institutions are critical to the enhancement of quality outputs. According to interview data, the implementation of quality assurance systems is relatively non-existent in TVET institutions. Basically, quality assurance systems include both internal and external quality assurance, the former being viewed as the foundation for continuous improvement.

My research findings indicate that TEVETA does not play its regulatory role to enhance quality management systems in TVET institutions. TVET institutions, according to focus group discussion data, do not carry out institutional self-evaluation and even TEVETA does not conduct institutional audits, which is a key feature for external quality assurance mechanisms. In this underlying framework, TVET institutions are not subjected to

accreditation by the regulatory body. The findings have shown that, despite the TEVET Act of 1999, which mandated the Authority to regulate and promote quality TVET, the two public TVET institutions included in my study have not developed and implemented internal quality assurance systems in their institutions.

Additionally, focus group discussion data indicated that TVET institutions do not have specific quality management models that underpin their internal quality assurance practices. The findings also indicate a big gap in TVET institutions between good quality assurance practices and the actual practices on the ground. Institutions are not implementing what is required and/or enhancing the quality of teaching and learning. More specifically, they do not have policies or other quality assurance instruments necessary for the assessment and verification of inputs, processes and output against standardized benchmarks. Further to that, management interview data revealed that the present quality management systems in TVET institutions are inadequate and not effective in supporting and enhancing the core training processes that regulate teaching and learning provision.

6.3.3 *Recruitment and staff development*

Quality teaching and learning provision in TVET demands competent, qualified and dedicated teachers who have adequate subject- matter content and pedagogical skills. The academic staff questionnaire indicated that the majority of teachers (>80%) are males, over 60% have Bachelor's degrees and 36% with diploma qualifications. Moreover, 40% of the academic staff has worked between 5-10 years and about 10% of teachers are experienced, with over 10 years of service. However, the data show that none of the teachers had acquired a PhD or Masters qualification.

Quality training in TVET requires adequate financial support from government, TEVETA and institutional management. Academic staff questionnaire data indicate that academic staff feel that they are not fully supported by the government and institution management because they are not given adequate opportunities to attend workshops, training, seminars and even conferences or to benchmark their performance against other, similar, institutions to help enhance their teaching practices. Focus group discussion data by academic staff also corroborated the questionnaire for academic staff data and disclosed that teachers who are on temporary appointment are not considered for training programs as the ministry only targets permanent employees.

Management focus group discussion data revealed that the current state of inadequate qualified teachers is particularly high since there is currently no provision for full training for TVET teachers in Malawi universities. Again, there are limited opportunities for industrial placement and continuing training for TVET teachers. In the absence of sustained attention being paid to the improvement of the quality of teachers in TVET, the success for TVET reform and quality is compromised. The document analysis reveals that, in accordance with the TEVETA requirements, teaching staff in TVET institutions need to possess qualifications higher than the exit level of the programs they handle. However, data from focus group discussions show that many academic teachers have Diploma qualifications and some Bachelor degrees. It is apparent that inadequate teachers affect the quality teaching provision in TVET institutions (TEVET policy, 2013).

The academic staff focus group discussion further revealed that teachers in TVET institutions need to be adequately remunerated, similar to their colleagues in other professions. They also indicated that if teachers are paid well, they may not engage in part-time jobs which often make them to abscond from work.

My research findings indicate that training in TVET institutions is negatively affected by the inadequate competences and qualifications of TVET teachers (World Bank, 2010). According to focus group data by management, there is a shortage of teachers and only about 55% of established positions are filled. The challenge, according to findings, is also due to the absence of TVET teacher training colleges since most teachers recruited to teach in TVET institutions are graduates from Malawi Polytechnic, which is capable of handling associated subjects like Mathematics and Technical Drawing and offer theoretical components with no hands-on practical experience.

6.3.4 Governance and management in TVET

Data from interviews with academic staff reveal that TVET institutions lack the autonomy to make decisions on the number of students to admit, and the quality and competence of students eligible for entry to TVET institutions. The reasons are that TVET institutions do not have admissions policy in place; also, the mandate to recruit students rests with TEVETA. TVET institutions are therefore under obligation and pressure by the ministry to admit and train all the students TEVETA gives them even if the move goes against their plan,

enrolment capacity, availability of resources and institutional interests. This negatively affects the quality of teaching and learning in TVET institutions.

The findings also indicate that teaching staff in TVET institutions lack adequate training and that they are not engaged in and motivated to encounter challenges and promote the quality of training in TVET institutions. Although there are variations in the qualification mix of TVET teachers, inadequacy of qualified teaching staff is a characteristic of the two TVET institutions. There are many under-qualified teachers without pedagogical skills who are teaching in various programs in TVET institutions. The institutions also lack autonomy to recruit staff since the mandate rests with the government through the ministry responsible. The Ministry of Labour makes all recruitment decisions centrally and this suggests that identifying qualified teaching staff, which is viewed as significant prerequisite for quality training provision, is lacking in TVET institutions. The findings indicate that it is a challenge to provide quality training in TVET institutions in the absence of adequate and qualified academic staff.

According to focus group discussion data by teaching staff, inadequate physical and financial resources to assist teaching and learning are a serious problem in the two target TVET institutions. This indicates how problematic it is for TVET institutions to offer quality training.

Teaching and learning, which is key to the transformation of the student, is hampered by numerous challenges across public TVET institutions. According to findings, there is inadequate integration of theory and practice in teaching and learning due to lack of access to industrial attachment, and this has some implications for the achievement of quality training in TVET. Additionally, quality teaching provision is hindered by inadequate resources to support training. These challenges have a negative influence on the quality of training in TVET institutions. The interview data also revealed that TVET institutions are negatively affected by challenges concerning quality of input, processes and output, all of which influence the quality of teaching and learning in TVET. The conditions needed to support quality management systems are therefore inadequate in TVET institutions.

One factor that supports internal quality assurance implementation in TVET institutions is the expertise of staff on issues of quality assurance. In view of the findings collected from focus group discussion of both target institutions, it is obvious that detailed quality assurance

processes stem from Quality Assurance Committees which have knowledge and expertise in quality assurance. It was also observed from the study that having expert knowledge in quality assurance processes is also significant to TVET managers. As revealed in management interviews, exact views on purposes and definitions of quality assurance mechanisms help TVET institution managers to properly facilitate the establishment and monitoring of the entire process.

One of the key findings in the study is that factors which are taken as enablers for implementing quality management systems in TVET institutions are inadequate in the Malawian landscape. The study has shown that internal leadership and governance in TVET institutions could not be influenced to enforce the implementation of internal quality management systems as required by the TEVET Act. Lack of commitment and capability is the hallmark of leadership in TVET institutions. This indicates that leadership and governance in TVET institutions is not effective in terms of implementing quality management mechanisms as highlighted in the TEVET Act. Implementing quality management systems demands the capacity and commitment of management and staff. However, according to focus group discussion data generated by academic staff, TVET institutions are characterized by a lack of commitment by management to drive quality management system implementation in TVET institutions.

This suggests that TVET institutions have a challenge to drive and implement internal quality management systems, especially when staff commitment is not available. The findings further revealed that inadequate resources are another hindrance to implementation of quality management systems in TVET institutions. The inadequacy of resources is one of the challenges in public TVET institutions and this problem may be related to challenges in effective leadership and governance in TVET institutions.

The other key finding revealed that quality management system practices in TVET institutions are influenced by some external factors. Concerning the legal framework, the TEVET Act is an enabler since it mandates TVET institutions to introduce and implement internal quality management systems in TVET institutions. However, the challenge is failure to enforce the regulatory mechanisms as stipulated in the TEVET Act. The TEVET Act serves as the legal basis for the initiation and implementation of internal quality assurance systems in TVET institutions. The institutions, however, are failing to interpret the provision

of the TEVET Act regarding quality assurance due to various limiting factors. Hence, the findings have revealed that the absence of proper planning, effective leadership, and adequate resources are some of the main challenges for implementing quality management systems in TVET institutions. The challenge to enforce regulatory mechanisms is also attributed to the absence of a robust and strong regulatory body to ensure quality TVET. TEVETA, which is mandated to regulate quality technical and vocational training, could not manage to stimulate the implementation of internal management systems in TVET institutions. According to interview data, TEVETA lacks staff competence and the capacity to establish and execute its function as required in the TEVET Act.

The study has demonstrated that failure to enforce quality assurance mechanisms as stipulated in the TEVET Act is largely due to the inefficiency of TEVETA operations. TEVETA as a regulatory body, is failing to play its role in motivating and triggering internal quality promotion processes in TVET institutions due to a lack of capable staff to drive quality culture within the institutions. TVET institutions, furthermore, receive inadequate funding from government and this does not match the increasing capacity of students. Under such circumstances, it is a problem to enforce the TEVET Act regarding quality assurance implementation in TVET institutions. These findings of the study support the notion that quality assurance mechanisms do not in themselves lead to improvement in quality training but rather facilitates compliance (Harvey, 2006).

Again, poor education quality in secondary schools is also a constraint to adopt and implement quality assurance systems in TVET institutions. The findings reveal that admitting many ill-prepared students to TVET institutions without making sure of adequate physical and human resources, coupled with the absence of a quality culture, are possible reflections of broader contextual challenges. In general, the findings from the study indicate that a variety of enabling factors, both internal and external, which facilitate quality assurance mechanisms is missing in public TVET institutions. In such a case, it is difficult to envisage successful implementation of quality assurance processes in TVET institutions. Alternatively, the provision of a robust regulatory framework without ensuring committed and capable leadership to support a system for quality culture is no guarantee to promote quality training in TVET.

6.3.5   *Parallel TVET qualification and curricula*

According to data from focus group discussions by academic staff, parallel TVET qualifications is one area that was cited by academic staff and even management as a problem due to several examination bodies for TVET programs, and this has resulted in various and different TVET certificates being issued in Malawi. The findings have revealed that there is poor linkage and collaboration within the TVET sector and that this has hindered the mobility of students, who need to transfer their credits from one learning institution to another. In addition, the industry is confused as to which qualification to recognize. Furthermore, most TVET institutions are not in contact with the industry sector that absorbs the TVET graduates for possible employment.

The findings have therefore revealed that one of the main problems affecting quality assurance systems in TVET institutions is the co-existence of multiple TVET qualifications and other foreign qualifications. According to interview data, the situation has negatively affected desired teaching and learning provision in TVET institutions due to the following reasons: TVET teachers are forced to teach, using different TVET curricula or training plans in order to prepare students for different TVET examinations. According to findings, the gloomy state of the TVET qualification system has affected the review of TVET programs. Furthermore, the CBET qualification, which is a four-level credit tier, was initiated by TEVETA in 2005 and is currently the main TVET qualification which targets formal apprentices in TVET institutions. Originally, TVET reform aimed to create an integrated, unified TEVET qualification system in Malawi which would be an integral part of the SADC qualification framework.

Further information from the data revealed that the Malawi Craft and National Trade Testing assessment systems are inadequate. Malawi Craft, which is administered by the Malawi National Examinations Board, is based on theory examinations while teachers, who have inadequate practical competence, have to carry out practical assessments. On the other hand, National Trade Testing system is grossly under-resourced and the curriculum is outdated: it has not been reviewed for several years. However, the NTT is oriented for both theory and practical assessment.

6.4 Adequacy of Quality Assurance systems and practices in TVET institutions

The research questions guiding this study focused on existing practices which ensure the quality of training in TVET institutions and their impact on teaching and learning in these institutions. The summary focuses on the main findings regarding the condition of training in public TVET institutions, the practice and implementation of quality management systems and the structures fundamental to existing quality assurance processes.

The findings drawn from the study show that the quality of training in TVET institutions is pressurized by challenges related to the quality of training inputs, processes and outputs in the target TVET institutions. Concerning the quality of inputs, most of the students are enrolled in TVET institutions with poor academic grounding from secondary education level. Furthermore, lack of motivated and qualified academic staff, and limited utilization of financial and physical resources to support quality training were seen as key problems in TVET institutions. TVET institutions lack autonomy to determine the quality of student to be admitted, and even to recruit academic staff. Such neglect is likely compromise the quality of training in TVET institutions.

Quality of training in TVET institutions is also restricted by challenges associated with shortage of staff; inadequate available resources against rising student enrolment; failure to integrate knowledge and skills required in the industry; unavailability of incentives to academic staff, and unsystematic TVET curriculum review processes. All these have a detrimental effect on TVET quality, more especially in the adoption and implementation of quality assurance systems.

The quality of TVET graduates is also perceived as poor, as observed from the academic staff and management data. The finding is supported by most respondents which show the relationship between the quality of secondary education and how students perform once admitted in TVET institutions. Additionally, TVET institutions do not have established procedures to check and monitor quality of training, especially outputs and learning outcomes.

The challenges abundant to the quality of training in TVET institutions, as observed by the study, are also connected to a shortage of well-organized and effective internal quality assurance structures, policies, instruments and methods needed to evaluate the quality of

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training. The target TVET institutions studied still depend on informal and implicit internal practices of ensuring quality training. These informal internal processes and practices are, however, seen to be ineffective in promoting TVET quality, especially the key educational and training processes of the TVET institutions. The findings demonstrated that even the evaluation of teaching and learning, which the institutions insist is available, is still ineffective. There are no processes that promote TVET institutions to focus on quality of training. This implies that the inherent internal quality assurance systems could not be significant in TVET institutions in Malawi since the training practices employed have become obstacles to quality of training in TVET institutions.

The implementation of explicit quality assurance mechanisms is facing obstacles in TVET institutions. The TEVET Act of 1999 provides the legal framework for instituting and promoting quality assurance in TVET institutions. The quality assurance system and mechanisms include both internal and external elements, where the former is taken as the basis for continuous improvement. TEVETA, as an autonomous regulatory body, is given the mandate through the Act with the task of carrying out external assurance and enhancing the practice of quality assurance processes in TVET institutions. Key to external quality assurance processes is quality auditing, which is based on self-evaluation and its report by the training institution. The study has revealed that TVET institutions are not subjected to accreditation processes in this regard.

Despite the TEVET Act mandate, TVET institutions targeted in the study have not yet adopted, developed and implemented precise internal quality assurance mechanisms. They lack periodic follow-ups and do not have procedures and policies to implement internal training practices that impact on the quality of teaching and learning. The findings show that the practice and implementation of quality assurance mechanisms is still lacking in the studied institutions.

The study has further demonstrated that leadership is likely to hamper the implementation and adoption of quality assurance processes in TVET institutions. In general, the findings from the study indicated that there is a lack of adequate quality assurance mechanisms in TVET institutions. This is largely attributed to internal and external factors which are explained and clarified in the subsequent sections.

6.5 Methodological consideration: validity, reliability and limitations

Under this section, I contemplate the mixed methods and theoretical framework adopted in the research study. In my study, I employed theory to support the research approach, analysis, findings and discussion. The theoretical framework and literature on quality assurance in Chapter 2 helped me to understand how internal and external factors influenced the acquisition and implementation of quality management systems in TVET institutions. It is therefore supported by my findings.

The study revealed that input, process and output dimensions of quality were pivotal to the understanding and analysis of the effectiveness of quality management systems to promote teaching and learning delivery in TVET institutions. Internal quality assurance mechanisms in TVET institutions contributed to differences, especially in the implementation of quality assurance processes in TVET institutions. Furthermore, external quality assurance approaches were significant in explaining how the regulatory framework and other macro-level factors affect internal quality assurance processes and implementation. Internally, the findings revealed, amongst others, that governance and leadership are some of the hindrances to the implementation and adoption of effective quality management systems in TVET institutions. Externally, the quality of students recruited for admission into TVET and the absence of robust regulatory mechanism are also key challenges to quality management system implementation.

Due to the complexity of my research study, the mixed method approach was ideal as the study involved collection of data using different techniques and sources, and the analysis helped me to obtain detailed insights regarding the phenomenon under study. In reality, the adoption of a mixed method approach seeks to enhance the validity of theoretical underpinnings and to get a complete impression of the phenomenon being studied (Onwuegbuzie, Johnson, 2006).

My study has some limitations that might stimulate future research. Firstly, the study focused on public TVET institutions only. The private TVET institutions were not included in the study because public TVET institutions have a larger enrolment rate of students. Secondly, other limitations relate to student experience and perception on issues of quality assurance system implementation in TVET institutions. The study did not include students, and the findings therefore limited my understanding to micro-level quality management

systems implementation in TVET institutions in Malawi. The limitations therefore require future research.

6.6 Contributions to the body of knowledge

Several research studies by other scholars have explored actual quality management systems and factors that hinder their effective implementation in the higher education sector. However, few studies have been conducted to check quality management system implementation in TVET institutions. My study has therefore added to the existing body of knowledge by engaging TVET managers and academic staff and other stakeholders involved in quality management system implementation in outlining the actual quality management practices and the ideal practices required for effective teaching and learning provision in TVET institutions. The study has revealed that adequate resources and facilities; quality assurance methods and procedures; effective recruitment and staff development strategies; efficient governance and management practices and a harmonized TVET curricula are significant for enhancing quality management system implementation. This is an essential contribution to the academic body of knowledge especially in TVET sector. By engaging various TVET stakeholders in establishing and exploring critical issues that hinder effective implementation of quality management systems in TVET institutions, the researcher was able to develop and draw realistic conclusions and recommendations which would help close the gap especially identifying critical issues that hinder quality management systems implementation in TVET institutions.

To my knowledge, no previous research studies in Malawi have explored factors hindering quality management system implementation in TVET institutions, and developed pragmatic recommendations which may assist in the implementation of quality management systems in TVET. Significantly, the study has utilized the support of main stakeholders in the TVET sector, especially TVET institutions and TEVETA as main participants in the study. An executive summary of my research study will be shared with the stakeholders in order for them to work on recommendations aimed at facilitating quality management system implementation in public TVET institutions in Malawi.

6.7 Framework for QMS improvement in TVET institutions

Identified Barriers to Implementing Effective Quality Management system implementation in TVET institutions

- Ineffective leadership; shortage of staff; and capacity of students; lack of staff engagement and commitment; inadequate utilization of resources are some of the key hindrances for effective practice and implementation of quality assurance in TVET institutions
- Academic staff does not have the engagement and capacity to drive quality culture. Most of the teaching staff within TVET institutions lack the qualifications and experience required. Shortage and insufficient teaching and learning resources, staffing and physical facilities to run the programs.
- Externally, unavailability of a vigorous and effective regulatory mechanism and practice that invigorates and enhances internal quality promotion systems; TVET reform policy implementation; poor preparation of students in secondary schools are challenges hindering implementation of quality assurance systems

Drivers for Effective Quality Management System in TVET institutions

- Commitment of staff; availability and enforcing the legal framework; effective leadership skills by managers;
- Periodic monitoring and evaluation of programs to be in line with industry requirements.
- Periodic needs assessment to identify gaps prevalent in TVET institutions
- Availability of communication strategy to assist staff to know what is happening within and outside the institution
- Adequate TVET fund

Recommendations for Effective Quality Management system in TVET institutions

- Strengthening the TEVET regulatory framework to help implement quality assurance systems in TVET institutions.
- Staffing Tevet sector and TVET institutions with committed and capable staff.
- Building capacity of staff in TEVETA and TVET institutions, through training in their specialized areas of TVET.
- Promote and implement systems that demand TVET institutions to provide evidence on teaching and learning outcomes
- TVET institutions to admit capable students basing on resource capacity

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6.8   Conclusion

The findings provided some significant insights concerning the practice of internal quality assurance processes in TVET institutions. Firstly, the theoretically pertinent insight that emerged from the study is that instituting quality assurance systems in TVET institutions is not a solution to quality challenges of TVET sector in Malawi because a variety of factors that enable internal and external landscape is missing. That is, implementing quality assurance in TVET institutions would still remain rhetoric especially where the favorable conditions are not available.

The theoretical model for the study focused on two key assumptions regarding the implementation of quality assurance. Firstly, promoting quality training in general is the primary objective of TVET institutions. Secondly, the external organizational framework plays an important role in establishing the conditions that promote internal quality assurance processes. The findings from the study indicate that the key problems for implementing quality assurance mechanisms in TVET institutions relate to lack of capacity and commitment of staff being some of the main challenges. The study has therefore revealed that both internal and external factors of TVET institutions play an important role in hampering the implementation of quality assurance systems.

Internally, the research study has revealed that a lack of motivated, capable and committed leadership is the key problem in TVET institutions. This is followed by a shortage of motivated, competent and engaged academic staff, poor preparation of students joining the TVET institutions, insufficient resumes and lack of quality culture that support training. So far, TVET institutions lack systematic and supportive internal quality assurance mechanisms aimed at improving teaching and learning outcomes. The challenges discussed are attributed to ineffectiveness of leadership in TVET institution. In turn, the internal problems cited are possible reflections of the challenges prevalent in the external environment of the TVET institutions. Externally, ineffective regulatory frameworks, inability of the secondary education sector to build and prepare students for TVET is another key hindrance to the implementation of quality assurance mechanisms in TVET institutions. The study found that TEVETA which regulates and promote quality TVET, has failed to play its regulatory role in facilitating the implementation and adoption of quality assurance processes in TVET institution. TEVETA decides on students' admissions in TVET institutions, makes poorly

prepared students get admitted into TVET institutions without proper consultation and planning. This in turn, impacts on internal operations of TVET institutions concerning quality assurance.

In general, the findings from the study indicate that the necessary prevailing landscape for quality assurance implementation is missing in the context of TVET institutions in Malawi. This supports the arguments that enforcing quality training is difficult especially where there is lack of supportive internal and external factors.

The findings of the study discussed proposed various implications for enhanced quality assurance system in TVET institutions and they are presented below:

6.8.1   *General recommendations to implement quality assurance mechanisms*

In summary, the study has shown that there are inadequate internal and external positive conditions for quality assurance implementation in TVET institutions. There is a quality assurance gap between the actual and the intended quality assurance processes, and the quality of training, more especially learning acquisition is hindered by several problems emanating from internal and external environment of TVET institutions. Although there are policy documents which recognize that access to TVET should be expanded in order to address equity requirements, in practice, the findings have demonstrated that issues of access are not effective with the exception of some affirmative action to include more females in male dominated programs. Enrolment of parallel students in TVET institutions signifies inadequate funding and overregulation and this poses a risk because students get enrolled in a program that does not meet minimum requirements such as adequate infrastructure. And the results are that institutions become victims and hostages of inadequate and poor funding system. In order to address the issue of access, TVET institutions should consider separating the delivery and management from boarding facilities and should be operated through public and private partnership. Additionally, TVET institutions should strive to develop and implement 3-5 year strategic plans in order to allow efficient utilization of the resources by specific TVET institution, for instance, through the introduction of double intake of apprenticeship programs and by replacing the current TVET activities for parallel students. And TEVET Authority needs to give technical assistance as required by drawing up strategic plans.

The responsibility for recruitment and enrolment of students including the management of student learning to industry needs to be moved to TVET institutions and this will promote institutional autonomy which will be connected with quality assurance mechanisms. This will assist TVET institutions to establish robust links with the industry which could help enhance demand orientation. As TVET institutions build strong linkages with industry there will be strong industry engagement with TVET. By implication, if TVET institutions create more interaction and collaboration with the industry, this will help training institutions with more access to industrial attachment for apprentices and also the industry will be encouraged to support institutions by providing training materials and equipment. Furthermore, explaining to industry the importance of providing places of attachment to apprentices will ensure that the TVET curricula are relevant to labour market needs. And the government needs to explore further opportunities on the development and construction of TVET teacher training college for pre-service as well as in-service training for TVET teachers.

Considering the high complexity of the TVET system in Malawi, there is a need to identify responsibilities for different stakeholders such as ministry, TEVETA and TVET institutions to ensure efficiency of the TVET sector. In this case, TVET institutions should consider conducting tracer studies of their graduates in order to check the effectiveness of their training provision offered and the relevance of their curricula. Also, the outdated and inadequate training resources inclusive of shortage of teaching staff and inadequate industrial attachment places is a serious limitation to effective quality management systems implementation. TVET institutions need therefore to strengthen interaction and collaboration between the industry sector and training institutions. In line with the findings of the study, the implications and considerations for enhanced quality assurance systems in TVET institutions are presented below.

6.8.2 Proposed recommendations to TEVETA

One of the implications of my study is that the implementation of quality assurance system in TVET institutions to bring improvement is missing due to lack of supportive internal and external factors. Externally, the TEVETA should:

- Re-enforce its regulatory framework to facilitate the development and implementation of quality assurance system in TVET institutions.
- Make sure that the TVET sector and TVET institutions are staffed and led by committed and capable staff.
  - TEVET Authority in collaboration with TVET institutions should conduct regular TVET Curriculum reviews in order that the sector becomes relevant to the prevailing socio-economic challenges of the country.
  - The TVET funding model is not only key to quality of TVET but also to the behaviour of the sector. TEVETA should therefore consider developing funding model which assist to address access, relevance, and accountability to ensure efficiency in public TVET expenditure.

6.8.3 Proposed recommendations for TVET institutions

This proposes the need to make sure that TVET Sector including TVET institutions are managed well in terms of attaining the core activities. This demands the following:

a) Recruitment of staff is based on effective and sound criteria rather than political connections;

b) Building capacity of TVET Sector staff including both TEVETA and TVET institutions, through regular training in their specialized areas of TVET. This may allow them to facilitate and develop quality assurance systems to promote continuous improvement;

c) Design of systems which promote a supportive culture and values competence and relevance.

d) Promotion of the implementation of systems that demand TVET institutions to provide evidence on teaching and learning outcomes. This involves establishing instruments for data collection and analysis regarding quality training which will encourage TVET institutions to improve and maintain quality of training based on regular feedback.

e) Establishment of the mechanism for ensuring that TVET institutions have up-to-date machinery equipment and all learning resources for skills acquisition, for example, there is need to create funding to address problems of machines, equipment, and lack of tools and materials. Acquisition of new machines and technology is of utmost importance as those currently in institutions are outdated and obsolete. Introducing

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regular mandatory maintenance of workshop machinery in TVET institutions is also a critical factor.

f)   Provision of opportunities for TVET teachers to update their knowledge and skills. This could be through regular workshops, seminars, short courses and orientation trips within or outside the country to help them address their technical shortfalls and get abreast with new changes and technologies. This will help in the teaching of TVET courses and also act as a motivation of retaining technical teachers in TVET institutions.

g)   TVET institutions should develop guidelines on how workshops should be used to prevent institutions using workshops as ordinary learning rooms and or warehouses.

Secondly, on the implication of the study, enforcing regulatory frameworks and having committed leaders does not guarantee effective quality assurance implementation processes, unless there is a motivated, committed and capable staff; well-prepared students from lower levels of education; adequate resources and a culture of which support teaching and learning. This implies making sure that:

- TVET institutions admit capable students basing on resource capacity, thorough preparation of student demands making sure that there is sound curriculum from secondary to higher streams of education section that focuses on preparing students for TVET.

- Quality assurance mechanisms is formalized and owned by all academic staff in TVET institutions. This demands effective and efficient leadership that promotes full participation of academic staff to implement quality assurance structures.

The research findings of my study have generally indicated that quality assurance systems which rely on procedural approach does not assist much in facilitating enhancement of quality through initiating and implementing quality assurance mechanisms in TVET institutions. This proposes the need to revisit the role of TEVETA, and develop a strong regulatory mechanism to enforce quality systems in TVET institutions as stipulated by the TEVETA Act of 1999. Additionally, improvement of quality training in TVET institutions is possible, especially with capable, competent and engaged leadership and regulatory of TEVETA in terms of establishing a good environment and instruments that facilitate quality training in TVET institutions.

6.8.4   *Further reflections on my study*

Finally, the current study also has its limitations. This relates to the fact, for instance, that quality management implementation was applied and tested in the comparable   context of   some Malawian TVET institutions. This brought some challenges especially in generalizing the research findings of my study. However, TVET institution characteristics and the linkage with the external environment (e.g. regulatory agencies and government) that I found in Malawi TVET institutions concerning quality of activities within institutions do have various features that are similar and they reflect common principles of determining institutional processes and activities.   From this perspective therefore, the research findings may be generalized to include other TVET institutions in Malawi.

6.8.5   *Final remarks*

Reflecting on the findings of my study, I can conclude that organizational and institutional characteristics and a strong regulatory framework play a fundamental role to promote quality assurance system implementation in TVET institutions in Malawi. In addition, leadership commitment in TVET institutions plays a significant and positive role, whereas inadequate funding negatively effects quality assurance implementation. The study therefore revealed that adequate resources and facilities; effective quality assurance methods; adequate financial support and qualified teaching staff are a prerequisite for promoting quality assurance system implementation in TVET institutions. Having reached at the end of this thesis, it is my belief that my research study has raised a head of the veil concerning quality assurance system implementation in TVET institutions in Malawi.

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Yin R. (2014). Case Study Research: Design and Methods, 5th edition (first edition, 1984), Sage, Los Angeles.

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ANNEXURES

ANNEXURE A: Permission to conduct study in TVET institutions

The Secretary
Ministry of Labour and Manpower Development
P/B 344
Lilongwe 3
Malawi

Att: The Director for Technical and Vocational Training (DTVT)

Dear Sir,

REQUEST TO OBTAIN PERMISSION TO CONDUCT RESEARCH AT LILONGWE TECHNICAL COLLEGE

I am a student currently pursuing a PhD course at University of Pretoria in South Africa. I would like to request permission to conduct a study titled "Quality Management systems in Malawi's Technical and Vocational training institutions- Critical issues hindering implementation". Specifically the study will focus on critical issues which have hindered effective implementation of Quality Management Systems in TVET institutions. As you are aware, quality assurance has been an important concern for countries in sub-Saharan Africa not only to become competitive in the international market, but also for reasons of accountability. According to the literature, quality assurance within the TVET sector in Malawi is not achieving its objectives. My area of research is on Quality management systems in Technical and Vocational Training Institutions in Malawi.

The purpose of this letter is to seek your permission to conduct my research at **Lilongwe Technical College** which falls under your ministry. If granted permission, data collection will be done from January to March 2017 at Lilongwe Technical College. The research will involve interviews with key stakeholders in the College to explore some of the challenges and concerns

experience within the College in terms of the implementation of quality assurance systems and processes. All information collected will only be used for research purposes and will be treated as confidential. The research findings will be given to the institution and it is foreseen that it will be of great benefit to the institution as part of their strategic planning initiatives.

Your kind consideration in granting permission to conduct the research will be appreciated.

Yours sincerely,

Zizwa Msukuma

PhD candidate
Student number 15285589

Email: zizwa@yahoo.com

Prof Jan Nieuwenhuis
Supervisor

Permission granted/Not granted

Dr. Godfrey B.C Kafere

Secretary for Labour and Manpower Development

MINISTRY OF LABOUR

2017 -02- 2 1

PRIVATE BAG 344
LILONGWE 3

ANNEXURE B: Permission to conduct research at TEVETA

Permission granted
Ql, 19/1/17

Executive Director
TEVET Authority
P/B B406
Lilongwe 3
Malawi

TEVET
PRIVATE BAG B406
1 9 JAN 2017
CAPITAL CITY
LILONGWE 3

Dear Sir,

REQUEST TO OBTAIN PERMISSION TO CONDUCT RESEARCH AT TEVETA

I am a student currently pursuing a PhD course at University of Pretoria in South Africa. I would like to request permission to conduct a study titled "Quality Management systems in Malawi's Technical and Vocational training institutions- Critical issues hindering implementation". Specifically the study will focus on critical issues which have hindered effective implementation of Quality Management Systems in TVET institutions. As you are aware, quality assurance has been an important concern for countries in sub-Saharan Africa not only to become competitive in the international market, but also for reasons of accountability. According to the literature, quality assurance within the TVET sector in Malawi is not achieving its objectives. My area of research is on Quality management systems in Technical and Vocational Training Institutions in Malawi.

The purpose of this letter is to seek your permission to conduct my research at **your institution**. If granted permission, data collection will be done from January to March 2017. The research will involve interviews Quality Assurance Directorate to explore some of the challenges and concerns experienced within the public TVET institutions in terms of the implementation of quality assurance systems and processes. All information collected will only be used for research purposes and will be treated as confidential. The research findings will be given to your

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institution and it is foreseen that it will be of great benefit to the institution as part of your strategic planning initiatives.

Your kind consideration in granting permission to conduct the research will be appreciated.

Yours sincerely,

Zizwa Msukuma

PhD candidate
Student number 15285589

Email: zizwac@yahoo.com

Prof Jan Nieuwenhuis
Supervisor

Permission granted!

Permission granted/Not granted

Executive Director, TEVETA

17/1/17

ANNEXURE C: Consent form

Dear Participant

INVITATION TO PARTICIPATE IN A STUDY

I am a student currently pursuing a PhD course at University of Pretoria in South Africa. I would like to request permission to conduct a study titled; "Quality Management systems in Malawi's Technical and Vocational training institutions- Critical issues hindering implementation. The purpose of this study is to investigate quality assurance within the TVET sector in Malawi. Specifically, I intend to explore critical issues which have hindered effective implementation of quality management systems in TVET institutions in Malawi. The research study will be conducted for one week in January 2017. Based on your position and involvement with quality assurance, you are invited to take part in this study. In this letter I want to tell you about what may happen if you participate in this study. You can then decide if you want to participate or not. If you agree to participate in this study, I will kindly ask you to sign the attached consent form. You may refuse to take part in the study or stop at any time without giving any reason.

For the purpose of the study, your institution has been selected as one of the research sites where data on quality assurance systems and processes will be collected. Data collection will take place with lecturers and management in different phases at the institution or at any place convenient to you. The research study has been categorized in the following phases:

Phase 1: Individual interviews (30-45 minutes)

Phase 2: Focus group interviews (60 minutes

An audio-recorder will be utilized during the interview session in order to give the researcher an opportunity to extract data verbatim during data analysis stage. However, you

will be required to give the researcher permission to use it and indicate whether you would like to listen to the discussions and your responses at the end of the interview session.
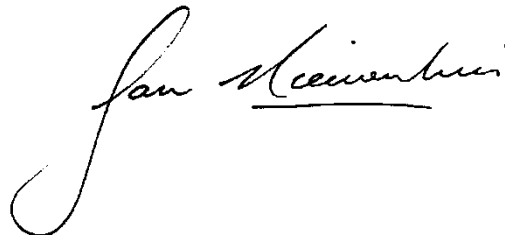
The name of your institution, your name and identity will not be revealed in the research and you are assured of complete anonymity. Only the researcher will know your identity. The information obtained will only be used for research purposes and you will have privy into the transcribed data regarding your interview.

You may come across topics in this study that might provoke unpleasant or upsetting feelings. If you feel uncomfortable, you have the right to decline to answer specific questions or to stop the study at any time. There will be no financial benefits for participation in this study. The results of this study are for study purposes and will be published on line at the University of Pretoria Library.

Yours sincerely,

Prof Jan Nieuwenhuis

Zizwa Msukuma   Supervisor

PhD candidate
Student number 15285589

Email: zizwac@yahoo.com

I, _____(full name) hereby give consent to participate in the research. I understand that:

1. My name and identify will be protected and will not be revealed in the research

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2. That my participation is complete voluntary and that I may decide to withdraw at any stage without any consequences

3. That I will have the right to access the transcription of the interview

4. I also agree that the interview may be recorded for transcription purposes

Signed   Date

_____   _____

ANNEXURE D: Interview questions for TEVETA staff

1. Would you explain how TEVETA has attained the objectives of its establishment in terms of promoting Quality TVET in Malawi? (Probe on: explain)

2. What methods and procedures does TEVETA use to assure the quality of TVET institutions? (Probe on: What are they? How are they used?)

3. Do you think TVET institutions undertake genuine and critical self-evaluation of their education and training?

4. Does TEVETA conduct institutional quality assessment in TVET institutions? If yes, how is the institutional quality assessment carried out?

5. What is your general evaluation on the operations of TEVETA particularly in procedures and methods used in assessing the quality of TVET?

6. In your belief, what do you think are the general problems, if any, does TEVETA face in undertaking TVET quality assurance processes? (Probe on: (Mention them and how is TEVETA addressing them)

7. Many of the TVET institution in Malawi have adopted Competency Based as a mode of delivery. What challenges does TEVETA face in making sure that the mode of delivery is fully accepted by the institutions? (Probe: Mention them and how is TEVETA addressing them)

8. In 1999, Government of Malawi enacted the TEVET Act in order to promote TVET in Malawi. In your view:

a) How has the TEVET policy influenced the task of implementing quality management system in TVET institutions? (give examples if any)

b) What challenges has TEVETA experienced in implanting TEVET policy and how are these challenges addressed?

c) What major problems have hindered or derailed Quality management systems implementation in TVET institutions? (Probe on: cite examples)

ANNEXURE E: Focus group discussion questions for academic staff

1. What methods and procedures are in place to ensure quality of academic offering in your institution?

2. Has your institution ever been engaged in quality assurance activities (institutional self-evaluation, quality audit)? Have you been consulted by your institution or other organizations (e.g. TEVETA) during the development of the Quality assurance policies and systems?

3. How do you evaluate quality of training in general and the effectiveness of the quality management practices in particular in your institution?

4. What do you think are the most important challenges and constraints at national and institutional levels in terms of enhancing quality of training in TVET institutions in Malawi?

5. What do you think are the necessary conditions and resources required for quality management system implementation that really assist to promote quality TVET in institutions? In what ways do you think can the current quality practices be improved?

6. What problems does the institution experience in establishing staff development strategies which can be aligned to internal quality assurance practices?

7. In 1999, Government of Malawi enacted the TEVET Act in order to promote TVET in Malawi. In your view:

   a) How has the TEVET policy influenced the task of implementing quality management system in TVET institutions? (give examples if any)

   b) What challenges has TEVETA experienced in implanting TEVET policy and how are these challenges addressed?

   c) What major problems have hindered or derailed Quality management systems implementation in TVET institutions? (Probe on: cite examples)

8. In general, TEVT curricula follow the CBET mode of delivery through the TEVET Qualifications Framework (TQF). In your view: -

   • Explain how TEVET programs are monitored at institution level?

   • How can you improve program monitoring to bring the desired quality in the institution?

9. It is assumed that quality assurance is expensive. Hence some people believe that financial resources have an important role in IQA implementation. In your view:

   a) Would you explain the significance of financial resources in quality assurance implementation in your institution

ANNEXURE F: Focus group discussion questions for management:

INDICATORS **QUESTIONS**

Delegation of responsibility

Assuring quality is the ultimate aim of TVET institutions and it has taken institutions more time and resources in meeting quality requirements.

Therefore, as a Head of Department:

(a) What key responsibilities do you play in achieving quality training in your institution?

(b) In your view, how do you achieve quality related culture as you discharge your responsibilities?

Extent of centralization

Quality management system can be centrally arranged but can also be arranged in a decentralized manner. Decentralization refers to delegated decision making authority to people at institutional level like management and academic staff. Whereas centralized decision making relies on set rules developed by higher.

(a) How are decisions on quality assurance made in your institution?

(b) Are there people responsible for quality assurance in respective faculties/departments in your institution?

(c) Do faculties/departments have quality assurance strategies that are aligned to institutional strategic plan?

(d) In your view, what could be the best quality structure for the institution that can effectively help to implement IQA?

Leadership

People always affirm that effective leadership in TVET institutions is key to enhancing quality assurance activities.

In your view:

a) As a leader, how do you help in implementing

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quality assurance system in your institution?

b) Are the current practices of implementing IQA helpful in achieving quality oriented activities?

Funding

It is assumed that quality assurance is expensive. Hence some people believe that financial resources play an important role in IQA implementation. In your view:

b) Would you explain the significance of financial resources in quality assurance implementation in your institution

Curriculum

In general, TEVT curricula follow the CBET mode of delivery through the TEVET Qualifications Framework (TQF). In your view: -

- Explain how TEVET programs are monitored at institution level?
- How can you improve program monitoring to bring the desired quality in the institution?

Policy

In 1999, Government of Malawi enacted the TEVET Act in order to promote TVET in Malawi. In your view:

a) How has the TEVET policy influenced the task of implementing quality management system in TVET institutions? (give examples if any)

b) What challenges has TEVETA experienced in implanting TEVET policy and how are these challenges addressed?

c) What major problems have hindered or derailed Quality management systems implementation in TVET institutions? (Probe on: cite examples)

Staff development	As quoted in literature sources, staff development is taken as an important requirement to improve staff capacity and skills which can help to achieve quality culture in an institution.

As a Head of department:

a) Are you in support with this idea?

b) What steps has the institution taken to establish staff development plans which help to address quality assurance activities?

c) What challenges does the institution face in establishing staff development plans which can be aligned to internal quality assurance?

QA process	In order to achieve quality TVET, institutions are required to set up quality management systems basing on TEVET Act and also on availability of resources in the institution:

a) What procedures has the institution put in place in order to assure quality of academic offering in the institution?

b) What is the level of your satisfaction concerning the institution's current performance in enhancing quality of training?

ANNEXURE G:Questionnaire for teachers

1. **GENERAL**

   1.1.   Institution _____

   1.2.   Department _____

   1.3.   Sex   ☐ Male   ☐ Female:

   1.4.   Education qualification:

   ☐ Diploma   ☐ Bachelors

   ☐ Masters   ☐ PHD

   ☐ Others

   1.5.   Academic rank:

   ☐ Assistant Lecturer   ☐ Lecturer

   ☐   Senior Lecturer   Head of
   Department

   ☐   Others specify

   1.6.   Area of specialization: _____

   1.7.   Years of service in institution: _____

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2. QUALITY ASSURANCE SYSTEMS AND PRACTICES

POLICIES AND INSTITUTIONAL ARRANGEMENTS

2.1. To what extent do you find the following concepts of quality important	Not important at all 1	2	3	4	Very important 5	I don't know 6
Quality as fitness of purpose						
Quality as value for money						
Quality as excellence						
Quality as transformation of the learner						
Others (please specify)						

2.2. To what extent do you think the following actors play an important role in assuring quality of training in your institution?	To lesser extent 1	2	3	4	5	To higher extent 6
DTVT						
TEVETA						
Academic staff						
Students						
Employers						

2.3. Does your institution have quality assurance policies?

☐ Yes. Please state the major policy guidelines for maintaining and ensuring quality of training in your institution

_____

_____

_____

_____

What do you think are the institutional values and purpose that underpin the quality assurance

policy?_____

_____

_____

☐ No. please go to question 2.5.

2.4. Is there a responsible body for the implementation of quality assurance policy in your institution?

☐ Yes. State the responsible body/section _____

☐ No. why? _____

2.5. Did you participate in any quality assurance related activities in your institution in the last 10 years?

☐ Yes. Please mention some of the recent activities you have been participating

☐ No

2.6. If there is a quality assurance system in your institution, please evaluate the state of art of implementation of quality assurance in your institution	Yes. We have implemented	We are currently implementing	We are planning to implement	We don't have
Setting quality indicators/standards for teaching and learning across all programs				
Developing quality assessment manuals and guidelines				
Setting institutional structure and responsibility for quality improvement				
Providing guidelines, procedures and support to academic staff to ensure the quality of their teaching				

Conduct regular review of study programs and curriculum				
Conduct regular staff meetings to discuss quality of training and student learning				
Using results of programs/course review for improvement of student learning				
Building quality culture and shared values across all programs				

METHODS AND PROCEDURES

2.7. Does your institution employ one of the following one or more of the following as methods/tools of quality assurance?	yes	No
Need assessment for program/curriculum design		
Regular program/curriculum evaluation/ review		
Assessment of learning outcomes		
Consultative meetings with key stakeholders		
Institutional self assessment		
External examiner		
Alumni survey		
Exit interviews with prospective graduates		
Colleague evaluation of teaching		
Student evaluation		
SWOT analysis		
Others (please specify)		

2.8. How important are the following areas for quality assurance of your institution	Not at all important 1	2	3	4	Very important 5
Institution mission and educational goals					
Governance and management					
Learning environment (infrastructure and learning resources)					
Program relevance and curriculum					
Teaching, learning and assessment processes					

Student admission and support services					
Student progression					
Academic and support staff					
Student learning experience					
Graduates employment					
Others (please specify)					

2.9. Does your institution follow one or more of the quality management models?	yes	No
ISO9000		
Total Quality Management (TQM)		
EFQM		
Others (please specify)		

2.10. To what extent is the existing quality assurance system (policy, guidelines, methods and instruments) in your institution	Not at all 1	2	3	4	To a great extent 5
--communicated among staff, students and other stakeholders					
-Related to quality of students learning					
Helpful in enhancement of the quality of teaching and assessment practices					
Related to student learning					
Related to the attainment of the overall mission and goals of institution and department					

2.11. How do you evaluate the impact of quality assurance practices on the improvement of every day teaching and	Very low 1	2	3	4	Very high 5

learning in your institution/department?					

2.12.   Do you think that the requirements of the quality assurance system set by TEVETA are acceptable and implementable in the context of your institution?

☐ Yes   ☐ No

What do you think are the major deficiencies/gaps of the TEVETA Quality assurance system?_____

_____

_____

2.13. How satisfied are you with the following issues in your institution	Very dissatisfied 1	2	3	4	Very satisfied 5	No opinion
Leadership commitment for quality improvement						
Academic staff commitment for quality improvement						
Staff involvement in quality assurance practices						
Shared responsibilities and structures for quality assurance implementation						
Coordination and collaboration among different actors in quality assurance implementation						
Student recruitment and admission practices						
Overall impact of quality assurance implementation on the improvement of quality education and training						

2.14. How do you evaluate the following educational resources and facilities in your institution?	accessibility		utilization		Quality	
	Yes	No	High	low	Good	Poor

Facilities						
Library resources						
Laboratories						
Equipment (e.g. in workshops						
ICT (internet connection)						
Student learning support						
Counseling						
Remedial courses						
Course materials						
Financial assistance						

2.15. How do you think that students are affected by quality assurance practices in the following issues?	Not at all 1	2	3	4	Very much affected 5
Academic preparedness					
Motivation to learn					
Self-confidence					
Interest towards the courses you teach					
Attitudes towards their fields of study					
Value orientation towards quality learning					
Engagement and commitment towards their studies					
Academic competence					
Problem solving skills					
Critical/analytical thinking skills					
Communication skills					
Teamwork skills					

	hindrance		Not important	facilitator	
Time orientation					
Relevance of study programs for later career of students					
Others (please specify)					

2.16. From your point of view, what hinders/facilitates the implementation of quality assurance in your institution?	hindrance		Not important	facilitator	
	1	2	3	4	5
Government intervention in internal affairs of institution					
Political stability					
External quality (TEVETA) regulations and requirements					
TEVETA policy					
Business process re-engineering					
Institutional and student enrolment expansion policy					
Graduate mix policy					
Institution commitment and support for quality					
Commitment and support of academic community for quality					
Resources (e.g. finance and expertise)					
Commitment and engagement of students for their learning					
Preparation of incoming students					
Others (please specify)					

2.17. Overall, please list down the major factors that you think affect the development and implementation of quality assurance in your institution/department.

Internal institutional factors

_____

_____

_____

External factors

_____

_____

_____

2.18.   In what ways do you think can the current quality assurance practices be improved?
Please state your suggestions for improvement.

_____

_____

_____

2.19. How do you evaluate the following quality indicators?	always	often	Usually	seldom	Never
Documentation management					
Records of students assessment are available and up to date					
Records and statistical data of students progression are available					
Customer focus and satisfaction					
Teaching staff is involved in decision making					
There are arrangements for counseling and welfare support for the teachers					
Teachers are provided their opportunities to improve their qualifications					
Infrastructure					
Sufficient health services are available at the campus					
Sufficient emergency service are available at the campus					
Teachers have access to relevant and appropriate IT facilities including internet					

Work environment					
Teachers are encouraged to conduct research studies					
Teachers are awarded for performing well					
There are chances for promotion for teachers from one scale to another					
Teachers are getting enough remuneration					
Upward mobility of teachers is fair and merit based					
Teachers' safety is ensured at the campus					
Program design					
Programs have clear aims and objectives					
Objectives of programs regarding skills to be imparted are identified in advance					
The subjects content are related to the programs aims and objectives					
Each course contents are developed with both internal and external staff with expertise in that particular area					
Total number of credits is established					
Teaching processes					
The program aims and objectives are understood by the teachers					
Delivery methodology is decided in advance					
Learning experiences of students are relevant to employment					
The learning strategy clearly identifies teacher-centered and student-centered activities					
Students are encouraged in teaching and encouraged to take part in discussion					
Assessment processes					
The students' assessment methodology for each course is determined in advance					
The assessment ensures the students attains the required standards					
There is students' assessment criterion as well as grading criterion for each course					
Students assessed work is returned in time					
Teachers provide useful feedback					
Product management					
There is a systematic and progressive development of assessment and achievement of skills					
The quality assurance system ensures curriculum review and development					

	Yes	To			No
Program evaluation is carried out at completion					
There are procedures for internal verification and evaluation of all aspects of assessment process					
There are clear procedures to ensure that grades and certification awarded to students are fair and unbiased					
2.14. In your view, which of the following problems your institution is facing in enhancing the quality of training	Yes	To		No	
Lack of financial resources					
Lack of physical resources (buildings, libraries, labs etc)					
Lack of human resources (qualified teachers etc)					
Lack of adequate space					
Lack of well equipped libraries and labs					
Outdated curriculum					
Poor governance					
Resistance to change					
Lack of facilities and poor pay structures for teachers					
Lack of incentives for teachers for professional growth and performance					
Lack of planning					
Politics among both students and teachers					
External interference in the affairs of the institution					
Favoritism and nepotism in decision making in appointment of staff and employees					
Lack of quality assurance system at the institution					
Centralized decision making					
Lack of communication between teachers and administration					
Lack of communication between students and administration					

2.20.   Please list down the problems faced by the institution other than the above.

_____

_____

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2018 TRAINING OPPORTUNITIES

The TEVET Authority is an organization which regulates and facilitates the Technical, Entrepreneurial and Vocational, Education and Training (TEVET) system including the Apprenticeship Scheme in Malawi. The Apprenticeship scheme follows a Competency Based Education and Training (CBET) methodology of delivery. The approach is modular and has a system of continuous and summative assessment. Competences are attainable at an institution and in industry during attachment. The trainee is assessed as competent only if a competence is demonstrated according to standards specified by the industry.

The training programs in various occupations have a maximum duration of **3 years** within which the qualifications listed below may be obtained.

1. Malawi TEVET Foundation Certificate - (Level 1)
2. Malawi TEVET Intermediate Certificate - (Level 2)
3. Malawi TEVET Advanced Certificate - (Level 3)

An opportunity has now arisen to recruit trainees to fill vacant spaces in various Technical Colleges for the 2018 Academic Year (Level 1) as detailed in the table below. *Take note that some of the occupations are offered on Self-Boarding basis.*

OCCUPATION	PLACES AVAILABLE	OCCUPATION	PLACES AVAILABLE
Administrative Studies	220	Motorcycle Mechanics	20
Automobile Mechanics	155	Painting & Decoration	35
Bricklaying	195	Printing	0
Carpentry & Joinery	215	Plumbing	75
Electrical Installation	120	Refrigeration & Air Conditioning Mechanics	40
Fabrication & Welding	70	Tailoring and Fashion Design	195
Food Production	60	Vehicle Body Repairing and Refinishing	15
General Fitting	60	Wood Work Machining	10
Information & Communication Technology	195		
		TOTAL	1680

ANNEXURE I: Entry requirements in TVET institutions

Table 1:   Details of available trades/occupations

OCCUPATION	DESCRIPTION	ENTRY REQUIREMENTS
Administrative Studies	Deals with secretarial work and front office operations	MSCE
Automobile Mechanics	The art and science of diagnosing and rectifying in mechanical and electrical faults on vehicles.	MSCE with credits in Maths and Physical Science
Bricklaying	The art and science of laying bricks to erect a building	MSCE
Carpentry & Joinery	The art and science of processing and joining Timber/Wood to make products	MSCE
Electrical Installation and Electronics	The design and application of circuitry (wiring of buildings) and equipment for power generation and distribution, machine control and communication	MSCE with credits in Maths, Physical science
Fabrication & Welding	The process of joining metals/ thermoplastics by using electricity or gas	MSCE
Food Production	The art and science of food budgeting, preparation and serving	MSCE with credits in Sciences
General Fitting	The art and science of processing metal products on machines.	MSCE with credits in Maths and Physical Science
Information & Communication Technology	Deals with diverse set of technological tools and resources used to communicate, create, disseminate, store and manage information and the use of application packages and development of basic programmes including networking	MSCE
Motorcycle Mechanics	The art and science of diagnosing and rectifying mechanical and electrical faults on Motorcycles	MSCE with credits in Maths and Sciences
Painting & Decoration	Deals with the art of painting walls/surfaces and sign writing	MSCE with credits in Sciences
Plumbing	The art and science of laying pipes/appliances for water supply and disposal.	MSCE
Refrigeration & Air Conditioning Mechanics	The art and science of installing Refrigeration and Air conditioning systems	MSCE with credits in Maths and Sciences
Tailoring and Fashion Design	Deals with designing, tailoring and management of textiles	MSCE
Vehicle Body Repairing and Refinishing	The process of repairing the bodies of motor vehicles	MSCE
Wood Work Machining	The art and science of processing wood on machines	MSCE

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ANNEXURE J:HEST project to support higher education (2012)

SUPPORT TO HIGHER EDUCATION, SCIENCE AND TECHNOLOGY (HEST) PROJECT

STAFF SCHOLARSHIPS FOR UNIVERSITY AND TEVET COLLEGES SELECTION CRITERIA AND GUIDELINES

1.0 INTRODUCTION

The government of Malawi has received a loan from the African Development Bank to enhance quality of higher education in Science and Technology (HEST) in Malawi. Part of the funding is intended to be used for improving the quality and relevance of Higher Education Science and Technology (HEST) and TEVET. This component will cover for training of University and TEVET staff at masters and PhD levels for the beneficiary institutions and improve the links with the private sector.

This therefore is a call for applications for qualified staff members who are in the training/staff development plans for the Colleges to apply for the scholarships. The selection criteria and guidelines for the award of the scholarships are outlined below.

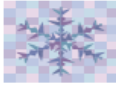### 2.0 SCOPE OF THE SCHOLARSHIP
The scholarship will cover tuition, subsistence allowance, accommodation, cost for obtaining visa, air ticket and travel costs, book and stationery allowance.

3.0 ELIGIBLE COURSES

The following are the eligible programmes for University Colleges:
  ➢ Information Systems

ANNEXURE K: PROOFREADING AND LANGUAGE CERTIFICATE

Sanctum

Independent Research Consultancy

beverley.malan1@gmail.com

Cell number: 084 440 2828

7 Edward Street, Anzac, BRAKPAN, Republic of South Africa

28 November 2017

Proofreading / Language Editing Certificate

To whom it may concern

This is to certify that I proofread and edited the PhD thesis, "**Assessing Quality Assurance in the technical and vocational education and training system in Malawi**", prepared by Zizwa Msukuma Chisi in lieu of his submitting it to the University of Pretoria for examination purposes. I corrected punctuation, spelling, sentence construction, number and concord and minor language errors. I also pointed out ambiguities in meaning and, where applicable, suggested adjustments to the sequence and/or construction of sentences and paragraphs which negatively affected the flow of the argument and/or undermined the cohesion and coherence of the same. To the extent possible, I either removed or rephrased unnecessary repetitions of ideas phrased in exactly the same words. I also checked the correspondence between in-text references and the reference list, indicating omissions and other irregularities.

I wish the candidate every success with his final submission and trust that this recommendation for improving the quality management systems and procedures at TVET institutions in Malawi will be favourable considered.

Beverley M. Malan (Dr)

(Electronically signed)

ANNEXURE L: Copy of administered questionnaire by academic staff

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Education

Department of Humanities Education

QUESTIONNAIRE FOR TEACHERS

PURPOSE: This questionnaire is designed to collect relevant information about your views on the systems and practices of assuring quality of technical and vocational training in your institution/department. Your response to the items of this questionnaire will remain confidential and the results will be used to examine the existing quality practice systems and practices in public TVET institutions. We hope you will be able to take time and carefully complete this questionnaire. You can use a "√" mark to indicate your responses for items with alternative responses. Please briefly state your responses for the open-ended items.

Thank you for your time

The Researcher

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2.3. Does your institution have quality assurance policies?

☒ Yes. Please state the major policy guidelines for maintaining and ensuring quality of training in your institution

_____

_____

_____

_____

_____

_____

_____

_____

What do you think are the institutional values and purpose that underpin the quality assurance

policy?_____

_____

_____

☐ No. please go to question 2.5.

2.4. Is there a responsible body for the implementation of quality assurance policy in your institution?

☐ Yes. State the responsible body/section _____

☒ No. why? ___I don't know___

2.5. Did you participate in any quality assurance related activities in your institution in the last 10 years?

☐ Yes. Please mention some of the recent activities you have been participating

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METHODS AND PROCEDURES

2.7.Does your institution employ one of the following one or more of the following as methods/tools of quality assurance?	yes	No
Need assessment for program/curriculum design		✓
Regular program/curriculum evaluation/ review		✓
Assessment of learning outcomes	✓	
Consultative meetings with key stakeholders		✓
Institutional self assessment		✓
External examiner	✓	
Alumni survey		✓
Exit interviews with prospective graduates	ı	✓
Colleague evaluation of teaching	✓	
Student evaluation	✓	
SWOT analysis	✓	
Others (please specify)		

2.8.How important are the following areas for quality assurance of your institution	Not at all important				Very important
	1	2	3	4	5
Institution mission and educational goals			✓	✓	
Governance and management		✓			
Learning environment (infrastructure and learning resources)			✓		

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Shared responsibilities and structures for quality assurance implementation		✓					
Coordination and collaboration among different actors in quality assurance implementation	✓						
Student recruitment and admission practices		✓	✓				
Overall impact of quality assurance implementation on the improvement of quality education and training				✓			

2.13. How do you evaluate the following educational resources and facilities in your institution?	accessibility		utilization		quality	
	Yes	No	High	low	Good	Poor
facilities						
Library resources	✓			✓		✗
laboratories		✗		✗		✗
Equipment (e.g. in workshops	✓		✓		✗	✗
ICT (internet connection)	·	✗	✗			✗
Student learning support						
counseling	✓			✓		✗
Remedial courses	✓	·	·	✓	✓	
Course materials	✗	✗		✓		✗
Financial assistance		✗		✗		✗

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	Yes	To some extent	No
of all aspects of assessment process			
There are clear procedures to ensure that grades and certification awarded to students are fair and unbiased		✓	
2.14. In your view, which of the following problems your institution is facing in enhancing the quality of training			
Lack of financial resources	✓		
Lack of physical resources (buildings, libraries, labs etc)	✓		
Lack of human resources (qualified teachers etc)		✗	✓
Lack of adequate space			
Lack of well equipped libraries and labs	✓		
Outdated curriculum	✓		
Poor governance		✓	
Resistance to change	✓		
Lack of facilities and poor pay structures for teachers	✗	✓	
Lack of incentives for teachers for professional growth and performance	✓		
Lack of planning		✓	
Politics among both students and teachers	✓		
External interference in the affairs of the institution	✓		
Favoritism and nepotism in decision making in appointment of staff and employees	✓		
Lack of quality assurance system at the institution	✓		
Centralized decision making	✓		
Lack of communication between teachers and administration	✓		
Lack of communication between students and administration		✓	

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2.19. Please list down the problems faced by the institution other than the above.

— No qualified First Aid personnel.
— Inadequate rest and wash rooms
— Inadequate desks that lead to students standing during lessons, hence affecting their concentration during learning.