

Programme Development and  
Employability in Higher Education  
Institutions in Zambia

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# Abstract

The purpose of this study is to explain the role of employability in programme development in the technical education, vocational and entrepreneurship training (TEVET) sector, in Zambia. The study focus was on TEVET training authority (TEVETA) a quasi government organ mandated to develop curricula for the TEVET sector and on the ministry of science, technology and vocational training (MSTVT), the ministry responsible for TEVET. The study employed a case study design using the qualitative strategy. The sample was purposefully selected consisting of five respondents from TEVETA, four respondents from MSTVT and one respondent from Livingstone institute of business and engineering studies (LIBES). The study utilized the semi-structured interview guide and the data collection process was conducted through face to face individual interview at MSTVT and LIBES, and focused group interview at TEVETA.

The study revealed that only 41 percent of TEVET is higher education since TEVET starts at a point when an individual is able to learn a skill for whatever purpose, for employment or entrepreneurship, regardless of their educational background. TEVETA designs programmes for the TEVET sector through collaboration with employers, workers, training providers and the informal sector representations.

Employability plays a role in programme development in that through collaboration, stakeholders' help to convert what the labour market require into what the TEVET sector provides or help to translate demand into supply. The TEVET sector ensures graduate employability through provision of skills for both the formal and informal sector such as the technical skills, vocational skills, survival skills, job specific skills and entrepreneurial skills.

Employability therefore plays an important role in programme development in that the involvement of various stakeholders and provision of skills for both the formal and informal sector broadens the applicability of TEVET in the world of work enabling an individual to earn a livelihood regardless of context.



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Mudenda Simukungwe-Moono

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# Dedication

To Mude, our daughter.





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# Acronyms

DTEVT	Department of Technical Education and Vocational Training
FNDP	Fifth National Development Plan
MES	Modules of Employable Skills
MOE	Ministry of Education
MSTVT	Ministry of Science, Technology and Vocational Training
OBE	Outcomes Based Education
SCID	Systematic Curriculum and Instructional Development
TEVET	Technical Education, Vocational and Entrepreneurship Training
TEVETA	Technical Education, Vocational and Entrepreneurship Training Authority
TEVT	Technical Education and Vocational Training
TVET	Technical and Vocational Education and Training
VET	Vocational Education and Training



# 1 Background to the Study

## 1.1 Introduction

The policy history of technical education and vocational training (TEVT) in Zambia has two dimensions; the construction and mining side. On the construction side, it was mostly the missionaries who started TEVT. The government joined in later most significantly through the Hodgson training school. This first trade school started at Munali, moved to David Kaunda, and currently forms part of Lusaka Trades Training Institute (LTTI). The first structures, were actually built by students. Thus, on the construction side that is how TEVT came about.

On the mining side, the Ndola lottery as part of their community projects around 1958, adopted a project to set up a skills training centre for youths and in the context of youths, it was broad. That led to the establishment of Northern Technical College (NORTEC) and in 1960, government accredited NORTEC as an apprenticeship training school. This is where mining companies would employ and then send their employees who are apprentices in blocks of time to NORTEC for theory and other basic skills.

In the 1969 policy, government proposed a model of training where young people from school would be exposed to pre-employment training. Through this model, school leavers would acquire the basic skills needed to be deployed into the labour market. The pre-employment exposure equipped the school leavers with the productivity standards required for competitive work. This system served the TEVT sector well from about 1970s when Zambia had parastatal companies coming up until the mid 1980s.

Then in the 1990s privatization and structural adjustment programme (SAP) brought in new dimensions in the employment sector. The two reform programmes affected the ability of the government to generate employment for the viable work force hence the formal sector was declining while the informal sector was expanding. It was with this background, that government through the Ministry of Science, Technology and Vocational Training (MSTVT) instituted the TEVT reforms.

## 1.2 TEVET Reforms

In 1994, government through the MSTVT begun to review the policy on TEVT and it was at that time that serious attempts were undertaken to review the existing policies since 1969. It was this policy review process that resulted in the Technical Education, Vocational and Entrepreneurship Training (TEVET) from Technical Education and Vocational Training (TEVT) initially obtainable under the Department of Technical Education and Vocational Training (DTEVT). So, the reviewed policy embraced entrepreneurship in addition to TEVT and led to the formulation of the TEVET policy of 1996 enacted by parliament by Act No. 13 of 1998 and amended by Act No. 11 of 2005. The TEVET reforms were intended to; facilitate access, equity and participation in TEVET by all, ensure equality and demand responsive training, and ensure employability of TEVET graduates (FNDP 2006-2010).

To realize the intentions of the TEVET policy, an institution, Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) was also established in 1998, replacing the Department of Technical Education and Vocational Training (DTEVT). As an institution created under the act of parliament, the functions of TEVETA are defined in the TEVET policy Act No. 13 of 1998 and amended by Act No. 11 of 2005. TEVETA has the mandate to regulate, monitor and coordinate TEVET in consultation with industry, employers, workers and other stakeholders and, most importantly to this study, designs the curriculum for TEVET institutions both private and public.

In the TEVET reforms, curricula restructuring was indispensable in achieving desired levels of education and skills which are vital in ensuring socioeconomic benefits. As indicated in the policy history, the TEVT sector was initially designed to service the formal sector, especially the mines and industries related to the mining industries. By 1994, privatization set in, mines were privatized and graduates from the TEVT sector could no longer secure employment easily since training providers were mainly focusing on skills that were either needed in the mining industry or industries related to mining. In addition, there was a change in skills demand for business and commercial programmes in higher education institutions (HEIs). Therefore, a shift in provision required a major change in policy direction.

To ensure that training is beneficial to the recipients of TEVET, the TEVET reforms emphasized demand responsiveness which implied that TEVETA was to take responsibility of ensuring graduate employability by designing curricula that respond to the dynamic socio-

economic demands. TEVETA is also mandated to involve intense consultation with stakeholders during programme development to ensure institutional responsiveness to graduate employability.

### **1.3 Motivation or Rationale for the study**

In higher education, curricula reforms<sup>1</sup> have become central in determining the focus of learning and the benefits of undertaking higher education. A series of policy initiatives concerned with curricula reforms like the Bologna process and the European Credit Transfer System (ECTS) in the European context have been focusing on the implementation of student focused approaches (WENR 2007, European Communities 2009, Karseth 2006) while similar trends in Sub-Saharan Africa on curricula reforms are biased towards learner centredness and competence based education (Chisholm and Leyendeker 2008). The emphasis in both indicates not only a global paradigm shift but the applicability of what students learn in their daily living.

Therefore, this study was inspired by these international policy initiatives concerned with curricula reforms as a way of refocusing higher education to restore its historic role of preparing graduates for the world of work. In Zambia, studies related to work in vocational education were done in the mid 1980s by Hoppers (1985, 1986). However, there are no studies specifically addressing the issue of curricula or programme development in the TEVET sector.

The absence of specific data on Zambia indicating efforts to reshape higher education curricula has been my motivation to undertake this study, which is based on one of the intentions of the TEVET reforms, which is, ‘ensuring employability of the TEVET graduates’ which was to be achieved through curriculum reform.

### **1.4 Aim of the Study**

In the mid 1990s, Zambia introduced significant economic reforms characterized by privatization of state owned enterprises, trade liberalization, promotion of direct foreign

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<sup>1</sup> Ensor (2004) ‘Contesting discourses in higher education curriculum restructuring South Africa’ and, Vandeyar and Killen (2003) ‘Has the curriculum reform in South Africa really changed assessment practices, and what promise does the revised national curriculum statement hold?’

investments and increased support for private sector development. These public sector reform programmes led to reduced opportunities for formal sector employment and increased employment in the informal sector. The labour Market Information System (LMIS) in 2004 indicated that of the viable work force 11.5% were in formal sector employment while 88.5% were in informal sector employment. As a ministry with an emphasis on training, MSTVT undertook reforms in technical education and vocational training to address the changed and changing labour market conditions through adjustments in training.

To understand how this phenomenon is being addressed, there is need for in-depth study in the way programmes or curricula are designed in the TEVET sector to ensure graduate employability.

This study therefore, attempts to add empirical findings to higher education research and practice by presenting the role of employability in designing learning programmes in the TEVET sector which has not yet received adequate attention in Zambia. It will also attempt to highlight on the quality of training or education in TEVET institutions in Zambia and how TEVETA through institutions endeavor to provide desired training for both the informal and formal sectors. Furthermore, this study will provide information on what happens to TEVET graduates as they leave the learning institutions and will provide suggestions on how TEVETA may sustain a smooth transition of graduates from TEVET to the world of work. It will provide empirical findings from the Zambian perspective.

## **1.5 Overall Research Question**

The study focus is on Course Designs in the TEVET sector as a response to TEVET reforms and the overall question is: *What role does employability play in programme development in the TEVET sector in Zambia?* To be more specific the overall research question was guided by the following questions:

*What are the main characteristics of the TEVET sector in Zambia?*

By asking this question, the researcher is trying to find out what TEVET is, including the relationship between TEVET and TEVETA, and TEVET and MSTVT.

*How are educational programmes developed in the TEVET sector?*

This question attempts to examine the procedures, mechanisms and regulations that are followed when developing learning programmes. Examining how programmes are developed is another valuable way of exploring how employability affects the TEVET sector.

*How do developments in the labour market influence programme development in the TEVET sector?*

By asking this question, the researcher was trying to find out the internal and external dimensions of the labour market influences.

*How effective are TEVET programmes in ensuring graduate employability?*

In this question, the researcher was trying to find out the suitability of TEVET graduates for employment.

## **1.6 Limitation of the Study**

This study was conducted at national level with TEVETA a body that is mandated to design the curriculum for TEVET institutions, the MSTVT and Livingstone Institute of Business and Engineering Studies (LIBES). Therefore, curricula perceptions of the academics and students in TEVET institutions were not captured as well as the perceptions of other stakeholders (informal sector representations).

Purposive sampling was used in selecting key informants as the study required in-depth information. The sampling process also took advantage of the snowball effect in that when the researcher contacted the director general for TEVETA by e-mail prior to research, in reply he had already contacted the director for development who directly deals with issues of curricula. Thus, the sampling procedure used may not have been truly representative.

## **1.7 Structure of the Thesis**

The thesis will consist of six chapters. Chapter one is the introduction to the study focusing on the background to the study, the motivation for undertaking the study and the research questions.

The analytical framework is discussed in chapter two. The concept of employability and the systematic curriculum and instructional development model are linked to come up with the analytical framework for data analysis.

The main characteristics of the TEVET sector, the labour market situation in Zambia and studies related to vocational education and training (VET) at global level, are presented in chapter three.

Chapter four discusses the research methods employed in the data collection process. The study adopted the qualitative strategy and a case study design with an explanatory approach.

Chapter five presents the analysis and discussion of the findings. This chapter integrates issues raised within the study to come up with an informed discussion.

Finally, chapter six gives a summary, conclusion and recommendations for the study.



# 2 Analytical Framework

## 2.1 Introduction

In an effort to establish a suitable analytical framework for this study, this chapter will attempt to define the concept of employability in relation to curriculum design in order to provide the basis for data analysis. It is also through this chapter that this study will add empirical data to the existing knowledge base in technical education and vocational training programme development.

I will focus on models which are learner centered in identifying a model that is ideal in designing programmes in the TEVET sector and the concept of employability because in both, the graduate is central. Consequently, the discussion will lead to the adaptation of the Systematic Curriculum and Instructional Development (SCID) model and employability to come up with a framework for explaining how employability (stakeholder involvement) plays a role in programme or curriculum development.

## 2.2 The concept of Employability

Employability refers in this study to the concern with learning that has benefits for the citizenship, continued learning and life in general (Knight and Yorke 2004) or as having the capability to gain employment, maintain employment and obtain new employment when necessary (Hillage and Pollards 1998). In Zambia, employability may be viewed as the provision through education of skills for individuals in both the formal and informal sectors. From the above perspectives, employability entails training that enhances the prospects for the future (earnings or better life) and career progression or training that instill capabilities for widening options for the individual's wellbeing.

The varied perspectives further indicate that employability always has a context in which it is defined which consequently affects its implication. Like in most of the developed countries, employability may contribute towards the knowledge economy while in most developing countries it may contribute towards the reduction of poverty, while in both cases emphasizing harnessing the human resources.

The focus in the analytical framework is on how employability might be embedded in curricula development through collaboration with stakeholders (employers, government, workers, training providers and informal sector representations). In the TEVET sector, stakeholder involvement is critical in that it helps to translate the demand into supply and convert what the labour market require into what the TEVET sector provide. The conceptual underpinnings of employability (in terms of stakeholder involvement) in programme development is that the skills (technical, vocational, entrepreneurial and survival) learnt should be able to enable graduates operate in work and non-work based environments. It is with this background that this study intends to use outcomes based models in which stakeholders play a role in curricula development to meet the needs of the learner.

## 2.3 Defining Curriculum

There are contesting definitions of curriculum in the higher education field. Some of the definitions are; the curriculum as the range of courses from which students choose what subject matters to study (Kelly 2009) or the curriculum as reflecting the ideal norms of an imagined enterprise (McEneaney and Meyer 2000) or as an “academic plan” (Stark and Lattuca 1997: 325). However, in TEVET a curriculum refers to “a comprehensive description of the study programme, which includes learning objectives or intended learning outcomes, contents and assessment procedures” (Standard 2.0. 2008). The diverse definitions of the curriculum reflect the different orientations and situations under which a specific curriculum is developed to meet the specific needs of the surrounding environment.

Stark and Lattuca (1997: 326-329)’s definition of a curriculum as a plan give a framework of a list of elements which are considered as the core of emerging theories or models of curriculum design as follows;

*Purpose:* The general goals that guide the knowledge, skills and attitudes to be learned. Defining the purpose helps to launch discussion of curriculum development with understanding of underlying assumptions appropriate to the local setting.

*Content:* The subject matter or content within which learning experiences are embedded. This implies that the intended educational purposes can be achieved by studying many different topics.

*Sequence:* An arrangement of the subject matter intended to lead to specific outcomes for learners or ways in which the subject matter is arranged to facilitate the learner's contact with it. The emphasis is on how knowledge is conveyed and learned, whether chronologically or thematically.

*Learners:* Information about learners for whom the plan is devised. The focus is on the learner's ability, goals and needs.

*Instructional Processes:* The instructional activities by which learning may be achieved. This is vital because the choice of teaching and learning mode may dictate the learning outcomes.

*Instructional Resources:* The materials and the settings to be used in the learning process. It includes considerations of learning materials such as textbooks and media, and availability of settings- including classrooms, laboratories and practicum sites.

*Evaluation:* The strategies used to determine if skills, knowledge, attitudes, and behaviour change are as a result of the learning process. It could be through programme review and assessment of student outcomes for specific courses or programmes.

*Adjustment:* Changes in the plan to increase learning, based on experience and evaluation. It is an important step in programme development which can help in revising the curriculum.

These elements are in constant interaction with each other in the planning process. As one activity leads to the other, curriculum design can be viewed as a process. It is also worth noting that the curriculum development process is influenced by internal and external forces hence its development is embedded in the environment created by these influences. Therefore, since the general orientation and practice in TEVT is being learner centred, the models stressing on learners will be reviewed.

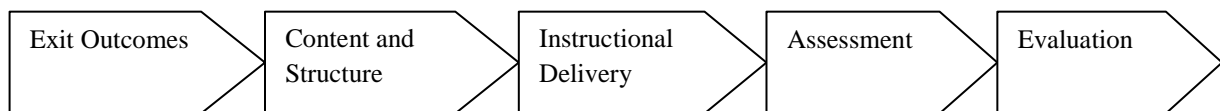
## **2.4 Curriculum Design Models**

The review will include the outcomes based education (OBE) model, the Modules of Employable Skills (MES) model and the Systematic Curriculum and Instructional Development (SCID) model.

## 2.4.1 Outcomes Based Education (OBE) models

Outcomes based learning theories and practices are expressed in terms of outputs rather than inputs. They are closely linked to educational initiatives such as mastery learning (Block 1971), behavioural objectives (Mager 1984) and competency based approaches to curriculum and assessment (Arguelles and Gonczi 2000). There are many versions of OBE but all of them emphasize performance or outcomes.

The curriculum process starts with a clear picture of what is important for students to be able to do (Spady 1988). The curriculum design process<sup>2</sup> starts by working ‘backwards’ from the outcomes to the other elements as shown below.



*Exit Outcomes:* Outcomes are clear, observable demonstrations of student learning that occur after a set of learning experiences. Emphasis is on the importance of defining outcomes of the programme in specific and precise manner.

*Content and Structure:* Indicate that curricula is defined by the subject matter, courses to be offered, time-table and requirements of exit outcomes.

*Instructional Delivery:* Central to this phase is teaching methods and strategies which continually focus on the outcomes being pursued. Emphasis is on the type of experiences that the academics will provide.

*Assessment:* Focus on the criteria for evaluating students which reflect the exit outcomes. Emphasis is on what students can demonstrate rather than when the demonstration takes place.

*Evaluation:* Focus on review and change where need be.

The above components support each other and the entire design is meant to increase chances of all students to learn successfully. Outcomes are important tools in clarifying results of learning for students, employers and educators. However, OBE has influenced educators into

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<sup>2</sup> Curriculum process is based on general readings on on-line articles.

using jobs as an outcome measure of success while education is about ways of thinking, synthesizing knowledge, creating new knowledge, communicating this knowledge and applying it (Castells 2001, Trow 1970). In addition, education is viewed as a means to an end and not an end in itself (Dunbar 2002).

## **2.4.2 Modules of Employable Skills (MES) model**

It is a vocational model employing three theories; employing system theory, information theory and control theory. Curriculum design takes four key steps (Fallows and Steven 2000: 75-83).

*Information gathering:* Each of the modules offered within the university-wide modular credit scheme is subjected to thorough review to determine what skills provisions were already in place. Once the existing provision has been mapped, the gaps could be recognized and actions taken to ensure that the full complement of skills would be experienced by each student.

*Validation:* Once information on skills provision has been gathered and arrangements set in place to plug any skills gaps, each module is subjected to a revalidation process to recognize formally and record the skills content. As modules are proposed for validation, the examination on skills content is undertaken concurrently with the consideration of pedagogical matters such as the proposed academic content and intended assessment strategy.

*Module information:* Once validation was completed, the information provided to students was revised. The module information forms draw specific attention to the skills which will be developed and utilized. Statements of specific learning outcomes make specific reference to skills.

*Highlighting Skills Development:* Skills development is brought to students' attention during lectures, seminars and perhaps most commonly with reference to assignment work. While some lecturers have merely revised their assignments to force students to develop and utilize skills, others have been encouraged to engage in innovative and interesting teaching methodologies which utilize the students' skills in the acquisition of knowledge.

In this model, the adoption of innovative teaching blend skills provision into academic content which is likely to have the greatest long term impact on teaching and learning. The MES model developed with the intention of raising the students' prospect for employment.

However, in the MES model, learning outcomes are focused on particular skills in industry rather than on specific knowledge and understanding of selected tools that a person might use in the dynamic world of work (Cox and King 2006).

### **2.4.3 Systematic Curriculum and Instructional Development Model**

The Systematic Curriculum and Instructional Development (SCID) model represents a proven curriculum development process essential for developing competency based curriculum and instructional materials needed to train tomorrow's workforce (Dunbar 2002). It has five phases; analysis, design, instructional development, training implementation and programme evaluation. Norton (1993: 1-5) elaborates the activities at each of the five phases as in figure 2.1 below.

*Analysis:* It is the initial stage in programme development. It includes the analysis of needs, job profiles and task verification. This activity involves representations from stakeholders.

*Design:* Data collected at analysis stage is used to determine the training approach, training plan, develop learning objectives and performance measures.

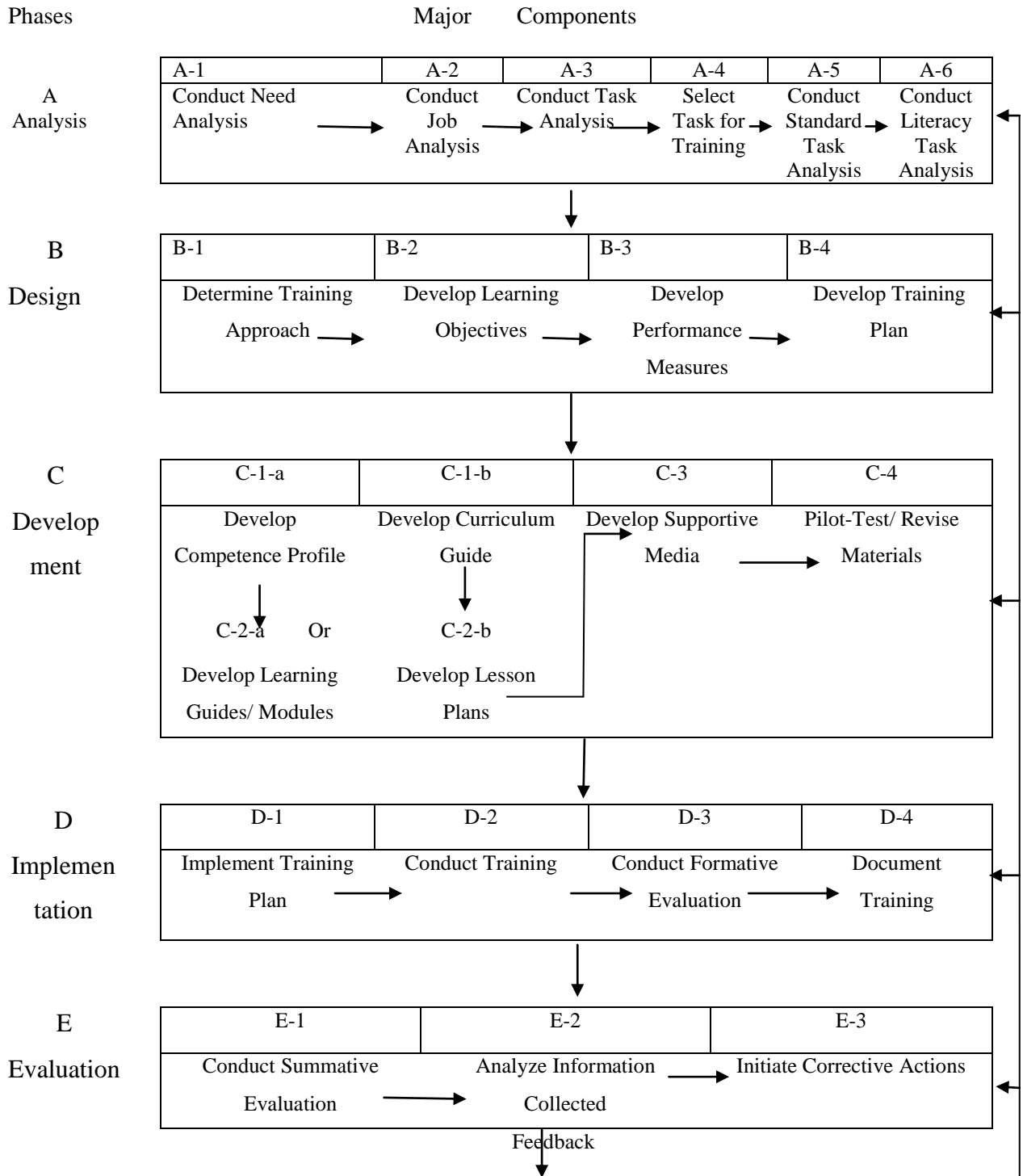
*Instructional Development:* Results in production of instructional materials decided upon during the design phase. In competence and performance based programmes, instructional materials take the form of competence profiles, learning guides and modules while traditional programmes take the form of curriculum guides, course guides and lesson plans.

*Implementation:* Putting the training programme into actual operation.

*Evaluation:* Results of performance are collected and analyzed. It is at this stage that corrective actions are taken.

The SCID model emphasizes the critical ability of doing, in addition to knowing the what, how and why. This model also predicts effective instruction, meaning, intended learning will occur when activities outlined in the model are followed (Andrews 1980). However, this model has consequential problems in learning situations that may work against its application.

Figure 2.1: Phases and Components of the SCID Model



Adopted from Norton (1993: 6)

## 2.5 Curriculum or Programme Design at TEVETA

Curriculum design at TEVETA takes the following framework<sup>3</sup> of activities;

- Develop a job profile which should be validated by industry.
- Constitute Curriculum Development team of experts (relevant enterprises, regulatory bodies, trade, professional associations, training providers, examinations bodies and TEVETA).
- Generate standards of training or learning outcomes.
- Identify the curriculum content.
- Set assessment criteria.
- Submit draft curricula for validation and approval.
- Approved curriculum framework availed to interested training providers to develop learning programme (detailed syllabus).
- Curriculum review and evaluation by stakeholders.

The TEVET curriculum emphasizes the ability to perform or mastery of learning outcomes or competencies, indicating that graduates are of prime importance. Through collaboration with stakeholders in programme development, TEVETA ensures that outcomes are clearly articulated and appropriately meet the employability agenda.

Even though the study considers each of the above models to be valuable, the design that appears to be closely matched with the TEVET framework of curriculum development is the SCID model. The list of activities of programme development TEVETA engages in can easily be related to the phases of the SCID model. Guided by the above discussion, the study will adopt the SCID model and the concept of employability as the framework of data analysis. Though the components as illustrated in figure 2.1 covers a wide range of issues, the researcher will focus on phases and utilize components only ideal in exemplifying issues related to answering the research questions using the available data.

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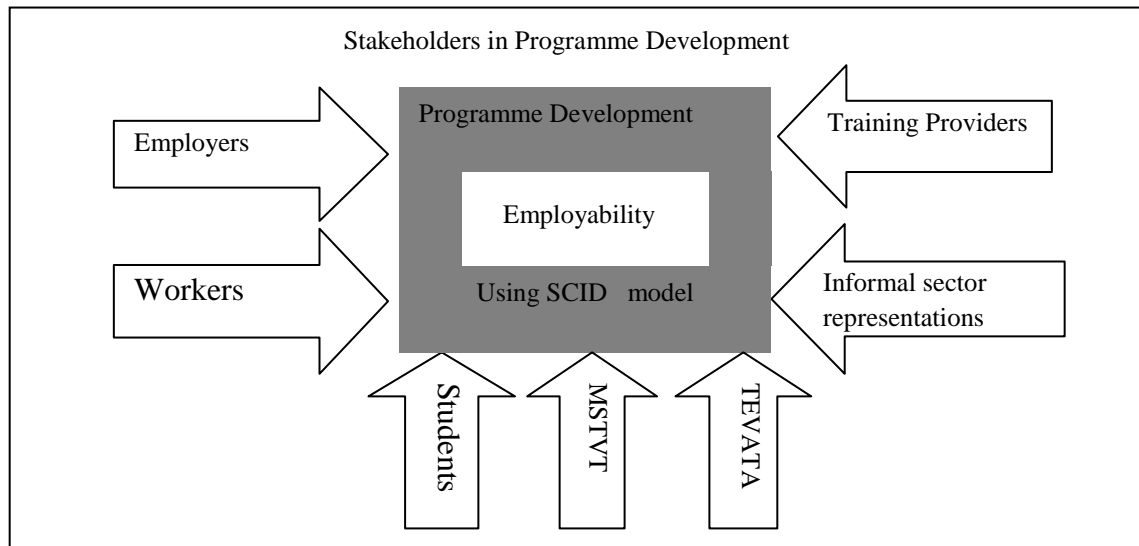
<sup>3</sup> Source: Developing job profiles, curriculum frameworks and learning programmes (TEVETA Pamphlet).



## 2.6 Analytical Framework

I have given the analytical model in figure 2.2 to show how I interpret the role of employability in programme development at TEVETA. In all the mechanisms and procedures of programme development, stakeholders' inputs are important in varying degrees.

Figure 2.2: Analytical Model



When need is flagged in by any of the stakeholders, at the *analysis phase*, experts in that subject area or job will be involved like employers, workers and training providers to come up with a job profile. They define among other things the attributes required of the learner, the tasks the job involve and purpose of the job.

In the *design phase*, there are a small number of employers and workers, and a large number of trainers, who translate the profile into the teaching - learning activities including assessments.

In the *development phase*, the curriculum document is subjected to validation by a group of experts (employers, workers, trainers, and experts) who either might have been in the analysis phase or not to give a comment on whether all aspects in the area have been captured.

In the *implementation phase*, mostly trainers and employers are involved. The trainers provide the required skills while the employers provide the work related environment for students.

The last phase is *curriculum review and evaluation*, involving trainers (institutions), students, employers, workers, TEVETA and MSTVT. Some training institutions have tracer monitoring systems which they use to track their graduates in order to keep their programmes relevant while students in general as graduates provide feedback through the curriculum review cycles to TEVETA or through studies (like the tracer study 2004-2006) related to their employment status. The employers and workers evaluate programmes through student performance during work based learning as evaluation reports are written regarding student performance.

As exemplified above, in all phases of programme development, the underlying factor is the employability of graduates. And employability is assumed to be assured through concerted effort and input of expertise, in designing a programme that will bring out the desired graduate. Collaboration with stakeholders and the emphasis on outcomes of the SCID model, reflect the centrality of graduate employability. Therefore, the analytical model as in figure 2.2 will provide the basis for interpretation and analysis of data.

The next chapter is on the main characteristics of the TEVET sector and related studies.

# 3 Main Characteristics of the TEVET Sector

## 3.1 Introduction

Concerns that the higher education system is not adequately preparing students for the world of work is a subject of continuous discussion. Though this debate is as old as the higher education institutions themselves, there is no consensus over what the purpose of higher education ought to be. Philosophers like Rousseau (1712-1778) and John Dewey (1859-1952) define education as instilling the norms and values of society for an ideal adult life and the learning of useful subjects for practical life (Fågerlind and Saha 1989) while economists like Adam Smith (1730-1790) and Theodore Shultz (1902-1998) view education as an investment in the productive capacity of individuals with both financial and social benefits accruing to the individual and society (Olaniyand and Okemakinde 2008). In Zambia, education is seen as a tool that provide individuals with skills to participate in local and national development (FNDP 2006-2010) in general while in the TEVET sector, education or training is an important pathway of acquiring practical skills, knowledge and competences on how to perform specific tasks.

These arguments indicate that education or training is critical in harnessing individuals for a quality life, prepare individuals for life of work and enable individuals to participate effectively in productive adventures which enhance the socio-economic base of society. It is through such insights that curriculum development becomes central in educational planning as it is through manipulation of curricula that diverse institutions meet the needs of society as it is today and as it will be in the future. Therefore, in this chapter, the discussion will follow the following sequence; profile of the TEVET sector, the labour market situation, employability, programme development, effectiveness of vocational education and training (VET) and studies related to the TEVET sector.

## 3.2 The TEVET Sector

The TEVET sector in this section will mainly refer to TEVET institutions in Zambia, while technical and vocational education and training (TVET), technical education and vocational

training (TEVT) and vocational education and training (VET) will be used synonymously referring to vocational education mostly at regional, continental and global level.

### **3.2.1 Higher Education**

TEVET institutions are part of the higher education system in Zambia. Higher education in Zambia is defined in terms of post secondary<sup>4</sup> institutions. It consists of Universities, University Colleges and non-University Colleges. The majority of these higher education institutions (HEIs) are run by different ministries designed to meet the needs of various sectors of national economy for qualified personnel (MOE 2005). Among them are; Ministry of Agriculture, Food and Fisheries (Agriculture based institutions); Ministry of Science, Technology and Vocational Training (Technical education, Vocational Training, Arts and Business Colleges); Ministry of Health (Colleges of nursing, Medical and Dental training Colleges) and Ministry of Education (Teachers' Colleges and Three Public Universities). In addition, Zambia has six private universities and some private and semi-private non university colleges (such as management institutes, accountancy colleges, Bible Colleges and Correspondence Colleges).

The Ministry of Education (MOE) has the mandate to guide education and has the responsibility for general policy development while respecting the autonomy of institutions to determine how exactly they can fulfill their particular roles (FNDP 2006-2010). The HEIs have the responsibility of creating and disseminating new knowledge, and to further serve as conduits for transfer of knowledge and skills generated elsewhere in the world (MOE 1996). In addition, HEIs have the responsibility of being responsive to the changing needs and circumstances of society, including the legitimate interests of the state (MOE 1996, Olsen 2007).

However, in TEVET institutions, the definition of higher education is blurred because TEVET starts at a point when an individual is able to learn a skill, for whatever purpose, skills for employment or entrepreneurship. While that is a policy intention, some TEVET institutions do not even entertain non school leavers while some school leavers go for training meant for non school leavers due to inadequate places at appropriate levels of higher education. With these considerations, higher education in TEVET institutions was redefined

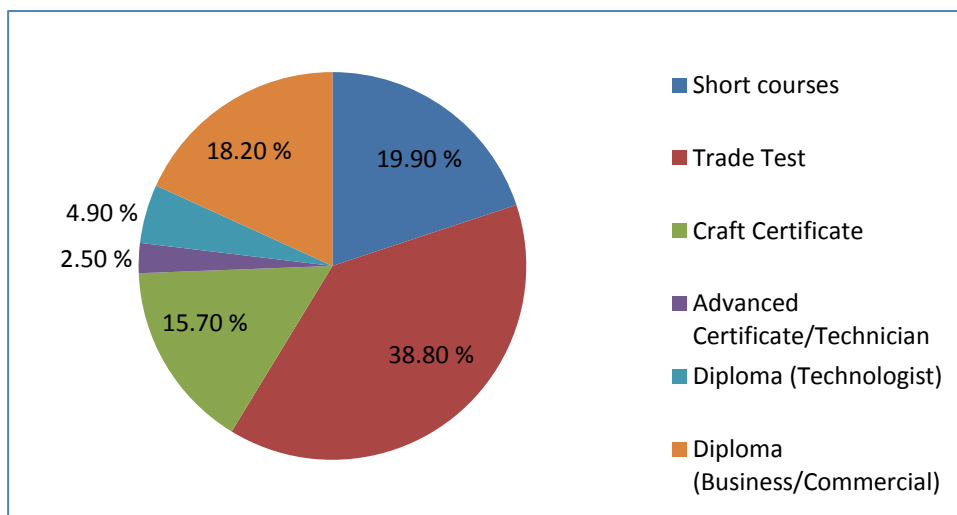
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<sup>4</sup> Post secondary institutions are learning institutions where school leavers with full grade 12 certificates pursue further education.

in terms of qualification, which is from craft certificate upwards to diploma level (as decisions to offer a degree are still on the drawing board).

Therefore, about 41% of TEVET is higher education in considering the qualifications that prospective students have during placement in TEVET institutions. It was agreed during the data collection process, by the respondents at TEVETA that higher education was starting from craft certificate to diploma level. In addition, Kafue Gorge institute which offers short courses in hydro power for the Southern African Development Community (SADC) region was also considered to offer higher education. See figure 3.1 below on levels of qualifications for an illustration of the percentage totals of higher education though Kafue Gorge as stated above is reflected under short courses.

Figure 3.1: Levels of qualifications in registered TEVET Institutions in 2009



Data adapted from Corporate Strategy 2010-2012 (2009: 18)

### 3.2.2 TEVET Institutions and MSTVT

Under MSTVT, there are 23 TEVET institutions. There are also some TEVET institutions under other ministries like Youth, Sport and Child Development, Agriculture, Tourism and Community Development and Social Welfare, bringing the total to 25.5 percent of public TEVET institutions. The majority of the TEVET institutions are under private ownership. In 2009, there were 286 registered TEVET institutions with a total enrolment of 33, 399 (Corporate Strategy 2010-2012) students but at the time of field work (01.2010) there were

304 registered TEVET institutions. Table 3.2 below shows ownership of registered TEVET providers as of June, 2009.

Table 3.2: Ownership of Training of TEVET Providers: June 2009

<b>Ownership</b>	<b>% of Registered Providers</b>	<b>Programme Bias</b>
Private for Profit	34.6	Focus mainly on business and commercial courses
Faith Based	23.2	Providing survival skills, with particular emphasis on vulnerable groups
Public (Government)	25.5	Providing technical training at higher levels
Community/NGOs	6.6	Providing survival skills, with particular emphasis on vulnerable groups
In-Company	4.5	Company specific training
Trust	5.6	Focus on commercial and Business courses
Total	100	

Adopted from Corporate Strategy 2010-2012 (2009: 20)

TEVET institutions under MSTVT are run by management boards, management boards help government in terms of policy and decision making in institutions. For instance, the board has to approve the institutional budget and make certain administrative decisions involving hiring of lecturers, salaries (as institutions pay differently) and their contracts. The majority of the lecturers are on two to three years contracts.

Government through MSTVT provides grants to public institutions and other forms of funding to non public institutions (like the TEVET fund). In addition, institutions are expected to raise their own funds through other means like charging fees (tuition fees, boarding fees, etc). MSTVT also maintain infrastructure and mobilize funds for public institutions from donors – like LIBES benefited funds from Danish International Development Agency (DANIDA).

MSTVT has an external monitoring system where it sends management audits to TEVET institutions to assess and evaluate their training activities in order to ensure quality.

### **3.2.3 TEVET Institutions and TEVETA**

TEVETA is mandated to develop the national curricula for the TEVET sector in collaboration with employers, workers, training providers and the informal sector representations. It is a regulatory authority (as stated in chapter one) for the TEVET sector whose functions are stipulated in the TEVET Act No.11 of 2005. In the structure of TEVETA, there are three divisions; training standards, development and, the finance and administration of which the development division is directly involved with programme development. All registered TEVET institutions have the same curriculum but institutional programmes may vary depending on specific needs identified to meet the skills gap.

TEVETA on a more regular basis monitors institutional capacity, that is, if institutions are able to offer what they promised, maintenance of standards as stipulated in the TEVETA act and management support. A grading system for training providers was implemented in 2002 where institutions are ranked from very good to satisfactory on set criteria. Of the registered institutions in 2009, only 16.4 percent exhibited the ability to deliver quality levels of training above the minimum training standards while 36 percent had basic training requirements and 47.6 percent barely met the minimum training standards. Through this criterion TEVETA is able to gauge if a conducive learning environment is in place for students to achieve the set standards.

Institutions intending to offer TEVET have to register with TEVETA as mandated by the TEVET Act. Before registration, TEVETA conducts on-the-spot site visits to ensure that institutions have the capacity to conduct quality education and training, and to guarantee quality of learning outcomes. The certificate of registration runs for a period of three years and institutions may risk withdrawal of their certificates if they are operating in the manner contrary to the act. Students at registered institutions have an opportunity to quality training because registered institutions meet the required standards. Therefore, registration of an institution relates to effectiveness of course delivery.

TEVETA also offers specialized support with respect to capacity building, assessment and certification of candidates, help TEVET institutions to develop institutional curricula, so that

institutions run programmes which they identify within their communities and offers financial support to TEVET institutions because MSTVT funds some of the activities through TEVETA. And TEVET institutions pay subscription fees mainly, for these services.

### **3.2.4 TEVET Institutions**

The majority of TEVET providers are private as indicated in figure 3.2, with only 25.5 percent of public institutions.

#### **Minimum Entry Qualifications**

The minimum entry requirement for a prospective student in craft is a grade 9 certificate but that does not happen in reality. For one to do a craft they need to have a grade 12 certificate, though there is a provision that individuals who are employed and have a grade 9 certificate, with experience can do a craft programme. And from technician to diploma one needs to have a grade 12 certificate. Therefore, TEVET institutions do not have the same minimum entry qualifications it depends on the area of focus hence TEVET is still open to all.

#### **Teaching Staff**

TEVET institutions under MSTVT employ and pay own staff. Terms of tenure varies from institution to institution. Any person facilitating in TEVET should have a qualification higher than the level they are facilitating including a teaching diploma. Implying that those teaching at diploma level are graduates, those teaching crafts are diploma holders, those teaching technician are either diploma or advanced diploma holders. However, in practice there are implementation challenges especially in craft because there are very few technicians within the country to handle that level. In addition, public institutions have had high attrition levels because of varying conditions of services per management board.

#### **Learning Programmes**

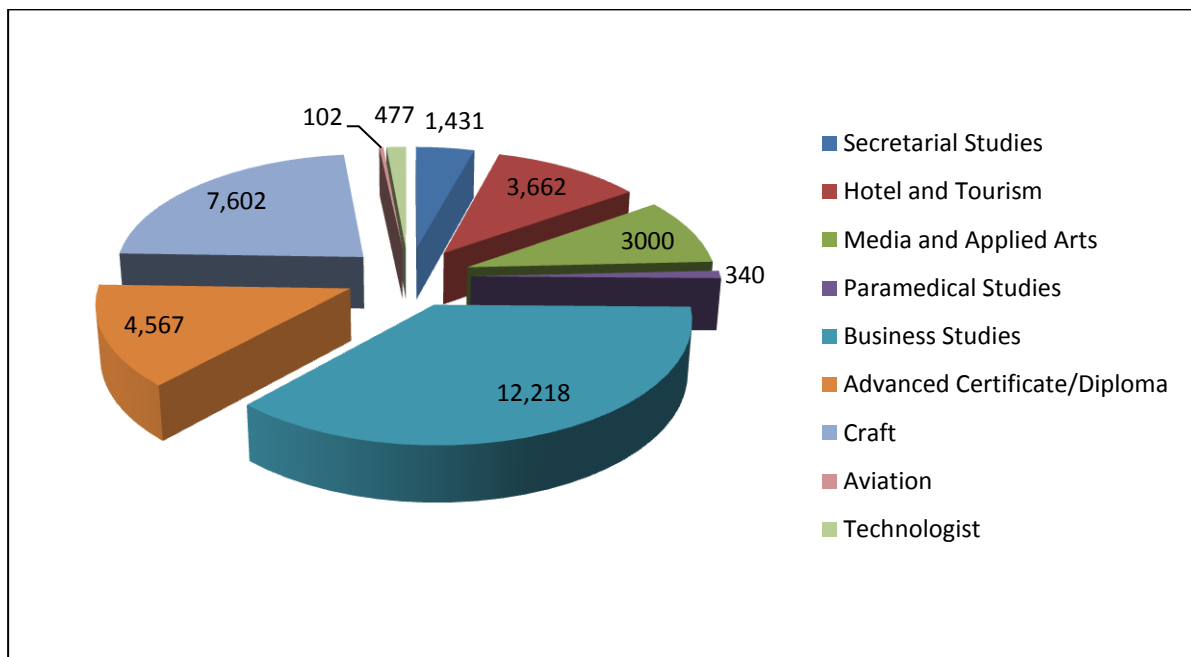
All TEVET institutions offer the same curricula in various Zambian programmes but what programmes to offer is up to the institution. So TEVET institutions select the portfolios with relevance to what they want to offer. A TEVET qualification is granted for completion of a study programme as specified in the curriculum; a skill is granted for completion of a



programme of a minimum of 120 notional learning hours<sup>5</sup> and a maximum of 1200 notional learning hours (Standard 1.0. 2008), a craft certificate for 2400 notional learning hours, a technician for 3000 notional learning hours and other diploma programmes about 3000-3500 notional learning hours with 85% of contact hours.

The curriculum chart indicates that, there were 99 programmes by the end of 2008 approved by TEVETA. Figure 3.3 shows the clusters of these learning programmes as of 2008. However, new programmes such as nursing, agriculture, among others are not reflected.

Figure 3.3: Clusters of Learning Programmes with enrolment levels in 2008



Data adapted from Corporate Strategy 2010-2012 (2009: 20)

### 3.2.5 TEVET Policy

The focus of the TEVET policy is broader compared to the previous policies under Department of Technical Education and Vocational Training (DTEVT) with a focus on both private and public TEVET providers. With TEVETA as the regulator for every institution offering or intending to offer TEVET, there is increased access to regulated TEVET services, implying that more individuals can access training of quality and value that they can go with in the labour market. The TEVET policy is also focusing on the changed and changing labour

<sup>5</sup> The time that a learner is expected to take to achieve a competence (knowledge, skills and attitudes) as described in a qualification or skills award (Standard 1.0. 2008).

market, socio-economic concerns and employment promotion through resource based opportunities in the economy.

### **3.3 TEVET Sector and Training**

The primary purpose of the TEVET sector is to develop individuals with the right skills to meet the labour market demands. The major concerns of the TEVET sector therefore are; relevance, effectiveness and efficiency of the training system to respond to the changing social and economic environment. The intentions of TEVET in Zambia are reflected in most countries across Africa in vocational education and training (VET) systems. VET is seen as a means to address specific socioeconomic conditions of African economies for skills development, for poverty reduction and training for the informal sector (World Bank 2002).

Despite being such an essential tool, the VET system especially in Sub Saharan Africa faces a number of challenges. VET is provided by both government and private providers. Most private providers target business and service sector skills like secretarial, cookery, among others, that do not require huge capital outlays neglecting the production of technical skills that African economies need to lessen the technological gap.

In addition, internationally, VET institutions are viewed as second class institutions due to the different reasons. In Sub Saharan African countries<sup>6</sup>, the low image of VET is associated with the colonial legacy (Akoojee, Grewer and McGrath 2005) while in many European countries the VET system is associated with failure in the academic system (Brandstetter, Luomi-Messerer and Fingerlos 2009). The colonial system of education in most African countries favoured individuals with academic qualifications to take up white collar jobs while individuals with vocationally oriented skills took up manual work and agriculture related jobs ('blue collar jobs'). After gaining independence, VET was still perceived as a type of education contributing to the suppression of the indigenous people (McGraw 2005, Yamada 2001, Hoppers 1986). The negative perception in VET has contributed to low development in science and technology across Southern Africa.

In Sub Saharan Africa, education in general and VET in particular depends heavily on foreign assistance, hence trends in educational policies VET inclusive have always been made and

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<sup>6</sup> In Botswana, Mauritius, Mozambique, Swaziland and Zambia, among others

promoted by international organizations (Yamada 2001). This implies that individual governments are left with less choice but to adapt to the prescriptions of these multinational organizations. These prescriptions have affected innovation in development of educational policies in VET in Southern Africa.

### **3.4 The TEVET sector and the Labour Market**

The Labour Force Survey Report (LFSR) (2005: 2) indicate that the Zambian labour market is characterized by; high youth unemployment rates, low levels of higher education to build up the required human capital, skewed labour market towards agriculture and, large and increasing informal sector. With the total population of 11.5 million, 6.2 million persons above the age of 15 years are economically active. However, 16 percent of this viable labour force is unemployed of which 14 percent are youths. Therefore, unemployment is more prevalent among the youths of which four percent are male and 22 percent female. While the completion rate at high school level in 2004 was at 18 percent (FNDP 2006-2010) and tertiary enrolments are estimated at 6 percent of those leaving high school (Corporate Strategy 2010-2012). The Zambian situation is not different from the prevailing conditions in Sub Saharan Africa which accounts for 39 percent of the worlds out of school youths while the enrolment ratio at tertiary level is the world's lowest at 5 percent (Corporate Strategy 2010-2012, TEVET News 2009).

Table 3.4 shows a profile on the employment sector in Zambia. This profile provides insights regarding the patterns of employment because it actually shows the types of employment that people have been involved in.

As illustrated in the table (3.4) below, the majority of the people are in the informal sector engaged in more agricultural based activities. The employment pattern therefore, (as in Table 3.4) presents 1998 and 2005 either as distinct periods in time or as a continuous time frame because there are no significant observable changes in both years. Table 3.4 also indicates the quantity and quality of jobs being created which are more informal where people are less likely to contribute to the economic growth of the country.

Table 3.4: Employment Patterns in 1998 and 2005 in Zambia

1998							
	Number	% of total labour force	% of total employed				
Size of Labour Force	4, 712, 500	100%					
Unemployed	681, 500	14.5%					
Total Employed	4,032, 000	85.5%	100%	Formal Sector Employment	11.5%		
				Informal Sector Employment	88.5%	Agriculture	79.0%
						Non Agriculture	21.0%
2005							
Size of Labour Force	4,918, 788	100%					
Unemployed	787, 006	16%					
Total Employed	4, 131, 531	84%	100%	Formal Sector Employment	12 %		
				Informal Sector Employment	88 %	Agriculture	80%
						Non Agriculture	20%

Source: Data adapted from Labour Market Information System (LMIS) 2004 and Labour Force Survey Report (LFSR) 2005

While quantitatively 77 percent of the population in Zambia are engaged in labour related activities, there is also a gender bias to the employment situation as illustrated in table 3.5.

Table 3.5: Employment in the formal and informal sector by sex in 2005

	Formal Sector	Informal Sector	Informal Sector	
			Agriculture	Non Agriculture
Zambia	12 %	88 %	80 %	20%
Male	17 %	83 %	77 %	23 %
Female	6 %	94 %	83 %	17 %

Data Source: LFSR (2005)

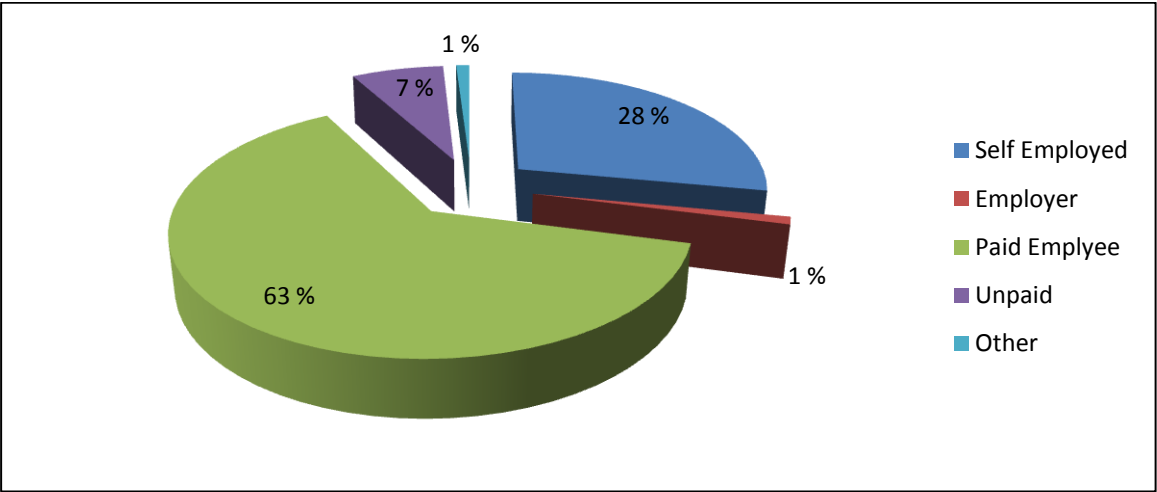
Table 3.5 indicate that the majority of the population participate in informal sector employment of which 83 percent are male and 94 percent female and only a proportion of the population participate in the formal sector of which 17 percent are male and six percent female (LFSR 2005). Therefore, there are more females in the informal sector (94 %) than in

the formal sector (6 %). Within the informal sector (as in table 3.5), more females are engaged in agricultural activities than males. The prevalence of informal sector activities entails that self employment becomes a coping strategy.

The gender bias suggest that males have a higher formal employment ratio than females and that females are more likely to be marginalized in the employment sector since their status implies that they are more likely to be self employed or be unpaid family workers. Consequently, females may not be liable to make significant contributions towards the development of the country nor be able to make critical decision regarding training for the likely change of employment pattern in the near future.

Figure 3.6 shows the employment status of individuals with tertiary education at national level. It (figure 3.6) indicates that the majority of the individuals with tertiary education are in paid employment. Employment by status helps to understand the dynamics of the labour market and the level of development of the country.

Figure 3.6: Employment Status of individuals with Tertiary Education in 2005



Data Source: LFSR (2005: 26)

The figures and tables above (3.4-3.6) clearly present the labour market situation both qualitatively and quantitatively. The implication for TEVET provision is to broaden accessibility and provide skills that will not only enable the individuals remove obstacles in their daily encounters but to contribute to economic development. It can be asserted that the participation of the majority of the people in survival strategies is a misplaced opportunity for the country's economic growth.

Policy frameworks across Africa in technical and vocational education and training (TVET)<sup>7</sup> are orientation towards the world of work, however the link between the labour market and TVET institutions is weak (Grierson and Ladefoged 2002), a situation which Yamada (2001) consider as a serious problem for any vocational scheme. The non-existence of information to understand the existing labour conditions across most developing countries is a challenge to achieving the targets of VET provision especially on how to accommodate the increasing number of school leavers and out of school youths as well as the retrenched workers (a new type of students after liberalization).

### **3.5 The TEVET Sector and Employability**

Employability is more than being ready for the job (as stated in chapter two). It's about promoting greater investment in skills and training so that individuals have enhanced access to productive and decent work (Knight and Yorke 2004, Rauner and Maclean 2008). The issue of employability has been crucial especially in the TEVET sector in Zambia. The philosophy of the TEVET policy explicitly focuses on adequately preparing the Zambian citizens for the ever changing occupational world (TEVET Policy 1996). In supporting this philosophy, specific objectives of the TEVET policy are described in both the economic and social terms still reflecting the aspect of employability. While economically, the TEVET policy aim at developing a Zambian society with people that will be versatile, creative, employable, entrepreneurial and productive, socially, the aim is to provide skills and opportunities that will respond to Zambia's needs such as poverty alleviation, improved housing and health care.

Internationally, two features are commonly emphasized by VET systems; the focus on addressing the problem of youth unemployment and, seeking to provide skills geared to current and projected economic opportunities and challenges (McGrath 2005). In 2000, the rate of youth unemployment within the EU was around 16 percent though it is said to have dropped since then (Hammer 2003). Yamada (2001) argued that the concern for youth unemployment goes beyond the provision of employment to enable youths become productive or acquire skills, to the responsibility that governments internationally have to prevent the unemployed youths from becoming a threat to social stability. McGraw (2005) also noted that in relation to youth unemployment is the emphasis on equity reflected in VET

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<sup>7</sup> VET and TVET are used synonymously.

policies internationally which Yamada (2001) view as an international concern reflecting a global ideological trend for egalitarianism that has existed since the 1950s. This indicates that the labour market situation has implications for the VET beyond enhancing youth employment to being a tool for fulfilling social mandates.

Unlike the Organization for Economic Cooperation and Development (OECD) countries which emphasized on a revolutionized VET system back in the 1970s, African countries stress self employment (Tanzania, Botswana, Zambia and Malawi), entrepreneurship (Zambia, Ghana) and informal sector training as part of the solution. While in the provision of skills, the OECD counties have been concerned with the implication of training in the transition towards the globalized knowledge society, in many developing countries the notion of knowledge economy seem farfetched (OECD 2001, McGrath 2005).

VET literature in Southern Africa<sup>8</sup> has an emphasis on training for the informal sector because the informal sector absorbs the majority of new entrants to the labour market. Yet, this region has less developed informal economies than other parts of Africa making training for the informal sector have less impact than anywhere else. This shows that the likely destiny for VET graduates in this region is self employment. However, the success of self employment is influenced by capital, experience and networks in addition to skills. The weak national economies present a challenge on the impact of VET systems as training alone may not lead to success.

While employability has been central in the provision of VET, VET systems are relatively expensive in provision especially in technical programmes which requires expensive infrastructure and low ratios in learner-facilitator relationship (McGrath 2005). The high unit per cost makes it difficult for VET to achieve high rates of return compared to academic education (Yamada 2001). It is on the grounds of low rates of return and high costs that foreign agencies have justified their reduction of support to the VET system. The implications regarding the pulling out of foreign agencies from these weak economies in the provision of TVET relate to issues of quality. Quality assurance at the implementation stage becomes a challenge since most of the Southern African economies of which Zambia is part of, are weak. Quality assurance plays a key role in strengthening the link between the TVET sector and employability.

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<sup>8</sup> Akoojee, Gewer and McGrath (2005) Vocational education and Training in Southern Africa: A comparative Study and World Bank (2002) Vocational skills Development in Sub Saharan Africa.

The other issue regarding quality relates to the types of the programmes being offered in TVET, without adequate financing it is doubtful if the programmes offered will be able to keep pace with the new investments in Africa and the consequent need for application of new technologies.

The need to link employability and the TVET sector across Africa has also led to the establishment of national VET authorities<sup>9</sup> and enactment of laws to strengthen vocational training programmes. The VET authorities sought to address supply and demand issues for training, ensuring that training is relevant to the needs of the labour market. They also regulate VET systems in individual countries and enable qualifications to be easily recognized and interpreted by employers. However, the VET authorities operate in liberalized labour market conditions where sometimes they have little influence over employers for instance investors may come with top management officials for placement in top positions in their companies.

### **3.6 Programme Development in the TEVET Sector**

Curriculum development as stated in chapter two is a process that involves a number of stages. In the TEVET sector, TEVETA does not motivate the development of new programmes there must be a stakeholder who motivates or flags off that need like the industry, representation of the informal sector, investors or TEVET institutions.

When the need is identified, TEVETA gets the experts within the industry who work close to that job, supervisors of projects, educators, to develop a job profile.

In developing the job profile, some of the information TEVETA solicits from the panel of experts include the following questions;

- What type of knowledge is required of this person?
- What is the purpose of this job?
- What practical skills or abilities are required of this person?
- What attributes does this job require?

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<sup>9</sup> TEVETA in Zambia, BOTA in Botswana, VETA in Tanzania, Namibia NTA, among others



- What are the roles and responsibilities?
- What tasks does this job involve?

Once that information is generated, TEVETA proceeds to drafting the curriculum document. Drafting the curriculum document involves consultation with a small number of practitioners but a large number of trainers and instructors, those who can translate. In drafting the curriculum document, TEVETA is translating the tasks and monitoring so that there is compliance to technical standards. It is at this phase that the following questions are considered;

- What learning activities should be there?
- What activities should the instructor do?
- What are the assessment strategies?

After TEVETA drafts the curriculum document, it is subjected to validation by a group of experts. It might be the experts TEVETA worked with at the job profiling stage or others who might not have been involved in that process but within the same industry to comment and validate if everything was captured.

After validation the curriculum document is submitted to a subcommittee within TEVETA board dealing with occupational standards and curriculum qualifications development. In this subcommittee the chairperson is a board member, the other members include representations from; Ministry of labour and social security productivity department, Ministry of Commerce Trade and Industry (planning department who know what investments are coming in), Construction industry (represented by the Dean of school of built environment at the Copperbelt university) and also from the Engineering Association of Zambia. Then the people who argue for the curriculum document before the committee are stakeholders or those elected to represent the stakeholders. Through the debate process the committee may decide to either approve or not to approve the curriculum. Once approved, it is taken for further validation to the technical committee of the board and then it means TEVETA board has approved. Through this process the relevance of the curriculum is assured.

In the implementation phase, the approved curriculum framework is availed to interested training providers to develop the detailed syllabus.

The last phase is curriculum review and evaluation by stakeholders.

The curriculum development process discussed above reflects the growing emphasis between training and employment in VET systems. While this link is important in VET systems across the developed and developing countries (Voorhees 2001, Walsh 2007, Akoojee et al 2005), similar considerations in the non VET higher education system in the developed world (as in the United Kingdom) are undertaken to link higher education with the labour market (Ulrich et al 1997, Saunders and Machell 2000, Buchanan et al 2009, Hills et al 2010).

### **3.6.1 Planning Environment**

The curriculum development process as observed by Stark and Lattuca (1997) is influenced by the context in which the design takes place. The three main sets of influences on curriculum design that form this context are external influences (society, government and labour market), internal influences (academia, students and programme mission) and organizational influences (programme relationships, resources and governance). The external and internal audiences form perceptions and interpretations of educational outcomes.

The VET reforms across Southern Africa of which Zambia is part of were influenced by the International Labour Organization (ILO) and the World Bank as a reaction to two influential documents in the 1990s<sup>10</sup> indicating the role of the global flow of ideas. It was through these ideas that the shift in focus to employability came in with an emphasis on training for informal sector especially in Southern Africa. Therefore, the increased importance of skills in international debates indicates that VET is an important tool in moving towards a knowledge economy despite the differences in situated solutions.

## **3.7 Effectiveness of VET programmes**

Determining the effectiveness of VET programmes in Sub Saharan Africa may be a daunting task because of poor information system. However, internationally VET systems in individual countries have visions and it is through these visions that the training within VET may

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<sup>10</sup> World Bank (1991): Vocational and Technical Education and Training

become a success (Australia's National Strategy for VET 2004-2010). National visions frame the context under which VET training might be provided and the type of graduates to be produced.

Apart from the national visions, collaboration between ministries especially those for labour and training are vital since VET has complex links between the labour market and the employment sector. The different representations within the VET system during curricula development provide a bridge between the supply of and demand for skills and competences in the labour market (Descy and Tessaring 2001) ensuring effectiveness of the VET systems.

The effectiveness of the VET systems may also be determined by employability measures besides statistical indicators of employment rates of graduates such as; benefits of training, graduate satisfaction with the programmes offered, employer adoption of VET graduates and employer satisfaction with VET in meeting the skills needs of their workforce (Australia's National Strategy for VET 2004-2010).

The success of VET systems may also be reflected in the low youth unemployment rate (Brandstetter, Luomi-Messerer and Fingerlos 2009) mostly a reality in the developed world. As observed in the international dimension of curriculum design the concern of VET is employability beyond national borders. The establishment of national VET authorities mandated to regulate the provision of VET systems ensures the effectiveness of VET systems and recognition of VET qualifications internationally. The students in VET institutions through these authorities are assured of quality training while the employers are assured of workers with viable skills. Employers and employability of VET graduates are at the centre of VET.

Finally, VET systems use outcomes based paradigms in curriculum design as observed in chapter two under the models of curricula design, meaning that VET systems target programmes that are market oriented compared to other educational sectors, therefore on relative basis VET graduates have more chances of securing employment.

### 3.8 Studies in the TEVET sector and Higher Education

Though internationally, studies related to higher education curricula and work<sup>11</sup> have been common, not much is written on the higher education curricula in Zambia of which the TEVET sector is part of.

A study by Saunders and Machell (2000) on ‘understanding emerging trends in higher education curricula and work’ explored issues associated with emerging trends in UK higher education curricula policy which embodied an explicit work orientation. Saunders and Machell noted that the British government over a decade has encouraged the integration between curricular and learning experiences associated with higher education and work. The aim of the British government was to enable universities to contribute to the creation of a work force with the skills, competences and productivity to succeed in an environment of global competition.

The study indicated that universities engaged in a range of responses to provide explicit activities for students that would enable their higher education experiences to become much more closely coupled to the assumed requirements of future work roles. It is related to this study in that it reflects the response of HEIs in designing students’ experiences in formal education to rehearse or correspond to their future experience as workers. However, the difference with this study is in terms of geographical location and that the study focus is on TEVET institutions.

Unluhisarcikli (2001) did a study on income generation and vocational skills acquisition in small workshops in Istanbul, in Turkey. The aim of the study was to examine the characteristics of the informal sector workers and the skill acquisition through the apprenticeship system. Unluhisarcikli noted that the majority of the informal sector workers had been excluded from or dropped out of the school system. Since these people lacked sufficient education and training to be employed in vocationally demanding jobs, they looked for employment in the informal sector where either no schooling or specialized vocational skills were needed.

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<sup>11</sup> Chisholm and Leyendecker (2008): Curriculum Reform in Post 1990s Sub Saharan Africa, Ensor (2004): Contesting Discourses in Higher Education Curriculum Restructuring in South Africa, Saunders and Machell (2000): Understanding Emerging Trends in Higher Education Curricula and Work connections

The study revealed that education and training were not restricted to formal educational settings though formal education provided many career choices. Unluhisarcikli's study is related to this study in that it is focusing on employment and the acquisition of vocational skills. In addition, this study was done in an environment where formal employment was shrinking and the informal sector expanding as is the situation in Zambia, though in each case attributed to different factors<sup>12</sup>. It is different in that Unluhisarcikli focused on the car repair and carpentry workshops while this study is focusing on the TEVET sector (Informal versus Formal sector) and also different in that this study is concerned with programme or curriculum development in the TEVET sector.

In Zambia, studies in technical education and vocational skills were done in the mid 1980s by Hoppers of which the 1986 analysis was part of the major study of 1985. Hoppers (1986) did a historical analysis of industrial training and labour market segmentation in Zambia. The analysis focused on technical education and vocational skills which were considered crucial in making people employable in the formal labour market.

He observed that the type of education that was offered to Zambians was designed in such a way as to limit their employability to low paid jobs and encouraged the continuation of the dual labour market system. It is related to this study in that it shows the critical role of different training arrangements in determining access to various segments of the labour market as they evolve over years.

Hoppers in 1985 conducted a study 'from school to work' focusing on the youth, non-formal training and employment in Lusaka. He examined the modes of skills acquisition that existed; apprenticeship in petty workshops and skills training in skills training centres, with an objective to illuminate the role that the two systems of skill acquisition played in the broader process of socio-economic change.

He observed that, non-formal training evolved outside the formal education system with a view to provide opportunities for out-of-school youths (youths between the ages 15-24 with less than form 5 education not in school) to by-pass the qualifications barrier successfully and reach rewarding positions in life. Hoppers' study is related to this study in that it examined the structure and organization of skills provided and considered their value as a vehicle for

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<sup>12</sup> In Zambia the shrinking formal sector employment is attributed to privatization and structural adjustment programmes, whereas in Istanbul the formal sector could not accommodate rural-urban migrants who moved to urban centres because of agrarian revolution.

mobility for out-of-school youths for recruitment into certain sections of Lusaka's urban economy.

Having identified the areas of focus of the two studies, the present study is different in that it is focusing on the role of employability in programme development in the TEVET sector. With an emphasis on how programmes are developed, implemented and the position of TEVET graduates in the labour market.

In the next chapter, I will discuss the research methods used in the data collection process with appropriateness for the study.

# 4 Research Methodology

## 4.1 Introduction

This chapter discusses the methodology that was used to guide the process of data collection and analysis. The reasons for choice of strategy, design, sampling and data collection tools used will be explained in each case. This chapter will also explain how fieldwork was conducted to collect the desired information.

## 4.2 Quantitative and Qualitative research Strategies

A strategy is a general orientation of conducting social research and, quantitative and qualitative research form two clusters of research strategy (Bryman 2008). In the quantitative strategy knowledge is perceived as objective and independent of the knower while in the qualitative strategy, knowledge is seen as subjective and as a construction of the mind (Bryman 2008, Patton 2002). It is believed that whatever researchers do to obtain knowledge is grounded in how they see knowledge in relation to ontological (that is reality as objective or as a product of the mind) and epistemological (that is knowledge as acquired or experienced) assumptions and commitments.

In quantitative research, the emphasis is more on answering the why questions leading to establishing the causes and effects, measuring and quantifying phenomenon and generalizations of findings while in qualitative research the emphasis is more on answering the what and how questions, meaning and understanding of phenomenon and situating the finding in a particular context (Denzin and Lincoln 2003, Patton 1980, Bryman 2008). While the quantitative researchers are often preoccupied with applying measurement to procedures of social life, the qualitative researcher is often preoccupied with using words in the presentation of analyses of society (Bryman 2008).

The preference for a specific strategy has to be made in considering the type of data required. Therefore, depending on the type of data required the preferred strategy guide researchers in the selection of research design, methods of data collection and ways of analyzing data. This study adopted the qualitative research strategy because it is intended to give an understanding of the role of employability in programme development in the TEVET sector.

### **4.2.1 Qualitative Strategy**

Qualitative research is a naturalistic inquiry to understanding naturally occurring phenomenon (Borg and Gall 1989, Patton 1980), it offered an opportunity for the researcher to visit sites of interest in order to get a better understanding of what goes on in practice when designing programmes in the TEVET sector. With an emphasis on seeing through the eyes of others (Bryman 2008), the researcher interacted with targeted officials at that research sites to have an understanding in –depth and in detail of what goes on in reality. The data collection process aimed at capturing what actually people said in their own words. The study therefore, opted to use the case study design as a framework for collection and analysis of data.

## **4.3 Case Study Design**

The case study design allows the researcher to retain the holistic and meaningful characteristics of the real life events (Yin 2003). It was opted because the researcher intended to reflect on contextual situations in which programme development took place (Yin 2003, Stake 2003). As stated in chapter three, the context in which programme development took place was considered important as it influenced the types of programmes that could be designed.

There are a number of case study designs such as exploratory, descriptive and explanatory (Yin 2003, Bickman and Rog 1998). Exploratory case studies may be employed in situations where the existing knowledge base in an area of interest is poor while the descriptive case study aim at describing everything related to phenomenon of interest. Explanatory case studies are driven by the need to answer the ‘how’ and ‘what’ questions in an area of interest. The three case study designs are however, not mutually exclusive. The present study adopted the explanatory case study design because as indicated in chapter one, the objective of this study is to find out ‘what’ role employability play in programme development. The explanations captured during data collection will help the researcher to link programme development with employability in the preceding chapter. To capture the perspectives of the respondent, the study utilized the semi-structured interview and focus group as the data collection methods.



### **4.3.1 Semi-Structured interview and Focus Group**

An interview is an interaction between the researcher and the respondents in which both participants create and construct the narrative versions of the social world (Silverman 2004). A semi-structured interview<sup>13</sup> is an outline of a set of issues to be explored with respondents before the interview begins (Patton 1980) while a focus group is a method of interviewing that involves more than one person or at least four respondents (Bryman 2008).

The purpose of interviewing is to find out what is in someone's mind or to access the perspectives of people being interviewed. Semi-structured interviews were opted because of their flexibility in that they allow more specific issues to be addressed, elicit interpretations from the respondents, follow-up on interesting points made and probing where necessary. The study utilized the face to face semi-structured interview guide in order to make sure that basically similar information was obtained from the respondents, covering the same subject area (Patton 2002). The interview guide also helped the researcher to be more systematic and to keep track with the objectives of the study.

Similarly, the study engaged in the face to face focused group interview. The face to face focused interview was helpful in eliciting a wide variety of views (Patton 1980). It allowed participants to compliment each others' views and qualify or modify individual views. The researcher used the interview guide to keep the interaction focused and at the same time allow the individual perspectives to emerge.

The face to face semi-structured interview and face to face focused group interview were conducted in Lusaka at TEVETA and MSTVT while only face to face semi-structured interview was conducted in Livingstone at Livingstone Institute of Business and Engineering Studies from 18<sup>th</sup> – 29<sup>th</sup> of January, 2010 in Zambia. Two sets of interview guides were prepared; one for curriculum developers and another for policy makers (see appendix one). Individual interviews lasted between forty to fifty minutes per session. The focus group interview lasted for one and a half hours involving participants from TEVETA only.

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<sup>13</sup> Sometimes referred to as interview guide

The researcher took down field notes and used a digital audio recorder during the interviews. Before each interview sessions the researcher had to obtain consent for use of the digital audio recorder as a backup for note taking and as a way of avoiding interruption during the discussion (Bryman 2008).

### **4.3.2 Documentary Sources**

The researcher reviewed documented literature such as; TEVETA reports, pamphlets, strategic reports and TEVET News from TEVETA; policy and tracer study documents from MSTVT and labour force survey report from Central Statistics Office (CSO). The secondary data sources helped the researcher to keep track of relevant issues (Bickman and Rog 1998) and supplemented the information gathered through the primary data sources (semi-structured interviews and focus group).

## **4.4 Data Analysis**

The unit of analysis in this study is the TEVET sector in Zambia. The data analysis activity consisted of reviewing the field notes and transcriptions and giving labels to component parts that seemed to have potential significance to the research questions. Coding is the key process of data analysis in explanatory case study designs (Bryman 2008). The researcher coded the participants' answers by extracting important statements which were directly linked to the research questions. The researcher then created connections between the codes while reflecting on the overall importance of the findings to the research questions.

## **4.5 Participants**

The study involved ten (10) key informants purposely selected from TEVETA, MSTVT and LIBES. Five respondents from TEVETA, four were from MSTVT and one from LIBES. It was a diverse group of participants; at TEVETA, respondents were drawn from different specialties; quality assurance, entrepreneurship development and curriculum development divisions; at MSTVT, the respondents included; the director of vocational education and training (DVET), two chief TEVET officers (one for skills training and the other for entrepreneurship development) and the senior TEVET officer while in Livingstone at LIBES, there was only one respondent, the training and consultancy manager.

The participants were purposely sampled because they were known to have been involved in issues relating to curriculum development in the TEVET sector. Since the study aimed at targeting information rich cases, the interviews were limited to people who had relevance to the research objectives. The respondents at TEVETA were expertise in dealing with curricula issues; the DVET and two chief TEVTE officers at MSTVT dealt with policy issues at MSTVT in the TEVET sector; TEVET officer at MSTVT has vast experience in curriculum issues and had worked under the department of technical education and vocational training prior to TEVET reforms and, the training and consultancy manager at LIBES was interviewed to elicit for an institutional perspective or opinion over course design in TEVET institutions. Therefore, purposive sampling was strategic in this study than issues of representations.

In the analysis and discussion of data, respondents' views in the focused group interview will be reflected as TEVETA indicating the views as an outcome of the group while opinions expressed in the individual interviews, will reflect the respondents' official position.

Table 4.1: Summary of list of respondents interviewed

No.	Position	Organization
1.	Inspector, training quality assurance	TEVETA
2.	Manager, training quality assurance	
3.	Officer, training systems	
4.	Specialist, entrepreneurship development	
5.	Director, curriculum development division	
6.	Chief TEVET officer, entrepreneurship development	MSTVT
7.	Chief TEVET officer, skills development	
8.	Director, vocational education and training	
9.	Senior TEVET officer	
10.	Manager, training and consultancy	LIBES

## 4.6 Validity and Reliability

These are criteria for judging the quality of the study. Validity refers to an approximate truth of inference (Kleven 2007) or whether the researcher is measuring what they say they are (Mason 1996 cited in Bryman 2008). Validity indicates whether an investigation yields an accurate answer. Reliability on the other hand, is a question of whether repeated investigation of same phenomenon using same procedures would yield the same answers (Yin 2003, Brock-Utne 1996).

However, Lincoln and Guba (1985) and Guba and Lincoln (1994) (cited in Bryman 2008) and Patton (2002) propose alternative criteria for assessing the quality of the qualitative study by use of the terms dependability as an analogy of reliability and authenticity as an analogy of validity. In which case, the meaning of dependability and authenticity are implied in the definitions of reliability and validity. The dependability of this study therefore should be judged by the systematic process that the researcher used to purposefully sample the participants to the study on the basis of the deeper understanding that they possessed in issues of curriculum development in the TEVET sector. In addition, data collected was dependable in that the researcher cross checked the data collected through use of; field notes, the digital audio recorder transcriptions and documentary data sources.

Similarly, authenticity was ensured through triangulation (by using more than one source of data) to study the role of employability in programme development in the TEVET sector. The researcher triangulated data through the use of face to face individual interviews, focused group interview, audio recording and documentary sources (Bryman 2008).

In the next chapter, I will analyze data collected during fieldwork and discuss the findings.

# 5 Data Analysis and Discussion of Findings

## 5.1 Introduction

This chapter presents and analyzes in detail data collected for the study in view of the research questions set at the beginning of the study. The research questions set at the beginning of the study were;

1. *What are the main characteristics of the TEVET sector in Zambia?*
2. *How are educational programmes developed in the TEVET sector?*
3. *How do developments in the labour market influence programme development in the TEVET sector?*
4. *How effective are TEVET programmes in ensuring graduate employability?*

In an attempt to answer the above questions, data was collected at TEVETA, MSTVT and LIBES. The data collected from TEVETA was through the focused group interview while individual interviews were held at MSTVT and LIBES. The participants' direct views in the case of TEVETA will not bear positional identity as views expressed during the focus group were treated as an outcome of group interaction. On the other hand, views from individual interviews will bear positional identity. The reason for adopting institutional positional identity was that the participants were interviewed as representations to institutions involved and not in their own capacities.

While the focused group interview guide integrated all the research questions, the individual interview guide for MSTVT and LIBES did not integrate question two because only TEVETA is mandated to develop curricula for the TEVET sector. Therefore, the TEVETA focused group interview provided data sources to all the questions whereas MSTVT and LIBES provided data mainly related to questions one, three and four. Pamphlets and policy documents from the three institutions will also be used to supplement the primary data sources.

The aim of the study is to explain the role of employability in programme development in the TEVET sector. Embedded in programme development was the issue of ensuring graduate employability. The SCID model and the concept of employability were adapted (in chapter two) as a framework for interpreting and analyzing the findings. The discussion in this chapter therefore, will follow the following sequence; programme development, programme implementation and the position of TEVET graduates in the labour market. Since the focus is on programme development, not much will be discussed on implementation and graduate employability. This chapter will also integrate the issues raised in other chapters to come up with an informed explanation.

The analysis and discussion of the findings will be done concurrently, that is, first the findings, and then the interpretation and/or discussion will follow.

## **5.2 Programme Development**

As part of the regulatory process, TEVETA has been coordinating and guiding the process of programme or curricula<sup>14</sup> development in the country in collaboration with industry, employers, workers and representations within the informal sectors. Programme development as discussed in chapter two is a process that involves a number of activities in order to design the desired curricula. TEVETA uses mainly three mechanisms in developing programmes and each mechanism involve a specific procedure to facilitate the planning and design of curricula.

### **5.2.1 Need flagged by stakeholders**

The need to develop a programme, is not initiated by TEVETA, there must be a stakeholder who initiates the need. Stakeholders may include the formal and informal sector representations where on one hand the formal sector include; TEVET institutions, industry, employers, workers and government, and on the other hand the informal sector representations include representations from; Zambia Chambers of Small and Medium Business Associations (ZCSMBA), Small Scale Contractor Association (SSCA) and District Training Advisory Committees (DTACs). For example, TEVET institutions may collaborate with industry to find out where the skills gaps are and intervene by coming up with

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<sup>14</sup> Programme or curricula will be used synonymously

suggestions of new programmes addressing the need or industry may approach TEVETA, flagging the need for a specific skill in the labour market or the informal sector through ZCSMBA may come up with a need to train its members in a specific programme. This mechanism encourages multi stakeholder probes in identifying the skills gap.

When the need is identified, TEVETA invites experts (employers and workers) within the industry, who work close to that job and educators to develop a job profile. Job profiling involves task and skills analysis. Task analysis involves selecting the tasks most critical for the job while skills analysis identifies the skills required to perform a particular task effectively (Standard 2.0. 2008).

After the analysis, the curriculum developers translate and draft the curriculum document with a small number of practitioners and, a large number of trainers and instructors, those who can determine the training approach and translate the tasks into learning objectives or activities. The drafted curriculum document is subjected to validation by a group of stakeholders. It might be the experts TEVETA worked with at the job profiling stage or others who might not have been involved in that process, to also comment and validate if everything has been captured.

After validation, the curriculum document is submitted to a subcommittee of TEVETA board dealing with occupational standards, curriculum and qualifications development. The committee constitutes members from ministry of labour and social security productivity department, ministry of commerce trade and industry (planning department who know what investments are coming in), the construction industry represented by the Dean of school of built environment at the Copperbelt University and the Engineering Association of Zambia. Stakeholders who flagged the need justify the need for the new programme before the TEVETA subcommittee and the TEVETA subcommittee compares every aspect of the document to ensure compliance to standards and verify the need for the flagged programme. If the subcommittee approves the curriculum document then it is taken for validation to the technical committee of the board meaning that TEVETA has approved. Through this process the relevance of the curriculum is ensured.

When one of the stakeholders identify the need, those working close to the identified need or subject area help convert what the labour market require into programmes that the TEVET sector provide or help to translate the demand into supply. As observed in chapter three, the

need to link training to employment has been central in VET systems internationally (Yamada 2001, EU 2007). Stakeholders provide a bridge between the supply of and demand for training in TEVET enhancing employability and job prospects. Stakeholders are basically involved to fill the gap between the graduates' skills and employer expectations so that TEVETA is able to design appropriate programmes. The involvement of stakeholders at all levels therefore, reflects the role that employability plays in the development of programmes in the TEVET sector. The process of consultation help to moderate biases by adjusting to what industry specifies.

The involvement of stakeholders' also acts as a platform for capture of labour market signals regarding the need either to adjust a programme or to demand for a new programme. For instance, in 2009 when TEVETA was doing a presentation on TEVET learner-ship as a new model of training, TEVETA took an opportunity to ask the members (or stakeholders) present what their needs were and this was the response;

*“the small scale contractor gave us (TEVETA) something, government from the directorate of building also gave us something, district training advisory committee also brought typical informal sector needs and I do recall the cross border people in Livingstone where they brought the need for training in completing cross border custom document, they were saying for us look, we do not need the whole module, just teach us when Zambia Revenue Authority (ZRA) say I must write this here what do they mean?” (TEVETA: Focused Group Interview).*

Stakeholders' involvement at different levels of curriculum development ensures graduate employability because apart from defining the kind of graduate needed, stakeholders confirms the relevance for a specific subject area or programme in the labour market. Stakeholder involvement also promotes awareness of what is happening in industry and in TEVET institutions enhancing efficiency and relevancy as information is being shared regarding career insights and expected performance of graduates.

In addition, stakeholders involved in programme development ensure that programmes are demand responsive. That is, the programmes have the capacity to fulfill the needs of industry by producing the required number of graduates in programmes perceived to be on demand in the labour market or in that programmes have the capacity to meet the needs of the informal sector. This implies that TEVET graduates may have a higher chance of securing employability because their programmes are demand driven.



## 5.2.2 Curriculum Review Cycles

The curriculum review cycles involves programme re-evaluation after a specific period that mostly involves TEVETA, TEVET institutions and TEVET graduates (as stakeholders). The board of TEVETA resolved to fix the curriculum review cycles as a measure of demand responsiveness of TEVET programmes through feedback from TEVET graduates and as a signal to developing new programmes. Prior to 2009, it was based on stakeholders flagging the need but it is now policy that for certificate programmes whose duration is two years and below, those must be reviewed every four years. For advanced certificate and diploma programmes offered between two years to three and a quarter years, those must be reviewed every five years.

This implies that, if an institution has a cohort that starts in 2010, on a two year programme, they will complete their course in 2011, 2012 they will enter the labour market, work 2012 and 2013, and by then (2013), that programme will be due for review, that will be four years. At that time, the first cohort will have been in the labour market for two years, second cohort for one year, such that, when TEVETA is doing curriculum evaluation or review, TEVETA would have a sample of learners who could assist the process in terms of how relevant and responsive that curriculum had been.

For advanced certificate and diploma programmes, the programme duration is three years. So if a cohort of students is starting in 2010, they will complete in 2012, 2013 they will enter the labour market, 2014 will be five years from the time the programme was introduced, then TEVETA will be reviewing that programme. Similarly, the first cohort will have been in the labour market for two years, and the second cohort will have been in the labour market for one year. TEVETA will have a sample with which to work with in evaluating the programme.

After the review, new programmes would probably be added and also if the review process signals that the tools and methods of doing a particular job have changed. Clerk typing was cited as one example where the review process revealed that the tools of doing that job had changed, instead of type writers it was computers and the demand for that job changed from secretarial to office management. In that case, the review indicated the need for change because the programme was no longer addressing the need.

Through the curriculum review cycles TEVETA is able to detect important signals from the labour market. The TEVET graduates as an output of the TEVET system provide a feedback loop either directly to TEVETA about their experiences in the world of work or to society to enhance modifications of perceptions of TEVET depending on how they interpret the purpose of training (see figure 5.1 below). When the detected labour market signals are assessed, they might either result in adjustments or coming up with new programmes.

Therefore, the curriculum review cycles help TEVETA in monitoring the market environment through the graduates, reflecting the role of employability in programme development. In addition, curriculum review cycles are aimed at creating a closer match between the programmes of study and possibilities for subsequent employment through the ‘eyes of graduates’, enhancing employability.

It should be stated that though the main input under the curriculum review cycle is coming from graduates, the employers input is also implied as graduates become employees, depending on how they (employers) perceive the success of graduates in the work context.

### **5.2.3 Studies**

Studies of varying magnitudes have been used to detect labour market signals. TEVETA and MSTVT, when resources allow have funded studies from time to time to determine what the employment sector needs are. In 2006, TEVETA with the ZACSMBA commissioned a training need assessment study for the TEVET sector and MSTVT did a tracer study in 2005 to assess the demand responsiveness of TEVET and quality of TEVET training. Stakeholders involved during these studies were; TEVET graduates, employers, TEVET providers and informal sector individuals or representations. Depending on the focus, the emphasis on who participates in the study varies.

Though rarely used because of the costs involved, studies help in bringing out important information for strategic planning to decision makers and create community awareness of TEVET products. As a mechanism of programme development, new programmes or changes in programmes may be initiated through analysis of data from studies.

The emphasis of the curricula development process (as observed from the mechanisms employed) has been employability of TEVET graduates, meaning, TEVET is meant to

increase chances of graduates in having enhanced access to productive life and decent work through training. To achieve this, the TEVET sector focuses on employable skills for both the formal and informal sector, that is, skills that can be used across all occupations and non work environments.

Though the TEVET curriculum emphasizes development of programmes for the world of work, employability cannot be separated from the patterns of economic development. In the context of the labour market in Zambia, the majority of the people change jobs by necessity (as a survival strategy) and not by choice (as in most developed countries). Implying that when employability comes as a coping strategy contributing mostly to poverty alleviation it is less likely to make an impact on the economic development of the country (Zambia).

#### **5.2.4 Quality and employability in Programme Development**

The development of programmes by TEVETA for the TEVET sector has increased access not only to regulated TEVET services but also to quality programmes being offered. Quality assurance plays a key role in strengthening the link between the TEVET sector and employability. It is aimed at improving quality of trainees produced in the TEVET system. TEVETA (as stated in chapter three) has the mandate to ensure that TEVET institutions meet the minimum training standards prescribed in the TEVETA act (Standard 3.1 2008) regarding assessments, competencies, minimum qualifications of facilitators, curriculum, time-tabling, notional learning hours and attendance which is specified by learning programmes, among others.

The purpose of setting national standards is to ensure that curricula activities bring out the expected outcomes regardless of where learning takes place. The standard and quality of training in the TEVET sector ought to be high because TEVET graduates are competing with graduates within the sub region as well as internationally. With the liberalization of the labour market, quality becomes a key factor in graduate employability. By implication, TEVET graduates have access to quality, responsive and reliable training because TEVETA ensures that registered TEVET institutions meet the required standards for training. Therefore, employability is assured through TEVETA by monitoring institutional compliance. TEVETA and MSTVT are the main stakeholders involved in guaranteeing quality to consumers of TEVET.

### 5.2.5 Financial dimension of programme development

The mechanisms of programme development discussed above require finances. In job profiling, the ideal panel consists of 15 experts drawn from different parts of the country. This means that TEVETA has to facilitate their travel and accommodation in Lusaka (where TEVETA is located) for the duration of that exercise. When resources are not adequate to fund the process of curricula development, TEVETA uses the internet to collaborate and engage in consultations with experts by circulating drafts among the experts for comments, and thereafter convene a one day consolidation and validation workshop. TEVETA has been exploring cost reduction measures while ensuring that whichever means is used in developing programmes, quality may be retained.

TEVETA is funded through the MSTVT but had also been on donor support since the reforms. Donor support came under an investment programme framework, the TEVET programme development of which curriculum development was one of the activities, anchored in MSTVT. The donors involved were the Danish government through DANIDA<sup>15</sup>, the World Bank through IDA<sup>16</sup> and the Royal Netherlands government. At the time of fieldwork (01.2010), donor support was coming to an end though TEVETA was still negotiating for support with the Royal Netherlands government. It was observed that TEVETA was still negotiating for continued donor support because the established financial resource base was not yet strong enough to shoulder TEVETA and TEVET activities.

In 2005, MSTVT piloted a TEVET fund where both public and private institutions would access funds for rehabilitation of buildings and facilities, and human resource development (capacity building). It was piloted through the funds from World Bank, the Netherlands and DANIDA with the hope that it will be sustained if the TEVET levy was implemented but so far the TEVET levy is still the subject of discussion (Corporate Strategy 2010-2012). Under the TEVET levy<sup>17</sup> the intentions were that industries which are employing TEVET graduates would be taxed through the pay roll system to contribute towards graduate training.

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<sup>15</sup> Danish International Development Agency

<sup>16</sup> International Development Agency

<sup>17</sup> Training levy of 1% to be taxed to formal employers of TEVET graduates

Other strategies are still being explored to sustain the TEVET fund though innovations in financing the TEVET sector are still limited. Data available indicate that most TEVET institutions rely on fees as the main source of revenue while TEVETA generates funds from the services that it offers like examinations, certification of trade test, among others besides allocations from MSTVT. Funding is an essential dimension in TEVET provision because it guarantees efficiency and effectiveness that the TEVET sector strives to achieve.

Since most of education provision in Sub Saharan Africa depends heavily on donor assistance (Yamada 2001), the expiry of donor support may have implications for the TEVET sector especially that it was coming at a time when no sustainable resource base was in place. Of course government through MSTVT has to strive to bridge the gap in finances but the fact that the reforms were initiated by international agencies, it was reasonable if the support would cease at a time when viable measures have been put in place to sustain the TEVET sector adequately.

The implications of the financial dimension in graduate employability are embedded not only in the curriculum development process but the whole of the TEVET system. Finances determine the success of any educational endeavour. Therefore, when there are constraints in finances employability may also be constrained in terms of quality of training and quality of graduate.

## **5.2.6 Planning Environment**

As stated in chapter two, the curriculum planning process is influenced by the environment in which the design takes place. The influence to the planning process is reflected in the type of programmes that may be designed for a specific context. The environmental factors influencing the development of programmes in the TEVET sector include; the political, economic, social, educational and technological.

*Political:* Within the framework of the Sixth National Development Plan, Zambia intends to be a prosperous middle income nation by 2030. Through this vision, government intends to raise the current enrolment levels in TEVET from 3 percent to those of middle income countries like Botswana (4.65%), Egypt (20.17%) and Malaysia (28.16%). The implication for TEVET programmes is that the vision becomes the guide on the kind of programmes that should be offered and the kind of person that should be produced in order for Zambia to get to

Vision 2030. It is from the human resource perspective that vision 2030 can become a reality and to have that kind of person, TEVET programme should aim at achieving the vision.

*Economic:* Reflects the need for national growth. Employment creation is one aspect that can enhance economic growth. Through TEVET government intends to extend its design from an emphasis on survival skills to competitive skills as new investments are increasingly demanding high level skills. To achieve this, there has to be more collaboration between government ministries and representations of both formal and informal sectors to determine and project national skills demand. The government is also proposing the development of the national skills development plans and strategies, as an input into the design and development of appropriate TEVET delivery systems.

*Social:* The growth of employment opportunities is not at the same pace with the rate at which young people are leaving school and seeking employment. Though it is recognized that the youth integration into the labour market also depends on economic growth and demand for labour, the TEVET sector has the challenge to expand its capacity to take in more youths and prepare them for the world of work either in formal or self employment.

*Education:* Like many other countries in Sub Saharan Africa, Zambia's NER in basic schools increased from 68.1 percent in 2000 to 79.4 percent in 2004<sup>18</sup>. While the completion rate at high school level in 2004 was at 18 percent (FNDP 2006-2010) of those completing high school (at grade 12), three percent secure placement in TEVET, two percent in universities, one percent in other tertiary institutions and 94 percent<sup>19</sup> are unable to secure placement for the acquisition of basic competencies. TEVET has the challenge to provide learning opportunities in order to accommodate the increasing number of school leavers as well as out of school youths regardless of geographical location as 72.4 percent of training providers operate in urban settings.

*Technology:* Technological advancement in Zambia is underdeveloped. Zambia envisions science and technology as the driving force in national development. In the Fifth National Development Plan (FNDP 2006-2010), the goal of science and technology is to enhance the contribution of national productivity and competitiveness. Skills development in TEVET

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<sup>18</sup> Fifth National Development Plan 2006-2010.

<sup>19</sup> TEVET Pamphlet: Policy and Implementation Strategy

becomes an integral part so that TEVET graduates are able to be integrated into industry without retraining.

*Regional and international:* Within the SADC region TEVETA has working relationships with other regulators<sup>20</sup> where they compare notes, have staff exchange visits and annual conferences. Furthermore, Zambia has been integrating with other members of the SADC<sup>21</sup> region not only in development and economic issues but currently on issues regarding education.

This implies that the TEVET sector does not exist in isolation but is shaped by broader policy trends. The level at which TEVET is offered in Zambia is influenced by decisions about likely employment opportunities beyond national borders. The implication for training therefore is producing a graduate with competitive skills and competences which will enhance graduate mobility internationally and the implication for TEVETA is to confer qualifications of international recognition.

TEVETA is also a member of the international vocational education and training association (IVETA) which is an organization and network of vocational educators, vocational skills training organizations, businesses and industrial firms, and other individuals and groups interested in vocational education and training worldwide (TEVET NEWS 2009). IVETA conference of 2009 had a theme “using communication information technology to deliver TVET, VET and career and technical education (CTE)” while the 2010 conference theme this April will be “skills for the future”.

As a member of IVETA, TEVETA has an opportunity to exchange information and best practices in TVET. Such conferences also provide a treasury of forecasts (as observed from the themes) for TEVETA and an opportunity to utilize knowledge generated elsewhere in the world and to learn from the experiences of significant others. Therefore, the interaction and experiences of TEVETA in such fora help in the reassessment of TEVET provision when adapting the interests of VET systems that evolve at global level.

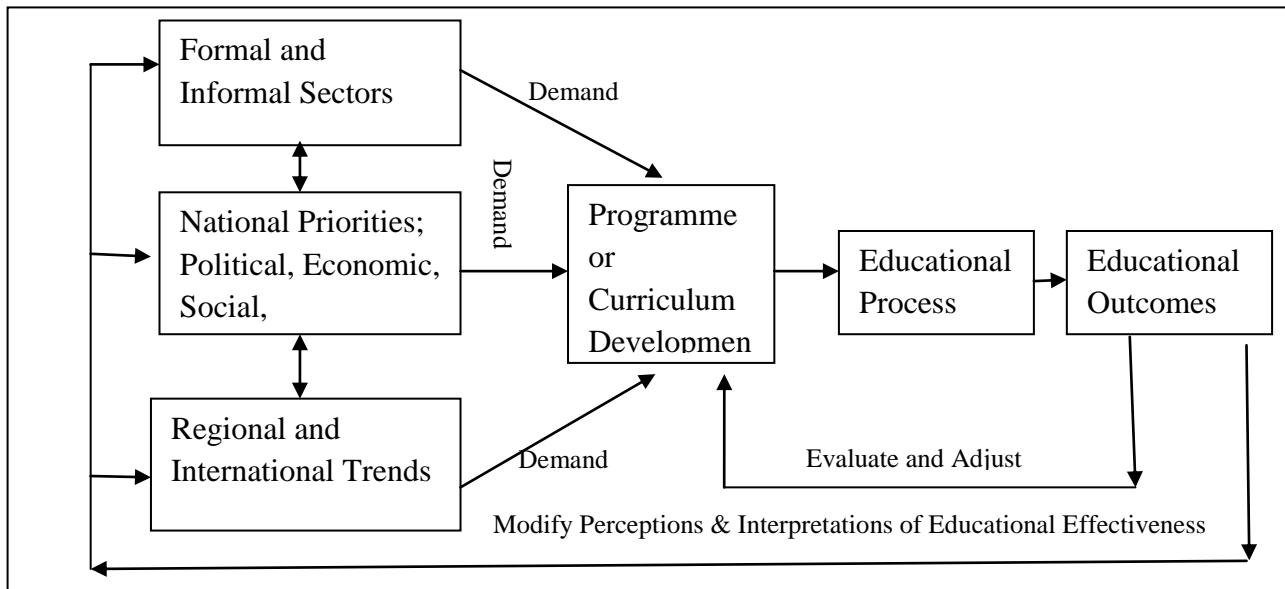
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<sup>20</sup> Botswana (BOTA), Mauritius and South Africa

<sup>21</sup> Southern African Development Community consists of 14 countries; Angola, Botswana, Democratic Republic of the Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Seychelles, Swaziland, Tanzania, Zambia and Zimbabwe.

Figure 5.1 illustrates the contextual framework for programme development and channels that provide feedback into the system.

Figure 5.1: Context of Programme Development for the TEVET sector



Adapted from Stark and Lattuca (1997: 333)

### 5.2.7 Programmes

Having scanned through the environment in which the TEVET sector operates, it may be worthwhile to discuss the orientation of programmes offered. Trends in curricula development within the TEVET sector, show that there has been an increase in demand for revision of existing curricula or developing new programmes from 19 in 2004 to 99 in 2008 (Annual Report 2007).

It was realized in the mid 1990s especially after massive job losses due to privatization and structural adjustment programme, that it was not possible for all graduates to get employed. There was need for provision of skills to cater for the expanding informal sector that accommodated not only the youths who dropped out of the school system at grade seven or nine or school leavers at grade 12 but the retrenched workforce. Therefore, the TEVET policy embraced entrepreneurship as strategic training in addition to the traditional technical, vocational and survival skills. The rationale for embracing entrepreneurship was to prepare TEVET graduates beyond job seeking.



The skills in priority areas are also being emphasized such as tourism, construction, agriculture, mining, manufacturing, information technology and health (Manyukwe 2009), areas influencing economic development in Zambia. Students in public institutions taking programmes in priority skills areas are offered bursaries and MSTVT offers incentives to public institutions which take up programmes in priority areas. The intention of MSTVT in introducing priority skills areas is that graduates in those programmes would contribute to achieving Vision 2030. Therefore, harnessing the human resource is critical as argued by MSTVT;

*“If MSTVT has to do that, it is from the human resource perspective, because the human resource is central. What kind of person? Resourceful, entrepreneurial, etc, then you package that in the kind of programmes from which you want to get that kind of person. Basically we are talking about coming up with programmes that would enable the individual to be able to be articulate and manage their own destiny and address the challenges of today and tomorrow... So really I am talking about an innovative person, an analytical person” (MSTVT: Chief TEVET officer-Skills).*

It could be argued that skills are essential for personal and economic development. An individual with skills, apart from being able to participate confidently in the production of goods and services is more employable. Through the provision of skills, MSTVT is able to meet related national agendas by promoting skills that enhance capabilities beyond sustainable livelihoods to skills assumed viable to simultaneously contribute to the economic growth of the country and competitive employment. Therefore, some of the programmes that the TEVET sector offers are shaped by broader policy goals and trends beyond social mandates.

For the informal sector, it was observed that individuals in that sector needed programmes that could address the realities of their daily lives.

*“But for an informal sector person they have to find somewhere to build a house where services are not available, so it means that this person must be given skills to address that problem. Apart from the business skill to be able to manage the enterprise, this person should be able to have skills to address issues of sanitation, issues of housing. If an informal sector person must have a good house that is only possible if they have a skill” (MSTVT: Chief TEVET Officer-Skills).*

Individuals in the informal sector are mainly self-employed and their style of life is determined by what they are able to do for themselves. Therefore, in addition to entrepreneurship, the informal sector person needs survival skills.

Similar views were expressed by TEVETA during the focused group interview (01.2010) regarding individuals in the informal sector;

*“...look these people in terms of agriculture that they practice at community level, need to be exposed to some basic principle of disaster management. Because when you have droughts or floods, they are the first people who get affected. If you educated them even on how they can protect fields or how to redirect water that would make a difference. The utility from that end now informs the curriculum development process” (TEVETA: Focused Group Interview).*

Suggestions like these confirm that the informal sector needs skills for survival. Training enables the informal sector person to remove the obstacles in their lives and choose a life they have reason to value.

Therefore, the intentions of MSTVT is that TEVETA should take up the challenge of designing programmes that enable the Zambian citizenry to enjoy the basic right to a better living through training.

According to TEVETA, TEVET programmes focus on ability to perform or competences.

*“The primary question that a learner has to ask himself/herself is that after this module/programme, what am I able to do? So ours is mastery of learning outcomes, that’s actually our bias. Mastery of competences is the bottom line” (TEVETA: Focused Group Interview).*

Consequently, from the perspective of the formal sector, the emphasis is on transferable skills while the informal sector emphasizes entrepreneurial and survival skills. To a greater extent, the programmes designed by TEVETA focus on results or the outcomes or on what the graduates are able to do after training. The TEVET sector prepares students for life and for work. Therefore, competence based programmes designed by TEVETA are intended to facilitate integration of individuals in their work environments.

Taking a reflection on the broader view of curricula classifications by Stark (1998), Kaserth (2006), and Becher (1994)<sup>22</sup>, the TEVET curricula is more pragmatic, with a bias in applied fields, highly correlating with Becher (1994) 's classification and is more vocationally oriented as categorized by Karseth (2006). Therefore, the TEVET programmes are more applied and vocationally oriented.

However, there is sometimes 'finger pointing' regarding the curriculum. Employers sometimes claim that TEVET institutions are producing half baked graduates, but trainers and TEVETA would also claim that the graduates they are producing match the specifications of the employers. Such dissatisfactions may suggest poor collaboration between TEVETA and the employers, while the success of TEVET relies more on circulation of information between providers and consumers. TEVETA argued that,

*“If today I asked them (ZFE and ZACCI) to say how many electricians do your members want from colleges, no one will give you that number. So there is that weakness ...”*  
(TEVETA: Focused Group Interview).

There is no cohesive and focused institutional framework for labour market studies in organizations like Zambia Federation of Employers (ZFE) and the Zambia Association of Chambers of Commerce and Industry (ZACCI), the link Yamada (2001) noted as critical in VET provision. Yamada (2001) further observed (as in chapter three) that lack of information has contributed to failure of many VET systems in developing countries to make an impact in provision. The non availability of required information affects the employability of graduates in that TEVETA may offer programmes that are not in demand or that do not match employers' needs.

### **5.3 Implementation of TEVET Programmes**

The implementation of programmes is mainly done by TEVET institutions. When the programmes have been developed, they are availed to interested TEVET institutions, as individual institutions choose which programmes to offer from the available portfolio. Since

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<sup>22</sup> Stark (1998) suggested a typology for differentiating and classifying professional fields – curricula having academic or professional field, Karseth (2006) classified curricula as being disciplinary or vocationally oriented and Becher (1994) focused on differences between disciplines as having hard pure or soft pure and hard applied or soft applied fields.

the programmes developed are demand driven, there are always institutions willing to take on new programmes because there is already a market value tied to each programme.

The study is on the development of programmes and implementation is only discussed from the perspective of TEVETA as a phase in the model of the curriculum development process. Consequently, this implies that there is limited information on what takes place in practice during implementation at institutional level. Implementation will be discussed using the following subtitles; training providers, funding and enterprises (industry).

### **5.3.1 Training Providers**

Certain programmes do not have appropriately qualified facilitators. In chapter three under staff, it was stated that for someone to facilitate at a certain level, they must have a qualification one level higher than the programme they are facilitating. In practice, it is difficult to find technicians to facilitate in carpentry or craft, so institutions would end up having facilitators with the qualification of the level they are facilitating but have a teaching diploma in addition.

The shortage of the required facilitators at technician level could be attributed to the observed tendency of most institutions offering more crafts programmes (22.7 % of students took crafts) than technician programmes (1.4 % of total number of students) as indicated in figure 3.3, in chapter three. And because the higher education system is a system that is self sustaining, the inability to produce required technicians at technician level is likely to affect the quality of the production process. The implication of employing facilitators without the required minimum qualifications is on the quality of training and graduates. The employability of graduates may be negatively affected as graduates are likely to demonstrate poor performance on expected tasks.

In an effort to build capacity of trainers, TEVETA had sponsored trainers under the TEVET fund for upgrading at Copperbelt University in electronics, but these could not be retained. The case of NORTEC was exemplified as below;

*“The classical example is one that TEVETA had at NORTEC, industry flagged the need, and TEVETA went through the process of curriculum development and gave the institution to implement; (a) the resources to procure the laboratory equipment required could not be*

*easily found. (b) the trainers that we (TEVETA) had sponsored under the TEVET fund for upgrading could not be retained. So, after they got the degrees from Copperbelt University in electronics, 6 months later they were gone. The industry itself started poaching them. Then you find that performance on that programme has been very poor” (TEVETA: Focused Group Interview).*

Despite going through the curriculum development process and enhancing capacity building, there was poor performance in that programme, not because of content but implementation challenges. The implication on employability may be reflected in the work performance of graduates and the consequent ratings of TEVET graduates by employers.

In addition, the introduction of management boards was seen as one factor contributing to high attrition levels especially in institutions under MSTVT.

*“In most cases contracts of staff are two or three years of tenure. You are offering a person who is to teach 2-3 years contract, how effective are they going to be? If a programme runs for 3 years and a contract awarded for two years, what happens? Sometimes facilitators have been fortunate to go for studies, once back with their qualification the principal decides not to renew their contract! There is really uncertainty and security is not there. Management boards and contracts were on conditions of IMF to hive off and reduce the civil service but we (MSTVT) have realized that the civil service have been reduced to the state that we cannot operate effectively” (MSTVT: Chief TEVET Officer, Skills).*

Management boards hire and pay the college staff in the public institutions under MSTVT except two and the conditions of service varies from one institution to another. The conditions of service especially for rural based institutions may not be comparable to urban based institutions which are bigger and offer more diverse programmes in a population of high purchasing power. As a result, rural institutions are not likely to attract high calibre facilitators nor are they likely to retain them. Variations in conditions of service for facilitators have also triggered mobility within the teaching fraternity in MSTVT TEVET institutions, a situation which never existed under DTEVT when facilitators were on government payroll. Mobility of staff then was mostly initiated by transfers and stability in staffing levels prevailed whether an institution is rural or urban.

Staffing levels, calibre and retention of facilitators has implications for quality assurance especially on how the graduates are being prepared for the world of work. The quality of the teaching-learning process may affect employability of graduates as the educational environment may not adequately provide the required requisites for the development of capabilities. In addition, it was observed that the issue of contracts is a new scenario in public institutions, attached with job insecurities. In an environment where formal employment is shrinking, facilitators would naturally worry more about the renewal of their contracts or secure a job elsewhere as revealed in the case of NORTEC above, than fully committing themselves in their current positions affecting quality of TEVET graduates.

It was also observed that though donor support is critical in the provision of TEVET, there seem to be little consensus on what frameworks would work better for both parties (donors and government), when government receive donor support. In the TEVET sector, conditions that were tied to donor support do not seem to have embraced values of education as defined by policy makers. MSTVT was advised to take on the steering role while the management boards made decisions on staff critical in determining the impact of TEVET. It was felt that the contracts that facilitators were offered by management boards were too short especially having in mind that the TEVET reform was seen as an important aspect of Zambia's human resource strategy.

It might be contended that the steering strategy introduced through management boards may not be a viable strategy for Zambia as it goes with reduction in control and funding. Public TEVET institutions as already stated have limited income generating options, thus rely mostly on grants from MSTVT and to achieve national goals, government intervention seem necessary. There seem to be a contradiction of functions for MSTVT; on one hand control would have given MSTVT a grip into achieving the desired levels of training as targeted by government while on the other hand donors view steering as a viable strategy that may help MSTVT deliver based on their (donors) vast experiences and comprehensive analysis of issues (Descy and Tessaring 2001). Therefore, there are dilemmas on the possibility of ensuring graduate employability as one of MSTVT's intentions with minimal regulation (steering versus control).

Similar views were expressed by the director of technical education and vocational training regarding donor support as below;

*“Donors anywhere have their own views, whether you call it interference, they always contribute. For example in the reforms, they are the ones who were behind the reforms, some of those, when DTEVT was dissolved, that’s when the donors became actively involved. .... We (MSTVT) are the government, education is a preserve of government not the donors, education is like elections, elections are supposed to be purely funded by the local government. That is the same with education we (MSTVT) are suppose to fund our own education system. But we are not able to fund it fully.... donors will always have money to give...” (MSTVT: DTEVT).*

It is important to note that donor support was appreciated in terms of funding but the conditions which were suggested on how TEVET institutions were to be managed seemed not to be what MSTVT hoped for. From the global perspective however, granting more autonomy to HEIs of which the TEVET sector is part of reflect new approaches in the management higher education, with the assumption that the supervisory role of the state would lead to better performance than controlling role (Maassen 2003). Thus, it could be suggested that MSTVT is experiencing the problematic reality of globalization which presents externally generated challenges that demand situated solutions.

### **5.3.2 Funding**

The public TEVET institutions are funded through grants from MSTVT and individual institutions generate their own incomes mainly through fees. As stated in the previous section, both private and public institutions have access to the TEVET fund. MSTVT decides the fees for public institutions, TEVET institutions merely proposes the fees.

The intervention of MSTVT in fees may be a constraint on institutions as they may not recover the actual cost of instruction from the fees. If the realistic cost of training cannot be realized from the available funds, implementation may be affected either in terms of teaching-learning resources or in offering better conditions of service to the teaching staff. Besides this, funding may be attributed to the observed bias in programmes being offered by most TEVET providers, as only 25.5 percent offer TEVET at higher levels (see figure 3.2). It was with this background that MSTVT intervened by introducing skills in priority areas thought to be critical to national development like; tourism, manufacturing, construction, mining, information technology and health, though institutions have the liberty to offer programmes of their choice (dilemma of steering versus control for MSTVT).

Since employability is also viewed as an investment in skills and training, the benefits of this investment are both financial and non-financial having appreciable repayments to the graduate, the work force, the community and the economy. While emphasizing employability of graduates in general, MSTVT through skills in priority areas has placed more responsibility on the learners to acquire knowledge and skills that will be the basis for wealth (by offering bursaries in priority skills). It is through these skills that Zambia intends to harness socioeconomic development and achieve vision 2030.

### **5.3.3 Stakeholders**

Stakeholders in this sub-section will mainly refer to industries or enterprises. Industries sometimes collaborate with training providers during programme implementation in the TEVET sector. Collaboration is vital because it is the industry which provides the likely match now and which can provide the consequent rematches in future as the employment sector continues to be dynamic. Though most traditionally the employers and TEVET providers meet when the graduate is employed, employers have been involved through nontraditional pacts such as partnerships, attachments and study tours.

The tracer study (2005) revealed that 66 percent of colleges had existing links with industry through; industrial attachments (66.7 %), demand driven programmes (16.7 %), study tours of industry (12.5 %) and where industry had representation on the management board (4.2 %).

During attachments, employers are consulted on how well graduates are doing in the work places as a way of promoting employer commitment in sharing helpful information since they have the best knowledge for the work place. This technique helps to determine the gaps between theory and practice, and may offer points of reference during programme development.

Stakeholder involvement in programme implementation cultivate graduate employability in that employers may prefer to recruit students who had attachments with them as they had an opportunity to assess them in the work place and know much more about their suitability for the job. Attachments may also help students to feel that their need for education will help them make satisfying contributions in their work organizations and the employment sector.



The implementation challenges related to inadequate or outdated machinery especially for practical programmes could be moderated through exposure to industry either through study tours or as students do attachments. As a result, industrial attachments can be seen as an approach to learning which works to enhance employability in students through providing a practical experience.

As part of the curriculum development panel, employers would naturally be interested in assessing the outcomes of their input. The involvement of employers provides the widest possible scope for enhancing employability of students through exposure to the world of work (Hills et al 2010) and fulfils the quest for effectiveness and efficiency guaranteed by the strength of the bond with TEVET providers.

These links are considered vital because they provide the students with industrial experience, training providers with information regarding the existing gaps between theory and practice and a network that both colleges and students need to secure employability.

## **5.4 Position of TEVET Graduates in the Labour Market**

There is little information in the TEVET sector to help in determining the position of TEVET graduates in the labour market. Most of the data will therefore refer to the 2004-2006 tracer study which targeted TEVET graduates from 2001-2003 with a population sample of 3000 respondents, 596 companies and organizations and 79 registered TEVET institutions. This was the only study whose data was available at the time of fieldwork (01.2010).

### **5.4.1 Graduate Employability**

Graduate employability, understood as suitability for employment (as in chapter two) will be discussed in terms of graduate and employer satisfaction, relevance of training and through correspondence between training and placement.

#### **Graduate and Employer Satisfaction**

Graduate and employer satisfaction defines the degree to which individuals feel about their jobs (satisfied or dissatisfied) or extent to which employers feel employees meet the

expectations of the organization (Spector 1997). It is related to a constellation of attitudes about various facets of the job. It was observed that (in the tracer study) 80 percent of the TEVET graduates expressed satisfaction with their nature of work while more than 90 percent liked their work. Similarly, 90 percent of employers expressed satisfaction with TEVET graduates. The employer satisfaction was experienced through promotions (10.5 %), salary increments (9.3 %), praise from employers (30 %) and more responsibilities given to TEVET graduates (50 %).

When employers are satisfied with the performance of TEVET graduates in their work places, there is a likelihood of increasing or sustaining the absorption rate of graduates in the employment sector enhancing graduate employability on one hand. On the other hand, employers may be more willing to send their employees for further training to increase the productivity of the company as well as the employability of workers (enhancing personal capacities).

### **Relevance of Training**

Relevance demonstrates the applicability of what is learnt in TEVET to work environment. The more simulated learning is to work situations either the formal or informal sector, the more the likelihood of graduates being employable. Employers at the organizations which were sampled rated the relevance of TEVET programmes highly. 93.2 percent of employers considered TEVET training to be relevant to the needs of the organizations while 94.2 percent of graduates considered their training as relevant to their current jobs. However, only 35.9 percent of employers rated TEVET graduates above average while 60.8 percent of employers considered the graduates' work performance as average.

While the rating on relevance is high for employers and graduates, average performance of graduates on tasks indicate the need for more collaboration between the training institutions and employers at the implementation stage as tasks on jobs are constantly changing. It can also be argued that the constraints identified at the implementation phase could have contributed to the average performance of graduates, which may affect employability as most employers would opt for employees with optimal performance levels. Apart from the

traditional way of attachments, the TEVET learner ship<sup>23</sup> seem to be a viable tool in ensuring that training provided meet the required set standard.

### **Correspondence between training and placement**

Correspondence between training and placement is vital because individuals are most productive in jobs that match their style. The study revealed that 75.5 percent of TEVET graduates had placements in the jobs for which they were trained while 24.5 percent were misplaced. A more detailed analysis of training and placement revealed that graduates in technical fields tended to stick to areas of specializations than other specializations, which entails that markets differ in the extent to which particular credentials determine entrants to particular jobs.

The correspondence between training and placement is an issue in employability because employers would prefer to employ workers in areas of their specializations where optimal productivity is assured. The high correlation between training and securing a job in area of specialization can be attributed to the focus of TEVET, being demand responsive.

Furthermore, stakeholder involvement could have contributed to high correspondence between training and placement as stakeholders (especially employers) provide information on how tasks and needs are changing over time especially in a country where the information system is weak.

### **5.4.2 Graduate employment rates**

The graduate employment rates are an outcome of employability (Knight and Yorke 2004). Though they do not indicate employability, employment rates will help in determining the effectiveness of TEVET programmes.

It was observed that 72.9 percent of the graduates obtained jobs within six months of graduation, 17.0 percent at the end of the first 12 months and 8.1 percent after one year. By the third year all graduates had obtained employment.

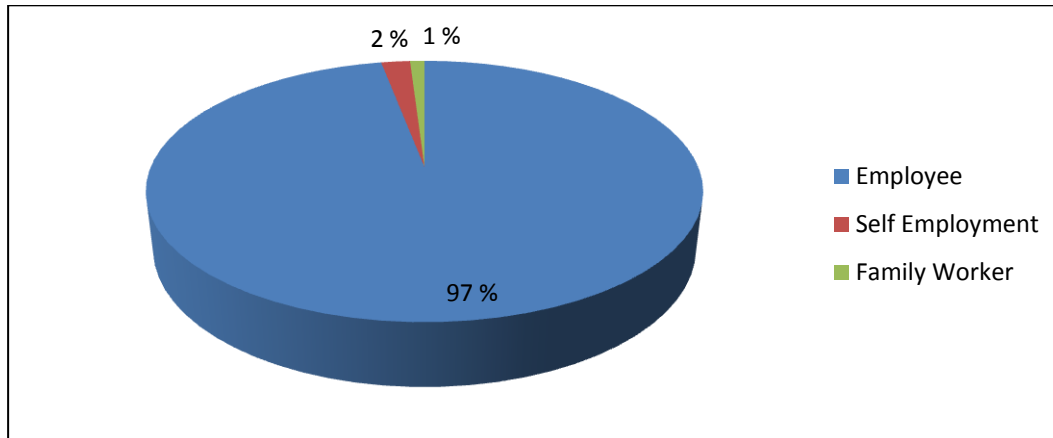
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<sup>23</sup> It is a method that combines theoretical training at college with relevant work experience concurrently - where training providers train learners in theory and partnering industry offer space for learners to put to practice the theory acquired in class.

## Graduate Employment Status

The employment status of TEVET graduates as in figure 5.2 indicates that 97 percent of the graduates were in regular employment and only three percent were self employed.

Figure 5.2: Employment Status of TEVET Graduates



Data Source: Tracer Study 2004-2006 (2005)

Figure 5.2 demonstrate that there is high absorption of TEVET graduates in the formal labour market despite the formal labour market being small. This data positively correlate with the 2005 labour force survey, on the employment status of individuals with tertiary education (in figure 3.3, in chapter three) which indicated that 63 percent are in paid employment while 28 percent were in self employment.

If the absorption rate of TEVET graduates is as indicated in the tracer study and the status of individuals with tertiary education as in figure 3.3, then the patterns of employment in chapter three indicating the majority of the viable labour force being in the informal sector would be attributed to low absorption rate of the higher education system. Statistics indicated that of the 18 percent completing high school annually, only six percent find placement in tertiary institutions while 94 percent are unaccounted for in terms of training.

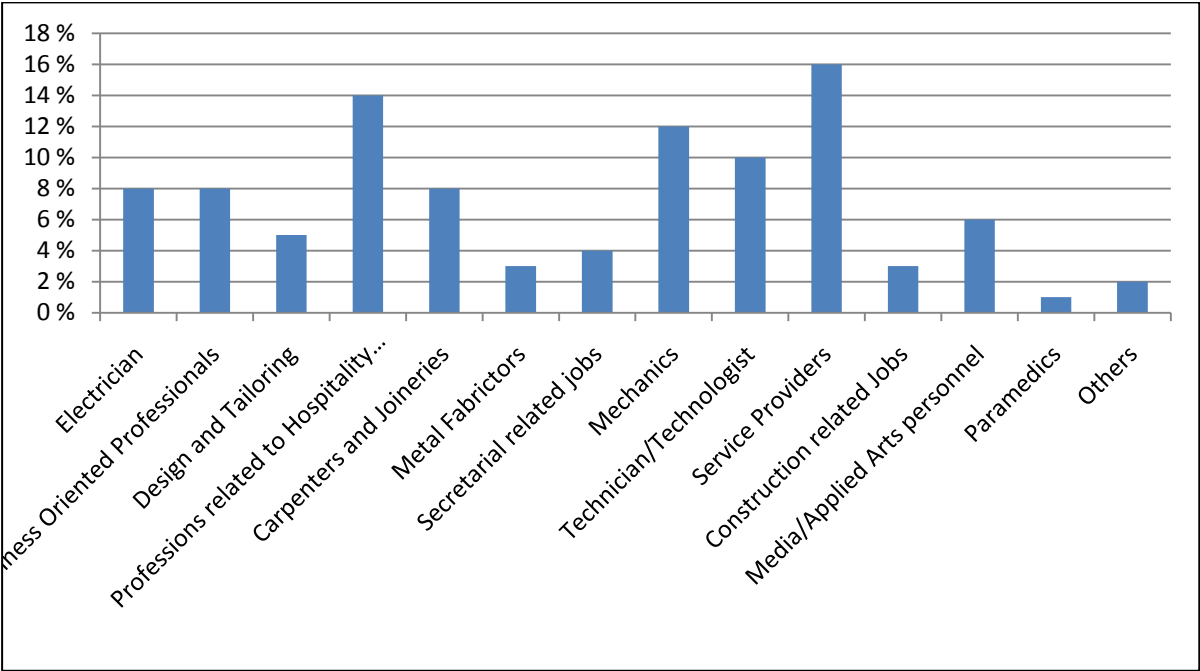
In addition, while the low rates of absorption in the higher education system contribute to the expanding informal sector, the perceptions about higher education could also have contributed. The massive layoffs that were associated with privatization questioned the essence of education, especially when people being retrenched had qualifications in the programmes being offered in higher institutions of learning. It could be argued that the perceptions and interpretations about graduates of higher education and the higher education

system may have changed with the shrinking of formal sector employment. TEVETA has a challenge of developing curricula with more sustaining skills to maintain employability.

### Employment Patterns of TEVET Graduates

Of 97 percent regular employees (as in figure 5.2), most of them were employed in the hospitality, manufacturing, construction, mining and service sectors as electricians, paramedics, tailors and designers, technicians/ technologists, mechanics, among others. Figure 5.3 shows the employment pattern of TEVET graduates besides where they are mostly employed.

Figure 5.3: Employment Patterns of TEVET Graduates



Data Source: Adapted from Tracer Study 2004-2006 (2005: 21-23).

The employment pattern gives a deeper understanding of the actual occupations in which TEVET graduates were (or are likely to be) employed than the mere statistics of how many are employed. It also gives a clear picture on the quality and quantity of occupations (figure 5.3) and would possibly be a good indicator to policy makers on how jobs are evolving over time.

Since it is difficult to ensure that all TEVET graduates are absorbed in formal sector employment, TEVETA has been initiating collaborations between training providers and

potential financiers to come up with the TEVET graduate schemes, where some graduates after completing training are given tools to start up graduate companies, so as to help them to be employed. The Citizens Economic Empowerment Commission (CEEC) working in collaboration with training institutions and business development services seeks to empower Zambian citizens through grants for business and investments to ensure graduate employment (TEVET News 2009).

## **5.5 Concluding Remarks**

In a nutshell, employability plays an important role in programme development in the TEVET sector in that its centrality has influenced; the choice of the model of programme development which the TEVET sector uses, collaboration in which stakeholders translate the needs of both the formal and informal sector into programmes that the TEVET sector provides and type of curricula (demand driven or flexible) which the TEVET sector embraces. So, employability is linked to programme development in the TEVET sector through collaboration as indicated in the analytical framework.

Therefore, the objectives set at the beginning of this study have been adequately attained in that the analysis of data has demonstrated that employability is embedded in the TEVET curricula, resulting in the centrality of graduate achievements.

The next chapter is the conclusion. I will give a summary, conclusion and recommendations. I will also suggest areas for further research.

# 6 Summary, Conclusion and Recommendations

## 6.1 Introduction

Throughout this study, the main focus has been on programme development in the TEVET sector in Zambia. Underlying programme development was the issue of ensuring graduate employability. In concluding the study, this chapter is divided into three parts; a brief summary of the findings, the conclusion and recommendations.

## 6.2 Summary

The TEVET sector is part of the higher education system in Zambia offering training on a wider spectrum to a diversified student body. TEVET starts at a point when an individual is able to learn a skill for whatever purpose, whether for self or formal employment. The TEVET sector provides vocational, technical, survival and entrepreneurship skills for both the formal and informal sectors. The TEVET sector absorbs about half of the total enrolments of HEIs in Zambia.

There were 99 programmes approved by TEVETA by the end of 2008 and these were clustered under the following subheadings; secretarial studies, hotel and tourism, media and applied arts, paramedical studies, business studies, craft, aviation and technological studies. Taking into account the classification of curricula in the broader aspect of literature, the TEVET curricula is more vocationally oriented with more applied programmes or fields.

The institution mandated to develop curricula for the TEVET sector is TEVETA, a statutory body which regulate, monitor and coordinate TEVET in consultation with industry, employers, workers and informal sector representations. Programme development in the TEVET sector follows the SCID model. The SCID model consist of five phases; analysis, design, development, implementation and evaluations.

Throughout the programme development process, stakeholders' input is critical to ensure that learning opportunities are focused and lead to intended results. At the implementation stage,

TEVETA faces a number of challenges regarding execution of designed programmes at institutional level related to aspects of the teaching staff and finances.

The trends in the labour market influence programme development in the TEVET sector in that programmes are demand driven reflecting the needs of the formal and informal sector, national priorities and regional and international influence.

TEVET programmes are effective in ensuring graduate employability in that these programmes use outcomes based models where employability is embedded in curricula with a focus on performance in the world of work. Statistics indicate that about 90 percent of the graduates secure employment by the end of 12 months.

## 6.3 Conclusion

It was observed that the TEVET sector offers a wider variety of subjects than available in other higher education institutions, implying that TEVET can pervasively contribute to personal and socio-economic development. The TEVET sector also strives to increase equity in educational opportunities implied by the inclusive student body that it caters for. Through TEVET individuals without academic qualifications have an opportunity for training increasing their chances for employment into the formal labour system.

The study also revealed that, collaboration in programme development in the TEVET sector is vital because the TEVET sector cannot be steered solely by MSTVT as it is impossible to forecast changes in demand beyond a certain point. It is difficult to predict trends in employment and to ensure that TEVET programmes are relevant to demands of both the formal and informal sector without collaboration. In order to achieve employability, stakeholder involvement is critical in the following areas;

- in providing information on how tasks and needs are changing over time since the information link between MSTVT and MLSS is weak
- in helping to convert what the labour market require into what the TEVET sector provide
- in filling the gap of the shortage of expertise required for policy making, programme development and planning related to TEVET



- in providing a context and insights that guarantees employability of graduates now and in the near future

Thus, the critical and diverse positions which stakeholders take in programme development demonstrate the role that employability play in programme development.

Statistically, graduate employability in the TEVET sector is high. By implication, TEVET graduates are more likely to benefit from the knowledge and skills acquired as an outcome of training. It could be argued therefore, that the mechanisms and procedures that TEVETA uses in programme design are useful because the graduates are employable.

Finally, it was observed that the flexible curriculum (demand driven) which the TEVET sector offers embraces transferable skills (technical, vocational, survival, job specific skills and entrepreneurial skills) which foster employability since these skills can be applied in a wider work context.

It is hoped that this study will increase awareness among policy makers and consumers of higher education to realize that the current generation of graduates faces a far different future in which they need comprehensive skills comprised in practicality or vocational skills.

Though the main thrust of the study was assessing the role of employability in programme development, it brought to the fore the salient implementation challenges which policy makers need to ameliorate in order to improve TEVET provision.

Since the main contributions of qualitative research lies in focusing on the actual implementation of programmes, this study is important in that it has evaluated the actual implementation of the TEVET policy intention in the TEVET reforms (need to ensure graduate employability). The study has revealed that the mechanisms and procedures TEVETA employs in programme development enhances graduate employability.

This study has also contributed in the area of employability in programme development in higher education, in that it has come up with an alternative model in programme development that might be utilized by higher education institutions intending to move towards vocationalization of education. The model (figure 2.2) owes its significance to the broader literature on work related learning specifically on ‘employability embedded in curricula’ and the outcomes based education models.

## **6.4 Recommendations**

Despite operating in an environment with weak information system to make the whole demand and supply process effective, TEVET programmes are effective in ensuring graduate employability. However, it is not clear whether these programmes will remain employable in the future where there is little reliable information. TEVETA therefore, should aim at developing programmes that provide the basis for further training.

Of the 79 institutions that were included in the tracer study, only 37.9 percent had a tracer monitoring system. Since the tracer monitoring system (TMS) is an important tool in determining the effectiveness of TEVET, TEVETA should implement policy towards ensuring that individual institutions establish TMS if TEVET provision will have to remain effective.

## **6.5 Suggestions for further Research**

The study only focused on curriculum or programme development in the TEVET sector which is just one aspect of TEVET, other studies may be pursued related to quality assurance, impact of donor support in TEVET since donors play quite an important role in the provision of education in Zambia and the implementation of TEVET curricula.

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# 8 Appendices

## 8.1 Appendix 1

Interview Guide for TEVETA (including LIBES and TEVET officer at MSTVT)

1. What is TEVETA (its role and mission)?
2. How does TEVETA relate to TEVET institutions and MSTVT?
3. Where does TEVETA get the funds from?
4. How much of TEVET is higher education?
5. What programmes are offered in the TEVET sector?
6. Where does the staff come from?
7. How are programmes or curricula developed?
8. How is curricula implemented?
9. How does the labour market influence programme development?
10. How does TEVETA monitor efficiency of TEVET programmes?

Interview guide for MSTVT

1. What is the role of MSTVT in the TEVET sector?
2. What is the relationship between MSTVT and TEVET institutions, and MSTVT and TEVETA?
3. What is the intention of the TEVET policy in programme development?
4. How does MSTVT ensure that the intended programmes are implemented?