A MODEL FOR EFFECTIVE CURRICULUM IMPLEMENTATION IN ACCREDITED PRIVATE HIGHER EDUCATION INSTITUTIONS IN BOTSWANA

by

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DECLARATION BY STUDENT

I, Norman Rudhumbu hereby declare that this study titled **"*A model for effective curriculum implementation in accredited private higher education institutions in Botswana*"** is my work and that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references.

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5 December 2018

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DECLARATION BY SUPERVISOR

I, Prof. E.C. du Plessis, declare that the thesis has been submitted to originality checking software.

5 December 2018

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DEDICATION

This thesis is dedicated to:

My wife Mrs Lucy Rudhumbu, my children Knowell, Arnold and Norman Junior. I hope this achievement will inspire you as much as you inspired me with your words of encouragement and support.

My late mother Mrs Maria Takaidza and my late sister Mrs Rumbidzai Takavarasha. I continue to derive inspiration from how hard you toiled to raise me.

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ABSTRACT

The purpose of the study was to propose a model (framework) for effective implementation of curricula in accredited Private Higher Education Institutions (PHEIs) operating in a highly regulated higher education environment in Botswana. The study used a mixed methods research approach that employed concurrent triangulation design. A structured questionnaire and a semi-structured interview guide were used to collect data on the views of both 306 lecturers and 12 academic middle managers (AMMs) respectively, on how the curriculum is implemented in the accredited PHEIs. Data analysis was done using statistical tables, Analysis of Variance (ANOVA), Mann Whitney U-Test, regression analysis, correlation analysis and structural equation modelling (SEM).

Results of the study showed that characteristics of the external environment, lecturer, institution as well as characteristics and conception of the curriculum were all statistically, significantly and positively related to effective curriculum implementation in accredited PHEIs and hence acted as predictors of effective curriculum implementation in these institutions. The study also showed that factors in the above predictor variables which included heavy workloads, lack of training on pedagogical issues, limited opportunities for staff development in some of the PHEIs, limited teaching resources as well as a highly regulated higher education environment were major challenges affecting effective curriculum implementation in the PHEIS. It emerged from the study that a 1% improvement on each of the predictor variables could lead to improvements in the way curriculum is currently implemented in these institutions. Based on these results, a framework was proposed for enhancing curriculum implementation in accredited PHEIs.

Keywords: curriculum, effective curriculum implementation, highly regulated environment, accredited Private Higher Education Institutions, framework, lecturer

KAFUSHANE NGOCWANINGO

Inhloso yalolu cwaningo kwabe kuwukuthuthukisa imodeli yokuqaliswa kwekharikhulamu ngempumelelo eziKhungweni Zemfundo Ephakeme Zangasese ezigunyaziwe (ama-PHEI) eziqhuba umsebenzi wazo ngaphansi kwesimo semfundo ephakeme esilawulwa kakhulu. Lolu cwaningo lwasebenzisa indlela yokucwaninga exubile ngokulandela *i-concurrent triangulation design*. Ucwaningo lwasebenzisa *i-structured questionnaire* kanye *ne-semi-structured interview guide* ukuqoqa idatha mayelana nemibono yabafundisi basenyuvesi abangama-306 kanye nabaphathi bezikhungo zemfundo ephakeme abasezikhundleni zokuphatha ezimaphakathi (ama-AMM) abayi-12, ngokulandelana, mayelana nendlela okuqaliswa ngayo ikharikhulamu kuma-PHEI agunyaziwe. Ukuhlaziywa kwedatha kwenziwa ngokusebenzisa amathebula ezibalo, *i-Analysis of Variance* (ANOVA), *i-Mann Whitney U-Test*, *i-regression analysis*, *i-correlation analysis* kanye *ne-structural equation modelling* (SEM).

Imiphumela yocwaningo yabonisa ukuthi izici zobunjalo besimo sangaphandle, izici zomfundisi, izici zesikhungo kanye nezici eziphathelene nekharikhulamu kanye nomsuka womqondo wokusungulwa kwayo, konke kwabe kukhombisa ukuhlobana okucacile futhi obuboniswa nayizibalo phakathi kwalokhu nokuqaliswa kwekharikhulamu ngempumelelo kuma-PHEI agunyaziwe futhi ngalokho-ke lokhu kwasebenza njengezibikezeli zokuqaliswa kwekharikhulamu ngempumelelo kulezi zikhungo. Ucwaningo lwabonisa nokuthi ezinye izimo, ngaphezu kwezibikezeli, ezibandakanya umsebenzi omningi ngokweqile okumele wenziwe ngumfundisi ngamunye, ukuntuleka kokuqeqeshwa mayelana nezindaba eziphathelene nokufundisa, amathuba ayingcosana kakhulu okuthuthukiswa kwabasebenzi kwezinye zalezi zikhungo ezingama-PHEI, izinsizakufundisa eziyingcosana kanye nesimo semfundo ephakeme esilawulwa kakhulu, kwabe kuyizinselelo ezinkulu ezinomthelela ekuqalisweni kwekharikhulamu ngempumelelo ezikhungweni ezingama-PHEI. Kwahlaluka ocwaningweni ukuthi ukuphuculwa kwesimo nge-1% esibikezelweni ngasinye kungaholela ekutheni ibe ngcono indlela okusetshenziswa ngayo ikharikhulamu kulezi

zikhungo. Ngokususela kule miphumela, kwathuthukiswa imodeli yokwenza ngcono ukuqaliswa kwekharikhulamu kuma-PHEI agunyaziwe.

Amagama asemqoka: ikharikhulamu, ukuqaliswa kwekharikhulamu ngempumelelo, isimo esilawulwa kakhulu, iziKhungo Zemfundo Ephakeme Zangasese ezigunyaziwe, imodeli, umfundisi wasenyuvesi

OPSOMMING

Die doel van die studie was om 'n model (raamwerk) voor te stel vir doeltreffende kurrikulumimplementering in geakkrediteerde private hoëronderwysinstellings (*PHEIs*) wat in 'n hoogs gereguleerde hoëronderwysomgewing funksioneer. 'n Gemengdemetode-navorsingsbenadering is gevolg, met gebruik van gelyktydige-triangulasie-ontwerp. 'n Gestruktureerde vraelys en 'n halfgestruktureerde onderhoudsgids is gebruik om data in te samel oor die sienings van 306 dosente en 12 akademiese middelbestuurders (*AMMs*) onderskeidelik, oor hoe die kurrikulum geïmplementeer word in die geakkrediteerde *PHEIs*. Data is ontleed met behulp van statistiese tabelle, Analise van Variansie (*ANOVA*), die Mann Whitney U-Test, regressieontleding, korrelasieontleding en strukturele vergelykingsmodellering (*SEM*).

Die resultate van die studie het getoon dat eienskappe van die eksterne omgewing; van die dosent; van die instelling, sowel as eienskappe en beskouings van die kurrikulum, almal positiewe, beduidende en statistiese verwantskappe met doeltreffende kurrikulumimplementering in geakkrediteerde *PHEIs* het, en dus as voorspellers van doeltreffende kurrikulumimplementering in hierdie instellings opgetree het. Die studie het ook getoon dat faktore in die bogenoemde voorspellerveranderlikes – insluitende aansienlike werkslas, gebrek aan opleiding oor pedagogiese kwessies, beperkte geleenthede vir personeelontwikkeling in sommige van die *PHEIs*, beperkte onderrighulpbronne, sowel as 'n hoogs gereguleerde hoëronderwysomgewing – groot uitdagings was wat doeltreffende kurrikulumimplementering in die *PHEIs* beïnvloed het. Dit het uit die studie geblyk dat 'n 1%-verbetering in elk van die voorspellerveranderlikes verbeteringe kan teweegbring in die manier waarop die kurrikulum in hierdie instellings geïmplementeer word. Op grond van hierdie resultate is 'n raamwerk voorgestel om kurrikulumimplementering in geakkrediteerde *PHEIs* te versterk.

Sleutelwoorde: kurrikulum, doeltreffende kurrikulumimplementering, hoogs gereguleerde omgewing, geakkrediteerde private hoëronderwysinstellings, model, dosent

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LIST OF ABBREVIATIONS

Acronym	Expanded Version
ACCA	Association of Certified Chartered Accountants
AMM	Academic Middle Manager
ANOVA	Analysis of Variance
AVE	Average Variance Extraction
BICA	Botswana Institute of Chartered Accountants
BML	Motswana Ministry of Labour
BOTA	Botswana Training Authority
CBAM	Concerns-Based Adoption Model
CHE	Commission for Higher Education
CIMA	Chartered Institute of Management Accountants
CMIN	Confirmatory Factor Analysis with Minimum Discrepancy
CONEAU	Argentina National Accreditation Agency
CR	Calculated Regression Estimate
DF	Degrees of Freedom
DoF	Deans of Faculty
EAQAHE	European Association Quality Assurance in Higher Education
EQA	External Quality Assurance
ER	External Regulation
ERO	Education Review Office
ETQA	Education and Training Quality Assurance
ETSSP	Education and Training Sector Strategic Plan
FAC	Faculty Assessment Committee
FBA	Faculty of Business and Accounting
FOI	Fidelity of Implementation
FPC	Faculty Programmes Committee
HE	Higher Education
HEI	Higher Education Institution
HODs	Heads of Departments
HRDC	Human Resources Development Council
ICT	Information Communication Technology
IQA	Internal Quality Assurance
KIPs	Key Performance Indices
KMO	Keiser Meyer Olkin
LMS	Learning Management System
LTA	Learning Teaching and Assessment
LoU	Level of Use
MIS	Management Information Systems
MOESD	Ministry of Education and Skills Development
MTGs	Module Teaching Guides
NAB	National Accreditation Board
NIF	Normed Fit Index
PhD	Doctor of Philosophy
PHE	Private Higher Education

PHEI	Private Higher Education Institution
PHEIs	Private Higher Education Institutions
QA	Quality Assurance
qual	Qualitative
QUAN	Quantitative
RD&D	Research Design and Development
RMSEA	Root Mean Square Error and Approximation
SE	Standard Error
SEM	Structural Equation Modelling
SoU	Stages of Concern
SPSS	Statistical Package for Social Sciences
SSCC	Staff Students Consultative Committee
SSD	Self-Study Document
TCHACOM	Characteristics and Conception of the Curriculum
TCHAINS	Characteristics of the Institution
TCHATEA	Characteristics of the Teacher
TCURRC	Effective Curriculum Implementation
TEC	Tertiary Education Council
TEXTEN	External Environment
TL	Tolerance level
TLECREAD	Lecturer Readiness
UNESCO	United Nations Educational and Scientific Organisation
USA	United States of America
VIF	Variance Inflation Factor
VLE	Virtual Learning Environment
WTO	World Trade Organisation

CHAPTER 1: ORIENTATION

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

Private higher education institutions (PHEIs) in Botswana operate under a highly regulated higher education (HE) environment (Makambe, 2017; Samboma, 2017), making implementation of the curriculum a tenuous task for these institutions. Some of the evidence of how highly regulated the HE environment in Botswana is, can be highlighted. To start with, lecturers in PHEIs must be accredited by the regulatory authorities for them to be allowed to teach in Botswana universities. For these lecturers to be accredited, they are supposed to have professional teaching qualifications despite them having relevant academic and/or professional qualifications in their areas of expertise. PHEIs in Botswana can only get government sponsored students after demonstrating full compliance with all the stringent quality assurance requirements set up by government regulatory bodies (Kaboyakgosi, 2018). Also, as part of the strict regulations, all PHEIs must first seek permission from the regulatory bodies to be able to effect any changes that are 20% or more in their course outlines (Tertiary Education Council, 2013). Another evidence of high regulation is that after being approved and implemented for just one year, an institution's programmes are required to go through an accreditation process in which the institution may be asked to review some or all of its programmes despite the fact that these programmes, in the form they would be, would have been approved by the same regulators just a year before (Makambe, 2017). Yet another evidence of high regulation is that once in every three years, every PHEI must re-register and be re-accredited with a possibility of being de-registered if deemed to have failed to comply with certain regulatory requirements (Tertiary Education Council, 2013).

The introduction of private higher education (PHE) in Botswana between the late 1980s and early 1990s was necessitated by the inability of public finances to keep pace with the demand for higher education (Mbuya, 2017, Obasi, 2015). The rapid and in many cases, uncontrolled growth in the number of PHEIs globally and in Botswana in particular, caught many governments by surprise and left them exposed and unprepared to regulate these institutions (Mbuya, 2017, Obasi, 2015; Tertiary Education

Council, 2013; Arikewuyo, 2013). The major driver of this exponential growth of PHE were liberalisation policies in HE that were initiated by many countries globally since the 1980s (Arikewuyo, 2013; Baputaki, 2016; Obasi, 2015).

As a result of the astronomical and uncontrolled expansion of PHE in Botswana specifically, there was urgent need for the establishment of mechanisms for monitoring and controlling the quality of education offered by these PHEIs (Setume, 2013; Tertiary Education Council, 2013; Tsevi, 2014). Many of these private institutions were viewed as fly-by-night and degree mills which had little regard for the quality of education they provided to their students (Tsevi, 2014; Samboma, 2017).

This study therefore, explored the implementation of curricula in accredited PHEIs in Botswana. The study investigated the challenges faced by PHEIs as well as strategies used by these institutions when implementing the curriculum in a highly regulated environment. The results of this study were used to propose a framework that could be used for effective curriculum implementation in accredited PHEIs. The study also attempted to bridge the gap between theory and practice on the implementation of the curriculum by PHEIs operating in a highly regulated HE environment. The findings of this study were expected to both contribute to the body of knowledge on curriculum implementation in highly regulated HE environments as well as increase awareness and appreciation of the challenges faced and strategies used by PHEIs operating in highly regulated HE environments during curriculum implementation. The study specifically targeted six accredited PHEIs in Botswana which had offered degree programmes for at least five years.

In Botswana, the quality of services provided by PHEIs is monitored through the accreditation process. This process begins with the development of a self-study document (SSD). In the SSD, each PHEI explains the process of teaching and management at the institution (Tertiary Education Council, 2008; Botswana Training Authority, 2014). Specifically, the SSD, according to the Tertiary Education Act of 2008, details the following standards:

1. Institutional governance - describes governance structures at the institution;

2. Programme design and development - describes the processes of curriculum development at the institution;

3. Funding of programmes - describes how the institution funds its programmes;

4. Staffing of the programmes - describes how the institution recruits and manages teaching and administrative staff;

5. Resourcing of the programmes - details all human, material and physical facilities resources used in the implementation of curricula;

6. Delivery of the programmes - details processes the institution uses for curriculum implementation;

7. Assessment of learner attainment - details assessment processes at the institution;

8. Certification and reporting - details the types of certificates the institution awards;

9. Reporting of learner attainment - details systems used to collect, process and store data/information for students' assessment;

10. Impact of programmes - details learner retention and attainment rates as evidence of effective teaching and management of learning;

11. Degree-level programme - details how the degree programme represents high level study of the discipline area(s);

12. Internationalisation - details institutional internationalisation processes such as in student recruitment, staff/student exchanges, identification of viable markets for partnerships/collaborations, setting up campuses abroad, and internationalisation of the curriculum and research.

The standards above, according to Botswana Qualifications Authority (2016), ensure availability of major resources and infrastructure such as physical structures, faculties, departments, programmes of study, staffing and finances for effective curriculum implementation. These standards also ensure sustainability of the requisite quality that goes with being a higher education institution (HEI). During the accreditation process, Botswana government regulatory authorities, especially the BQA, send technical personnel to each PHEI to verify theat institutions implement their SSDs. An institution that does not adhere to its SSD standards fails accreditation, and is not allowed to enroll new students, or, at worst, is de-registered (Botswana Qualifications Authority, 2013).

(The author of this study is a lecturer at one of the PHEIs in Botswana, and was motivated to conduct this study by his experience in implementing the HE curriculum at this PHEI).

1.2   CONTEXTUAL FRAMEWORK

First, this study examined the implementation of the curriculum in accredited PHEIs operating in a highly regulated HE environment in Botswana. Second, the historical growth of the local and global PHE was traced. Third, the reasons for the phenomenal rise of PHEIs and the development of strict regulatory frameworks in Botswana and many other countries in the world were investigated. It was also observed that countries with strict regulatory frameworks have a centralised system of education which operates on top-down communication through policies and other regulatory tools. Other critical issues discussed in this study included the Botswana, continental and global legal and regulatory contexts of PHE (Obasi, 2015) and global (Kasozi, 2014; Tsevi, 2014; Harris, 2013; Kotecha, Wilson-Strydom and Fongwa, 2012).

The history of PHE globally dates back to the late 1980s and early 1990s due to increased demand for HE coupled with the failure by public finances to fund this increased demand. The need to ensure more access to HE led to the promulgation of neo-liberal policies (market-oriented ideologies) in the form of deregulation of HE and these policies became the main drivers of the growth of PHE globally (Tsevi, 2014). The neo-liberal policies specifically paved the way and allowed for the entry of private players to support or complement government efforts in improving access to HE, thus shifting higher education institutions (HEIs) to another form of business with a bottom line (Setume, 2013). At a global level, due to this rapid rise of PHEIs, in countries such as Brazil, Ghana, Argentina, Malaysia, Australia, China, Kenya, and Chile to mention just a few, there are now more PHEIs than public higher education institutions and PHE is highly regulated (Samboma, 2017; Tsevi, 2014). In Argentina for example, many PHEIs have closed because of the strict regulatory frameworks that make it difficult for PHEIs to operate both effectively and profitably (Rabossi, 2015). In Malaysia, PHEIs have to abide by up to 56 operational guidelines (Government of Malaysia, 2006; Samboma, 2017; Tham, 2011).

In South Africa, the government in the late 1990s, passed three laws - which are still in operation up to now, namely, the Higher Education Act, The Further Education Act, and the National Qualification Framework. These laws provided for the registration and accreditation of PHEIs as a means to monitor and regulate the quality of HE provision by PHEIs (Ellis & Steyn, 2014). In Portugal, as a result of restrictive measures, it takes upward of four years for new study programmes in PHEIs to be approved by the Ministry of Education - which is the sole regulatory authority in Portugal (European Association Quality Assurance in Higher Education, 2012; Neave & Amaral, 2011). In Italy, the regulation of PHEIs is done through top-down directives with the promulgation and enforcement of authoritative sets of rules. These are usually legal rules through which the government prescribes and enforces detailed academic benchmarks (Donina, Meoli & Paliari, 2015).

In Botswana, there were only four PHEIs in 1990 (Tertiary Education Council, 2013). However, by 2013, there were 316 registered and unregistered public and private tertiary institutions operating in Botswana, of which 229 were private (Tertiary Education Council, 2013). This increase in PHEIs was necessitated by the need for a strong partnership between the Botswana government and the private sector to provide the much needed HE (Tertiary Education Council, 2013; Samboma, 2017). Of these 229 PHEIs, only eight offer degree level qualifications (Tertiary Education Council, 2008). Of the eight degree-offering PHEIs, six have been operating for a period of at least five years.

A sizable number of PHEIs in Botswana are still operating with scant human and material resources and with poorly trained and less experienced management (Tertiary Education Council, 2008; Botswana Qualifications Authority, 2016). This as mentioned above led to questions being asked about the quality of service offered by these institutions, and, by extension, to the creation of a highly regulated HE environment for checks and balances on the quality of education these tertiary education institutions were providing (Botswana Training Authority, 2011; Siphambe, 2012). The system of highly regulating and monitoring the PHEIs continues to date because many PHEIs are still not accredited. At the time of this study, BQA officials had just visited PHEIs to

validate and accredit their programmes, and a number of PHEIs had some of their programmes failing accreditation, and new student enrolments suspended.

The regulation of PHEIs at national level in Botswana includes the following evidence:

1)   Every PHEI must be registered, and its programmes accredited, before they can be allowed to operate in Botswana. After every three years, the institutions must be re-registered;

2)   An institution that fails to comply with any of the stated regulatory requirements as stated at initial registration, is de-registered, and must re-apply for accreditation and registration;

3)   Every lecturer must be accredited to teach in the PHEIs, in addition to their academic qualifications;

4)   All teaching materials including textbooks, assessment procedures, course descriptors and milestones, must be approved and they cannot easily be changed or modified without prior approval from regulatory authorities, once approved;

5)   All teaching staff must reapply for accreditation every five years after initial accreditation;

6)   All textbooks and other related teaching materials must be approved by the regulatory authorities before they can be used and once approved they cannot easily be changed and;

7)   Any new or revised curriculum must be approved by the two government regulatory authorities and it can take up to two years for curriculum implementation changes requested by PHEIs to be approved by the government regulatory authorities (Tertiary Education Council, 2006; Botswana Training Authority, 2009; Botswana Qualifications Authority, 2016).

Only PHEIs with accredited programmes are recognised by the Botswana government and receive government sponsored students. In 2013, over 20,000 students were enrolled in PHEIs, 95% of whom were government-sponsored (Tertiary Education Council, 2013). In 2015, the enrolment figures stood at a staggering 25,852 ("Sunday Standard", 2015). These institutions, in 2013, had a combined staff complement of around 1,500 professionals (Tertiary Education Council, 2013). The staffing figures are growing, owing to the introduction of new programmes at these institutions.

As a result of regulatory measures implemented on PHEIs by the Botswana government regulatory officials, some of the PHEIs have since grown to become HEIs of note that offer a variety of both academic and professional qualifications despite the strict regulation of PHEIs. Some of these institutions boast of state art facilities and technology (Tertiary Education Council, 2013; Kagiso, 2013). Staffing in these institutions includes Doctor of Philosophy (PhD) and Master's degree holders.

Internally, PHEIs are strictly managed by the owner-managers. These owner-managers make decisions on: the type of curriculum that should be developed and implemented; the type of staff that should be employed to teach the curriculum; the distribution of academic leadership positions; and, the types of teaching resources required on the programmes (Makambe, 2017). The managers, thus, use a top-down management approach. This approach makes the work environment frustrating, and not very conducive for effective implementation of the curriculum, because it limits information-sharing between top management and the staff. Bailey and Chirwa (2014) also argue that when power is concentrated in the hands of non-academics in an academic institution, this is a recipe for unnecessary conflicts and demoralisation in an institution. This argument means that for academic activities such as curriculum implementation to progress well in a university, the center of power should reside with the academics and not the non-academics. For optimum performance, academics always want to be duly recognised especially on issues of decision-making (Mothamaha & Govender, 2014). By not being given opportunities for decision-making, academics so as to be able to initiate new ideas of implementing curriculum, academic staff feel discouraged and demoralized (Ncoyini and Cilliers, 2016), and this ultimately affect how they approach curriculum implementation. The next section discusses the theoretical and conceptual frameworks that inform and guide this study.

1.3   THEORETICAL AND CONCEPTUAL FRAMEWORKS

This section articulates the theoretical and conceptual frameworks which stimulate research, extend knowledge, and provide direction and impetus to this study. According to Swanson (2013: 1), "Theoretical foundations of a field of study describe and inform the practice, and provide the primary means to guide future developments

in the field". The conceptual framework identifies the relationship between the variables in this study and their role in shaping curriculum implementation in PHEIs in Botswana.

1.3.1 Theoretical Framework

According to Swanson (2013: 3), "A theoretical framework defines concepts and provides reference to relevant scholarly literature used in a study". See also Vinz, 2015. The theoretical framework in this study therefore serves as an epistemological guide or an appraisal tool that helps in the interpretation of the knowledge presented in the study. The above means that "a theoretical framework provides scientific justification for an investigation by showing that the research did not just come out of the blue, but that it is both grounded in and based on scientific theory" (Vinz, 2015: 7).

The Kurt Lewin (1947) theory, also called the Force-field theory, is used in this study to inform and describe curriculum implementation as a change process and to underscore the fact that two competing forces can be successfully synchronised (Ornstein & Hunkins, 2014). The above theory is premised on the belief that curriculum implementation can be successfully implemented and managed by a careful balancing act of forces working in opposing directions (driving and inhibiting forces) (Kritsonis, 2005). These forces need to be balanced or provide equilibrium for an effective curriculum implementation in PHEIs.

According to the Kurt Lewin theory, the whole process of implementing curriculum as a change process can be summarised using the following linear model: B = f (P, E) where:
- B = Behaviour patterns of the people implementing change;
- P = People implementing the change and;
- E= Environment in which people implement the change. This environment involves both the internal environment and external environment of the implementers (Sansome, Morf & Panter, 2003).

This model is discussed further in Chapter 3.

1.3.2 Conceptual Framework

The purpose of this section is to provide a narrative of the main issues surrounding curriculum implementation in HE in Botswana. As part of the discussion, this section explains how the main concerns or ideas around curriculum implementation are structured or organised to help this research into eventually answering the research question.

1.3.2.1 The concept of curriculum

Studies show that curriculum implementation studies dealing with conceptual frameworks and actual practice, are not new (Wang, 2006). However, defining the term curriculum and describing its implementation remain perhaps the most difficult tasks because these terms have assumed different meanings ever since the field of curriculum took form (Joskin, 2013). The word 'curriculum' is widely used by students, academics, institutional management and policy makers and hence its meaning shifts across these contexts (Fotheringham, Strickland & Aitchison, 2012). To gain a deeper understanding of the word curriculum therefore, the historical development of the concept is traced and consideration is also given to both the descriptive and prescriptive definitions of the concept.

1.3.2.2 Origin of the curriculum construct

The term curriculum has its roots in the Greek word 'currere' whose original meaning was "a running", "a race", or "a course" and whose secondary meaning was "a race-course" or "a career" (Egan, 2003; Olibie, 2014). As a result, the term curriculum assumed the definition of a course of study to be completed in educational institutions (Ofoha, Uchegbu, Anyika & Nkemdirim, 2009). In the works of Smith, Stanley and Shores (1957 in Bloom, 2006: 9), curriculum was considered as "a sequence of potential experiences set up in the school for the purpose of disciplining children and youth in group ways of thinking and acting". Up to the period of Connelly and Clandinin (1988 in Bloom, Hartley, & Rosovsky, 2006), curriculum became known as a syllabus or specific outline of topics to be covered and objectives to be attained.

Since then, the definition of curriculum has evolved and curriculum is currently understood as:

> *…. "all planned and guided learning experiences and intended learning outcomes, formulated through the systematic reconstruction of knowledge and experience under the auspices of the school for the learner's continuous and willful growth and personal social competence" (Fotheringham, et al., 2012: 37).*

The definition of curriculum above was therefore used in this study because it is comprehensive and informative and reflects the changing conceptions of curriculum. The definition further "resolves the means-ends distinction, the curriculum-instruction distinction, as well as that it precisely states what the curriculum does not entail, i.e., is not static and stale knowledge but is dynamic and constantly evolving" (Fotheringham, et al., 2012: 41). From the definition above therefore, it can be concluded that curriculum (what learners learn) changes in line with the changing needs of society.

As part of comprehensively discussing and describing the concept of curriculum in order to build a strong foundation and a compelling argument of how it should be implemented, the following themes were discussed: Historical development of the concept of curriculum and definitions of curriculum (Joskin, 2013); curriculum perspectives (Ornstein & Hunkins, 2014); and curriculum approaches (Ornstein & Hunkins, 2014).

1.3.2.3   Defining curriculum implementation

The term 'implementation' has been defined variously by different authorities. It is defined as the process of putting something into practice, or simply, the actual doing. Curriculum implementation is therefore defined as the process of putting into practice a new curriculum and checking if it makes a difference or change (Ornstein & Hunkins, 2014). The definition above therefore suggests that the whole aim of implementing a curriculum is to make a difference or a change to the learner, and more importantly to bring about improvement.

The process of curriculum implementation has for a long time been described as a 'black box' (O'Sullivan, 2002) with lack of congruence between curriculum intent and practice being one of the major problems in the curriculum implementation process. As a theoretical concept, implementation is viewed as the doing of something, or the practical application of a method, procedure, or desired purpose (Ornstein & Hunkins, 2009; 2014). Since the aim of a curriculum is to make a difference to the learners, curriculum implementation is therefore viewed as a process of bringing about change and possibly improvement (Simao, 2008; Ornstein & Hunkins, 2014). Curriculum implementation is also defined as the process of translating the intended curriculum into operational curriculum (classroom practice) (Fullan, 2001) and is considered the most crucial, and, sometimes, the most difficult phase of the curriculum process (Ornstein & Hunkins, 2014).

The following curriculum implementation themes are discussed in Chapter 3: The process of curriculum implementation (Ornstein & Hunkins, 2014); curriculum implementation as change (Ornstein & Hunkins, 2014); strategies for curriculum implementation (Syomwene, 2013); curriculum implementation models (Zion, 2007; VanTassel-Baska, 2003); factors affecting effective curriculum implementation (external factors and internal factors) (Wang, 2006); concepts of mutual adaptation; and, Fidelity of Implementation (FOI) of curriculum (Ruiz-primo, 2005).

Curriculum implementation as a change process, is influenced by a number of factors, chief of which is the external environment which affects how institutions operate, how curriculum is designed and implemented as well as the type and quality of lecturers to be involved in the implementation process (Wang, 2006). These factors that influence effective curriculum implementation will be discussed further in Chapter 3.

1.4   PROBLEM STATEMENT AND RESEARCH QUESTIONS

Curriculum implementation is a process and not an event, hence it requires careful planning of all critical variables for it to be successful and effective. Effective curriculum implementation is therefore a function of many factors which include: "availability of resources, teaching-learning methodologies, evaluation strategies, the socio-cultural-

political environment, attitude of learners and teachers, the general milieu in which the implementation occurs and consideration of the nature of all stakeholders in the implementation process" (Dorman, 2006: 2). The socio-cultural-political environment that relates to the macro- or higher education environment (in the context of Botswana) in which curriculum implementation takes place, is particularly viewed as critical to the success of the curriculum implementation process (Lovat & Smith, 2003). The importance of this environment is further highlighted by the fact that higher education institutions are increasingly influenced by various stakeholders within the macro-environment (Simao, 2008).

PHEIs in Botswana operate in a highly regulated HE environment (Tertiary Education Council, 2013), making the implementation of the curriculum a potentially difficult task. Externally, the Botswana government regulatory authorities, namely, the Tertiary Education Council and Botswana Qualifications Authority employ strict operating regulatory frameworks for PHEIs, starting from the registration process of the institutions to the operations of these institutions that include the implementation of curriculum. Internally, PHEIs are managed under the strict authority of the owner-managers who demand compliance by staff to their rules and regulations with little or no input expected from the staff. All these regulatory issues as mentioned above have the potential to slow down or even hamper successful curriculum implementation in PHEIs.

Despite PHEIs operating in such a highly regulated environment (internally and externally), there is no study known to the researcher that has been conducted in Botswana to investigate how, in the light of such an operating environment, PHEIs implement the curriculum and what particular challenges they face. Studies reviewed also show that there is a paucity of literature on the implementation of the curriculum in PHEIs operating in highly regulated higher education environments. This lack of adequate literature on curriculum implementation in PHEIs can potentially cause problems in the way PHEIs implement the curriculum. This study therefore seeks to answer the following main research question: What are the key features of a model (framework) that can be used for the effective implementation of the curriculum in accredited PHEIs in Botswana?

The specific sub-questions asked by this study are as follows:

1) What opportunities and factors act as enablers of effective curriculum implementation by accredited PHEIs?
2) What challenges do accredited PHEIs face when implementing the curriculum?
3) What strategies do accredited PHEIs use to enhance effective implementation of the curriculum?
4) How effectively is the curriculum implemented in accredited PHEIs?

The results of the study were used to propose a framework that can be used to enhance the curriculum implementation in accredited PHEIs operating in highly regulated higher education environments.

1.5   RESEARCH AIM AND OBJECTIVES

This section discusses the research aim and objectives of the study.

1.5.1 Research aim

The main aim of this study was to propose a model (framework) for the effective implementation of curriculum in accredited PHEIs in Botswana.

1.5.2 Research objectives

The specific objectives of the study are as follows:

1) To investigate opportunities and factors that act as enablers for effective curriculum implementation by accredited PHEIs.
2) To identify challenges faced by accredited PHEIs when they implement the curriculum.
3) To examine strategies used by accredited PHEIs to enhance curriculum implementation.

4)   To establish the extent to which the curriculum is effectively implemented by accredited PHEIs.

The section above presented the research questions and objectives of this study. The next section shows the hypotheses component of the study.

1.6 RESEARCH HYPOTHESES

The following hypothese were tested:

1. *H01: There is no statistically significant and positive relationship between age and how the curriculum is implemented in accredited PHEIs.*
2. *H02: There is no statistically significant and positive relationship between gender and how the curriculum is implemented in accredited PHEIs.*
3. *H03: There is no statistically significant and positive relationship between educational level and how the curriculum is implemented in accredited PHEIs.*
4. *H04: There is no statistically significant and positive relationship between years of experience and how the curriculum is implemented in accredited PHEIs.*
5. *H05: There is no statistically significant and positive relationship between characteristics and conceptualisation of curriculum and how the curriculum is implemented in accredited PHEIs.*
6. *H06: There is no statistically significant and positive relationship between the characteristics of the external environment and how the curriculum is implemented in accredited PHEIs.*
7. *H07: There is no statistically significant and positive relationship between characteristics of the institution and how the curriculum is implemented in accredited PHEIs.*
8. *H08: There is no statistically significant and positive relationship between characteristics of the teacher and how the curriculum is implemented in accredited PHEIs.*

The section above presented the research questions and objectives of this study. The next section articulates the methodology and empirical component of the study.

1.7   RESEARCH METHODOLOGY

A good research should have a clearly articulated and overarching methodological framework that includes research questions, design, data structures and decisions about analysis and reporting of results (Creswell, 2014). Kothari (2015: 1) also argues that a research process should comprise the following: "Defining and redefining of research problems; formulating the hypothesis or suggested solutions; collecting, organising and evaluating data; making deductions and reaching for conclusions; and last but not least carefully testing the conclusions". This suggests the need for careful planning of an empirical study research.

1.7.1 Research design

The research design concept has been defined variously by many research authorities. However, there is general agreement that a research design refers to a research plan or a research blue print. Green and Tull (2010: 1) define a research design as "the specification of methods and procedures for acquiring the information needed, and the over-all operational pattern or framework of the project that stipulates what information is to be collected from which source and by what procedures". A research design is thus a research scheme that allows a researcher to assume maximum control over variables that may negatively influence the validity of the research findings (Creswell, 2013; Dinnen, 2014; Datt, 2016). Polit and Beck (2012) also define a research design as the researcher's overall plan for answering the research question or testing the research hypothesis. Among issues to be articulated and delineated in the sections that follow are: pragmatic paradigm to guide the study, mixed methods approach, the descriptive survey strategy, structured questionnaire and semi-structured interview guide used for data collection.

1.7.1.1   Research Paradigm

A research paradigm is a philosophical stance that guides a study. It is defined as an "overarching philosophical or ideological stance, a system of beliefs about the nature of the world, and ultimately, the assumptive base from which the researcher goes about producing knowledge" (Creswell, 2007: 11). Of the three commonly used ontological paradigms namely, positivism, interpretivism and pragmatism, this study is located in the pragmatic paradigm (Leavy, 2017). Pragmatism is defined as a philosophy that allows the researcher "to study what is of interest and of value in ways he/she deems appropriate and to use the results in ways that can bring about positive consequences within the values system" (Creswell, 2012: 5). Pragmatism is viewed as the foundation of mixed methods research (Creswell, 2013), and as a philosophy that is not committed to any one system of reality but rather, that draws liberally from both quantitative (QUAN) and qualitative (QUAL) assumptions (Creswell, 2013; Creswell & Plano Clark, 2010; 2011; Tashakkori & Teddlie, 2010).

Pragmatism has been chosen for the current study because the author believes that research always occurs in social, historical, political and other contexts. The pragmatic paradigm views truth or any proposition in any of these contexts as what works, and why it is probably true (Creswell, 2014). Pragmatism also gives the researcher the freedom to use multiple methods, techniques and procedures to ensure that there is adequacy and completeness in the way the research question is answered (Mason, 2006). Axiological, ontological, epistemological and methodological assumptions that underpin the pragmatic paradigm are also discussed in the methodology section of this study.

1.7.1.2   Research approach

This study employs a mixed methods approach. According to Leech and Onwuegbuzie (2008: 2), "Mixed methods research represents research that involves collecting, analyzing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon". Thus, this approach allows elements of quantitative and qualitative research approaches, such as

the use of qualitative and quantitative viewpoints, data collection, analysis, and inference techniques, to be combined for adequacy and completeness in research (Sarantakos, 2013; Olivier, 2017; Demir & Pismek, 2018). It is for this reason that the researcher chose the mixed methods approach in the current study.

The mixed methods approach in this study is essentially of a parallel nature. This design allows both quantitative and qualitative data to be collected and analysed in one single phase to provide confirmatory or conflicting findings that may enrich the study (Olivier, 2017; Demir & Pismek, 2018; Creswell & Plano Clark, 2011; Hall, 2012; Creswell, 2012).

1.7.1.3   Research strategy

Datt (2016) defines a research strategy as a step-by-step plan of action that gives direction to the thoughts and efforts of a researcher, enabling them to conduct research systematically and on schedule to produce quality results and detailed reporting. It is thus according to Demir and Pismerk (2018) the nuts and bolts of a study. This study employs a descriptive research strategy that uses a survey. The descriptive research strategy investigates a behaviour or type of subject, rather than correlating two or more variables (Almeida, 2018; Creswell & Plano Clark, 2017; Newby, 2014; Robinson, David & Hill, 2016; Hall, 2012).

1.7.2 Research methods

This section discusses the research methods used in this study as well as the institutions and participants of the study. Under research methods the selection or sampling strategies, data collection techniques and data analysis techniques are discussed.

1.7.2.1   Selection of participants and sampling strategies

Data for this study was collected from six accredited PHEIs. These degree-offering institutions are part of a total of eight accredited PHEIs in Botswana that have been

offering degree qualifications for the past five years. This means that these six institutions have had broad experience on what it means to operate in a highly regulated HE environment in terms of challenges faced and strategies used to ensure successful implementation of the curriculum. As a result, these institutions were purposively selected to provide rich data for this study.

A stratified random sampling procedure was used to select 306 lecturers from a population of 1500 lecturers. The lecturers who participated in the quantitative phase of this study responded to a structured questionnaire where they expressed their views about how they implemented curriculum at their institutions, as well as the challenges they faced and the strategies they used to effectively implement the curriculum at their institutions. Purposive sampling strategy was also used to select 12 AMMs who comprised module leaders (MLs), Heads of Department (HODs), and Deans of faculty (DoFs) from a population of 273 academic middle managers across the PHEIs. These participated in the qualitative phase of the study where they were interviewed about curriculum implementation at their institutions. The AMMs were responsible for monitoring the implementation of the curriculum in their faculties and departments. The AMMs also participated in strategic meetings at their institutions and as a result were another rich source of data for this study.

1.7.2.2 Data collection

The researcher used a structured questionnaire to collect quantitative data while qualitative data was collected using a semi-structured interview schedule. The research questions were framed from four variables namely, the external environment; the institutional environment; nature of implementing staff (lecturers); and, the nature of the curriculum to be implemented. All these influence the method of implementing the curriculum. All the questions asked in the structured questionnaire were selected before the data collection took place (Phellas, Bloch & Seale, 2011; Given, 2008).

Qualitative data was collected using semi-structured interviews. A semi-structured interview is defined as "a flexible interview in which the interviewer does not follow a formalised list of questions in which a guide is used (Doyle, 2014: 13). According to

Harrell and Bradley (2009: 3), a semi-structured interview is characterised by "questions and topics that must be covered and the interviewer uses discretion to decide on the order in which questions are asked, but the questions are standardised, and probes may be provided to ensure that the researcher covers the correct material". Data collected using semi-structured interviews is detailed, conversational and more comprehensive than one collected using questionnaires. A purposive sampling strategy enables the researcher to identify the participants who would provide rich information required for the study.

1.7.2.3   Data analysis

A concurrent triangulation design also called parallel design was used in this study by mixing quantitative and qualitative data during the analysis phase of the study. Descriptive statistics, Analysis of Variance (ANOVA), regressions analysis, correlation analysis, Mann Whitney U-Test and Structural Equation Modelling (SEM) were used to analyse the quantitative data. Qualitative data was used for confirmatory purposes during data analysis.

1.8   MEASURES FOR TRUSTWORTHINESS

To ensure rigour and trustworthiness of the research results, Lincoln and Guba's (1985) model of trustworthiness was used. The model uses the following four criteria:

1)   Credibility - refers to the adoption of appropriate and well-recognised research methods. It compares with external validity in QUAN studies;

2)   Transferability - refers to the provision of background data to establish the context of study and a detailed description of the phenomenon in question to allow for comparisons. It compares with generalisability (QUAN studies);

3)   Dependability - relates to the consistency of the results. It compares with reliability testing in QUAN studies. To address dependability, all processes within the study are reported in detail to enable future researchers to replicate the work, and gain comparable results; and,

4)   Confirmability - refers to the triangulation used to reduce the effects of investigator bias. It was compared with objectivity in the QUAN studies.

The two data collection instruments were pilot tested to ensure the validity and reliability of the results. To ensure the trustworthiness of the quantitative data, the Cronbach alpha reliability coefficient was calculated (Quinlan, 2011) while external validity (generalizability of results) was ensured through:

1)   Stratified random sampling;
2)   Selecting a large sample;
3)   Contacting the respondents for the purpose of making follow-ups where there were submission delays or non-submissions by telephone and e-mail;
4)   Using a multi-method research approach; and,
5)   Using an expert population in relation to the phenomenon under investigation (Creswell, 2013).

Content validity relates to the accuracy with which test items tap into the various aspects of the specific construct in question (Creswell, 2013). To ensure that the test items in the questionnaire represented or covered all the facets of a construct under consideration, the questionnaire was subjected to expect opinions and recommendations were incorporated into the final instrument. The Lincon and Guba (1985) framework was used to ensure rigour and trustworthiness of qualitative data.

1.9   ETHICAL CONSIDERATIONS

The following measures suggested by McMillan and Schumacher (2010) were taken into consideration for ethical purposes:

1)   Seeking permission to conduct research from institutions that were involved in the study;
2)   Applying and getting ethical clearance from the University of South Africa (UNISA) before starting data collection;
3)   Ensuring that all responses were accorded the highest confidentiality;

4)   Fully informing the participants of their rights in the study and that they were free to quit at any point of the study whenever they felt uncomfortable;

5)   Seeking informed consent from the individual participants of the study;

6)   Seeking a research permit from the Ministry of Education in Botswana.

1.10   CHAPTERS DIVISION

This study is divided into six chapters:

Chapter 1: Orientation

This chapter consists of the overview of the study. It entails an introduction, personal involvement, rationale for the study, background, brief review of literature, statement of the problem, aim and objectives, research methodology, division of chapters and summary.

Chapter 2: Contextual Framework

This chapter provides an outline of the contextual framework of this study. It provides an articulation of the legal and regulatory context currently obtaining in PHE globally in general and in Botswana in particular.

Chapter 3: Conceptual and Theoretical frameworks

This chapter provides an outline of the theoretical and conceptual frameworks of this study by reviewing a collection of interested theories which guide the study. It sets forth the literature regarding how the curriculum is implemented in PHEIs operating in a highly regulated environment in international, national and local environments.

Chapter 4: Research methodology

This chapter offers a detailed account of the research design which deals with the research paradigm, approach and research type/strategy. The chapter further discusses

tools and techniques for gathering and analysing data. Data trustworthiness and ethical considerations are also discussed in the chapter.

Chapter 5: Data analysis and interpretation

This chapter presents the analysis and interpretation of the empirical research results. It comprises detailed discussions on the findings of data collected on how accredited PHEIs implement the curriculum. It includes comparisons of findings with extant literature and the findings of past studies.

Chapter 6: Summary, conclusions and recommendations

This final chapter provides a summary of the study, draws conclusions on the basis of the analysed and interpreted data, provides recommendations, and identifies areas for future research.

1.11   SUMMARY

The purpose of chapter one was to introduce the study. As part of the introduction, it discussed the background to the study as well as statement of the problem. It also provided a brief discussion of the contextual and theoretical frameworks of the study. The contextual framework briefly highlighted the environment in which PHEIs operated, showing that PHEIs operated in a highly reglated environment and this had potential to affect how the curriculum was implemented in these institutions. The theoretical framework briefly discussed the main research construct – curriculum implementation. The last part of the chapter highlighted the research questions and objectives as well as the research methodology. The next chapter discusses the legal and regulatory environment of PHEIs at a global, continental and local level.

CHAPTER 2

CONTEXTUAL FRAMEWORK: THE LEGAL AND REGULATORY CONTEXT OF PRIVATE HIGHER EDUCATION IN BOTSWANA

2.1   INTRODUCTION

Chapter 1 articulated the background and purpose of the study, as well as the legal and regulatory context of PHE in which the curriculum is implemented. The chapter specifically looks at the African and global contexts of PHEIs and discusses the regulatory and legal frameworks used in selected countries across the globe. Furthermore, this chapter first traces the African and global historical development and growth of PHE, and argues that the neo-liberal policy enacted in many countries was the cause of the poor quality of services and curriculum implementation in the sprouting PHEIs.

2.2   THE ROLE OF NEO-LIBERALISATION IDEOLOGY IN HIGHER EDUCATION

Neoliberalism became a global mainstream ideology in the 1980s when the World Bank made this ideology a condition for lending countries money to solve their financial problems (Taiko, 2012; Setume, 2013). Countries such as Botswana were also affected by this new shift in funding. The finance-driven neoliberal policies required that states such as Botswana and others should reduce the cost of public services in order to stabilize their macro-economies and stimulate their micro-economies (Taiko, 2012). In HE specifically, neoliberal policies concentrated on "the following three areas: i) The shift from public funding of education to shared funding; ii) The privatisation of HE in order to expand access and accountability and; iii) The reduction of cost per student by controlling the growth of costs through the increase of class sizes, i.e. student-teacher ratio" (Connell, 2015: 11).

From the above, it can be concluded therefore that privatisation of HE the world over was an important milestone towards meeting increased demand for HE. Allowing increased

growth in the number of PHEIs can also be viewed as an important milestone by governments in cutting public spending in HE particularly in many countries such as Botswana that had struggled with the shortage of finances to expand HE. Privatisation of HE at a global scale was thus predicated on and implemented in the following two ways: i) Allowing the creation of accredited PHEIs; and, ii) Increasing the fees charged to students to cover the gap between the cost per student and public assistance per student (Carnoy, 2011; Obasi, 2015; Taiko, 2012; Carnoy, 2011).

By definition, neoliberalism or deregulation relates to the partial or even total removal of government involvement, rules and power from a public sector to make it function solely by creating its own rules and regulations for the efficient and effective operation of the system (Setume, 2013; Tsevi, 2014). Neoliberalism is therefore associated with two management strategies namely privatisation and commercialization, both of which are tools for profitability (Faniran, 2012; Tsevi, 2014; Kasozi, 2014).

Neo-liberalisation values market exchange as an ethic in itself that is capable of acting as a guide to all human action, and also as a substitute for all previously held beliefs of government control (Obasi, 2015; Connell, 2012). It is thus a philosophy (to others, a rhetoric) that "emphasises the significance of contractual relations in the marketplace, that believes in commodifying", that is, taking education as an exchange product in the market (Harvey, 2005: 3). In this context, the important tenet of neoliberalism is that the HE market should be restricted or sold to privileged people only in order to maximise profit (Connelly, 2013). Furthermore, with regard to HE, this ideology as was later discovered, went against one of the main principles for which governments the world over and in Botswana in particular had introduced neoliberal policies. The aim of the principle was to increase access to HE. Unfortunately, the main motive of most of the PHEIs became to amass profits rather than to increase access to and enhance the quality of HE. The need therefore to regulate this form of HE became critically urgent.

The most important feature of neo-liberalisation, or a *laissez-faire* approach, therefore, was privatization. In privatization the concept of weak state refers to when the state is not interfering in the markets and a strong state refers to the state playing an active role

in promoting the interests of private enterprises, fair trade, and the promulgation of market-supportive legislations (Setume, 2013; Hayek & Caldwell, 2007).

Neo-liberalism is a market-driven ideology. It is not only driven by the need to accumulate profits "but also by an ability to reproduce itself as a form of biopolitics reaching into and commodifying all aspects of social and cultural life including HE" (Kotz, 2003: 5). As a result, neoliberalism does not only affect national economies but also social services sectors such as education (Tsevi, 2014). According to neo-liberal ideology and its practical implications, everything is either for sale or plundered for profit and HEIs are considered high-end shopping malls (Davidovitch & Iram, 2014; Cohen & Davidovitch, 2015). This arguemnet is quite true in the context of Botswana as PHEIs charge exorbitant fees for all the services they offer whrn compared to government institutions. It therefore seems that PHEIs treat students as customers in the context of selling education to them rather than in the concept of statisfying their needs for education. Neoliberal policies which were initially viewed as assisting governments to meet the unprecedented demand for HE more quickly through partnerships with the private sector quickly became cash cows for PHE providers instead (Bjarnason, Cheng, Fielden, Lemaitre, Levy & Varghese, 2009).

As a result of the negative impact of neo-liberal HE policies a number of debates arose regarding the effectiveness of and even need for neo-liberal policies in promoting increased access and reducing government spending in HE. The following arguments were raised against neo-liberal, market-driven approaches to HE that lead to the introduction of highly regulated HE environments (Taiko, 2012; Setume, 2013):

1)   Loss of autonomy as an educational institution or unit of the institution - According to this argument, academic accountability often meant subordination to accountancy techniques rather than quality and results in education;

2)   Commodification of HE - According to this argument, neoliberal policies define HE as a commodity that is transacted as a product in the market, hence HE became less dependent on teachers' skills and knowledge but on how lucrative the market was. Students, according to neoliberal policies, begin to

be referred to as 'customers' or 'clients' and not as learners, with PHEIs having greater opportunities for profit from the state expenditure while influencing the form and content of HE;

3) Market forces control of HE - According to this argument, market forces control HE through a balance between demand and supply, defining HE as a commodity whereby those who can afford It can gain access;

4) The quality of HE - This argument is an attempt at showing that due to neo-liberal policies, efforts to improve efficiency in PHEIs clouded the quality of HE. Since privatisation of the HE sector promoted competitiveness as a business, market entry strategies showed that some PHEIs opted for low-end market entry strategies, i.e., expanded the number of teaching campuses they operated from across the country without serious concern for quality and accreditation. To obviate the issue of lack of quality in some of the private higher education providers in Botswana, HE regulatory agencies demanded that all PHEIs and their programmes go through the process of strict accreditation.

Stakeholders such as governments, industry, students and parents demanded that institutions and programmes be accredited. As a result, the period up to 2016 saw some marked improvement on the quality of services in PHEIs due to the strict regulatory measures implemented on these institutions by government regulatory agencies. In 2016 alone almost all PHEIs in Botswana had their programmes through accreditation (Selatlhwa, 2016) as a quality assurance measure by the Botswana government. According to Selatlhwa (2016), the QA policy strictly applied by the Botswana regulatory authorities to private providers of higher education in Botswana can only be regarded as a blunder only by ill-advised stakeholders.

Based on experience, the author of this study supports Selatlhwa's (2016) argument about the importance of the QA policy because prior to 2016, staffing in PHEIs was a big challenge. Some of the private institutions in Botswana employed unqualified staff. Ever since the introduction of this policy these institutions now employ staff with Doctor of Philosophy (PhD), Master's degrees or professional qualifications to teach Bachelor's degree courses. Furthermore, the quality of facilities, management and teaching in

these institutions has also improved due to the calibre of staff now being employed, and thanks to the highly regulated environment. In addition, the introduction of "the development of the Education and Training Sector Strategic Plan (ETSSP: 2015-2020) in the Ministry of Education and Skills Development (MOESD, 2016: 4) has also had far-reaching effects on the quality of HE in Botswana". In providing clear guidance to decision makers at all levels of HE one of the strategic plan's aims is to improve performance in the education sector over the next five years (Ministry of Education and Skills Development, 2016).

2.3   THE GROWTH AND EXPANSION OF PRIVATE HIGHER EDUCATION INSTITUTIONS

The development and rapid growth of PHEIs globally started in the 1980s as a result of the deregulation or liberalization of the higher education sector as governments felt the demand for HE among citizens was too high for the governments to satisfy alone (Wilson-Strydom & Fongwa, 2012; Tertiary Education Council, 2013). The unprecedented and uncontrollable growth of PHE necessitated an urgent need to regulate it. To therefore gain an in-depth understanding of the legal and regulatory context of the PHE, critical issues discussed in this chapter include the historical growth of PHE (Kasozi, 2014), regulatory issues (Bjarnason, et al. 2009), why regulate PHE (Molutsi, 2009; Obasi, 2015), and the concept of quality assurance in PHE (Tsevi, 2014; Kasozi, 2014; Harris, 2013).

The world over, HE systems in the last few decades have been impacted by the rise of neoliberal ideologies and practices of governments whereby market-driven agendas redefined and reshaped the delivery of HE in order to meet its unprecedented demand (Alam, 2009). Connell (2015) also confirms the redefinition of HE and argues that HE has been immensely impacted by the rise of neoliberal political, social and economic agendas. Neo-liberalisation, also known as deregulation or globalization of the higher education, led to the rapid growth of PHE at a global level (Alam, Haque, Siddique, 2007; Alam, 2009). In Botswana HE is likewise part of this growth matrix.

It is important to note that deregulation is an economic approach to sustainability and improvement, and that in the context of HE, the deregulation ideology was introduced globally as a strategy to solve the long-standing challenges of the access and funding of HE (Adetunji, 2015; Ali, Isa & Ibrahim, 2011; Shukla & Trivedi, 2008a; Levy, 2013). In the last two to three decades, demand for HE at a global level outstripped supply by between 20% and 50% in many emerging economies (Bjarnason, et al., 2009). This trend according to Bjarnason, et al. (2009: 7) led to predictions "that the demand for HE worldwide would expand from 97 million students in 2000 to over 262 million students by 2025". This growth supported the calls for the private-public partnership that will expand access to HE. The need for private-public partnership in HE between governments and the private sector during the period from late 1980s to early 1990s is confirmed by Devesh (2008) and also The World Trade Organisation (2010) due to the increasing surge in the growth and expansion of PHEIs.

The above information shows that while de-regulation was the main drive of the growth of PHEIs globally in general and in Botswana in particulary, the need for public-private partnerships in the HE sector also played a part in this growth. In Botswana for example, we now have more PHEIs than public institutions because of these two drivers.

The increasing prominence of PHE in both developing and developed countries in Europe, Asia, America and Africa can be demonstrated using statistics. For example, in Brazil 71% of the enrolment in HE is in PHE (Devesh, 2008), and at the global level 31% of HE enrolment is in PHE (Kinser, Levy, Silas, Bernasconi, Slantcheva-Durst, Otieno, Lane, Praphamontripong, Zumeta & LeSota, 2010; Levy, 2010; McCowan, 2004). In other cases, the rapid expansion of PHE was regarded as a factor of diversification in the HE system (Bernasconi, 2015).

In many countries such as Botswana that adopted neo-liberalism the PHE sector became dominant in HE (Davidovitch & Iram, 2014). Statistics show that as of 2008 PHE globally constituted 30% of all HE enrolments and the figures continued to rise (Guruz, 2008). The impact of PHE on the global HE enrolment is further demonstrated by the fact that in 1960 global HE enrolment stood at 13 million students and 137 million

students in 2005 (Utuka, n.d; Barreyro, Rothen & Santana, 2010). As from the late 1980s, the global market for HE grew at an average of 7% per annum with PHE constituting the bulk of the growth (Bonmsa, Kinni & Balgah, 2015).

A number of examples can be cited to show the level of impact PHE has had on the overall global growth of HE as a result of the deregulation of the HE sector. In South Korea 75% of HE is PHE (Bonmsa, et al. 2015). In the United States of America (USA) the growth of PHE is 28% of all the HE enrolment figures; in Latin America at 49%; in Asia 80%; and in Central and Eastern Europe 30% (Kinser, et al., 2010; Levy, 2008; 2010; Davidovitch & Iram, 2014). In Chile the number of PHEIs rose from eight in 1980 to 229 in 2003. In Africa the growth and expansion of PHE has increased by 3.6%., In other words, it has increased at an average rate of 15% per year between 1985 and 2002 and is continuing to increase to date (Bonmsa, et al., 2015).

Each country in Africa has shown some phenomenal growth of PHE. For example, between 1985 and 2002, PHE grew by 55%; Rwanda, 46%; Namibia, 37%; Uganda, 32%; Tanzania, 28%; Ivory Coast, 27%; Kenya, 22%; Botswana; and 22% in Cameroon (Levy, 2010; Tsevi, 2014). Statistics further show that one third of the PHEIs operating in Sub-Saharan Africa were established from the year 2000 onwards (Levy, 2010). In Botswana, as in Kenya for example, there are more PHEIs than public HEIs. Specifically, in Botswana the number of PHEIs rose from five in 1980 to 276 by 2009 (Botswana Training Authority, 2009). Still in Botswana, during the 2009/2010 period, more than 41% of the total HE enrolment came from PHEIs (Tertiary Education Council Annual Report, 2013). Table 2.1 shows the growth of the PHE sector in the world from the 1980s to 2008.

Table 2.1: PHE versus Total HE enrolments (Guruz, 2008: 8)

Type of economy	PHE enrolment levels versus total HE enrolment			
	0 – 10%	>10 to ≤35%	>35 to ≤60%	>60
Developing countries	Cuba, South Africa, Botswana,	Egypt, Kenya	India, Malaysia	Brazil, Indonesia, Chile, Mexico
Developed countries	Germany, New Zealand	Hungary, USA	None	Japan, republic of Korea

Table 2.1 shows that in most Asian and Latin American countries enrolments in PHEIs increased by more than 60% of total HE enrolments. On the other hand, in African countries such as Kenya and Egypt PHEIs grew up to 35% in 2008, while in Botswana and South Africa it increased to 10% of the total HE enrolments in the same year.

Due to this phenomenal rise in the number of PHEIs it became noticeable that different types of institutions emerged with different intentions. Some genuinely offered good quality services while others masqueraded as HEIs but their intentions were to swindle money out of unsuspecting students. The scenario above confirmed Kasozi's (2014) argument that the PHE market ranges from remarkably well organized, well-resourced and effective institutions providing high-quality instruction to destitute ones at the permanent risk of closure.

However, this phenomenal rise of PHE at a global level was short-lived. The rapid growth and expansion of PHE reached its peak in 2010 and began slowing down due to the following major reasons: i) The nature, level and rigour of government regulation of PHE, and ii) the decline in government spending on HE at a time when HE costs were increasing (Hunt, Callender & Parry, 2016; Kingkade, 2012; Lederman, 2015; Surowiecki, 2015). Despite this slowing down in the growth of PHE, the number of PHEIs globally is still higher than that of public HE institutions up to this day (Hunt, Callender & Parry, 2016).

2.4   REGULATION OF PRIVATE HIGHER EDUCATION INSTITUTIONS

For a clearer articulation of the PHE regulation processes, it is important to first understand the terms, quality, quality assurance (QA), institutional accreditation and audit. The regulation of PHE encompasses the entire environment in which students, teachers, institutions and governments operate towards achieving high-quality and more efficient HE (Hunt, Callender & Parry, 2016). The uncontrolled growth of PHEIs caused the redefinition of the role of the state in regulating HE. The state appeared to regulate educational systems and markets through the use of regulatory agencies (Lederman, 2015). For instance, there was an increase in the registration and accreditation bodies and procedures in countries such as South Africa, Botswana and Kenya where PHE is

highly regulated (Kasozi, 2014) thus showing that the tension between demand and capacity to provide quality HE continues to be a recurring theme in PHE (Desidero & Lechunga, 2012). The scope or models of regulation however vary from country to country.

2.4.1 Motives for regulating Private Higher Education

As a result of the newly introduced neo-liberal policies in HE, the global explosion of PHE, "astonishing in extent and intensity caught many governments and most observers by surprise as the PHE surge had neither been centrally designed/planned nor widely anticipated despite being related to visible and broad economic, social, political and international trends in HE" (Levy, 2002: 5). Initially, how governments chose to regulate HE was motivated by their views of PHE providers as partners in meeting the countries' overall demands for HE rather than by negative views (Bjarnason et al, 2009; World Bank, 2009; Lederman, 2015). However, when PHE providers failed to live up to the partner expectations, questions and even concern around issues of access to and quality of HE offered by the PHEIs began to be raised and so was the need to regulate them. The questions above were not about whether countries should or should not accept PHEIs that operated according to market forces, but rather about how and what to do to ensure that market-produced PHEIs delivered quality HE (Lederman, 2015). In Latin America and Africa, procedures for regulating (control and oversight) of PHE which governments came up with in response to quality and access concerns tended, and still tend, to be both excessive and unfortunately ineffectual overall, and poor quality in a number of PHEIs continues to be witnessed (Setume, 2013). The information above shpws that while the need for the growth of PHEIs was a welcome development globally, how to manage this growth continued to be a challenge for many countries despite the crafting of very restrictive regulatory frameworks.

Specific evidences of lack of quality in the products and services of PHEIs globally can be demonstrated in the cases below. In China, HE quality concerns in PHEIs were observed with regard to the poor quality of teaching, the status of degrees offered, and the mismatch between promises and reality after graduation which led to violent student protests in the 1990s (Mok, 2009; Lim, 2010). In Malaysia and Singapore, PHEIs had no

regard for the quality of their services as they mostly focused on profit and hence limited investment in resources to support curriculum implementation (Lim, 2010). In Poland, many of the PHEIs faced serious staff shortages and poor institutional governance (Jalowiecki, 2001) while in the USA, high dropout rates and low quality of education in PHEIs were noted (Davis, 2010).

In Jamaica and Bangladesh, employers constantly complained about the poor quality of graduates from PHEIs (Alam, 2013) and in Bangladesh more specifically, graduates from PHEIs were found to lack even the basic skills (communication, problems-solving, and team work) and their degree qualifications had little to no market relevance (Alam, 2013). In Botswana, Ghana, Kenya and South Africa studies show that most PHEIs lacked skilled staff, healthy financial bases, adequate facilities and good governance to produce quality HE (Molutsi, 2009; Tertiary Education Council, 2013). Furthermore, in Botswana high drop-out rates were another big concern that led to the high regulation of PHEIs. The progression rate in Botswana was consistently very low over the years and this raised concerns by the government as the main sponsor of students in PHEIs (Statistics Botswana, 2015). A number of government reports show that the transition rate of students in PHEIs continued to be very low to date. For example, the 2014/2015 Tertiary Education Report shows that while the national transition rate is pegged at 64.28% (Statistics Botswana, 2015), the transition rate in PHEIs was pegged at 29.66% which is the lowest among HEIs in Botswana. This shows a high dropout rate in PHEIs. All of the above are among some of the major concerns that forced governments around the globe to come up with regulatory frameworks that were perceived to decisively and effectively address lack of quality in HE provision in PHEIs. The Botswana government even set up two regulatory authprities to try and manage the regulation of PHEIs but still this continued to be ineffectual to deal with lack of quality in these institutions.

Against the background above, specific motives for regulating PHE by governments around the world can be identified (Kasozi, 2014; Tsevi, 2014). The first motive for regulating PHEIs was consumer protection. A number of governments across the globe felt that HE could not continue to be left to the vagaries of market forces. The argument was that while market forces were reliable in ensuring efficiency in the HE sector, their

role in ensuring quality was debatable. With little or no regulation of PHE, there have been recorded instances where fraudulent practices came to light, curriculum implementation was not effectively done and examination results were faked (Hallack & Poisson, 2007; Setume, 2013; Kaboyakgosi, 2018).

This issue of poor quality of services of PHEIs therefore needed strict regulation as indicated by Agarwal (2009) who argued that despite their large and growing presence, there continued to be serious and persistent concerns about issues of quality and exploitation in PHEIs. Governments were compelled to set up regulatory mechanisms to protect citizens desperate for HE from enrolling at some of the low quality PHEIs. In Botswana for example, cases of poor quality of services by PHEIs were widely reported in the media and government circles (Tertiary Education Council, 2013). It was reported that these alarmingly increasing PHEIs were offering poor quality programmes at exorbitant costs to students and taking advantage of inadequate regulatory mechanisms and the high demand for HE in Botswana.

Most of the problems of quality reported above were caused by delayed regulation in many countries especially in Africa, Eastern Europe, Latin America and Asia. Many governments on these continents allowed the exponential growth of PHE without corresponding central regulatory mechanisms (Levy, 2006a). This situation fueled the problem of poor quality services in PHEIs and in the end led to heavy-handedness in the regulation of these institutions as governments sought to put a lid on shoddy services in the PHEIs (Levy, 2006b). This is also confirmed by Martin, Pereyra, Singh and Stella (2007: 21) who argue that initial inadequate controls and regulation of PHE "in many countries resulted in new types of academic fraud such as diploma mills, the selling of credentials, and deliberate provision of false information on the nature and validity of credentials".

Against the backdrop of the initial paltry regulatory mechanisms, realities of low quality and fraud began to dawn on many stakeholders and became a cause for concern for many governments. This led to problems of legitimacy of both the PHEIs themselves and governments (for not protecting citizens enough from PHEIs which were unscrupulous and of questionable probity) being raised (Levy, 2006b). In Botswana for

example, the issue of legitimacy found expression in reports in the perceptions that the HE of Botswana was of low standards. One could here people talking about this in many circles. As a result of these concerns, governments such as the government of Botswana quickly moved towards what Levy (2006b) called coercive isomorphism, which is, developing highly regulating frameworks through the use of tougher registration and accreditation requirements as part of quality assurance to curb the effects of delayed regulation.

The second motive for regulating HE was information gathering. This motive according to Obasi (2015) was meant to ensure the periodic collection and dissemination of information from PHEIs to ensure informed decision making about the PHEIs the citizens could enroll at. Kasozi (2014) reported that the need for this information was necessitated by the fact that governments needed to publish periodic, up-to-date and reliable information about the quality of programmes, staffing and academic results of PHEIs, to enable consumers to make informed choices about which PHEIs to study at. In Ghana, South Africa and Botswana, the governments regulatory bodies list all accredited on their websites so that consumers can be informed about the genuine PHEIs (Kasozi, 2014). In Botswana for example, the issue of availing information to the public about which PHEIs were registered and which were not has proved to be very important to the public. People are now able to make informed choices about which institutions their children should be enrolled into and have value for their money.

Third, the regulation of PHEIs also ensured that there was alignment between public policy and the activities of PHEIs (Tertiary Education Council, 2013). Commercial reasons often limited programmes of PHEIs to only commercially attractive programmes in line with their profit motives ending up crowding out more relevant programmes essential for national development (UNESCO, 2009).

The fourth motive for regulating PHE was the monitoring of the financial records of profit-oriented PHEIs. Studies showed that for-profit PHEIs sometimes made excessive profits which went unreported and lead enjoying incentives such as tax exemptions. In South Africa for example, government regulatory authorities insist that for-profit PHEIs should register under the Companies Act so that their financial results can be monitored

(Mabizela, 2007). In Botswana the monitoring of financial results of accredited PHEIs is still work-in-progress (Tertiary Education Council, 2013).

In support of a highly regulated HE environment, a number of authorities on HE QA argue that while the regulations posed considerable risk to the operations of PHEIs, they also on a positive note, helped to bolster HE quality and legitimacy in these institutions (Levy, 2013; Balzer, 2011).

2.4.2 Practices in regulating Private Higher Education

Two important practices in the regulation of PHEIs are accreditation and institutional audit. Detailed descriptions of these two practices are given in the sections that follow. As part of the descriptions, it is shown that for an institution and/or its programmes to be accredited, institutional audits would have first taken place.

2.4.2.1   Accreditation

Accreditation, which is also referred to as institutional accreditation, is defined as the "assessment of institutions and their programmes against predetermined criteria or standards, ending in a formal decision about whether these criteria or standards have been met or not" (Tertiary Education Council, 2008: 3). Accreditation is usually and for the most part associated with specific consequences to the concerned institution such as ability to enroll students or offer certain programmes (Lemaitre, 2008; Tertiary Education Council, 2008). According to Banji (2011: 3), "accreditation as a process of self-study and external quality review in HE is designed to scrutinise an institution and/or its programmes for quality standards and the need for quality improvement". It therefore can be viewed as a process that controls the establishment and existence of PHEIs that deliver quality HE. Accreditation is a rigorous regulatory tool of quality assurance (QA) which covers all elements or aspects of institutions from land, staffing, educational facilities, governance, financial health to curriculum development and implementation (Kasozi, 2014). According to Banji (2011), accreditation ensures that an institution meets or exceeds the published standards (set by an external or professional body) for accreditation, and achieves its mission and stated purpose. According to the

TEC (2013), accreditation therefore is meant to confirm the ability of an institution to meet agreed standards of quality in its delivering of education.

The accreditation process according to Banji (2011) includes a self-evaluation document also called self-study document (SSD). In the SSD an institution documents educational activities and processes and engages in peer-review and a site visit by an external regulatory authority. During the visit the authority compares the information provided by the institution in its self-study document with what is actually happening on the ground. At the successful end of the process the institution and its programmes are accredited. The regulation and accreditation process ensures that the programmes meet the minimum academic requirements, are developed in acceptable formats, and effectively implemented to ensure that the students get value for their money (Kasozi, 2014).

Form the discussion of accreditation above, it can be concluded that it is a very necessary and important process in HE. First it ensures that all programmes offerd by the PHEIs are recognised by the regulatory authorities hence have a seal of approval in terms of quality. Secondly, the accreditation of institutions and their programmes, according to the information above, is guarantee that ethe institutions have adequate and appropriate resources to ensure quality and successful delivery of their mandates.

2.4.2.2   Institutional Audit

According to Banji (2011: 16) an institutional audit refers to "the process of review of an institution and/or its programmes to establish if the curriculum, staff, and infrastructure meet stated aims and objectives". In other words, it is a process meant to establish whether an institution or its programmes are meeting published quality standards in relation to the stated institutional mission, goals and standards (Boateng, 2014). Unlike accreditation which is an outside-in process, institutional audit is an inside-out process whereby institutions evaluate themselves and come up with a self-study document (SSD) which is a description of the institution's resources, processes, facilities, and how these help the institution to effectively implement its mandate. It is on the basis of the SSD that external regulators engage in institutional audits or visits to check if what was

articulated in the SSD is exactly what obtains in the institutions. During institutional audits - sometimes called audit visits - external assessors from a regulatory agency examine the achievement of institutional goals as stated in the SSD (Banji, 2011). The process of institutional audit "focuses on accountability of the institution and programmes and mostly involves a self-study, peer review and site visit" (TEC, 2013: 2). From this description of institutional audits, it can be observed that accreditation is therefore a terminal point or decision of the audit.

In Botswana for example, it is a requirement that every PHEI sets up a quality assurance office at the institutions. It is this office that carries out quality aubits on a semester basis and results of these audits feed into reports of external audits. These audits have assisted in improving the quality of provision of HE in Botswana. For example, the quality of programme development and delivery has improved, the quality of teaching staff who are recruited has improved and general processes and procedure for effective teaching in these institutions have also improved.

2.5   COMMON EXTERNAL QUALITY ASSURANCE REGULATORY BARRIERS AND PROBLEMS IN HIGHER EDUCATION

Some common regulatory barriers and problems have a potential negative effect on QA and on the implementation of curricula in countries with highly regulated HE systems (Fielden & LaRocque, 2008). A number of such common barriers are discussed below.

The first barrier to effective QA in HE is the often confused and unclear national policies concerning the role of the private sector in the HE system (Fielden & LaRocque, 2008). According to Fielden and LaRocque (2008), a key to encouraging the development of a culture of quality in a PHEI is to develop and implement clearly articulated enabling policy and regulatory frameworks that ensure that PHEIs operate more efficiently and effectively rather than to stifle them. Such policy frameworks should clearly define and recognise the role of PHEIs as partners in HE provision rather than being hostile to them. Governments and their regulatory agencies should plan "to achieve a regulatory system that provides the right balance between protecting the public from unscrupulous

PHEIs and encouraging private providers of HE to invest in quality HE" (Bjarnason et al, 2009: 37).

Fielden and LaRocque (2008) argue that an effective regulatory framework should be able to strike a balance between supporting rather than penalizing private providers. On one hand, an unreasonably strict, rigorous and negative regulatory framework inconveniences private providers of HE or even makes them cut corners to avoid restrictive regulatory measures. On the other hand, an extremely leisurely or relaxed regulation process leads to an avalanche of poor quality providers and degree mills (Baputaki, 2016). In Botswana for example, it has been observed that due to the establishment of two regulatory agencies who literaly are doing the same regulatory task, there has been confusion and discord in the regulation of PHEIs as one agency would indicate one thing only for another to say something different. This is all because the regulations have not been crafted with the clarity that make their implementation easier. Such a state of affairs led to some PHEIs being strictly regulated and others not, since fair application of these unclear regulations continue to be difficult for the regulatory authorities.

The second common barrier to effective QA in HE are the "cumbersome and complex PHEI registration processes that are less transparent and explicit than they should be, leaving institutions in positions of not knowing what documentation is required and how it should be obtained or submitted" (Fielden & LaRocque, 2008:9). It is commonly observed that in Botswana there are multiple accountabilities in the regulation of HE. For instance, it has been found that one regulatory agency may suggest one thing, and another suggests a completely different thing in the registration process of HE. As a result, PHEIs end up not knowing exactly what needs to be done. Where there are more than one QA system in a country there must be policy coherence and coordinated effort among the regulatory agencies if they, if are to achieve the desired results of ensuring quality in the provision of HE.

The third common barrier to QA among countries with highly regulated HE systems is the imposition of unclear and subjective criteria and standards of quality for registration (Fielden & LaRocque, 2008; Kagiso, 2013). In many countries, the standard procedure

on paper stipulates that all PHEIs should be subjected to similar registration procedures, but in reality some PHEIs find favour among regulators by not being subjected to the same stringent regulation (Fielden & LaRocque, 2008). This has been particularly noticed in Botswana where some PHEIs with meagre resources are easily registered and accredited while those with better resources struggle to register or get accredited. Such double standards have a potential negative effective on how PHEIs ensure quality in the provision of their products and services. Poorly designed regulation criteria for PHEIs can have the opposite outcome to the envisaged quality provision of HE (Setume, 2013; Kagiso, 2013).

The fourth common problem and barrier to QA is the use of outdated criteria for both accreditation and annual institutional monitoring mechanisms which emphasise quality monitoring rather than quality improvement in PHEIs (Fielden & LaRocque, 2008). Most of the regulatory mechanisms were set up in the early 1990s in response to quality issues among PHEIs and have not been reviewed since that period despite changes in the HE environment (Fielden & LaRocque, 2008). In the context of Botswana, the regulatory procedures were enacted in 1997 and ever since, have not been reviewed to address present-day realities in the HE environment which includes issues of globalization, technology, massification, the introduction of blended and distance learning in PHEIs amongst other issues which have a direct effect on how education is provided by PHEIs.

The fifth common barrier to effective QA in countries with highly regulated HE environments relates to onerous processes that accrediting officials have to work with when assessing applications for institutional registration and accreditation (Fielden & LaRocque, 2008). The volume and complexity of the registration and accreditation requirements have been seen to lead to "inconsistent application of existing rules leaving significant scope for arbitrary (and possibly corrupt) decision making on who should be registered or accredited" (Fielden & LaRocque, 2008: 13). This situation is very true in the case of Botswana where processes of either registration or accreditation are quite complex and documentation voluminous. At the end of the day there is a feeling among PHEIs that regulatory authorities may not have time to go through all the processes and documentation and may just use their discretion when making decisions.

This feeling is fueled by observations whereby some institutions with clear noncompliance issues such as not having fully qualified staff or adequate teaching resources such as classrooms are easily registered or accredited at the expense of those with visible potential or capacity to offer quality HE.

There are however a number of ways of dealing with the barrier above. Fielden and LaRocque (2008) argue that regulatory authorities need to come up with regulatory requirements that act as mitigating measures. First, regulatory measures need to be objective and measurable in order to minimise discretion and limit the scope for corruption. Second, the measures need to be output-focused, or designed in such a way that they are able to ask open questions about the standards proposed rather than imposed fixed national norms. Third, these measures need to be applied consistently across various levels of government and across all PHEIs. According to Fielden and LaRocque (2008: 15), "complex registration processes of PHEIs and onerous regulatory regimes have potential to reduce access to HE by deterring new HE providers or increasing their costs to such a degree that these institutions become unaffordable". Also, such complex regulations may push PHEIs to operate outside the law as unregistered institutions thus forcing them to provide poor quality HE.

The sixth common barrier to effective QA in highly regulated HE systems are the limits imposed on the ability of PHEIs to charge market rate tuition fees to enable them to both break-even as well as provide quality HE (Fielden & LaRocque, 2008). In the context of Botswana where almost 99% of students attending PHEIs are government sponsored (Tertiary Education Council, 2013), it is the government that sets the tuition fees ceiling for all PHEIs in the country. Such a situation has made it difficult for the PHEIs to cover all costs especially owing to the ever-rising costs of teaching materials that include textbooks and technological gadgets such as computers and software. A number of PHEIs in Botswana just as what happened in Argentina end up closing as a result of the stringent controls of regulatory authorities.

The seventh common barrier to effective QA in the highly regulated HE systems are the requirements that one or more places on PHEIs' governing bodies be available for nominees from government and that the appointment of human resources department

personnel responsible for staff recruitment be government nominees for the sake of staff localization (Setume, 2013; Kagiso, 2013). PHEIs in Botswana have had to comply with human resource issues. Some xenophobic tendencies among the government appointed staff at one major private university led to academic staff shortages in the PHEI. Furthermore, in 2016 a department in one of the PHEIs went for six months or a semester without filling lecturing staff vacancies because local applicants did not meet the stated academic qualifications. It took the top management of the institution to negotiate with officials of the Botswana Ministry of Labour (BML) to eventually get expatriate staff to be allowed to fill the vacancies.

At the institution where the author is teaching for example, accreditation of some of the programmes was done on the 6th of September 2016. One of the requirements was that there should be more local staff in Faculties and departments than expatriate staff if programmes were to be accredited yet, the local market cannot produce adequate local staff with Master's and PhD degrees. Also, local staff indicated that they did not like teaching in PHEIs as they preferred public institutions where the workload is not as high as in PHEIs.

2.6   REGULATORY POLICY FRAMEWORKS OF PRIVATE HIGHER EDUCATION INSTITUTIONS IN DIFFERENT COUNTRIES

This section discusses QA systems of countries where HE is highly regulated. Such countries include Ghana, Kenya, South Africa, Botswana, Portugal, Argentina, and Malaysia. King (2003) argues that most governments exhibit many features of what is termed command-and-control in their regulation of PHEIs, with emphasis on negative containment fueled by the erroneous belief that all PHE is low quality and owners are just there to make money at the expense of customers or students. Such a command-and-control regulatory approach is usually backed up by statutory or other legal codes and penalties (King, 2003). The command-and-control regulatory approach as used in the countries above "refers to the prescriptive nature of the regulation or the command that is supported by the imposition of some negative sanction (control)" (King, 2003: 51). In this regulatory model, the rules are passed to ban or limit certain activities and for governments to establish regulatory agencies that monitor and police compliance

with statutory standards (Braithwaite, 2002). This regulatory model is characterised by specific and clear operational rules which enable breaches to be readily identifiable and penalized (King, 2006).

The command-and-control regulatory model first reduces opportunities for rent-seeking, corruption and general manipulative and empire-building behaviour by regulatory officials, that is, where these officials behave as if they own the whole HE system (King, 2003). Second, it can be a very reliable regulatory model if sufficient monitoring and enforcement are ensured (Braithwaite, 2002). Its major disadvantages are that it is too rigid, uses a one-size-fits-all regulatory style and fails to take into consideration different contexts in which PHEIs operate (King, 2003). Despite its shortcomings, the command-and-control model of regulating PHEIs is still being used particularly in Botswana up to this year, 2016.

2.6.1   Regulation of Private Higher Education in Malaysia

The proliferation of PHEIs in Malaysia since the liberalisation of the HE sector in 1996 led to many concerns about the quality of educational services provided by the PHEIs (Bajunid & Wong, 2016). To address this issue, the government of Malaysia set up the National Accreditation Board (NAB) which together with the Private Education Department in the Ministry of Higher Education came up with as many as 56 stringent operational guidelines on the establishment and operations of PHEIs (Loh, 2012). These guidelines set standards on the quality of the infrastructure, the development and implementation of the curriculum, the calibre of the teaching staff as well as the quality of teaching materials (Lee, 2016; Government of Malaysia, 2006). Current trends in the regulation of PHE in Malaysia show that the government is slowly moving away from the highly centralised and regulated regime to a more decentralized system. In its Malaysia Education Blueprint (Higher Education: 2015-2025), the government pronounced "how private and public institutions are regulated, and to transition from the current, highly-centralised governance system for HEIs to a model based on earned autonomy within the regulatory framework" (Government of Malaysia, 2006:10). From this discussion, it is observed that the use of very strict regulations on PHEIs is not sustainable as it leads to operational challenges not only in PHEIs but for the regulators as well. It is therefore

observed that countries like Malaysia decided to move away from the highly regulated and centralized HE system to a more accommodating system that took cognicance of the contextual realities of PHEIs.

2.6.2 Regulation of Private Higher Education in Argentina

In Argentina, the government's reaction to the proliferation of PHEIs under an unregulated environment led to the creation of an accreditation agency whose mandate was to establish highly strict approval/accreditation regulations to ensure quality in PHEIs (Scharagrodsky & Varea, 2016). This led to the closing of a number of PHEIs leading to Argentina being referred to as one of the Latin American countries with a highly regulated PHE environment (Rabossi, 2015). It is compulsory for all PHEIs to be approved by the government regulatory authorities before they can start operating (Rabossi, 2015; Scharagrodsky & Varea, 2016). The regulatory agency supervises the PHEIs for an initial six to 11 years after which it either accredits or closes them depending on whether they satisfy all the accreditation requirements or do not (Rabossi, 2015). Currently the PHE system in Argentina is centralised and highly regulated (Scharagrodsky & Varea, 2016).

Rabossi (2015) found that enrolments in the PHEIs in Argentina continue to be the lowest in the Latin America region because of tough regulations. There are no clear signs that this situation is going to change. Rabossi (2015) further argues that ever since the National Accreditation Agency (CONEAU) was set up in Argentina in 1996 PHE has not expanded. Its strict requirements caused the rejection of almost nine out of every 10 entry applications per year and, as a result, in the last 10 years, according to Rabossi (2015), only 12 private universities were allowed to enter the HE market and the trend continues up to today.

2.6.3 Regulation of Private Higher Education in Portugal

The HE system in Portugal, like in Botswana, is highly centralised and highly regulates PHE (European Association Quality Assurance in Higher Education, 2006). The Private and Cooperative Higher Education Act has made it mandatory for PHEIs to be

registered and accredited before they can award degree programmes (Sin, Tavares and Amaral, 2015). It takes upwards of four years for new study programmes in PHEIs to be approved by the Ministry of Education - which is the sole regulatory authority in Portugal (Reis, Formosinho & Lobo, 2016). New programmes are reviewed by both the Ministry of Education and an external committee of experts.

The highly regulated HE environment in Portugal makes PHEIs take a very long time to make changes to the existing curriculum. This affects the curriculum implementation process (Reis, Formosinho and Lobo, 2016). The strict regulation of PHE in Portugal continues to date. According to Sin, Tavares and Amaral (2015), due to the current strict regulation of HE in Portugal, 40% of the PHEI programmes were either discontinued or not accredited in 2015. Furthermore, Reis, Formosinho and Lobo (2016) found that in the 2016 accreditation cycle, of the 5262 programmes only 3384 programmes were likely going to be fully accredited.

2.6.4 Regulation of Private Higher Education in Italy

In Italy PHEIs are regulated by the state regulators (Meoli & Paleari, 2014). In this country, external regulation (ER), also referred to as external quality assurance (EQA), strictly determines processes which the academics and universities must comply with in terms of the organisation and performance of academic activities (Meoli & Paleari, 2014). ER is "typically" exercised by the state or its regulatory agency through traditional top-down authority. "PHEIs in Italy are highly through directives and enforcement of authoritative rules and academic benchmarks prescribed by government" (Meoli & Paleari, 2014:2). Fiona (2015) found that the Italian non-state sector was still heavily regulated. The issue of strict regulation of PHE in Italy is also confirmed by Donina, Meoli and Paleari (2015) who in their study found that the HE regulatory framework in Italy was still concerned more with tightening controls rather than on improvement.

2.6.5 Regulation of Private Higher Education in Ghana

In Ghana quality assurance (QA) started in the 1990s in response to an increasing number of PHEIs that provided post-secondary education and because of the

government's concern with the quality of products and services offered by the PHEIs (Tsevi, 2014). Like in the rest of Africa, Ghana was not able to introduce robust quality monitoring mechanisms to curb the proliferation of PHEIs (Tsevi, 2014; Kasozi, 2014). The low quality of products and services offered in PHEIs in Ghana led to the establishment of the NAB in 1993 through the Act of Parliament No. 317. NAB became responsible for accreditation, quality control, and quality assessment of PHEIs. In Ghana as in Botswana, EQA processes are implemented on PHEIs using a one-size-fits-all formula without regard for differences in institutional contexts. This affects the end-product of educational provision (Boateng, 2014).

In Ghana a university college is affiliated to a public university for three years before it can become a PHEI (Tsevi, 2014). The purpose of this QA rationale is to control the proliferation of freestanding low quality PHEIs (Boateng, 2014; Kasozi, 2014; Tsevi, 2014). Three years after registration and mentorship, the college can become an accredited PHEI provided it meets the following minimum criteria:

1)   Meets minimum admission requirements for certificate, diploma and degree
          levels;
2)   Meets minimum number of students to be enrolled per semester and per year;
3)   Meets minimum qualifications requirements of faculty; and,
4)   Has an IQA unit headed by a senior lecturer (Tsevi, 2014).

After 10 years of being mentored by a public HEI, a PHEI qualifies to be granted a charter upon meeting all of the above accreditation requirements (Boateng, 2014; Kasozi, 2014; Tsevi, 2014).

In order for an institution to be accredited as a PHEI in Ghana it must:
1)   State the minimum student admission requirements;
2)   Give a full description of all its courses (modules);
3)   Provide clear rules on student performance; and,
4)   Align the programme to the national HE policies (Tsevi, 2014; Boateng, 2014;
          Amponsah & Onuoha, 2013).

The government of Ghana continues to implement strict regulatory measures in HE because of the continued prevalence of poor PHIE standards and the weak regulation of HE activities as is the case in many developing countries (Havergal, 2015). According to Akplu (2016), many of the accredited and un-accredited PHEIs continue to provide low quality HE and such a situation continues to force the government of Ghana to implement tough regulatory frameworks. Akplu (2016) further argues that many of the PHEIs in Ghana continue to fail to meet expectations and have especially a long way to go in meeting the terminal degree requirements set by the regulatory body.

2.6.6 Regulation of Private Higher Education in Kenya

Kenya, like Botswana, has more registered and unregistered PHEIs than public HEIs. Moreover, like in Botswana, public HEIs in Kenya are not as highly regulated when compared to the PHEIs (Havergal, 2015; Munene, 2016). The Kenya PHEI regulatory framework consists of stringent regulations for establishing a PHEI, for applying for the accreditation of programmes, for implementation, for qualifications of staff, and for infrastructure (Cheserek, 2010; Havergal, 2015). The regulation and accreditation of PHEI programmes is done by the Commission for Higher education (CHE). Like in Botswana, the accreditation of a university and its programmes involves the production of an SSD by each PHEI, and the use of external experts who conduct site visits of the institution and compile a report for the CHE. The report compares information in the SSD and the facilities at the institution (Oloo, 2010).

QA in Kenya is done for the following reasons:

1)   To ensure and develop quality in PHE;
2)   To detect good and bad quality in PHE;
3)   To establish a strong quality culture in PHE; and,
4)   To act as a basis for self-assessment, change and continuous improvement in
          PHE (Aas, 2007; Cheserek, 2010).

These QA purposes compare very well with those for BQA in Botswana.

In Kenya the QA focuses more on documented and detailed institutional PHEI processes than on quality improvement mechanisms (Munene, 2016; Cheserek, 2010). Such an approach to QA is viewed by Munene (2016) as not a good guarantee of quality in the PHEIs. The danger to this approach according to Moodie (2008) is that PHEIs will be forced to concentrate on documentation rather than on whether they are teaching and assessing students at appropriate levels of quality. According to Law (2010), the above shows that regulation of PHE in Kenya focuses more on accountability rather than on improvement.

Despite the visible efforts by the government regulatory bodies to manage issues of quality in PHEI in Kenya, there are still concerns that the PHEIs continue to be poor and the government is failing to initiate tighter regulatory mechanisms. This situation continues to push the Kenyan regulatory authorities to tighten controls on PHEIs (Havergal, 2015). Munene (2016) found that continued concerns about the quality of HE provision in Kenya forced government authorities to implement strict regulatory frameworks in HE in Kenya up to now. For example, it was found that:

> *"there continued to be a prevalence of PHEIs that have cheap, low-quality satellite campuses but charged exorbitant fees, although they did not have even the most basic facilities, had no libraries or internet access, usually had a full-time campus director with just a handful of academic staff who usually had no more than a Master's degree, and which sometimes even offered the degrees of questionable credibility",*
> Munene (2016: 14).

2.6.7 Regulation of Private Higher Education in South Africa

The high demand for specialised HE skills and knowledge fueled the rapid growth of PHEIs in South Africa. This happened, like in Botswana and other developing countries, in the absence of robust QA mechanisms. Recognising this unregulated proliferation of PHEIs, the South African government in the late 1990s passed three laws namely the Higher Education Act, the Further Education Act, and the National Qualifications Framework Act that provided for the registration and accreditation of PHEIs as a means

to monitor and regulate the quality of HE provision by PHEIs (Ellis & Steyn, 2014; Wu & Wang, 2010). This is why in South Africa just as in Botswana and Kenya there is evidence of an active government participation in the regulation of PHE through the use of strict policies (Kasozi, 2014). Through the three Acts above, PHEIs were and still are required to go through a registration process that vets their capacity to provide quality HE.

Registration of PHEIs in South Africa is not a one-off process, but it initially takes two years and thereafter the re-registration is done after every five years (Mabizela, 2007). Like in Botswana, the second stage of the registration process in South Africa is the accreditation done by the Education and Training Quality Assurance (ETQA) (Mabizela, 2007). The Council on Higher Education of South Africa (CHESA) has set the following minimum standards for PHEI registration and accreditation:

1) Quality academic and administrative personnel;
2) Good and relevant curriculum; and,
3) Adequate and appropriate facilities such as buildings, teaching and learning equipment.

The minimum requirements above have been set to ensure provision of quality HE (Department of Education, 2008a; 2008b). The current system of regulating PHE in South Africa shows that the system is still highly regulated.

As part of closing any loopholes in regulating of PHEIs, on 31st March 2016 the Regulations for The Registration of PHEIs of 2016 were promulgated through the Government Gazette. Through these regulations the government strengthened the regulation of PHEIs operations in South Africa. Areas such as application for registration of PHEIs, registration process, operations of PHEIs, and other general requirements have been made more elaborate and expanded to enable authorities manage the regulation of these institutions more effectively. The regulations above confirm earlier statements by Ellis and Steyn (2014: 269) who in their study argued that "regulatory requirements within a complex educational environment in South Africa were presenting a huge challenge to private higher education providers".

2.7   REGULATORY POLICY FRAMEWORK OF PRIVATE HIGHER EDUCATION IN BOTSWANA

The regulation of PHEIs in Botswana is critical for ensuring quality of HE provision. This is in line with Fielden and LaRocque's (2008: 5) argument that "governments have an obligation to ensure that their citizens receive good education from whatever source and to enact mandatory regulatory mechanisms that will ensure that teaching staff, programmes, facilities, equipment and materials are of best quality". This explains further why in Botswana the regulatory authorities basically check on teaching materials such as textbooks, milestones (lesson plans) and teaching slides when they make institutional audit visits to PHEIs (Tertiary Education Council, 2013; Botswana Training Authority, 2016). This demonstrates how highly regulated the PHE environment in Botswana is.

The Regulation or QA in Botswana assumes the form of evaluation, benchmarking, assessment, quality improvement, monitoring, periodic reviews (audits), the establishment of standards, accreditation, programme approval and institutional performance monitoring (Setume, 2013; Kotecha, Wilson-Strydom & Fongwa, 2012). The objective of the regulatory policy "is to ensure that the HE sector and the individual PHEIs that it comprises of, offer high quality HE products and services, are accountable to all stakeholders, are supported in terms of their efforts to improve, and are responsive to the Botswana HE vision and goals" (TEC, 2008: 5).

In Botswana HE is regulated by two bodies namely, Botswana Training Authority (BOTA) now called Botswana Qualifications Authority (BQA) and the Tertiary Education Council (TEC) now called the Human Resources Development Council (HRDC). BOTA and TEC used to perform similar functions and that resulted in multiple accountabilities that burdened and confused the PHEIs in terms of institutional and programme audits and annual evaluations (TEC, 2013). Nowadays, the BQA and HRDC sometimes compete and give uncoordinated and conflicting information about issues of QA in PHE (Setume, 2013). Interestingly, these external regulatory agencies are supposed to set and enforce uniform and clear benchmarks for all PHEIs in Botswana and

coordinatewith internal quality assurance offices in the institutions to ensure that the benchmarks are implemented to ensure quality provision of HE (Kasozi, 2014).

BOTA was established by the Act of Parliament (No. 22 of 1998) with a mandate to coordinate the technical and vocational part of the HE, determine HE policy related to technical and vocational education, and act as a quality assurance agency in the technical and vocational HE sector (Tertiary Education Council, 2013; Botswana Training Authority, 2016). BOTA used to accredit and register technical and vocational institutions, and register trainers and new programmes (Kotecha, Wilson-Strydom & Fongwa, 2012; Tertiary Education Council, 2013). The BQA is still doing the same job, but also supervises all qualifications at certificate level in all HE institutions in Botswana. The TEC on the other hand started operating as a government-funded semi-autonomous quality assurance body in 2003 after being established through an Act of parliament (No. 57:04 of 1999). The mandate of the TEC from its inception, like that of BOTA, was to ensure quality in all post-secondary institutions, formulate HE policy, and coordinate the provision of HE in Botswana (Tertiary Education Council, 2013; Kotecha, Wilson-Strydom & Fongwa, 2012). Currently, the mandate of the TEC is still "to promote and coordinate the HE and to quality assure teaching standards, examinations and research in the HEIs" (Tertiary Education Council, 2013: 9).

Specifically, the BQA and the TEC are tasked with the following responsibilities:

1) To develop and monitor the system level and institutional level standards and benchmarks of achievement;
2) To conduct institutional accreditation and registration;
3) To conduct institutional audits, evaluations and reviews; and,
4) To enhance capacity at system and institutional levels (Tertiary Education Council, 2013).

All the PHEIs in Botswana are subjected to these regulatory measures, especially those that in Botswana standards need a great deal of monitoring to ensure that they provide quality education to citizens.

2.7.1 Ensuring the development and monitoring of systems and institutional standards

The mandate of both BOTA and the TEC is to develop and implement HE policy (Tertiary Education Council, 2013; Setume, 2013). This policy stipulates the standards of performance HEIs especially PHEIs are expected to comply with if they are to remain registered or accredited. The standards stipulate that the PHEIs must: be registered first before starting operating; demonstrate evidence of stable finances; have quality teaching facilities and equipment; employ at least Master's degree lecturers; and be accredited before they start teaching (Tertiary Education Council, 2013; Botswana Training Authority, 2010). Implementation of these standards is monitored on an annual basis, with a lack of compliance leading to a possible deregistration of the institution concerned (Tertiary Education Council, 2013). While this policy has certainly led to the general improvement of quality of educational provision in PHEIs, its major constraint is its one-size-fits-all approach which does not take into consideration local realities of the different PHEIs (Setume, 2013; Obassi, 2015; Kagiso, 2013). Observations shw that this situation has led to some small PHEIs institutions either trying to use unorthodox means to survive or closing down because the policy guidelines were too demanding for them to bear.

To ensure quality of HE provision and regulation the Botswana government introduced the Botswana Education and Training Sector Strategic Plan (ETSSP 2015-2020) (Republic of Botswana, 2016). Among some of the goals of this strategic plan is the strengthening of the Monitoring and Evaluation (M&E) structures in order to improve accountability in the HE sector. The ETSSP 2015-2020 articulates a number of themes that guide the monitoring and evaluation of HE processes and activities for the purpose of enhancing the delivery of quality HE. These themes "include: i) Financial and Budget Management Reforms; ii) Human Resource Management and Staffing Reforms; iii) Information, Monitoring and Evaluation Systems Reforms (EMIS); and Education Content (Curriculum and delivery) Reforms" (Republic of Botswana, 2016: 3).

2.7.2 Institutional accreditation and registration

As part of regulatory measures, any HEI in Botswana interested in offering HE from diploma level (and above) is required to register with the TEC and those offering certificate qualifications are required to register with BOTA (Tertiary Education Council, 2013; Botswana Training Authority, 2016). After registration, the institution is accredited after the first three years of registration and its programmes after one year of implementation (Tertiary Education Council, 2013). The institution applies for either institutional and/or programme accreditation when the time for this is due. Registration is the process whereby owners of a prospective institution apply to get permission to establish a HE institution (Tertiary Education Council, 2013). After the application has been approved upon satisfying the laid-out QA conditions, the institutions and its programmes should be accredited (Tertiary Education Council, 2013).

The following process of accreditation in Botswana is religiously and rigorously implemented (Tertiary Education Council, 2013; Botswana Training authority, 2009; Altbatch, et al., 2009):

1)   An institution prepares and submits a self-evaluation document (SSD) or a thorough self-examination report of an institution's practices, resources and accomplishments, and programme content of the programmes to be accredited;

2)   The SSD is evaluated by the TEC through independent assessors and forms the basis upon which the institution and/or its programmes are accredited;

3)   The TEC thereafter arranges a team of independent assessors or subject matter experts to compare the information in the SSD with what is actually happening on the ground in the institution. These institutional visits are called audit visits;

4)   Once the SSD and institutional audits harmonise the institution and/or its programmes are recommended for accreditation (Tertiary Education Council, 2008; 2013).

The SSD stipulates 10 standards which institutions must comply with in order to be accredited. Table 2.2 shows items that should be produced as evidence during the accreditation visit or institutional audit visit.

Table 2.2: Standards and evidencefor the SSD (Tertiary Education Council, 2008: 675 –685)

STANDARDS	EVIDENCE
1. DESIGN AND DEVELOPMENT OF PROGRAMME	• Process map for curriculum development • Market Survey • Bench marking • Terms and references of Faculty Programme Committee (FPC) • FPC meeting minutes • Programme syllabi • Botho University Graduate Profile • The Learning Teaching and Assessment (LTA) Strategy • Sample lesson plans (Module Teaching Guides or MTGs) • Guidelines for classroom observation • Sample student's feedback report • Sample question paper moderation report • Sample Turnitin report
2. FUNDING THE PROGRAMME	• Institutional budget • Faculty budgets • Programme-wise budgets
3. STAFFING THE PROGRAMME	• Staff Curriculum Vitaes • Staff Academic and professional Certificates including accreditation certificates • Staff recruitment process • Staff performance evaluation process • Staff development course descriptor • Key performance Indicators (KPIs) form • Promotional pathways • Policy on study loans • Staff handbook • Guidelines for temporary leadership positions • Manpower request process • Interview assessment process • Leadership promotion process • Module training calendar

	• Module training attendees register • Module training course descriptor • Performance contract and review process • Process approach to loan application • Evidence of research • Sample of Continuous Professional development report
4. RESOURCING THE PROGRAMME	• Library database • Library catalogue • List of books • Book request process • Map for facilities expansion • Assert register • Equipment inventory
5. DELIVERY AND MANAGEMENT OF THE PROGRAMME	• Learning, Teaching and Assessment Strategy (GL-BOT-003). • Sample of Virtual Learning Environment (VLEs) process • Sample milestones (lesson plans) • Sample module teaching guides (MTGs) • Sample module training attendance register • Sample module training course descriptor • Academic calendar • Sample Batch schedule (Time table) • Samples of mid and end assessment question papers, answer guides and moderation reports • Contracts with external partners
6. ASSESSMENT OF LEARNER ATTAINMENT	• Samples of mid and end assessment question papers, answer guides, and moderation reports • Sample of student assessment regulations • Sample of assessment plans or calendars • Sample of assessment misconduct processing form • Sample of assessment schedule • Sample of plagiarism report form • Sample of misconduct appeal procedure • Mitigation form • Student regulation section 4.5 • Special needs register

	• Support session programme for failing students • Support session attendance register • Sample results analysis report • Faculty Assessment Committee (FAC) meeting minutes • Academic Board meeting minutes • Assessment process map • Sample Mark sheet • Screen shot of how marks are captured • I-tracker report • Remark/appeal request form • Student regulation section 4.3 and 4.4 • Staff Students Consultative Committee (SSCC) meeting minutes • Sample Answer script moderation report, • Sample answer script moderation policy • Guidelines on academic advising • Screen shot of student portal degree audit facility • Screen shot of process of results published • Sample of notice board copy
7. CERTIFICATION AND REPORTING	• Partnerships agreements • Memorandum of Understanding (MOUs) • Trainings and Exchange Programmes • Market research results • Bench marking documents • Feedback from Industry Experts • Botho Credit and Qualification framework document (BCQF) • Credits and learning hours of BCQF • Notional hours of learning BCQF • Module descriptor sample • Programme document • Certificate sample • Transcript sample • Certificate addendum sample • Relevant CampusVue screenshot • Relevant Student portal screen shot • FAC reports • Backup process and Policy • Recovery test result • Access control policy • Sample user creation form

	• Information release guidelines (MIS) • Sample mark sheet with quality check • Copy of the assessments result • Cloud storage screen shot • CampusVue reports • CampusVue sample audit report • System Access rights • Mark updation form and procedure document
8. REPORTING LEARNER ATTAINMENT AND PROGRESSION	• Sample Process Approach for Enrolment and Registration (PA-MIS-001). • Sample class schedule • Process Approach for Batch Scheduling (PA-MIS-013) • Student Information release and Records Management guidelines" (GL-MIS-001) • Filing Room Documents Control Register – (RG-MIS-001) • student attendance summary report • Posted and un-posted attendance register • Instructor timetable • Sample Reports from CampusVue
9. IMPACT OF PROGRAMME	• Faculty of Business and Accounting (FBA) Key Performance Indicators (KPIs) for period in question • Student Handbook, "SH-BOT-001
10. DEGREE LEVEL PROGRAMMES	• Guidelines for internship • Botho Graduate Profile (GL-FEC-004) • Module descriptor for the module B8-ENT • Module Descriptor sample • Project Log Book • Students Handbook

Each of the standards above must be accompanied by evidence that should be produced during the institutional audits. The institution is not accreditated when the above process is not followed (Tertiary Education Council, 2008; 2013). The approach to accreditation explained above is the one that is currently being used to accredit programmes in PHEIs. In September 2016 the Botswana regulatory authorities undertook institutional audits at PHEIs to accredit programmes.

2.7.3 The design and development of the programme (Standard 1)

The design and development of the programme standard, "seeks to verify that the institution utilises its own policies and procedures to design and develop programmes that are relevant to identified outcomes of learning required in and for Botswana's economy and society" (Tertiary Education Council, 2013: 675). In the case of franchised programmes, the BQA would demand assurance that the franchising or licencing have been appropriately and legally localised to reflect contextual realities in Botswana (Tertiary Education Council, 2008). This standard also seeks to determine the extent to which the PHEIs actively utilise input from stakeholders such as industry, parents, prospective students, and associations during programme development. It also determines whether the respective PHEIs benchmark their programmes against the comparable programmes offered by similar local, regional and international institutions (Tertiary Education Council, 2008). This standard therefore ensures that programmes of PHEIs are comparable with local, regional and international standards in terms of quality. Such a situation helps not only in terms of knowledge transfer for curriculum development but also in terms of helping students in transferring programme credits across universities in different countries.

2.7.4 Funding the programmes (Standard 2)

The programmes funding standard, "seeks to verify that the institution has sufficient financial resources for exclusive use in the development, provision, management and enhancement of its education and/or training services" (Tertiary Education Council, 2008:676). This standard therefore ensures that PHEIs have adequate and stable finances available to support their activities without compromising quality and to ensure that the institution has good financial management. With adequate and stable finances, PHEIs are then able to finance their activities with regards to effective implementation of the curriculum. Specifically, with adequate and stable finance, PHEIs will be able to hire and remunerate highly skilled lecturing staff, by all relevant equipment and books, and ensure that all teaching in the institutions is research-based by funding resarch activities of teaching staff.

2.7.5 Staffing of the programme (Standard 3)

The programme staffing standard, "seeks to verify that programmes are being taught by technically competent staff with appropriate pedagogical and/or assessment expertise that enables them to impart knowledge and manage the learning and progression of their learners in a manner appropriate to the characteristics of the learner cohort" (Tertiary Education Council, 2008: 678). This standard therefore ensures that the PHEIs employ adequately qualified and experienced staff to teach the accredited curriculum. Above all, the BQA assures the effectiveness of staff retention strategies of the PHEIs so that talent is well managed.

2.7.6 Resourcing of the programme (Standard 4)

The resourcing of the programme standard, "seeks to verify that the size and quality of any library and teaching and/or learning equipment are appropriate to the learning and pedagogical approach for programmes being offered" (Tertiary Education Council, 2008: 678). Resources according to this standard include textbooks, equipment and facilities that include laboratories, lecturer rooms, libraries, lecture theatres and outdoor facilities such as sports grounds and courts. This standard therefore ensures that the PHEI facilities are available, adequate, in a good state and are well managed to ensure effective delivery of the curriculum.

2.7.7 Delivery and management of the programme (Standard 5)

The delivery and management of the programme standard, "seeks to verify that programmes are taught in accordance with the pedagogical approach put in place for each programme and in accordance with the planned sequence of developing stated knowledge, understanding, skills and personal attributes" (Tertiary Education Council, 2008: 679). This standard therefore ensures that the curriculum implementation processes and procedures exist and are clearly followed by all lecturers. It also ensures that the curriculum does not outlive its usefulness, and that the PHEI programmes receive timeous review to ensure that they continue to be relevant to the changing needs of society.

2.7.8 Assessment of learner attainment (Standard 6)

The assessment of learner attainment standard, "seeks to verify that internal and external, formative and summative assessment practices are well structured and planned in a manner that reflects good practice principles in assessment and, where applicable, comply fully with procedures and requirements specified by external examination bodies" (Tertiary Education Council, 2008: 680). This standard therefore ensures that the PHEIs implement the assessment types and strategies that meet established standards of quality; and that those who design, mark and moderate assessments are qualified and experienced enough to be able to do that. The BQA demands that all assessments be both internally and externally moderated before administration and after marking. This ensures that students are not disadvantaged and above all, acts as a guarantee of quality of the assessments.

2.7.9 Certification and reporting (Standard 7)

The certification and reporting standard "seeks to verify that qualifications awarded to successful graduates of a programme accurately describe learning outcomes of and standards of performance attained in a meaningful and informative manner" (Tertiary Education Council, 2008:682). This standard therefore ensures that the qualifications offered by the PHEIs meet the standards of comparability and equivalence in merit to similar qualifications awarded by public institutions in Botswana. This assures the students, employers, sponsors, parents and other stakeholders that the qualifications awarded by the PHEI are of quality and are comparable to those awarded in other HEIs offering similar qualifications.

2.7.10 Reporting learner attainment and progression (Standard 8)

The reporting learner attainment and progression standard, "seeks among other things to ensure that substantial data of each learner's enrolment and activities within the institution is kept in a secure and easily retrievable form and this includes the enrolment data, the data on the attendance and behaviour of the learner, is accurate and current, and also that the data is sufficient to serve the interests of the learner in any case of

voluntary or forced transfer to another provider" (Tertiary Education Council, 2008: 683). The standard therefore ensures that the PHEIs safely keep the entire history of the learner for future retrieval. The ability to quickly retrieve stored academic information is one of the areas that usually affects customer satisfaction as people do not want to wait for long to get the information required. By ensuring the success of this standard, PHEIs will enhance their reputations to their customers, both current and prospective and this wil also improve their images. Reports of current and former students visiting their universities and failing to get the required documentation have been reported and this has really painted a bad picture on the institutions concerned.

2.7.11 Impact of programme (Standard 9)

The impact of programme standard "seeks to verify that learner retention and attainment rates represent successful teaching and management of learning and that entry requirements and selection procedures, inclusive of the recognition of prior learning and experience, represent entry standards that offer reasonable chances of success for learners enrolled in each programme" (Tertiary Education Council, 2008: 684). The standard therefore ensures that the PHEIs programmes attract and retain reasonable numbers of students and that the admission requirements do not segregate against any prospective students wishing to study at the institutions. The ability of an institution to ensure that students to progress from one level to another is viewed as evidence of quality in the teaching processes of the institution, among other reasons.

2.7.12 Degree-level programme (Standard 10)

The degree programme standard "seeks to verify that degree and post graduate programmes offer advanced study of theory, and develop independent learning, thinking and expression" (Tertiary Education Council, 2008: 684). The above standard ensures that the PHEI programmes engage students in the highest levels of theoretical knowledge and grounding, and that these programmes are taught mainly by staff who engage in research to broaden their knowledge in their areas of specialisation. Based upon subject experts' evaluations of the evidence as outlined in the SSD, the PHEI

programmes may receive any of the three following responses or outcomes (Tertiary Education Council, 2008; 2013):

1)   Full accreditation, if as mentioned above, the self-study document was an articulation of what actually obtains at the institution;

2)   Provisional accreditation if the subject experts in their opinion feel that there are a few less serious issues at the institution that need to be addressed for effective implementation of programmes; and,

3)   Deferred accreditation if in the expert judgement of subject specialists, there are serious issues at the institutions that have a big impact on effective learning and teaching at the institutions.

In the first two responses above the institution is required to indicate how it will deal with the identified issues and when (Tertiary Education Council, 2005; 2008). Once the timeframes are agreed upon, the institution is expected to address the issues within that timeframe and inform the regulatory authorities to return on a specific date. Once the outstanding issues are addressed the programme and/or institution is accredited (Tertiary Education Council, 2013).

Failure to address the issues within the agreed timeframe disqualifies the institution from enrolling new students into the affected programmes until all the outstanding requirements have been satisfied, and at worst, the institution is closed or de-registered (Tertiary Education Council, 2013). After the initial accreditation, PHEIs and their programmes undergo reaccreditation after every three years (Tertiary Education Council, 2013). However, public institutions and their programmes do not undergo reaccreditation after the initial full accreditation.

2.7.13 Institutional audits, evaluations and reviews in Botswana

Institutional audits of PHEIs in Botswana take place on an annual basis (Botswana Training Authority, 2016; Tertiary Education Council, 2013). The purpose of these audits is to perform formative evaluations on the extent of compliance by PHEIs to QA benchmarks (Tertiary Education Council, 2013). During these visits the auditors check

on institutional governance, Faculty and departmental governance, programme development and implementation, staffing, facilities and equipment, libraries and laboratories, nature or types of examinations, time tabling and teaching, textbooks, teaching methods, milestones and teaching slides, research output and community engagement. Besides the formative evaluations, the audits also ensure that the PHEIs continuously offer quality education (Tertiary Education Council, 2013). Periodic institutional audits for PHEIs are very important in helping these institutions provided quality services especially when looking at their history of failure to provide quality HE. As has already been alluded to, institutional audits help to constantly remind institutional leadership as well as implementing staff on the quality expectations that go with ensuring effective curriculum implementation.

2.7.14 Development and implementation of continuous improvement activities

The TEC and BOTA mandates ensured that quality was maintained in PHEIs in Botswana (Tertiary Education Council, 2013). On an annual basis the two regulatory bodies visited PHEIs to assess the availability and implementation of the quality improvement plans. In particular, the assessment focused on staffing, processes, facilities and resources. The TEC and BOTA ensured that each and every academic or administrative activity in the PHEIs was clearly articulated and that the process maps identified gaps in various stages of the processes (Botswana Training Authority, 2016; Tertiary Education Council, 2013). This regulatory measure ensured quality implementation of both academic and administrative functions in the PHEIs. The processes above are still followed by the BQA to date.

After making site visits subject experts or reviewers submit their recommendation reports to the BQA which moderates and then consolidates the reports and sends them to concerned PHEIs. After the review the BQA feedback or report highlights issues that the institution should deal with in line with quality standards defined in the national quality policy, after which the concerned institution is given up to two weeks to make submissions about the issues (Tertiary Education Council, 2013). On the other hand, an institution that feels that it was not fairly treated during any part of the review process is revisited for the second and final audit. Finally, an institution that does not comply with

QA standards after the second and final visits or audits may be deregistered depending on the severity of the lack of compliance (Tertiary Education Council, 2013).

2.8   SUMMARY

Chapter 2 discussed the legal and regulatory context as well as the historical development and expansion of PHEIs in Botswana. It also highlighted the reasons at a global level countries introduced neo-liberal policies in HE. The chapter also discussed the reasons for introducing strict regulatory regimes or frameworks for managing the quality of higher education in PHEIs in Botswana and the rest of the world. The chapter showed that there is a lot of commonalities between and among countries with regards to how quality if assured in PHEIs. For example, there are many similarities andvery few differences between how Botswana, Soth Africa, Ghana, Kenya and a number of Latin American countries regulate PHEIs. Despite highly regulated HE environment in countries, the chapters shpwed that PHE continues to grow to to failure by ublic finances in many countries to meet the ever increasing demand for HE. Argentina and Italy were viewed as perhaps the countries with the toughest regulatory requiremnets and it is very diffivult for PHEIs to operate in these countries. The next chapter presents the conceptual and theoretical frameworks as part of the literature review for this study.

CHAPTER 3
CONCEPTUAL AND THEORETICAL FRAMEWORKS

3.1   INTRODUCTION

Chapter 2 discussed the contextual and regulatory framework of the study. As part of the discussion, the legal and regulatory framework in which PHEIs operate was highlighted and it was shown that PHEIs operate in a highly regulated environment. Chapter 3 introduces conceptual and theoretical underpinnings of this study. As part of articulating the conceptual and theoretical frameworks, it defines and discusses the concepts of quality and quality assurance (QA) as critical factors that determine whether an institution and its programmes are accredited and its curriculum is effectively implemented. The concepts of curriculum and curriculum implementation as well as strategies for implementing the curriculum, facilitators and inhibitors of effective curriculum implementation, models of curriculum implementation, and the theoretical framework namely the force-field theory which underpins the study, are also discussed.

3.2   CONCEPTUAL FRAMEWORK

This section articulates the concepts of QA and curriculum implementation. As part of this articulation, two concepts, namely quality and curriculum, are discussed first to build strong cases for how QA and curriculum implementation processes take place respectively in accredited PHEIs.

3.2.1 Quality assurance

This study describes the QA process by first understanding it in the HE and PHE contexts. According to Baryeh (2009: 5), "The search for a universal definition of quality has been unsuccessful because the quality construct space is so broad and includes so many components that there would be little utility in any model that attempts to encompass them all". The difficulty of defining the quality construct continues to evolve in line with changing contexts and exigencies (Tapera and Kuipa, 2016). Quality in HE is viewed as a multidimensional concept which embraces teaching, academic

programmes, research and scholarship, staffing, students, buildings, equipment, service to the community and the academic environment (Tapera and Kuipa, 2016; Ellasey, 2015).

As a multidimensional concept, the construct of quality can therefore be defined in a number of ways (Ellasey, 2015; Project Management Skills, 2017). Quality is first defined as a matter of negotiation between parties concerned (Baryeh, 2009) and hence is perceived as the ability to meet agreed goals in line with requirements formulated by all stakeholders. Quality is also defined as satisfying customers by meeting their expectations (Baryeh, 2009). The definitions above therefore connote quality in HE as being able to provide services and products that meet customer (students, employer, government, parents) expectations. Baryeh (2009) categorizes quality into five discrete but inter-related conceptions as follows: i) Quality is exceptional, of high standards, and elite; ii) Quality is perfect, consistent, and has zero defects); iii) Quality refers to fitness for purpose, that is, fitting customer specifications or expectations; iv) Quality is value for money, that is, it should be worth it; and v) Quality is transformation, that is, it should empower students through knowledge and skills.

This study specifically defines quality as fitness for purpose - a definition which according to Sanyal and Martin (2007: 22), "encapsulates the concept of meeting commonly agreed precepts or standards which may be defined by law, an institution, a coordinating authority, a professional body or by a regulating authority". Quality in HE is defined by a clear set of institutional features and ways of doing things that heighten the possibility of educational outcomes being achieved (Amaral, 2009). Among a number of factors that affect quality in HEIs and hence the way curriculum is implemented include the "institutional vision and goals, the talent and expertise of the teaching staff, admission and assessment standards, the teaching and learning environment, the employability of graduates, the quality of libraries and laboratories and the effectiveness of institutional management" (Banji, 2011: 4). One way of measuring institutional quality is through educational inputs or outputs (Banji, 2011). According to Tsang (2002: 151), "educational inputs relate to human and other material resources that are factored into the production function of schools while educational outputs relate to the performance of students on achievement tests, or the number and types of graduates coming out of the

educational systems". Once a clear definition of quality has been established and communicated by the regulatory authorities to all stakeholders in HE, the process of QA begins.

QA has become a central theme in HE with a multiplicity of definitions and meanings (Harris, 2008). Most of the current debates on QA are premised on the assertion that HE needs a strengthened system of accountability (Tapera and Kuipa, 2016), a concern raised by external stakeholders such as government, parents, students and industry in Botswana and many other countries, that a consistently high level of collegiate learning can no longer be guaranteed without QA (Tapera and Kuipa, 2016). Accountability according to Kimber and Maddox (2003: 7), "involves and invokes a notion of answerability derived from the public sector where responsiveness is about consumer satisfaction, driven by the market paradigm". This issue of accountability is especially relevant in PHE in Botswana where in both print and non-print media, there have been numerous calls for the government to come up with urgent mechanisms to ensure PHE providers are made more accountable for the quality of services they claimed to provide.

The debate about academic QA in HE, more often than not, tends to bring to the fore extensive contestation about its meaning and purpose (Tapera and Kuipa, 2016). This is confirmed by Tapera and Kuipa (2016) who posit that QA in HE is a contested concept and that the understanding of quality continues to be a subject of much heated debate. Furthermore, Wendler (2016) feels that the concept of QA was amorphous, non-measurable and too ambiguous to be appropriate for the regulation and accreditation of HEIs.

Earlier researchers such as Beaton (1999) also believed that the rhetoric of quality and QA were often vague and empty of meaning. In another earlier research, (Oloo, 2010) argued that QA was notoriously an ambiguous term whose measurement was simply futile. Contemporary discourse though recognises the relevance and importance of QA, especially in HE and its contribution to continuous improvement in search of excellence (Wendler, 2016; Tapera and Kuipa, 2016). According to current thinking, QA in HE "relates to an external government or non-governmental body assessing the operations

of an institution and/or its programmes to determine whether it/they meet the agreed standards of HE quality and warrant accreditation" (Bjarnason, et al., 2009: 12). In this context, QA is viewed not only as important for satisfying external constituents but also as a precondition for improvement (Tsevi, 2014; Kasozi, 2014; Tapera and Kuipa, 2016). From the discussion above therefore, a robust QA therefore, can be used as a catalyst both in the consideration of broader questions about the meaning and evidence of HE quality and in clarifying an institution's mission and purpose and in effective curriculum implementation.

QA has been defined in various ways by various authorities. Altback, et al. (2009) define QA as the process whereby the issues of performance, standards, norms, accreditation, benchmarks, outcomes and accountability overlap to form the foundation of the quality culture of HEIs. This definition therefore highlights the fact that quality and QA in HE must be understood in the context of internal and external institutional performance and best practices. Once best practices such as recruiting highly qualified teaching staff, ensuring appropriate and adequate teaching space (lecture rooms, laboratories, study rooms), and ensuring adequate and current teaching materials, are implemented, the curriculum will be effectively implemented. QA is also conceptualised as all planned and systematic activities implemented in a quality system so that quality requirements (fitness for purpose) for a product or service will be fulfilled (Ciobanu, 2013; Boateng, 2014; Hamdatu, Siddiek & Al-Olyan, 2013).

The reference above to QA as a systematic process dovetails with the conception of QA as given by Kohoutek (2009: 23) who views QA "as a systematic review of institutions and educational programmes to ensure that acceptable standards of education, scholarship, and infrastructure are being maintained". Lemaitre (2008) also defines QA as the process of systematically gathering, quantifying and using information for the purpose of judging the effectiveness and curricular adequacy of a PHEI as a whole (institutional QA) or its programmes (programme QA). From the definitions above therefore, it can be concluded that QA implies the evaluation of the core activities of a PHEI in order to monitor and ensure quality delivery and improvement of services that are offered to students.

In her earlier work, Clarke (1994) comprehensively defined QA as a collective process by which both the national regulatory authorities and the PHEIs ensure that the quality of educational processes is maintained in order to satisfy the needs of students and all interested stakeholders. This definition by Clarke (1994) suggests that QA ensures that: i) The curricula in PHEIs meet the appropriate academic and professional standards; ii) The objectives of the PHEIs' curricula are appropriate and achievable; iii) The resources and facilities are available for successful implementation of the PHEI curricula and; iv) PHEIs strive continually to improve the quality of their curricula and the implementation processes.

The implications of the definition of QA by Clarke (1994) are therefore that: a) QA focuses on processes, that is, "it seeks to convince both internal and external constituencies that a PHEI's processes produce high quality outcomes or successful curriculum implementation; b) QA makes accountability for quality explicit at various points within an institution, that is, quality is every member of the organisation's responsibility; and c) QA is a continuous, active and responsive process which includes strong evaluation and feedback loops and effective communication" across all stakeholders (Harris, 2013: 10).

Two major attributes of the QA system include the development and adoption of minimum standards as well as the monitoring and regulation of the implementation standards (Elassy, 2015; Tapera & Kuipa, 2016). With regard to the former, two aspects of standards which stand out relate to the level of impact HE services have on their stakeholders, and the standards of the technical quality of services of programmes the PHEIs offer (Wendler, 2016). With regard to the latter, observations show that most QA systems in HE seem to focus on monitoring and regulating processes to ensure quality as a means of providing transparency and meaningful articulation between the standards and the outcomes; hence, this touches more critically on the implementation of programmes (Bradley, Noonan, Nugent & Scales, 2008). According to Oloo (2010), effective QA should focus on improving the quality of HE. QA in Botswana mostly ensures fidelity of implementation of processes and curricula rather than on how the institutions can improve the provision of HE. It is very difficult in Botswana to deviate from what would have been approved by the regulatory authorities and this negatively

affects curriculum implementation. For example, it takes between six months to a year for the regulatory authorities to approve change of courseware yet lecturers would be wanting to use current materials for teaching.

According to Kasozi (2014) PHEI regulation is important in ensuring quality delivery of HE in many countries including Botswana. There are two forms of QA; namely, internal and external QA and these interact with each other in a symbiotic process (Boateng, 2014).

3.2.1.1   Internal quality assurance

Internal quality assurance (IQA), also called internal regulation, "refers to the policies and processes implemented in an institution or its programmes to ensure that the institution is fulfilling its own purposes and meeting the standards that apply to HE in general and to the profession or discipline in particular" (Donina, Meoli & Paleari, 2015: 12). IQA is coordinated within the institution by an internal regulatory unit, usually a QA office within the university which makes sure that the externally imposed benchmarks (standards) are effectively implemented (Kasozi, 2014). As part of QA, the IQA office carries out internal audits in the institution targeting the following areas: Institutional governance, Faculty and departmental governance, quality of teaching and learning, the quality of teaching staff, sufficiency and quality of teaching/learning facilities, materials and equipment, research and publications, and other pertinent issues (Kasozi, 2014). In a highly regulated environment, the existence of such a quality assurance office manned by trained personnel on issues of QA is a precondition for successful accreditation of the institution and/or its programme in PHEIs in Botswana.

3.2.1.2   External quality assurance

External quality assurance (EQA), also called external regulation, "refers to the actions of an external body such as a QA agency other than the institution itself that assesses the institution's operations or the quality of its programmes in order to determine whether it is meeting the agreed or predetermined standards" (Boateng, 2014: 16). Banji (2011) defines EQA as the strict determination of processes which academics and

universities must observe (comply with) with respect to the organisation and implementation of their curricular and other activities. According to Boateng (2014), EQA is a regulatory mechanism exercised by the state or its regulatory agency, through traditional top-down authority by using directives that prescribe detailed academic and operational behaviours expected.

Carried out through the process of accreditation, EQA involves a self-study document (SSD), peer-review, and a clearly prescribed process of reporting (Banji, 2011; Leyton-Brown, 2004). In his study on the purposes of EQA, Aas (2007) found that the following are the main purposes of EQA: a) Ensuring and developing quality; b) Detecting good and bad quality; c) Putting in place a strong quality culture and; d) Acting as a basis for self-assessment and change (continuous improvement). From the purposes above therefore, it can be concluded that EQA promotes institutional quality improvement by giving third-party feedback on quality processes to the institutions, as well as enhancing and legitimizing internal quality management processes.

The process of EQA is similar to the process of IQA except that EQA is done by an external body. First, as part of QA, EQA defines and enforces regulatory frameworks in the following ways: Institutional accreditation, accreditation of individual academic programmes, ensuring merit-based admissions into HE, standardizing credit accumulation and transfer, ensuring quality of teaching staff for effective curriculum implementation, ensuring examination regulations conform with expected standards, standardization of academic awards, encouraging institutional research and publications, checking on the quality and adequacy of infrastructure, and regulating cross-border HE (Tertiary Education Council, 2013; Kasozi, 2014). As part of performing the QA responsibilities above, external government regulatory authorities carry out institutional audits to establish the extent to which the quality standards above are implemented by the institutions and propose areas of improvement where there is a need to (Levy 2013; Kasozi, 2014).

The section above discussed the concepts of quality and QA. It explained the process of quality assurance, and how it is is used as a tool for accreditation in PHE. The next section discusses the concepts curriculum, and curriculum implementation, specifically

targeting the historical development of the concept curriculum, conceptions of curriculum, approaches to and models of curriculum implementation, as well as factors that influence curriculum implementation.

3.2.2 The concept of curriculum

Studies of curriculum, from conceptual frameworks to actual practice, are not new (Wang, 2006). Despite that, coming up with a universally agreed definition of the term curriculum continues to prove an elusive task (Joskin, 2012) because the term curriculum is widely used by students, academics, institutional management and policy makers across different contexts (Fotheringham, et al., 2012). Some scholars believe that a curriculum was not deliberately developed to accomplish a clear set of educational purposes but evolved as a response to the increasing complexity of educational decision-making (Su, 2012).

The difficulty above in defining the term curriculum is also confirmed by Tabaundule (2014) who argues that one of the major challenges in the field of curriculum studies is assigning meaning to the term curriculum. This definitional challenge led authorities such as Kelly (2005: 5-6 in Tabaundule, 2014) to argue that the rallying point towards a universally agreed definition of curriculum could be in trying to locate a definition that "embraces at least four major curriculum dimensions namely, a) Educational planning and practice which describes the intentions of the curriculum planners; b) The procedures adopted for the implementation of those intentions; c) The actual experiences of the leaners resulting from the teachers' direct attempts to carry out the planners' intentions and; d) The hidden learnings that occur as a bi-product of the organisation of the curriculum and of the school". From the above dimensions, it can be observed therefore that a curriculum answers the usual 'whom', 'when' and 'how' questions (Brown, 2014).

According to Brown (2014: 4), the term curriculum can be understood in two ways. The first way is to interpret it as fact, practice, or social conflict "in terms of political power thus taking curriculum". The second approach to understanding curriculum is by analysing the nature of what is taught in schools thus taking curriculum as race, gender,

aesthetic, institutionalised or poststructuralist texts. These representations of curriculum therefore imply that the word curriculum means many things to many people as the following section shows. To therefore gain a deeper understanding of the word curriculum, the historical development of the concept is traced and discussed, with consideration being given to both the descriptive and prescriptive definitions of the concept.

3.2.2.1   Historical development and meaning of curriculum

The discourse on the nature and meaning of curriculum has been a subject of much contestation for a very long time, with a widely accepted or unanimously agreed definition of curriculum still to be found (Wang, 2006; Ourairat, 2011; Ofoha, et al., 2009; Wang, 2006). In earlier works of Smith Stanley, and Shores (1957 in Bloom, et al., 2006), curriculum was considered a sequence of potential experiences that is set up in the school for the purpose of disciplining children and youth in group ways of thinking and acting. Up to the period of Connelly & Clandinin (1988 in Bloom, et al., 2006), curriculum became regarded as a series of textbook topics or specific course outlines to be covered over a period of time.

However, as a concept, the word curriculum has its roots in the Latin word currere whose first meaning was 'a running', 'a race' or 'a course' and secondary meanings were a race-course or a career (Egan, 2003; Olibie, 2014), or courses to cover (Ornstein & Hunkins, 2014). Ofoha, et al. (2009) gave a more detailed description of the history of curriculum by indicating that the word curriculum originated from the Latin word currus which meant a race course or a chariot. The word currus evolved from the word currere which meant to run. Hence, the original meaning of curriculum was a course of study to be run or to be completed in an educational institution (Ofoha, et al., 2009). As a consequence of its historical meaning, the word curriculum initially assumed definitions that were too narrow, incomplete and simplistic such as that curriculum is a course of study or a plan for learning (Pratt, 1994), is subject matter to be covered by students (Tanner & Tanner, 1995), or is "all the learning of students which is planned and directed by the school to attain educational goals" (Taba, 1962 in Cincioglu, 2014: 27).

Beach and Reinhartz (1989) in another earlier definition viewed curriculum as a series of courses students take while Furniss (1999: 5) viewed curriculum "as a way of talking about what we want students to learn at school". In yet another traditional definition McGinn and Borden (1995: 1) described curriculum as that "which defines for teachers the skills and knowledge that students should learn". As summarised by Tanner and Tanner (1985), the traditional definitions above viewed curriculum as a plan or programme which the learner encounters under the direction of a school. On the other hand, Ellis (2004: 31) argues that curriculum is that "which a student is supposed to encounter, study, practice and master…what the student learns". These narrow understandings define curriculum as planned activities that are critical to the totality of student learning in schools which teachers in schools and lecturers in colleges and universities tend to use.

The current and widely accepted definitions of curriculum have their roots in the earlier thinking in Taba (1962) where curriculum was viewed in the context of experiences, an expression that captures the totality of what it is students go to school to do (Wang, 2006). According to Wang (2006: 3), curriculum "relates to: a) What students learn (syllabus); b) How teachers help students learn (pedagogy); c) Using supporting materials such as textbooks; d) Using methods of assessment such as testing; e) The kind of facilities such as classrooms, laboratories, workshops, sports fields and; f) Employing whatever means of assessment".

Wiles and Bondi (2007: 3) expanded on this contemporary understanding of curriculum when they define curriculum as "all the experiences that individual learners have in a programme of education whose purpose is to achieve broad goals and related objectives, which are planned in terms of a framework of theory and research or past or present professional practice". Taba's (1962) earlier thinking still remained narrow and limited in terms of it concentrating only on curriculum as planned school experiences leaving out the unplanned experiences (hidden curriculum). Pfeiffer (2018) defines hidden curriculum (implicit or unwritten curriculum) as aspects such as teacher-student relationship, classroom physical organisation, class room rules, routines and procedures that are strongly influenced by the teachers' attitudes and the schools' mission statement. Boutelier (2018) also defines the hidden curriculum as the lessons

that are taught informally, and usually unintentionally, in a school system and which include behaviors, perspectives, and attitudes that students pick up while they're at school.

The definition of curriculum has now evolved significantly. Marsh and Willis (2003) assert that a curriculum is an interrelated set of plans and experiences that a student undertakes under the guidance of the schools. The term 'plan' in the definition above implies predictability or pre-knowledge of what students learn, while the word experience in the same definition provides more breadth to the definition by including the curriculum that is enacted in and outside classrooms. The latter may be different from the planned curriculum in which teachers interpret the planned curriculum using their own beliefs and experiences as they interact with both the students and the curriculum materials (Chin & Poon, 2014; Fotheringham, et al., 2012).

The definition of curriculum by Fotheringham, et al. (2012: 63) will therefore be adopted in this study "as it is comprehensive and informative and reflects the changing conceptions of curriculum and also resolves the means-ends distinction, the curriculum-instruction distinction". This definition categorically states that curriculum is not static and stale knowledge but is dynamic and constantly evolving (Joskin, 2012; Chin & Poon, 2014). The definition of curriculum by Fotheringham, et al. (2012) also recognises changes that take place in learning in line with the changing needs and contexts of society. The new needs and changes in society therefore make it imperative for PHEIs to incorporate market and industry surveys and bench-marking against local, regional and international curricula during curriculum development.

A curriculum which encompasses students' experiences has the following characteristics:

a)   It comprises of learners for which the school is responsible;
b)   It has content;
c)   It is planned. Planning here imples that the learning of the curriculum cannot happen haphazardly);
d)   It has learner experiences that occur inside and outside the classroom; and,

e)   It involves a series of courses to be taken by learners (Chin & Poon, 2014; Chikumbu & Makamure, 2000; Sultana, 2008).

The inclusion of the term 'experiences' in some of the definitions above alludes to the fact that what students learn (experience) in school is "as a result of a complex web of interactions and transactions between the actors (teachers and students) in the classrooms and the physical environment, and between actors and the materials such as textbooks, as well as between actors and the values and social norms adopted by the different actors" (Chin & Poon, 2014: 19). Overall therefore, and based on the observations above, a curriculum can be viewed as a composite whole that has a focus on the learner, the teacher, teaching and learning materials and methodologies, anticipated and unanticipated experiences, as well as outputs and outcomes (Chin & Poon, 2014).

In further generating a broader understanding of the concept of curriculum in order to build a strong foundation of how it is implemented, different ways in which curriculum is understood and how such understandings or perspectives influence curriculum implementation, are discussed in the next section. Different perspectives of curriculum include curriculum as a product, as a programme of planned activities, as experience, as an agenda, as currere, as discrete tasks and concepts, as change, as intended learning outcomes, and as cultural reproduction (Abell & Lederman, 2007; Tabaundule, 2014; Brown, 2014; Cincioglu, 2014; Lunenburg, 2011).

i.   Curriculum as product, content or subject matter

The main proponent of the concept of curriculum as a product, content or subject matter is Tyler (1949). According to Tabaundule (2014), curriculum as product captures the idea of a school curriculum which, in most school systems, is shown through the presence of various documents that outline the different courses of study to be taught to students over a given period of time. This view of curriculum, which is also referred to as the academic rationalization view, focuses on content to be taught with emphasis being on fostering the intellectual growth of learners through the study of what is considered the worthiest subjects (Abell & Lederman, 2007; Mednick, 2006). The

documents referred to in this conception of curriculum are usually in the form of lists of core subjects or syllabuses for courses such as Mathematics, Science, English, and Social Studies, or simply lists of skills or competencies to be acquired. In many schools if you ask for a school curriculum you are most probably going to be told that it is these subjects and hardly that it is the totality of what students learn in schools. This is a major problem that has serious rammifications on how the curriculum is implemented. According to Mednick (2006), advocates of the curriculum as a product, content or subject matter conception believe that a curriculum should be developed according to a series of steps which range from needs analysis, formulation of objectives, selection of content, organisation of content, selection of teaching methods, to the determination of what to evaluate and how.

Teachers who hold the view of a curriculum as product tend to implement the curriculum in a manner that highlights content as the knowledge only the student should learn from school, and nothing else (Abell & Lederman, 2007; Tabaundule, 2014; Hamilton, 2014). Such teachers usually focus on the achievement of pre-specified teaching plans thus limiting the range of knowledge and skills the students should learn and exclude spontaneous learnings (Tabaundule, 2014). Furthermore, teachers holding this conception of curriculum usually implement the curriculum based on the belief that what is knowledge is that which is contained in official documents and hence should be all that students should be taught. They usually regard the Drill-and-Practice method as the most preferred method of implementing the curriculum.

ii.   Curriculum as programme of planned activities

The chief proponents of this conception are Saylor, Alexander and Lewis whose conception of a curriculum was paradoxically both a narrow and broad view. In a narrow sense, it limits our understanding of curriculum to planned activities only; proponents of this conception perceive a curriculum as a course of study (the Tylerian view) offered by the school either as core or elective and that is expressed in written official documents (Carl, 2012; Tabaundule, 2014). Teachers who perceive curriculum in this narrow view tend to implement it in line with what is only in the textbook with the intention of focusing students' attention on understanding abstract concepts for the purpose of mostly

passing examinations rather than for lifelong knowledge and skills (Tabaundule, 2014; Abell & Lederman, 2007; Carl, 2012). In the context of this narrow view, teachers likewise tend to use Drill-and-Practice approaches of implementing the curriculum (Abell & Lederman, 2007).

Unlike teachers who perceive curriculum as a course of study, proponents of curriculum as a programme of planned activities take a broader view by conceiving of curriculum as an incorporation of all aspects of learning that include what happens inside and outside the classroom. This view recognises that learning is not only classroom-based, but can take place anywhere (Tabaundule, 2014). When implementing a curriculum, teachers who hold such a broad view of curriculum tend to use more of learner-centered approaches that help students to explore knowledge beyond textbooks.

iii. Curriculum as intended learning outcomes

A curriculum as intended learning outcomes implies a curriculum as a set of learning objectives which focuses on what should be learned rather than on how it should be learned (Tabaundule, 2014). It is therefore observed that this conception of curriculum places emphasis on pre-specified knowledge, attitudes and behaviours and thus completely avoids unintended outcomes of student learning. While the major strength of this conception, according to Carl (2012) is that it provides scope of or focus on what students should learn, it has a huge weakness of limiting how students should learn. Teachers who have this conception of curriculum tend to be contrite on the achievement of planned objectives at the expense of unintended learning outcomes when implementing the curriculum (Abell & Lederman, 2007; Tabaundule, 2014). This then means that such teachers do not see the relevance of the hidden curriculum in learning.

iv. Curriculum as experiences of the learner

The main proponent of this conception of curriculum is John Dewey who argued on the primacy of the student when dealing with issues of the curriculum and its implementation. Dewey believed that the main focus of the curriculum should be on

students and how they learn and not on teachers and how they teach (Tabaundule, 2014). This conception depicts a humanist perspective of curriculum that advocates that the student is the focal point of all curricula (Abell & Lederman, 2007; Brown, 2014). By focusing on how learners respond to, engages with, or learn from the events, people, materials, and from the social or emotional environment of the school whether inside or outside the classroom, this conception raises the important point that student learning consists of both planned and unplanned learning experiences. In Botswana this is mostly true for private universities who offer their students a much broder curriculum than public universities. Teachers who believe in this conception of curriculum tend to use learner-centered approaches during the implementation of a curriculum as they treat the student as the focal point of all their teaching (Brown, 2014; Kridel, 2010). Learner-centered teaching approaches have always been viewd as being more engaging than the teacher-centered approaches thus motivating better performance by students. Students across learning levels enjoy teaching that puts all learning at the center of students where the teacher acts as the facilitator and guide.

v.   Curriculum as currere

The conception of curriculum as currere focuses on the personal growth of the learner (Anderson, 2004) whereby a curriculum is viewed as lived experience, that is, what students actually do until they complete a course. It is about running a race (Ofoha, et al., 2009), that is, the aim of curriculum under this perspective is to complete the course as planned. Teachers who are influenced by this conception of curriculum tend to prioritise teaching for the sake of completing the curriculum not necessarily for the sake of students understanding what they are learning. These are teachers who believe that all knowledge should come from the teacher and students are just a void to be filled with teacher-knowledge. Such teachers have a tendency to use teacher-centered teaching methods to ensure they move faster in their teaching to complete the curriculum (run the course) within the prescribed time (Lee, Zhang, Song & Huang, 2013). Drill-and-Practice is usually the preferred teaching approach by such teachers.

vi.   Curriculum as praxis or as an agenda for social restructuring

The praxis conception of curriculum is premised on a constructivist philosophy that has as its focus the finding and making of meaning of one's environment so that one becomes aware of the interaction between the enacted curriculum and the experienced curriculum (Glatthorn, 2005). According to Grundy (1987), the praxis (a form of social action) conception argues that curriculum is not just a set of plans to be implemented but rather constituted through an active process in which planning, critiquing, acting and evaluating are all reciprocal processes integrated into the overall curriculum implementation process. This conception therefore argues that a curriculum should be used as an instrument for transformation, and for building a just and better society (Tabaundule, 2014), and that, for a curriculum to be able to perform this role, it should be implemented in a manner that is able to encourage critical thinking among learners (Ornstein, Pajak & Ornstein, 2011).

The conception of curriculum and its role above dovetails with Brown's (2014) conception of the role of the curriculum, which is to reform or revolutionise society in order to bring about greater justice and benefits for all. This argument speaks to a social reconstructivist narrative or perspective which views a curriculum (Brown, 2014) as a tool for directing and assisting in social reform or change. This curriculum perspective therefore takes a curriculum as an act of engaging, applying, exercising, realizing and putting ideas into practice for the purpose of social reconstruction. Teachers who believe in this conception therefore tend to use learner-centered approaches when implementing the curriculum in order to maximuise participation by students in the implementation process and in critiquing the curriculum.

vii.   Curriculum as change

This conception of curriculum is motivated by the advent of more innovative ideas as well as advances in technology - both of which demand that curricular become more comprehensive, responsive and differentiated in nature (Glatthorn, 2005). In response to these demands, curriculum has now been framed to act as a change agent and this has resulted in periodic changes in curriculum content, teaching and learning

strategies, materials, knowledge, beliefs and attitudes of implementing teachers (Glatthorn, 2005). These changes mean that curriculum has become functional, diversified and operational in nature, with an increased emphasis on relevance, flexibility, and speed with which it responds to social change (Tabaundule, 2014). This conception of curriculum is viewed as relevant to this study. This study argues that the highly regulated environment in which PHEIs operate in Botswana demands that institutions always develop curricular materials that are responsive to the ever-changing social needs. Teachers who are influenced by this view of curriculum tend to employ learner-centered approaches when implementing the curriculum to enable students to effectively participate in their learning and to be part of the change.

viii.   Curriculum as discrete tasks and concepts

The curriculum as discrete tasks and concepts conception focuses on the behaviour, knowledge creation, skills acquisition, and appreciation of nature by students, and is informed by the skills development approach (Tabaundule, 2014). It is a conception of curriculum that shows knowledge as isolated concepts rather than as concepts connected together into one whole. It is therefore a conception that is viewed as a piecemeal conception whose focus is to help students to understand bits and pieces of information for examination purposes and not for lifelong knowledge and skills (Brown, 2014; Tabaundule, 2014). Teachers influenced by this conception tend to implement the curriculum using the Drill-and-Practice approach that depicts teacher-centeredness.

ix.   Curriculum as cultural reproduction

The cultural reproduction conception of curriculum is premised on the belief that a curriculum should reflect the culture of that society (Anyon, 2005). This means that all curriculum developers and implementers should ensure that the skills, knowledge and values reflected in the curriculum capture or reproduce the cultural heritage of society (Anyon, 2005). It is a conception meant to perpetuate the *status quo* through the catalytic role of the curriculum. Teachers influenced by this view of the curriculum tend to concentrate more on ensuring that the curriculum keeps things as they are in society. As a result, such teachers tend to use teacher-centered approaches when

implementing the curriculum in order to ensure that the attention of students is focused on what the teacher feels is the right content that leads to the furtherance of cultural values and heritage in society (Tabaundule, 2014).

3.2.3 The process of curriculum implementation

Curriculum implementation is one of the most critical elements of the curriculum process yet it is the most neglected (Yang, 2013). This section therefore discusses the meaning, process, strategies, and factors that influence effective curriculum implementation in order to build a strong argument on how the curriculum can be successfully implemented in PHEIs.

Curriculum implementation is still considered one of the most neglected components of the curriculum process (Yang, 2013; Jansen, 2009) and more often than not, is considered a problematic process for teachers because they find it to be too political, complex, contradictory and occasionally symbolic (Morris & Adamson, 2010). This characterisation is viewed as the reason why the process of curriculum implementation has for a long time been described as a blackbox (O'Sullivan, 2002), with a lack of congruence between curriculum intent and the actual practice being a major problem in the curriculum implementation process.

The major challenge in giving a precise definition of curriculum implementation lies in the historical meaning of the word implementation (Carson, 2009). The word implementation according to Carson (2009) comes from the Latin word *implere* which means to fill up. This meaning has resulted in an erroneous impression that curriculum implementation is therefore just filling up a knowledge or skills void that exists in the worlds of teachers and students (Carson, 2009). As a theoretical concept however, implementation is viewed as the carrying out of something or the practical application of a method, procedure, or desired purpose. It is a process viewed not as a finite process but rather as an iterative ongoing adaptive process in which changes in one aspect of the implementation process lead to changes in other related aspects (Yang, 2013; Cowie, Hipkins, Boyd, Bull, Keown, McGee, Cooper, Ferrier-Kerr, Hume, McKim, Moreland, Morrison, Bolstad, Spiller, Taylor & Yates 2009; Yin & Lee (2012). This is

also confirmed by Beacco, Byram, Cavalli, Coste, Cuenat, Goullier, & Panthier (2010) who argue that the whole process of curriculum implementation is both an iterative system and an interactive process.

Ornstein & Hunkins (2014) aver that the complexity of the curriculum implementation process derives from the fact that it is a process of putting into practice a new curriculum practice and checking what it looks like when actually implemented. Wiles and Bondi (2014: 17) also define curriculum implementation as referring to "how teachers deliver instruction and assessment through the use of specified resources provided in a curriculum". Since the aim of curriculum implementation is to make a difference to the learners, curriculum implementation is therefore a process of bringing about change and possibly improvement and this is not an easy task (Simão, 2008; Marsh, 2009; Ornstein and Hunkins, 2009).

3.2.4 Phases of curriculum implementation

Curriculum implementation is viewed as the incorporating and appraising of the curriculum which materialized from the construction and development process where incorporating is defined as putting the curriculum into practice (Beacco, et al., 2010; Ornstein and Hunkins, 2014; Rusman, 2015). Ornstein and Hunkins (2014) explain the process of curriculum implementation as composed of two phases namely, the preoperational and operational phases. These phases are characterised by support (human and material), change strategies, communication channels, staff development and instructional planning as the main curriculum implementation elements that work in an interactive system for the success of the curriculum implementation process (Rusman, 2015; Beacco, et al., 2010; Hamilton, 2014).

3.2.4.1   The pre-operational phase of curriculum implementation

The pre-operational phase of curriculum implementation begins with the sensitisation, mobilisation and orientation of all stakeholders to the curriculum (Nyagah, 2001). In this process, all the stakeholders who include the implementing staff, administrators, supervisors, parents and learners among others, are sensitized about the curriculum so

that they can develop a positive attitude toward it and support its implementation process (Ornstein & Hunkins (2014). According to Nyagah (2001), three main strategies for ensuring the buy-in of the curriculum and its implementation process are: a) Persuasion through the use of mass media, seminars, workshops, public lectures, and others, where positive aspects of the curriculum are articulated; b) Dissemination of curriculum information through personal contacts and the strategies mentioned in a) above, and; c) Staff development activities to empower the implementing staff with requisite skills and knowledge so that they can effectively implement the curriculum.

The second part of the pre-operational stage of curriculum implementation is the testing of the curriculum before wholesale use (Ornstein and Hunkins, 2014; Nyagah, 2001). The testing of the curriculum in a few selected institutions involves the following activities in the order given: a) Selection of a sample of institutions to be used in the pilot test; b) Training of curriculum implementing staff in the sample institutions so that they are able to implement the curriculum as planned; c) Preparation and distribution of pilot test materials to the sample institutions and; d) Monitoring and evaluation of the pilot testing process (Nyagah, 2001). The pilot testing stage is meant to establish the validity of the curriculum by answering the question whether the curriculum will do what it claims to do, and if it fails the validity test, whether it will be revised or rejected (Rusman, 2015; Hussain, Adeeb and Aslam, 2011). Pilot testing of the curriculum is therefore regarded as a form of formative evaluation meant to establish whether the curriculum units constituted by curriculum goals, objectives, activities, organisational techniques, teaching styles, assessment strategies, equipment and facilities will lead to the achievement of curriculum objectives or not and whether the curriculum will need to either be maintained as is, revised or rejected (Nyagah, 2001).

More specifically, the process of monitoring and evaluating the pilot test targets the following curriculum areas:

1)   The distribution of curriculum materials to establish whether the distribution was done efficiently and if not, what the bottle necks were;

2)   Topic coverage and sequencing, that is, whether topics were appropriately sequenced and adequately covered by the implementing staff;

3)   Levels of skill and knowledge of the implementing staff, that is, to establish whether the teachers who are supposed to be teaching the curriculum once it is rolled out have enough capacity to effectively teach the curriculum;

4)   Appropriateness of materials, that is, whether the learning materials such as textbooks and the content in these books and other related materials is appropriate for the levels of the students, and;

5)   Teacher preparation needed for effective implementation, that is, whether implementing staff need further training for them to be able to successfully implement the curriculum (Nyagah, 2001).

The whole process of pilot testing is therefore meant to ensure:

1)   Relevance and feasibility of the curriculum before it is launched in all institutions;

2)   That the staff implementing the curriculum have capacity;

3)   There are adequate materials and a budget to support the implementation process; and,

4)   Procedures for evaluation and maintenance of the curriculum are available and appropriate.

3.2.4.2   The operational phase of curriculum implementation

The operational phase of the curriculum implementation process involves the actual implementation and management of the curriculum implementation process in all schools. This operational stage, according to Nyagah (2001), specifically involves the following implementation activities: a) Distribution of curriculum syllabus to all schools; b) Distribution of curriculum materials such as textbooks, audio-visuals and computers to all schools and ensuring the availability of curriculum facilities such as classrooms, laboratories and rooms for workshops at all implementing institutions; c) Having plans for providing continuous staff professional development through refresher courses to all implementing staff, supervisors and administrators to ensure that they are kept abreast of curriculum implementation best practices. Training will also ensure that the teachers are capacitated with current curriculum knowledge and implementation skills as this will

help ensure that their levels of motivation and confidence are maintained, and; d) Operationalizing the curriculum or teaching the curriculum in all the schools (Ornstein & Hunkins, 2009).

3.2.5 Curriculum implementation as a process of change

Curriculum implementation is a process of change. According to Fullan (2002) and DuFour (2002), curriculum implementation can be conceptualised as a change process that entails three possible types of objective changes namely changes in materials, changes in practice; and changes in values and/or belief systems of implementing staff, the learner and the institution. This conception of curriculum implementation as a change process links very well with the conception of curriculum implementation given by Carson (2009) who argues that curriculum implementation may be described as the initiation of a necessary dialogue that must take place between the familiarity of old ways of teaching and the strangeness of new ways of teaching. This view therefore takes curriculum implementation as a process of moving from old ways of translating it into the practice of new ways.

Koskei (2015) avers that curriculum implementation is a process in which the educator, the learner and the educational institutions have to change the way they do things in order to make curriculum implementation a successful process. Koskei's (2015) thinking aligns with earlier works of Fullan (2001) who opined that implementation consists of: a) Using new materials; b) Engaging in new behaviors and practices and; c) Incorporating new beliefs or dealing with change. Curriculum implementation is hence viewed as a change process or a process of translating theory into practice (Hall & Hord, 2011; Olofu, 2003; Sinnema, 2010; Makaye, 2014; Ofoha, et al., 2009).

Effective curriculum implementation can therefore be defined is several ways. It is defined as a process that develops knowledge, skills and ways of thinking in students, is research-based, interactive and uses various groupings, uses effective classroom management strategies, and regularly keeps track of students learning progress (Hoover, 2016; 2005). Organisation for International Co-operation and Development (OECD, 2009) define effective curriculum implementation as the creating of supportive

classroom climate, providing students with learning opportunities, enhancing learner creativity and innovativeness, as well as promoting coherent presentation. Kisirkoi and Mse (2016) also define effective curriculum implementation as a process that includes providing learners with opportunities for thoughtful discourse, practice and application through the use of learner-centered approaches. Polikoff & Porter (2014) seem to give a summary of the above definitions of effective curriculum implementing by suggesting that effective curriculum implementation is an interactive process that seeks to develop not only knowledge in the learners but skills such as creativitivity, innovativeness, critical thinking, problem-solving and collaboration among others. Effective curriculum implementation therefore is a process of implementing curriculum in a manner that consistently support student growth in terms of both knowledge and skills.

Alonsabe (2009) argues that as a change process, curriculum implementation does not only focus on changes to the actual use of the curriculum but also to the attitudes and beliefs of the implementers. This according to Ofoha, et al. (2009), therefore, means that curriculum implementation consists of: a) Using new materials; b) Engaging in new teaching behaviours and practices; and c) Incorporating new belief systems about teaching and learning. This conception of curriculum implementation as change is also captured by Cobanoglu (2011) who observes that the process of curriculum implementation entails a change of practice in the following five curriculum domains: materials, curriculum structure, role and behaviour of implementing staff, knowledge and understanding of implementing staff, as well as their value internalisation.

To further support the fact that curriculum implementation is a change process, Bennett (2007) argues that effective curriculum implementation is based on shared decision-making and requires a shift or change in thinking, beliefs about knowledge, beliefs about teaching as well as beliefs about how students learn. Bennett's (2007) argument connects well with Hussain's, et al. (2011) definition of curriculum implementation as the continuous restructuring of educational programmes that includes adjusting personal habits, existing behaviours, course emphasis, existing schedules, and learning spaces. Such changes according to Hussain, et al. (2011) imply that implementing staff undergo intensive in-service training to ensure that they are competent enough to deal with the new demands of the curriculum being implemented.

Davis (2011) also underscores the fact that as a dynamic process, curriculum implementation relates to continuous specification and redefinition of the essential characteristics of an innovation by developers and implementers during both the planning and implementation phases. By continuously redefining essential characteristics of an innovation (curriculum in this case), this conception of curriculum implementation entails seeking improvement or change.

Besides involving changes in the attitudes and actions of both implementers and learners, curriculum implementation as a change process, also involves changes to the nature of interactions between school management, teachers, students, and all involved in the curriculum implementation process (Ornstein and Hunkins, 2014; Syomwene, 2013). This suggests that curriculum implementation should be undertaken holistically or involve all stakeholders. This assertion shows that curriculum implementation involves change at a number of different levels; namely, the organisation, materials, role and behaviour of the implementing staff, as well as their knowledge and beliefs (Fullan, 2002; 2007; Govender, 2013; Kelly, 2009; Carl, 2012).

In providing a more comprehensive view of curriculum implementation as a process of change, Ornstein and Hunkins (2013) aver that successful curriculum implementation a) involves educators shifting from traditional curriculum implementation practices to new practices, b) involves changes in knowledge, behaviour, attitudes of people, c) can be viewed as a professional development, continuous support and growth process that involves ongoing interactions, feedback and assistance, d) is a process of clarification and re-clarification that requires teachers, institutional management, and all stakeholders to the curriculum implementation process to change their attitudes, beliefs and behaviours in line with the demands of the curriculum implementation process, and e) involves change which calls for improved effort and occasionally results in stress and anxiety - both of which can be reduced to manageable levels by ensuring that the curriculum implementation process is broken down into manageable units so that implementers are able to achieve success as often as possible.

Zhong (2006) also highlights the concept of curriculum implementation as a change process by referring to it as a process of educational praxis, teachers' action research,

and teachers' professional development. Educational praxis has its roots in the work of Pualo Freire who argued that through praxis (reflection and action), people can acquire a critical awareness of their own condition and with other like-minded people, change that condition (Zhong, 2006; Olukayode, 2012).

3.2.6 Strategies of curriculum implementation

How the curriculum is implemented in institutions of learning is viewed as a complex process that varies significantly from institution to institution (Marsh & Willis, 2007). This is so because in one institution, implementing staff may prefer to make none or a few adjustments to the original curriculum during implementation (fidelity of implementation) while others may choose to make significant modifications (mutual adaptations) in line with contextual realities of where the curriculum is being implemented. Others still may choose to create their own curriculum based on their experiences and background knowledge (curriculum enactment) (Wiles & Bondi, 2014; Phillips, Ingrole, Burris, & Tabulda, 2017; Vold, 2017). A large body of literature shows that teachers implement the curriculum using these different strategies leading to variations in educational experiences students go through in schools (Gichobi, 2008; Gujarati, 2011; Wiles & Bondi, 2014). Decisions about the type and amount of planning, who should be involved and to what extent, help to define the nature of curriculum implementation strategies that are chosen for use to implement the curriculum (Penuel, Ferguson, Singleton, Shea, Borelli, & Korbak, 2008). Studies by Kim & Atanga (2013) and Davis (2014) also show that decisions to use any of the curriculum implementation strategies, that is, decisions on whether to use, modify, or omit certain parts of the curriculum have a significant effect on the success of the curriculum implementation process.

The three strategies for implementing curriculum; namely fidelity of implementation, mutual adaptation and curriculum enactment have been dominating curriculum implementation for some time with the fidelity being the most popularly used (Hall & Hord, 2015; Causarano, 2015). The discourse on the curriculum and curriculum implementation, has over the last three to four decades been characterised by the use of these three curriculum implementation strategies (Hall & Hord, 2015). Kim and Atanga (2013) argue though that there is no one right approach or strategy to

implementing curriculum as implementing staff can, depending on the situation, choose to use any of the three strategies to implement a curriculum at their institution.

For us to gain a deeper understanding of the strategies of implementing the curriculum and how they apply, Guba and Lincoln (2005) argue that it is important that a connection between these strategies and paradigms; namely positivism, postpositivism, and constructivism (as shown in Table 3.1), be established. Table 3.1 shows that indicators that include ontology, epistemology and methodology are used as the basis for indicating the basic assumptions of the three curriculum implementation strategies namely fidelity, mutual adaptation, and curriculum enactment (Guba & Lincoln, 1994; 2005).

Table 3.1: Curriculum implementation paradigms (Guba & Lincoln, 1994:109)

Paradigms	Positivism	Postpositivism	Constructivism
Perspectives/ strategies	Fidelity	Mutual Adaptation	Enactment
Ontology	Pure reflection	Negotiation/grounded	Local realities
Epistemology	Objectivist	Modified dualism	Subjective/ created
Methodology	Evaluation-based	Variation-based	Emancipatory participation
Types of approaches	Technological (Fullan, 1977) Programmed (Berman, 1981) RD&D (Posner, 1994) Implementation (Sowell, 1996)	Process (Fullan et al., 1977) Transactional (Miller, et al., 1985) Collaborative (Posner, 1994)	Freirian discourse (Freire, 1970)

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Table 3.1 helps in further articulating and clarifying how the curriculum is implemented in line with the three curriculum implementation strategies. For effective curriculum implementation using each of the three strategies, Table 3.1 shows that there are some assumptions and approaches which the implementation process needs to satisfy for the implementation process to be considered successful. How the assumptions are taken into consideration and which approaches are used in each of the three different curriculum implementation strategies, are discussed in the sections that follow.

3.2.6.1   Fidelity strategy

The idea of curriculum fidelity or fidelity of curriculum implementation has been a subject of debate since the 1970s-80s with a number of studies indicating that it is a useful strategy for determining and explaining whether a curriculum is successfully implemented or not (Bümen, Çakarb & Yildizc, 2014; Hall, 2015; Levi-Keren & Patkin, 2016; McShane & Eden, 2015; Stellar, 2016). Three major assumptions of curriculum fidelity include curriculum knowledge, the change process or the role of the teacher. First, according to Koo (2009), curriculum knowledge is created by external curriculum developers and that makes curriculum implementation objective. Second, change is a linear and rational process, and hence there cannot be alternative ways of implementing it. Third, the teacher's role is to implement the change faithfully as planned.

Earlier approaches to curriculum making and implementation according to Sultana (2008) and Houghton Mifflin Harcourt (2017) were underpinned by assumptions that the process of curriculum implementation was both rational and linear and hence technological or programmed (see Table 3.1). This meant that curriculum makers identified problems or needs, articulated goals, developed a curriculum, and then devised an implementation strategy to be applied faithfully; hence the advent of implementation fidelity (Causarano, 2015; Sultana, 2008; Yurdakul, 2015; Davis, 2014). The fidelity of implementation strategy has its roots in behaviourism and positivism (see Table 3.1). Positivism is based on behaviourism which distinguishes facts from values and detaches the implementer from the implemented - meaning that it is objective (Davis, 2014).

The fidelity perspective, which is also referred to as a static and idealized strategy of curriculum implementation, focuses on the extent to which an innovation is implemented, in line with the intentions of the people who developed it (McNeill, Katsh-Singer, Gonzalez-Howard, & Lopez, 2016; Gujarati, 2011; Ahmed Hersi, Horan & Lewis, 2016; Causarano, 2015). Curriculum implementation is regarded as objective in this strategy because it takes place as planned originally (US Department of Education (USDOE), 2017; Ahmed Hersi, et al., 2016; Yurdakul, 2015). The success of curriculum implementation is evaluated on the basis of whether it is evaluation based or there was deviation from the norm (see Table 3.1).

The fidelity approach is mostly used to implement the curriculum in centralised education systems (Castro Superfine, Marshall, & Kelso, 2015). This programmed or linear approach to the implementation of an innovation is part of the curriculum process that begins, as shown in Figure 3.1, at the initiation stage and ends at the routinisation stage. Figure 3.1 shows three sub-processes in which a curriculum can be implemented and these according to Fullan and Steigelbauer (1991) are the initiation, implementation and continuation processes. Initiation is referred to as the stage that eventually leads up to and ends with a decision to adopt a curriculum (innovation) for implementation. It is also a stage referred to as the mobilisation or adoption stage.
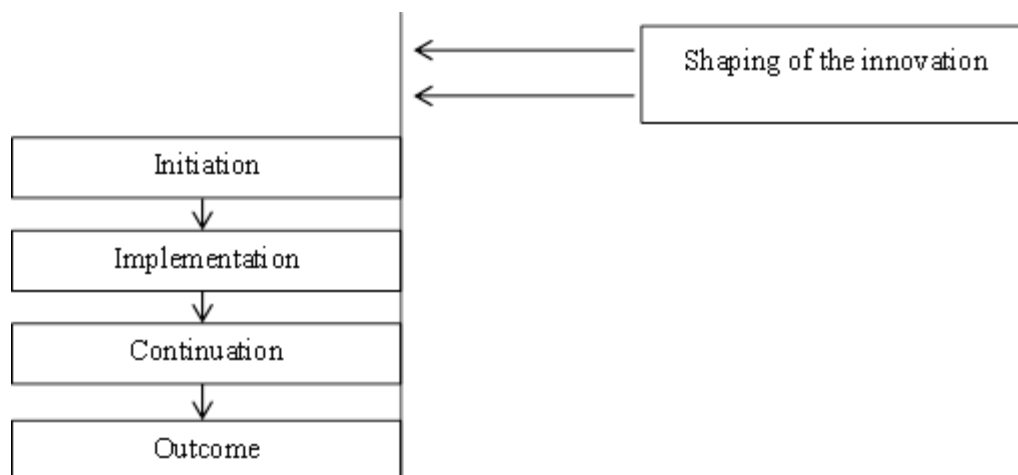
Figure 3.1: The programmed (fidelity) approach (Fullan & Steigelbauer, 1991: 110)

Once an innovation or a curriculum has been adopted it is implemented in the next stage of the programmed approach. This implementation stage or the actual use stage of a curriculum requires extra support in the form of in-service training of staff and more teaching materials. The third stage is the continuation stage which relates to making the implementation process part of everyday routines in the organisation (Fullan & Steigelbauer, 1991). The continuation stage is referred as the mature use stage whereby implementation becomes part and parcel of everyday practice in the organisation.

As mentioned above, the fidelity strategy of curriculum implementation is premised on the belief that what matters most in the curriculum implementation process is faithful implementation. It is therefore a strategy that aims at resolving the curriculum implementation problems by targeting flows in the specifications of the curriculum that may affect its effective implementation (Battey, Neal, Leyva & Adams-Wiggins, 2016). The strategy also addresses failure to articulate the curriculum's implications for the implementing staff's behaviour, and theoretical inadequacies in the identified strategies for achieving the intended outcomes of a curriculum (Altrichter, 2005; Gujarati, 2011).

In order to identify challenges to effective curriculum implementation as well as identify those factors that facilitate faithful implementation, the fidelity strategy which describes the concerns of users (Table 3.2) and level of use (LoU) (Table 3.3) of the curriculum (Derrington & Campbell, 2015; Al-Shabatat, 2014) needs to be looked at. The LoU was developed based on the Concerns-Based Adoption Model (CBAM). The model sought to describe the concerns of the people (Table 3.2) when implementing an innovation (Hall & Hord, 2015). The CBAM draws from the fidelity perspective of curriculum implementation and describes individuals' perceptions, feelings and motivations as they progress through different stages of curriculum implementation (Lambert, Velez, & Elliot, 2014; Lochner et al., 2015). It is both a prescriptive and descriptive model that was developed by Hall and Loucks (1978) in the 1970s and whose main aims were to understand the implementing lecturers' concerns when implementing an externally motivated top-down innovation, as well as to describe the behaviours of lecturers during the implementation of an innovation such as in this case, a curriculum (Bagby, 2007; Grundy & Berger, 2016; Hall, 2015).

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The major assumptions of the CBAM, according to Hall and Hord (2015) and also according to Grundy and Berger (2016), are that change is a process, and not an event. Hence, curriculum implementation is a process of change too. Change is carried out by individuals and is a highly personal experience. Lecturer change is a developmental process that occurs in stages and involves growth in knowledge, skills, and attitudes (Wiles & Bondi, 2014). In other words, as lecturers implement the curriculum, they begin to grow and change in terms of knowledge of curriculum, skills for implementing the curriculum and also attitude and behaviour toward the curriculum. Individuals implementing the change must change before the institutions or the institutional systems change, and the result of a successful implementation of an innovation requires changes in the classroom practices of individual lecturers. As a result of the assumptions above, the CBAM is viewed as a model that looks at how individuals respond to curriculum implementation as a change process over time (see Table 3.2).

Table 3.2: Stages of concern (Hall & Hord, 2015: 36)

Stage of concern		Expression of concern by implementer
Impact concerns	6 Refocusing	The user has some idea about an approach that would work even better
	5 Collaboration	The user is concerned about relating what he/she is doing with what co-workers are doing.
	4 Consequence	The user wants to know how the use of the innovation would affect the clients/students.
Task concerns	3 Management	The user is spending too much time getting materials ready for use in the innovation.
Self-concerns	2 Personal	The user wants to know how use of the innovation will affect him/her.
	1 Informational	The user seeks to know more about the innovation.
Unrelated concerns	0 Awareness	The user is not concerned about the innovation.

Lecturer concerns in Table 3.2 relate to individual perceptions, feelings, motivations, frustrations, and satisfactions, depending on the situation of the lecturers as they progress through different stages of the implementation process (USDOE, 2017); Bümen, et al., 2014; Houghton Mifflin Harcourt, 2017). The implications of the stages of concern (SoC) to curriculum implementation are as follows (Cobanoglu & Capa-Aydin, 2015; Levi-Keren & Patkin, 2016; Hall & Hord, 2011):

a)   Managers of implementing lecturers need to be aware that lecturers always have concerns regarding any curriculum to be implemented and these concerns need to be understood and appreciated if the right kind of support is to be given to the lecturers;

b)   At the beginning of a curriculum implementation, most lecturers, especially experienced ones, become concerned about their future. Therefore, managers should give as much support to the inexperienced lecturers as they would give to the experienced teachers at the beginning of curriculum implementation and;

c)   Support given to implementing teachers should be aligned to their different levels of concern if the lecturers are to effectively and successfully engage in curriculum implementation (Hall and Hord 2015; Mulford, 2005 in Koo, 2009. Having identified lecturers' levels of concern as given in the CBAM, supervisors of the implementing staff will then be able to understand and be aware of lecturers' levels of use (LoU) of the innovation (curriculum) (see Table 3.3).

Table 3.3: Levels of Use (Hord, Rutherford, Huling-Austin & Hall, 1987: 3)

Level of use	Behavioural indicators of level of use
7 Renewal/Refocusing	The user is seeking more effective alternatives to the established use of the innovation.
6 Integration	The user is making deliberate efforts to coordinate with others in using the innovation.
5 Refinement	The user is making changes to increase outcomes of the innovation.
4 Routine Use	The user is making few or no changes and has established a pattern of use of the innovation.
3 Mechanical	The user is making changes to better organise the use of the innovation.
2 Preparation	The user has definite plans to begin using the innovation.
1 Orientation	The user is taking the initiative to learn more about the innovation and understand it.
0 Non-use	The user has neither interest nor intention of implementing the innovation, is taking no action.

According to Hall and Loucks (2006 in Koo, 2009), the LoU framework (Table 3.3) identifies elements of an innovation and defines the degree or level of implementation that should be adopted for each particular innovation. This framework is based on the understanding that variations in the implementation of an innovation by different people can be behaviourally explained and systematically accounted for. While it can be argued that the framework does not explain causality, that is, causes of either the use or non-use of an innovation, it does seek to define operationally, various stages of innovation implementation (curriculum implementation in the context of this study) (Hall, Loucks, Rutherford & Newlove, 1975 in Koo, 2009). Table 3.3 shows that the extent to which an innovation such as a curriculum is implemented ranges from non-implementation where the implementing staff has neither enthusiasm nor interest/intention to implement it, to full and active implementation where the

implementing staff is highly motivated and creative and always seeks better ways to implement the curriculum.

3.2.6.2   Mutual adaptation strategy

The mutual adaptation strategy of curriculum implementation or the evolutionary adaptive approach accepts that the curriculum can be modified during the course of implementation (Gichobi, 2008; Davis, 2014). This strategy is premised on the understanding that curriculum implementation is an ongoing process which allows the curriculum to be continuously adapted during implementation, and to align with contextual realities for it to be successfully implemented. This strategy is rooted in post-positivism (Table 3.1) which deals with complexity in the curriculum content. The mutual adaptation strategy argues against over-specification and a lack of flexibility in the implementation process (Table 3.1). It proposes that some form of modified dualism in the curriculum implementation process, in line with institutional settings, is necessary for successful implementation to take place (Denzin & Lincoln, 2005).

In modified dualism the curriculum implementer is responsible for effectively transforming the curriculum and matching it with the context (Guba & Lincoln, 2005). In other words, in modified dualism the curriculum changes and fits into the context in which it is implemented, and the curriculum user becomes able to implement the modified curriculum. These changes lead to a socially and politically negotiated outcome (Table 3.1) where the curriculum users perform curriculum modifications, but, at the same time, keep the original curriculum as original as possible (Guba & Lincoln, 2005). Contextualising curriculum implementation is viewed in this strategy as a sure way of reducing the gap between theory and practice. Hall and Hord (2007) argue that successful implementation of a curriculum depends on the trade-offs within the local context in which multiple values are embedded.

The mutual adaptation strategy is characterised by a middle-up dynamic that requires the external authorities (curriculum developers) to allow for curriculum modifications during curriculum implementation in the classroom (Grundy & Berger, 2016). As a polarity to the fidelity perspective, the mutual adaptation strategy of curriculum

implementation was borne out of the realisation that the presumed rationality and linearity of the curriculum implementation process as proposed by the fidelity strategy, was not effective in ensuring successful curriculum implementation as it did not take into consideration local implementation contexts as well as the active involvement of staff in the implementation process (Sultana, 2008; Kim & Atanga, 2014; Govender, 2013). The major argument of the mutual adaptation strategy therefore is that the precise nature of the curriculum implementation process cannot and should not be pre-specified but should instead evolve as users decide what is best and most appropriate for effective implementation of an innovation in a particular institutional context.

Fullan and Steigelbauer (1991 in Wang, 2006: 16) also aver that the mutual adaptation strategy rejects as "conceptually unsound, socially unacceptable, and empirically impossible, the notion that innovation implementation problems can be solved by programming implementing staff through detailed elaborations of the desired practice and step-by-step specifications of the implementation process" as demanded by the fidelity strategy. According to Sultana (2008), the curriculum implementation process is not a linear, scientific and rational process but rather a ramshackle compromise, messy, do-it-yourself, hit-and-miss affair in which the curriculum is reworked, and tinkered with local or contextual realities. According to Fullan (1991 in Koo 2009), when using the mutual adaptation strategy to implement the curriculum, the exact nature of the implementation process cannot be pre-specified but instead should be allowed to evolve as different implementers make their own different decisions about what is best and most appropriate for effectively implementing the curriculum for the situation leading to variations in the way the curriculum is implemented. Hence, mutual adaptation is variation-based (Table 3.1).

The understandings of mutual adaptation as an alternative curriculum implementation strategy dovetail with the view of curriculum implementation given by Cowie, et al. (2009) who argue that curriculum implementation is an iterative cycle of trialing, reflection and generation of new possibilities to ensure effective implementation. Altrichter (2005) also argues that curriculum implementation is an ongoing process that allows the curriculum to be continuously adjusted to ensure that it is adapted to specific

institutional contexts right from the moment it is adopted at initiation stage, all the way through the implementation and institutionalisation phases (see Figure 3.2).
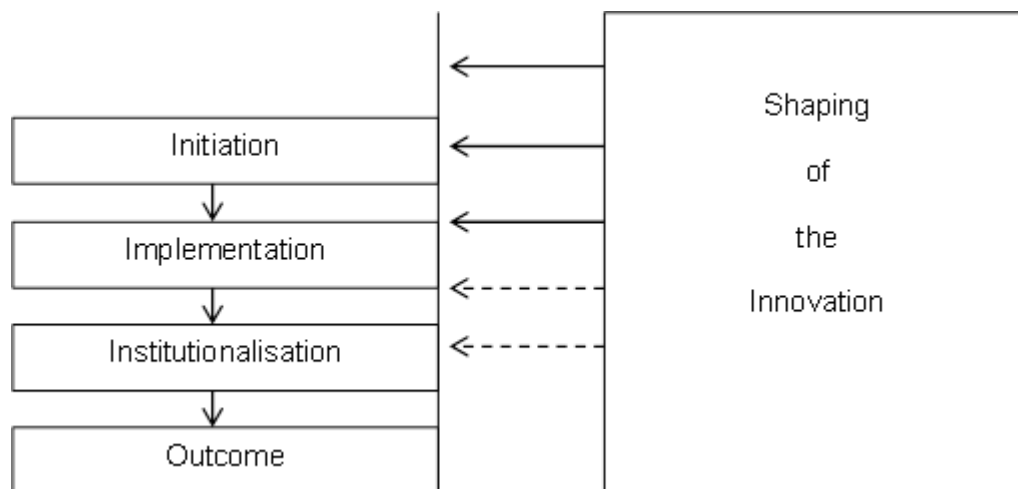
Figure 3.2: Evolutionary adaptive approach (Altrichter,2005: 4)

Figure 3.2 shows that the mutual adaptation strategy or evolutionary adaptive process of curriculum implementation, just like the programmed (fidelity) approach, begins with the decision to adopt a curriculum (Altrichter, 2005). Once a curriculum has been adopted for implementation, it is thereafter put to actual use and then follows the difference between the fidelity approach and the evolutionary adaptive approach or mutual adaptation). While the fidelity approach argues that a curriculum can only be successfully implemented if it is implemented as originally intended by the curriculum developers, the evolutionary adaptive approach shows that a curriculum can be modified (shaping of the innovation, see Figure 3.3) during the course of its implementation for it to be effectively implemented (Altrichter, 2005). Altrichter (2005) asserts that the evolutionary adaptive approach as a curriculum implementation strategy invites implementing staff to participate actively in the curriculum implementation process by modifying the curriculum to suit the contextual situation in which it is implemented. This approach is viewed as a prime opportunity for the internalisation of the main characteristics of an innovation by the implementing staff since the staff are directly involved with the curriculum.

This is also confirmed by Altrichter (2005) who argues that modifying the curriculum during implementation has the advantage of allowing more active interaction between

the implementing staff and the curriculum, thus enabling the staff to have a better understanding of the curriculum. Altrichter's arguments are also supported by Fullan and Steigelbauer (1991 in Wang, 2006) who assert that the mutual adaptation strategy of curriculum implementation invites negotiation and transaction where implementation is viewed as a negotiated process (see Table 3.1). The aim of such a negotiated process is to stimulate the active use of practical situational knowledge for modifying and implementing the original innovation by the implementing staff, in line with the demands and resource needs of a specific institutional context.

Fullan (2007) also argues that effective curriculum implementation is not only about adjusting or modifying the curriculum content. It is also about the implementers having an understanding of the purpose of the curriculum, their roles and the consequences of the implementation process. Most importantly they also need to understand how these roles should be changed to be in line with the demands of the adaptive implementation approach. This argument therefore means that the mutual adaptation strategy of curriculum implementation should include the modification of knowledge, needs, interests and skills of users as well as the methods for implementing the curriculum (Fullan, 1991 in Koo, 2009; Davis, 2014; Gujarati, 2011).

The Mutual adaptation strategy assumes that reality, with regard to curriculum implementation, is preoccupied with challenges and competing interests that should be overcome before the implementation can take place. In other words, serious planning and local flexibility are necessary for successful curriculum implementation (Snyder, Bolin & Zumwalt, 1992 in Koo, 2009). The curriculum implementation ontology (Table 3.1) of mutual adaptation strategy is also indicative of the fact that curriculum implementation is both a socially and politically negotiated process in which the implementing staff are required to respect the authority of the curriculum developers during the modification of the curriculum. In addition, the curriculum developer is expected to understand that the curriculum once developed may have to be adjusted to suit the realities of the implementation contexts for it to be effectively implemented (Snyder, et al., 1992 in Koo, 2009). This therefore suggests that the need for collective, ongoing and collaborative decision-making (Table 3.1) between stakeholders to ensure that the curriculum modifications do not get out of control. This would avoid what

Snyder, et al. (1992) called the contamination of the programme goals and design; or what Roitinan and Mayer (1982) called going beyond the zones of drastic modification, beyond which the curriculum loses its integrity.

The main criticism of the Mutual Adaptation strategy though is that it allows for variations/adjustments in the curriculum during implementation; shifts or changes the evaluation criteria; and makes the evaluation of the success of the curriculum implementation process difficult to measure among the resultant variants (Schön, 1983 in Govender, 2013).

3.2.6.3   Curriculum enactment strategy

The curriculum enactment strategy is rooted in constructivism theory (Table 3.1) which asserts that educational experiences in the classrooms are shaped by the evolving constructs or the sense-making by the teacher and students (Altrichter, 2005). The meta-theoretical constructivism paradigm is based on the notion that knowledge is a set of beliefs or mental models that people use to interpret or make sense of events and actions in the world (Altrichter, 2005). Underpinned by the constructivist paradigm (Table 3.1), the curriculum enactment strategy views knowledge as temporary, developmental, socially constructed and non-objective (Ignacio, 2009; Fosnot, 1993). The proponents of this strategy argue that teachers and students experience the curriculum during its enactment or implementation (Snyder, et al., 1992 in Koo, 2009). In other words, the curriculum is shaped by the evolving constructs and by interactions of teachers and students in the classrooms. Curriculum implementation using this strategy, is, therefore, regarded as a dynamic and sense-making exercise.

Curriculum enactment takes curriculum materials and strategies as tools for constructing the enacted experience or the curriculum in the classroom (Snyder, et al., 1992 in Koo, 2009). It is, thus, a strategy that takes the teacher as a learner and member of the classroom community whose role is to facilitate critical thinking and learning. Teachers and students are taken as actors rather than mere describers of events as they construct ideas and make sense of the curriculum in the classroom

(Jackson & Klobas, 2008; Karagiorgi & Symeou, 2005). Gundy and Berger (2016: 5) aver that the curriculum enactment strategy "is driven by an internally-imposed bottom-up dynamic with increased teacher decision making" on what curriculum material will be implemented as well as how it will be implemented in the classroom. Thisimplies that the curriculum enactment strategy views knowledge as temporary, developmental, socially and culturally mediated, and non-objective (Ignacio, 2009; Fosnot, 1993). It focuses on currently evolving meaning construction within the classroom irrespective of level of curriculum prescription (Fosnot, 1993 in Koo, 2009), and results in what students actually learn (learned curriculum) in the classroom.

Curriculum enactment is also viewed as an implementation strategy in which teachers and students use curriculum materials as tools for constructing their own curriculum in the classroom (Ottevanger, 2001). This definition is also corroborated by Grundy & Berger (2016), who argue that curriculum or knowledge is internally constructed in the classroom as a result of interaction between or among the users, the curriculum and the institution rather than being externally constructed by external curriculum developers. This strategy therefore views a curriculum not as an external imposition in the form of curriculum documents from curriculum makers but rather as a process reconstructed by the teachers and students expressed as the experienced curriculum (Grundy & Berger, 2016). Grundy & Berger (2016) remark that the curriculum enactment strategy hence emphasises the method of knowledge construction by the teachers and their students as they jointly bring their individual background knowledge and experiences to the classroom. In other words, curriculum enactment explains how teachers and students make sense of the official curriculum through the mediation of past knowledge and experience.

According to Snyder, et al. (1992 in Koo, 2009), the curriculum enactment strategy regards curriculum knowledge as a personal construct which must reflect personal and external standards, and that the teacher is a curriculum developer who grows and becomes more competent with their students in developing positive educational experiences in the classroom.

3.2.7 Factors influencing curriculum implementation

Curriculum implementation in HE and PHEIs is influenced by a number of factors (Otaala, Maani & Bakaira, 2013; Polikoff & Porter, 2014). These factors relate to decision making by policy makers, institutional leadership and implementing staff about the implementation model or plan, the context in which the implementation takes place, as well as the strategies for the implementation of the curriculum (Luo, 2016).

The context in which the curriculum implementation takes place is in most cases different from one PHEI to another and hence a one-size-fits-all policy of curriculum implementation cannot help in ensuring the success of the implementation process (Luo, 2016). Institutional context or environment for example, consists of two components namely school ecology and school culture (Boyd, 1992 in McGee III, 2006). School ecology relates to the availability of resources, the school physical infrastructure, students and teacher demographics, and local and national educational policies (McGee III, 2006). School culture relates to less tangible elements such as systems of relationships, shared norms, interactions, communication systems, shared values and beliefs (Boyd, 1992 in McGee III, 2006). External context also relates "to central legislation and regulation; system of policy formation and decision making; time, resources and facilities made available to institutions; and attitudes of politicians and other opinion leaders towards the curriculum" (Bouck, 2008: 11). All these environmental factors, in their own individual and/or collective way, play a vital part in the success of curriculum implementation (Phillips, Ingrole, Burris, & Tabulda, 2017;).

According to McGee III (2006), the two contexts above as well as the characteristics of the curriculum need therefore to be given adequate consideration before an implementation strategy or model can be prescribed. For a curriculum to be activated and effectively supported, a conducive external (macro) context and an institutional (micro) context are needed (Hall & Hord, 2011; Vold, 2017). Studies show that government and institutional leaders sometimes make hyper-rational assumptions about how a curriculum should be implemented without having carried out adequate research about the implications of their decisions or actions (Luo, 2016) leading to problems in the implementation process of the curriculum.

The four major factors therefore having a significant influence on the curriculum implementation process include the external influences, the institutional influences, the characteristics of the curriculum itself, and the characteristics of the implementing lecturer (Maani, 2010; Luo, 2016; Vold, 2017). Rogan and Grayson (2003) also cite three factors with the fourth one (lecturer characteristics) embedded in the institutional influences. According to Rogan and Grayson (2003), successful curriculum implementation is a triangular process contingent upon a stable relationship or alignment of the three factors; namely the implementation plan, institutional capacity to support, and external support. Once a curriculum has been adopted for implementation, Rogan and Grayson (2003) argue that institutions need to come up with a clearly articulated implementation plan, whose operationalisation is supported with adequate human and material resources by institutions, and which institutions are supported externally by conducive legal and regulatory frameworks from government and its regulatory agencies. A discussion of these factors that influence curriculum implementation is done in detail in the next sections.

3.2.7.1   External influences

Two critical external influences of curriculum implementation in PHEIs in Botswana are the government or government regulatory authorities and the industry. The role of industry on training programmes and how they are implemented is very crucial especialy these days of limited employment opportunities.USAID (2018) argues that i) industry employers have the best and current ideas about what it is potential employers require from a prospective employees, and ii) university instructors mostly have not worked in private business and hence require the support of industry to help them refine curriculum and connect it to the reality graduates face when entering the world of employment. The International Bureau of Education-United Nations Educational, Scientifc and Cultural organization (IBE-UNESCO, 2017) also argues that integrating employment and labour market policies in the curriculum is a critical element of implementing a responsive curriculum that prepares graduates for the labour market. These groups above, that is, government and industry, exert pressure on institutions to implement a curriculum in a certain prescribed way (Toma, Alexa & Sarpe, 2015; Alstete, 2004). This is so because priorities for education which arise from political

forces, lobbying groups and public concerns, have a significant impact on how the curriculum is implemented in schools (Altrichter, 2005). Altrichter (2005) argues that all too often, government and its regulatory agencies become too preoccupied with the policy and regulatory process, overlooking and underestimating the contextual challenges and processes of curriculum implementation in schools. By not considering contextual issues in individual schools, such a scenario has a negative impact on how the curriculum is implemented in schools.

On the other hand, government regulations of the quality of the curriculum content and resources to be used for curriculum implementation have a positive impact on the overall curriculum implementation process (Thrash, 2012). According to Çobanoğlu (2011), external inputs such as regulatory requirements are implemented in ways that are congruent with the local or institutional needs, capacities and preferences and so forth. Penuel, Fishman, Gallagah, Korbak and lopez-Prado (2007) also argue that the success of the curriculum implementation effort in institutions depends on the success of the alignment between state policies and the curriculum implementation realities of local institutions (local capacities of institutions).

At the same time, employers also exert strong opinions on the nature of the curriculum by underscoring that the graduates should possess transferable skills wanted by industry (Alstete, 2004; Nasser, Mah'd, Nimer & Al-Okdeh, 2011). This pressure has a positive impact on the quality of the curriculum implementation process in institutions because the institutions are compelled to find appropriate resources to implement the demanded curriculum and are also expected to engage the implementing staff in regular professional development to ensure that they are able to implement the curriculum and provide the skills demanded by industry (Nasser, et al., 2011).

In 2016 in Botswana for example most PHEIs programmes went through the accreditation process and were expected to ensure that all necessary resources were available for their programmes to be accredited. This pressure by the external environment is critical for ensuring quality and success in the implementation of programmes in PHEIs.

3.2.7.2 Characteristics of the institution

Some of the institutions or PHEIs which were highly controlled by owner-managers a decade ago in Botswana have grown and become to a large extent colleges and universities. Two decades ago these institutions were led by iron-fisted owner-managers who made all the decisions and controlled the implementation of their policies. During that time the lecturers and other employees in those institutions used to implement what they were told. However, nowadays the work environment in these PHEIs has changed for the better, making curriculum implementation in these institutions potentially more successful than before.

Institutional influences to curriculum implementation fall into two categories; namely, the political and the cultural dimensions of implementation. The political dimension relates to power and influence and deals with issues such as administrative support, leadership, collaboration, negotiation and conflict resolution in the institutions (Morgan & Xu, 2011). Morgan and Xu (2011) argue that where the political dimension is not conducive and supportive the staff find it difficult to successfully implement the curriculum. The cultural dimension "relates to the values, beliefs and norms, both consensual and competing in individuals, groups, departments and institutions that can have an impact on how the curriculum is implemented" (Hall & Hord, 2006: 15).

Rogan and Grayson (2003) argue that without the right attitude and in the absence of shared values, successful curriculum implementation in institutions becomes a pipe dream. In the light of these two dimensions, a number of institutional factors that frame how curriculum implementation is carried out in PHEIs can be identified and these include a shared vision, shared governance, implementation plan, institutional climate, institutional culture, quality of institutional leadership, professional development, institutional structure, time allocation, central administration support, and status quo (Mortimer & Sathre, 2007). These factors either facilitate or inhibit the successful implementation of the curriculum in PHEIs.

i.   Shared vision

Building a shared vision is viewed as an important factor in assuring and enhancing effective curriculum implementation as it leads to a sense of oneness and ownership amongst all stakeholders in the curriculum implementation process (Innes, 2004; Education Review Office, 2009). Such a shared understanding includes having collective knowledge of how team members could and would be involved in developing and implementing the curriculum implementation plan (Education Review Office, 2010). A common vision partnered by shared decision making can break through the complexity of human behaviour and promote successful curriculum implementation (Myers, 2006).

ii.   Shared governance

Research attests to the critical role of shared governance in the success of the implementation of a curriculum. Widespread participation (breadth and depth of participation) in decision making by all stakeholders is very important in building a critical mass of support behind the curriculum implementation effort (Jolly, Brodieb, Prpicc, Crosthwaitea, Kavanagha & Buys, 2012; Walkington, 2002). Shared governance of the curriculum implementation process through collaboration is viewed as key to the success of the curriculum implementation effort (Mortimer & Sathre, 2007; Desha, 2010). By ensuring collective responsibility for results and outcomes, shared governance can be especially catalytic to the successful implementation of a curriculum (Bolam, McMahon, Stoll, Thomas, Wallace, Greenwood, Hawkey, Ingram, Atkinson & Smith, 2005).

iii.   Implementation plan

Studies show that one of the key factors in the successful implementation of a curriculum is a planned approach to implementation (Education Review Office, 2010). Without a clearly articulated, rational and practical curriculum implementation plan or model, the implementation process will be froth with challenges due to a lack of clarity

and direction in the implementation process (Luo, 2016) leading to frustration and loss of confidence by the implementers. The Education Review Office (2010) further shows that institutions that have clearly defined implementation plans or that specify tasks and activities to be undertaken and designated in terms of who would be involved in the implementation process as well as in which capacity are able to anticipate and deal with implementation problems better than those that do not. They also stand better a chance of succeeding in the curriculum implementation process than those without implementation plans because they also specify timelines for the implementation process as well as the methods for evaluating and monitoring the implementation progress (Education Review Office, 2009; Hall & Hord, 2006).

iv.   Effective leadership

The concept of leadership is neither precise nor unified (Gilbert, 2011) because there are all in all twenty-one different leadership styles in use to date (Yammarino, Dionne, Chun & Dansereau, 2005). However, many authorities agree that effective leadership which is participative and distributive is important for the success of curriculum implementation. Strong and supportive institutional leadership is critical to the success of the curriculum implementation process guaranteed by the institutional leaders (Ornstein & Hunkins, 2014; Black, 2015).

Fullan (2007) also highlights the importance of institutional leadership to the success of the curriculum implementation process by arguing that due to their proximity to the classroom situation and the opportunity to mediate workplace conditions, institutional leaders are perhaps the most potent sources of either assistance or hindrance to the curriculum implementation process. Black (2015) also argues that by having meetings, briefings and visiting classrooms to get first-hand information about how curriculum implementation is progressing, institutional leadership is able to provide timely and necessary support and where necessary, exert both direct and indirect pressure to get the curriculum implementation going (Black, 2015; Kebede & Demeke, 2017; Rizi, Azadi, Farsani & Aroufzad, 2013; Voon, Lo, Ngui1 & Ayob, 2011).

Effective and committed institutional leadership "establishes a balance between leadership and management roles so as to provide both vision and direction while at the same time ensuring effective and efficient implementation and monitoring of pre-determined curriculum policies and procedures" (Humphreys, 2010: 19). For teams to be successful, they need leadership that fosters a culture of openness and trust while at the same time being able to apply some level of pressure to get things moving in the organisation (Doecke, Parr, North, Gale, Long & Mitchell, 2008; Schagen, 2011; Davis, van Rensburg & Venter, 2016). According to Lachiver and Tardif (2002), strong and supportive leadership that is accepted by the academic staff is a key driver of successful curriculum implementation. This leadership is able to mobilise academic staff around educational objectives related to the curriculum implementation process. Such strong leadership allows for some degree of flexibility for the curriculum implementation staff (Smith, 2008).

The ability to create teams that are able to interact, engage in serious professional dialogue and deliberate about critical curriculum issues is regarded as the hallmark of effective curriculum and institutional leadership (Stoll, Bolam, McMahon, Wallace & Thomas, 2006; Gilbert, 2011; Jones & Duckett, 2006; Starratt, 2010). Schagen (2011) argues that effective leaders use well-understood and communicated lines of delegation to ensure that those who need to be informed and/or are involved during the curriculum implementation process so they know what is expected of them and to enable them to play an effective role in the implementation process (Education Review Office, 2009). In this context, the use of a distributed leadership style is viewed as important (Bolden & Newton, 2008; Aller & Irons, 2010; Harris, 2008). Harris (2008) argues that an initiative-of-the-mouth approach also called the command-and-control curriculum leadership style is not as effective as a distributed leadership style that enables institutional and departmental management to build team structures, capacity, and a culture that fosters a systemic and effective curriculum implementation process which is owned and sustained by a broad base of staff and leaders.

In summary, effective leadership facilitates the implementation of an innovation or curriculum by providing resources such as facilities, equipment, supplies, and human resources. The leadership supports and shields the implementation process from

outside interference; motivates staff members through the use of recognition packages that include financial and non-financial benefits; adopts standard operating standards or procedures in order to ensure that the implementation processes are built into the day-to-day operating routines of the institution; gives high priority to the curriculum and its implementation; provides release time for staff development trainings and meetings; gives adequate time on the timetable for the implementation of the curriculum; and ensures effective communication throughout the curriculum implementation process (Gujarati, 2011; Davis, 2014; Thomas, 2012; Gianoutsos & Monk, 2011).

v.   Professional development

Professional development or capacity-building is an important technique of empowering staff to be able to effectively implement the curriculum (Shank, 2006; (MacDonald, Barton, Baguley, & Hartwig, 2016; Phillips, Ingrole, Burris, & Tabulda, 2017). Literature alludes to the fact that a curriculum can only be effectively implemented by those with a working knowledge; hence the need for the implementing staff to be up-to-date with curriculum-related developments (Mafora & Phorabatho, 2013; Battey, et al., 2016; MacDonald, Barton, Baguley & Hartwig, 2016). Capacity-building is important in enabling the staff to make informed decisions about how to effectively implement the curriculum. The staff can be capacitated through staff development activities that develop their knowledge and skills related to the curriculum implementation process (Mafora & Phorabatho, 2013; Mohyuddin and Khalil, 2016; Vold, 2017).

Staff with requisite knowledge, skills and experience in the discipline are critical for enhancing the quality of the curriculum implementation process (Bell, 2015; Battey, et al., 2016; Jess, Carse, & Keay, 2016). Appropriately trained and qualified staff tend to better support the curriculum implementation process, show motivated performance and a sense of ownership of the curriculum, and as a result implement it better than those who are less qualified (Mohyuddin and Khalil, 2016; MacDonald, et al., 2016; Phillips, et al., 2017; Vold, 2017). Effective professional development activities should be linked to classroom realities and also be relevant to the professional needs of the implementing staff and the needs of the institution (MacDonald, et al., 2016; Phillips, et al., 2017).

vi.   Provision of adequate time

Curriculum implementation has been referred to as a *black box* owing to its complexity. it requires adequate time to plan for and acquire implementation resources. As part of planning for it, the staff implementing the curriculum, together with their supervisors and top management, should develop an implementation plan that provides guidance on how the curriculum will be implemented and by whom (Rudhumbu, 2015). It also requires time for implementers to familiarise themselves with the curriculum as well as to prepare the requisite curriculum implementation skills and knowledge. In terms of human resources, a diverse and well-qualified and experienced staff enable a multiplicity of implementation quality ideas to be shared in the institutions and this is important for the effective curriculum implementation (Vold, 2017; Yang, 2013; Cincioglu, 2014). Adequate time is also required for training programmes for the staff that will implement the curriculum (Fullan, 2007). More importantly adequate time is required for the actual operationalisation of the curriculum in classrooms especially in terms of how much lesson time is allocated for the actual teaching (Yang, 2013).

vii.   Implementation resources

With regard to curriculum implementation, adequacy of resources refers to adequacy of appropriate equipment, teaching materials, classrooms, laboratories, finances, workshops and adequately qualified human resources to support the implementation process (Rudhumbu, 2015). For the curriculum to be effectively implemented, these resources must already be there before the implementation process begins to avoid time-wasting. In terms of human resources, a diverse well-qualified and experienced staff enable the sharing of diverse ideas necessary for effective curriculum implementation (Yang, 2013; Cincioglu, 2014).

viii.   Organisational culture

It is generally accepted that organisational culture assumes a critical place in organisations and plays an important role in shaping the implementation of activities in organisations (Watkins, 2013). Organisational culture can be defined in various ways.

First, it refers to consistent and observable patterns of behaviour in organisations that define and shape how organisational members carry out their responsibilities (Katanga, 2013 in Watkins, 2013). Second, it can also be defined as a product of compensation or incentives (Haverstick, 2013 in Watkins, 2013). Third, it can be defined as a jointly shared description of the organisation from within, or a process of sense-making in the organisation. Fourth, it is viewed as "the sum total of values and rituals that serve as the glue to integrate members of the organisation" (Perron, 2013 in Watkins, 2013: 5); or fifth, as a carrier of meaning because it not only provides a shared view of what is but also why is (Perrin, 2013 in Watkins, 2013), and sixth, as a civilization in the workplace or a social control system (Adler, 2013 in Watkins 2013).

Organisational culture also supports collaboration that allows for two-way communication critical for the success of institutional activities (Watkins, 2013). A strong institutional culture promotes cohesion, team learning and helps new members to quickly adjust to the new ways of implementing institutional programmes (Dibrell & Craig, 2011; Mohamed, 2014; Fullwood, Rowley & Delbridge, 2013).

ix.   Institutional structure

The role of institutional structure in either facilitating or inhibiting effective curriculum implementation is further highlighted by Zaki and Rashidi (2013) who aver that any institutional structure is a compromise between control and coordination on one hand and hierarchy on the other hand. This then according to Zaki and Rashidi (2013) suggests that an institutional structure that is too hierarchical is too bureaucratic and ineffective in terms of the much-needed communication and support to drive the implementation process. A flatter institutional structure is therefore recommended because it allows for both smooth horizontal communications amongst the implementing staff and for timely vertical communication between the implementing staff and the supervisors as well as top management (Rudhumbu, 2015). The importance of institutional structure is that it facilitates permeability between faculties, between departments and also between management and the operational core (Rudhumbu, 2015). This then means that if an institution's structure is well developed, information

sharing becomes both easy and effective thu enabling effective implementation of curriculum. An effective institutional structure therefore enables the development and use of effective knowledge and communication channels in the institution. It is instructive therefore to suggest that such a state of affairs where there is effective channels of communication promotes effective curriculum implementation as possibilities of information getting lost within the communication channel are minimized if not eliminated.

3.2.7.3   Characteristics of the lecturer

Lecturer characteristics have an influence on the implementation of a curriculum innovation (Levi-Keren & Patkin, 2016; McShane & Eden, 2015; Stellar, 2016; Govender, 2013; Seehorn, 2012). Houang and Cogan's (2002) findings showed that the lecturer characteristics influenced the quality of instruction, as well as the quality of the students' educational experiences. According to Bouck (2008), lecturers most importantly shape how the curriculum is enacted in classrooms because they play a more direct role than textbooks. They make the final decisions about what gets taught hence as a result if teachers are not adequately equipped in terms of knowledge and skills they wipp not be able to effectively implement the curriculum. Lecturer characteristics fall under the technical dimension of curriculum implementation. The technical dimension relates to the level of knowledge and skills teachers have in their area of specialisation (Seehorn, 2012; McNeill, Katsh-Singer, Gonzalez-Howard, & Lopez, 2016).

Availability of adequately and technically qualified and experienced staff is critical to the successful implementation of a curriculum (Cetin, 2016, Cavanagh & McMaster, 2017). Experienced staff have an extensive and deeper knowledge of both the curriculum and strategies for implementing it (Education Review Office, 2010). Adequate training for greater knowledge of content helps effectively and successfully implement the curriculum in institutions (Ahmed Hersi, et al., 2016; Claxton & Lucas, 2016; Early, et al., 2014). The following characteristics of lecturers therefore have an effect on how the curriculum is implemented: professional knowledge or educational level; beliefs about

teaching and learning; professional attitudes and interest; lecturing experience; professional adequacy; age; gender; and subject taught.

i.   Educational level

Higher educational levels enhance the implementation of a curriculum (Ohide & Mbongo, 2017; Ofem, Arikpo & Uko, 2015). According to Finger and Houguet (2009), educational level can be defined as having good background knowledge of a subject area in terms of content. A higher educational level contributes to staff perceptions and involvement in the implementation of an innovation. The level of knowledge of one's curriculum area demonstrates one's cognitive abilities and skills to effectively participate in curriculum implementation (Wiesrsema & Bantel, 1992 in Mayer, et al., 2011; Thorn & Brasche, 2015); Jess, Carse, & Keay 2016). Bordbar (2010), as well as Jess, et al. (2016) found that teachers need capacity to be able to effectively implement curriculum and hence a higher educational level predicted effective curriculum implementation and led to the development of confidence in the implementing staff. According to Wiles and Bondi (2014), teachers with higher levels of education are better at planning for their learning and catering for the needs of students when compared to those with lower levels. Preparation as part of the teaching process is always considered key because it gives the teacher confidence that everything needed for effective teaching is in place.

Research shows that HE levels improve a person's information processing and absorptive capacity and build in them the capacity to effectively implement a curriculum (Wang & Noe, 2010; Buxton, Allexsaht-Snider, Kayumova, Aghasaleh, Choi & Cohen, 2015; Gallagher, Courtright & Robinson, 2015; Ohide & Mbongo, 2017). Asebiomo (2015) and Griffin (2011) found that a higher educational level is positively related to task performance. In a meta-analysis study on the influence of educational level on the performance of lecturers, Ng and Feldman (2009) found that HE levels developed the lecturers' creative and positive work behaviour and led to confidence and a feeling of satisfaction both of which are important for effective curriculum implementation.

Furthermore, Bingham, Culatta, & Hall-Kenyon (2016) in their study found that a teacher's beliefs and conceptualisation of the curriculum and how it should be

implemented, as well as how the students learn are all influenced by the level of education. Having a higher level of education in one's curriculum area has also been found by Mullins (1992 in Salleh, Yaakub & Dzulkifli 2011: 27) "to improve the competitiveness and skill sets of the implementing staff as well as the right attitudes, motivation, confidence and mindsets critical for effective participation and curriculum implementation". Koskei (2015) as well as Cobanoglu and Capa-Aydin (2015) found that teachers' beliefs about teaching and learning as well as the extent and quality of their professional and academic preparedness to implement a curriculum have an influence on both the quality and style of curriculum implementation.

ii.   Professional adequacy

The competence and confidence or professional adequacy of the curriculum implementers or staff are amongst the critical factors that determine the success of the curriculum implementation process (Fullan, 2001). The implementers or staff should first and foremost have full knowledge of the subject and be satisfactorily comfortable with facilitating its implementation (Finger & Houguet, 2006). Professional adequacy therefore is considered an important component of the personal characteristics that define and influence how people get involved in the implementation of an innovation (Lewthwaite, 2006). According to Ornstein, Pajak and Ornstein (2011), professional adequacy relates to the confidence and positive attitudes teachers have towards curriculum implementation as a result of their competence and ability to implement it.

iii.   Professional attitudes and interest

Effective curriculum implementation in HE institutions depends on the support and attitude of lecturers (Buabeng-Andoh, 2012). Attitudes are defined as an interplay of feelings, beliefs, and thoughts of the curriculum implementers, which defines and shapes their actions. Hew and Brush (2007) argue that lecturers become interested and motivated to implement the curriculum when their attitude is positive towards the curriculum and/or the way it is implemented, and when they feel that the curriculum fulfills their needs as well as those of the students. Positive and professional attitudes and interest of staff are demonstrated by teacher enthusiasm to participate in the

curriculum implementation process. A study by Hargreaves and Fink (2006) found that people who were highly interested in their work and showed positive attitudes towards it are more productive and always accomplish given tasks on time than those who were not. Teo (2008) and Drent and Meelissen (2008) also found that no matter how adequate and available the resources are in an institution, as long as the implementing staff do not possess the right attitude and show no interest, the curriculum will not be successfully implemented.

iv.   Beliefs about lecturing and learning

Conflict between lecturers' beliefs and curriculum ideas is one of the major reasons that cause implementation failure of even well-planned curricula (Grouws, Tarr, Chávez, Sears, Soria & Taylan, 2013; Algers and Silva-Fletcher, 2015; Rakes & Dunn, 2015). Teachers' beliefs, subject-matter orientations and subject-matter specific pedagogy also impact on instructional practices and student achievement (Algers & Silva Fletcher, 2015; McNeill, et al., 2016; Rakes & Dunn, 2015). Subject-matter beliefs refer to the views of the lecturer about a subject while pedagogical beliefs relate to the beliefs lecturers have about appropriate ways of teaching particular topics in a specific subject (Schmidt, et al., 2002). Epistemic beliefs of lecturers have a significant effect on shaping their conception of teaching and learning, and defining the instructional practices they use to implement the curriculum in the classrooms (Blignaut, 2008; Lee, Zhang, Song & Huang, 2013; Epler, 2011). This is also confirmed by Bingham, Culatta, & Hall-Kenyon (2016) who argue that based on their beliefs about teaching and learning, teachers often choose to both modify and adapt a curriculum or just implement it as prescribed. Such different approaches to implementing curriculum may have an effect on the extent to which curriculum is effectively implemented. Budak (2015) and also Castro, Marshall and Kelso (2015) argue that teacher beliefs about educational practices such as curriculum implementation, have a bearing on the nature of actions and interactions that occur in the classrooms. Such actions and interactions have by extention, a bearing on either the success or failure of curriculum implementation. This is why Cobanoglu and Capa-Aydin (2015) argue that it is not only the role of the teacher that defines how curriculum is implemented but is also the teacher beilefs that also shape the effectiness of the curriculum implementation process.

Epistemic beliefs or knowledge and knowledge acquisition, as well as models of knowing (Kang & Wallace, 2004) shape teachers' views about the curriculum content, pedagogy and the specific contexts in which the implementation takes place. Such beliefs may have either a direct or indirect influence on the ability and/or willingness of lecturers to more accurately interpret and successfully implement a curriculum (Blignaut, 2008; Handel & Herrington, 2003).

Chan (2010) as well as Cheng, Chan, Tang and Cheng (2009) posit that the different epistemological (nature of knowledge and knowing) and pedagogical (ways of lecturing and learning) beliefs or the kinds of approaches the lecturers use to implement the curriculum. For example, lecturers who believe that knowledge is static, and that the lecturer is the final and full authority or source of knowledge, usually use teacher-centered approaches to implement the curriculum (2013). On the other hand, lecturers who believe that knowledge is continuously evolving and self-constructed, that acquiring knowledge is through a process of negotiation, and that the lecturer's authority can be questioned or criticised, usually use learner-centered approaches to implementing the curriculum in the classroom (Li & Ni, 2011; Hofer, 2010; Cravens, Chu & Zhao, 2011).

v.   Work experience

Work experience, commonly referred to as years of experience, is viewed as an organisation's tacit knowledge which is critical for improved employee performance (Ng & Fekdman, 2009; Jacobs, 2015). According to Mason, Aihara-Sasaki and Grace (2013), as well as Otanga and Mange (2014), personal or demographic characteristics such as years of experience have an effect on how individuals interpret and participate in a change process or take curriculum implementation as a change process. It has also been found that years of experience have a significant influence on how people implement innovations (Capella, Donsbach, Kremnitzer, Ross & Thorson, 2009; Mason, et al., 2013; Smith & Desimone, 2005). Furthermore, it has been found that an experienced person operates from a sophisticated knowledge base than a less experienced one; hence is able to plan and implement a curriculum innovation better plan and implement a curriculum innovation better (Feldman, 2006; Fullan, 2003; Sergiovanni, 2002; Ibukun, Oyenole & Abe, 2011). Moreover, Tillou and Liarte (2008)

argue that people who have stayed on the same job for some period of time are less likely to make errors of judgement and performance when compared to new employees and hence perform better in their roles (Tillou & Liarte, 2008). Ng and Feldman (2010) found a positive relationship between organisational tenure and employee performance.

Ofemi et al (2015) also found that critical ingredients for effective curriculum implementation included increased years, improved communication skills, innovativeness, creativity, self-awareness, improved personal relationships, improved mastery of the subject, and improved classroom management skills. Ofemi, et al (2015) in their study further found that classes taught by teachers with higher levels of experience performed better than those taught by teachers with low levels of experience. Ohide and Mbongo (2017) found that experienced teachers had a richer background of knowledge to draw from and hence contributed better insights and ideas to make teaching more effective.

vi.   Age

Ibukun, et al. (2011) found that age plays a catalytic role in shaping an individual's perceptions and involvement in the implementation of an innovation. Furthermore, Buabeng-Andoh (2012) found that age had a moderating influence on an individual's decision-making perspectives and choices during the process of implementing an innovation. Another study by Miller and Karakowsky (2005) showed that older employees possess a relatively superior knowledge of work and life that makes them perform better in a number of situations than younger employees. Finally, Otanga and Mange (2014) found that age did not have a significant impact on how teachers implemented the curriculum at their institutions. Parsons (2015) also argued that the age of a person is positively associated with their ability to implement and capitalize on an innovation such as a curriculum with Jacobs (2015) concurring that age has a direct impact on bow an innovation is implemented as older people are more perceptive and are able to perform their tasks with confidence and calculated moves. This information therefore suggests that as a person becomes old up to some point, their ability to impement innovation becomes better. Perhaps this also speaks to the combined effect of experience and age.

vii.   Gender

Gender has been found to play a critical role with regard to how men and women perform their assigned tasks. "Gender encompasses socially constructed and culturally based roles of men and women with a view to understanding how unequal power relations between them are shaped and operate in organisations or institutions" (Allana, Asad & Sheriah, 2010: 3). These power relations are functions of the different ways in which institutions are organised or constituted and the relations used to unfairly and incorrectly define how men and women carry out their roles in society in general (Kabeer & Subrahamanian, 1996 in Allana, et al., 2010). Awofala (2012) as well as Kobia and Ndiga (2013) also found that gender did not have an effect on how people perceived and participated in the implementation of an innovation.

Gender has also been found to influence the way males and females participate in the implementation of an innovation (Ibukun, et al., 2011; Charness & Gneezy, 2012; Eckel & Grossman, 2008; Buabeng-Andoh, 2012; Adefunke, Ayodele & Olufemi, 2014). Asebiomo (2015) found that there was a significant relationship between the gender of a lecturer and how the curriculum was implemented. Futhermore, Luo (2016), found that male and female lecturers tend to employ different decision-making processes when dealing with the implementation of a new curriculum innovation. The study found that female lecturers tended to take time and be calculative when making decisions as they were more strongly influenced by subjective norms and perceived behavioural control of others when compared to male lecturers who were more aggressive and quick and got the implementation process going faster but sometimes not as effectively. Confirming differences in performance between male and female lecturers, Ng and Feldman (2010) found that female lecturers performed better than male lecturers during curriculum implementation because the latter were pushy and used masculinity while the former were superior in classroom management and belieeed in teamwork as well as in building relations and motivating students.

3.2.7.4   Characteristics and conception of the curriculum

Research shows that the nature or characteristics of the curriculum can either hinder or drive its successful implementation (Schagen, 2011; Li, 2010). These characteristics can include the need for the curriculum, clarity, complexity and quality or practicality of a curriculum.

i.   Need for curriculum/innovation

This relates to the motivation for the curriculum and to answering the question: what is the purpose of the curriculum or is there a need for the curriculum? Schagen, 2011) argues that many curricula fail at the implementation stage because they do not address a felt need. Koo 2009) says teachers who feel that the the innovation or curriculum is relevant to their own needs as well as students' needs usually more willingly and enthusiastically implement it compared to those who do not see the need for it. A lack of a clearly articulated and shared motive for the curriculum therefore makes the implementing staff oblivious to the sense of urgency when implementing the curriculum.

ii.   Clarity of the curriculum

Fullan (2007) argues that the clarity of an innovation such as a curriculum relates, to the clarity of its goals and implementation strategies and is viewed as a perennial problem in institutions as mostly vague goals and unclear implementation strategies are challenges implementers always face when implementing a new innovation. Clarity refers not only to details but also to the general sense of direction and purpose of the innovation (Fullan, 2007). In their discussion on what they called action images with regard to implementation of innovations, Mules and Louis (1990 in Koo 2009) argue that people are always eager to implement innovations which they have an image or sense of in terms of what it means and what to do to get there (to successfully implement it). Ambiguity in the goals and/or means for implementing the curriculum is viewed as the major challenge to the curriculum implementation process (Li, 2010) as without clearly

articulated goals and means to implement, the implementing staff will find the process difficult to understand and to implement. In his discussion on what he called the *dilemma of explicitness*, (Koo 2009) argues that while too much explicitness or clarity may restrict flexibility and creativity in the implementation of an innovation, lack of a certain acceptable degree of clarity has the potential to confuse implementers leading to frustration and resistance.

iii.   Complexity of the curriculum

Complexity relates to how ambitious and demanding an innovation or curriculum is (Fullan, 2007). It also refers to how challenging the teachers find the innovation or curriculum implementation. Complexity could be viewed in terms of the following three situations: Possibility of new or revised curriculum materials; possibility of using new and unfamiliar teaching approaches; and possibility of alteration of practices, behaviours and beliefs long held and cherished by teachers (Li, 2010; Fullan, 2007). Such possibilities have ramifications for the implementation dynamics because some teachers may feel threatened by these possibilities and resist out right implementing the curriculum.

iv.   Quality and practicality of the curriculum

The quality and practicality of an innovation depends on whether it addresses real classroom situations. It also refers to quality and availability of human, material and technological resources that meet the needs of both the teachers and students (Fullan, 2007). Such resources need to be appropriate and usable in the implementation of an innovation or curriculum. Fullan (2007) further argues that the success of the curriculum implementation process can be significantly impacted by how the curriculum as an innovation is perceived in terms of being specific, concrete, and practical in addressing real classroom teaching situations. Carless (2003) argues that the teachers' perceptions of how implementable a curriculum is strongly influence their preparedness to implement it.

3.2.8 Conceptual model

Based on the discussion of the factors that influence curriculum implementation in Subsection 3.2.7, a conceptual model was developed (Figure 3.3) by the author to guide this study. The conceptual framework in Figure 3.3 shows that curriculum implementation is influenced by a number of factors chief of which is the external environment which affects how institutions operate, how the curriculum is designed and implemented, and the type of lecturers recruited to implement the curriculum. Figure 3.3 shows that the external regulatory environment proposes regulatory frameworks that affect how institutions operate**.**
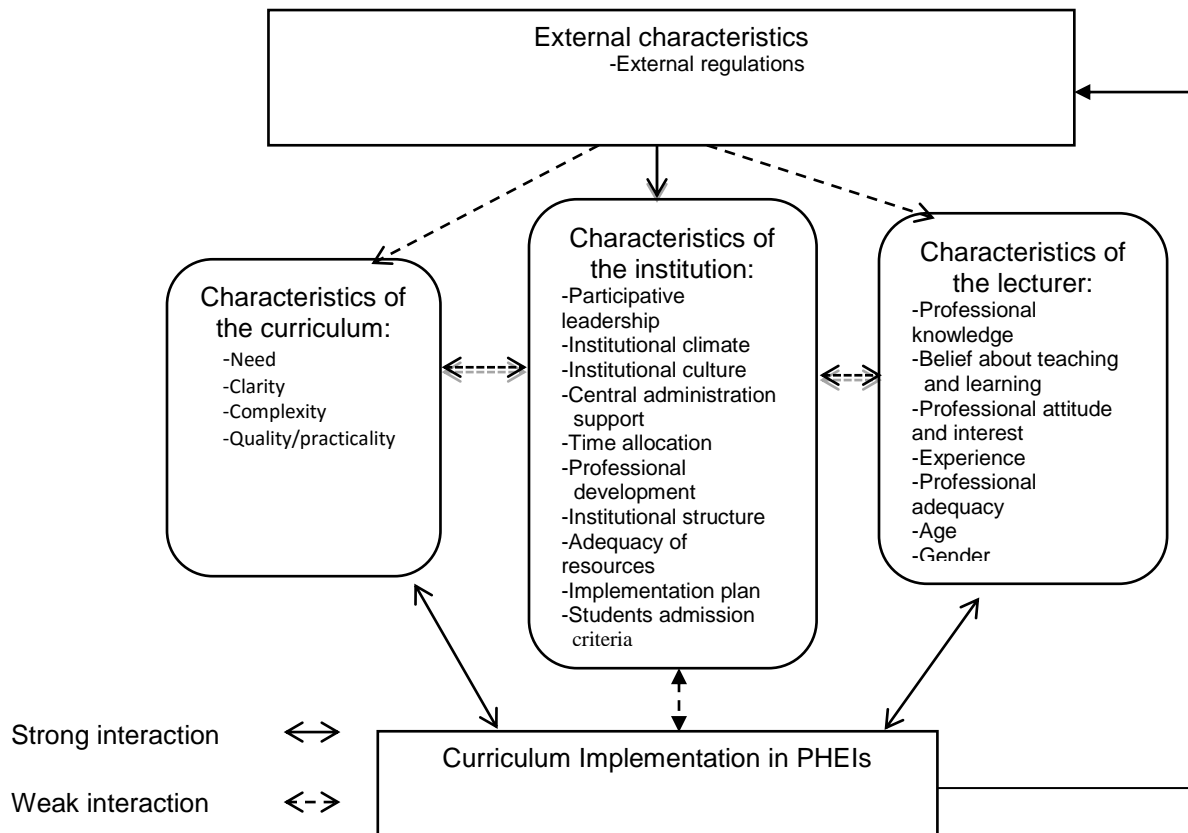
Figure 3.3: Conceptual framework (Designed by researcher)

The external regulatory environment also approves curricula designed by institutions sets, conditions under which the designed curriculum is implemented and determines who should implement the curriculum. The framework shows that what happens in institutions has an effect on the type of curriculum that is designed as well as on how

lecturers carry out their roles and responsibilities in the implementation of the curriculum.

The framework further shows that there is very limited, if any, two-way communication between the external environment and institutions. However, there is two-way interaction between the institution and the curriculum and between the institution and the implementing teachers. This suggests in the case of a difficult curriculum the institution can be consulted to find out if there are issues in the institution causing the implementation challenges. The same goes for the two-way interaction between the teachers and the institutions whereby the institutional management can identify teachers who fail to implement the curriculum, and what makes them fail to implement the curriculum. Finally, the two-way interaction between teachers and the curriculum in the framework shows that teachers are qualified and responsible for designing and developing the curriculum in PHEIs. The next section discusses the theoretical framework that informed this study.

3.3   THEORETICAL FRAMEWORK

This section articulates the theoretical framework of this study. A theoretical framework is defined as a "blueprint for the entire dissertation inquiry which serves as the guide on which to build and support your study that provides the structure to define how you will philosophically, epistemologically, methodologically, and analytically approach the dissertation as a whole" (Grant & Osanloo, 2014: 2). According to Swanson (2013), the purpose of a theoretical framework is to introduce and describe a theory whose aim is to give reasons for the existence of the research problem under study. This therefore means that a theoretical framework acts as a guide that provides a rationale for predicting relationships between the predictors and outcome variables in the study (Leighton, Cantrell, Gilbert & Franklin, 2016). This means that a theory is essential for interpreting empirical research findings and in the context of this study, the force-field theory also called the Kurt Lewin theory is discussed.

3.3.1 The Force-field Theory

Curriculum implementation as mentioned above is defined as the trying out of a new practice above and checking if it makes a difference or change (Ornstein & Hunkins, 2014). This therefore means that the whole aim of implementing a curriculum is to make a difference or change to the learner, and more importantly bring about improvement. Curriculum implementation therefore is a process of change. The Force-field Theory can therefore be used to inform curriculum implementation as a change process that can be successfully carried out (Ornstein & Hunkins, 2009; 2014). This theory is premised on the belief that change or curriculum implementation can be successfully implemented and managed by a careful balancing act of forces working in opposite directions (driving and inhibiting forces) (Kritsonis, 2005) as shown in Figure 3.4.
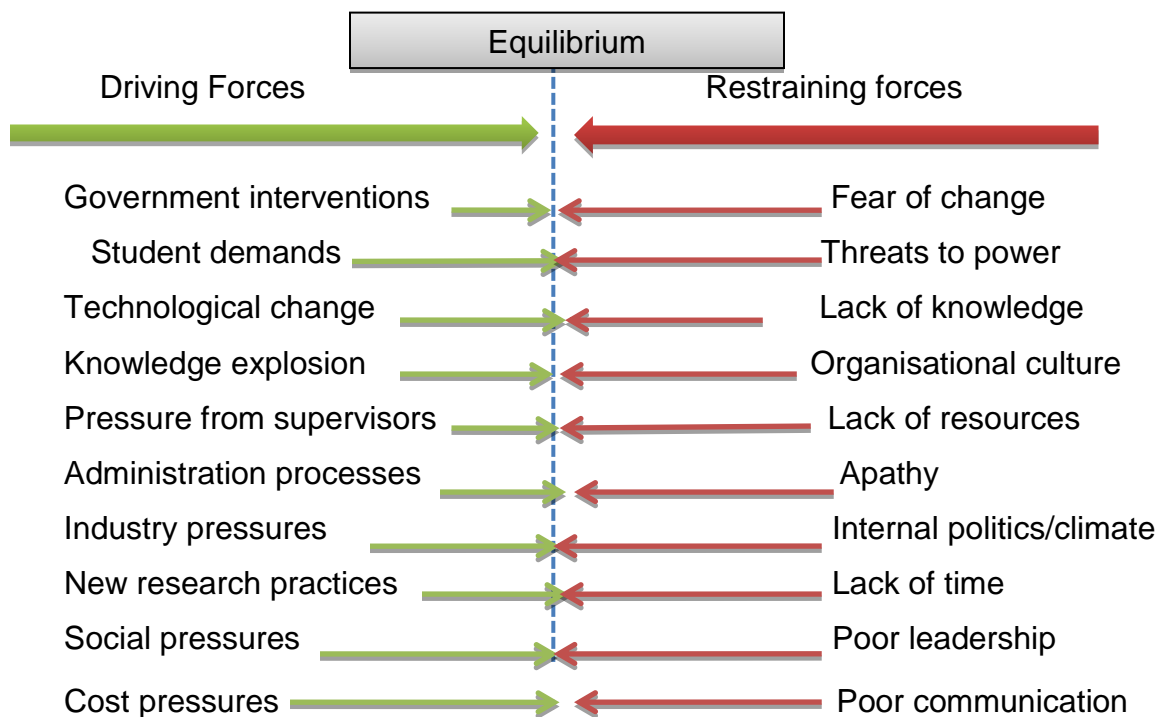
Figure 3.4: Forces driving and opposing change (Riley, 2015: 1-3)

Driving forces in Figure 3.4 have a pushing effect for change to happen in a certain direction, and these forces initiate and keep the change going. For example, pressure from government, from competition, and from financial incentives, to mention a few, can drive an institution to think of better ways of successfully implementing a curriculum. Inhibiting or resisting forces prevent change or successful curriculum implementation

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from happening. Such forces, for example, may include organisational culture, lack of knowledge or inadequate training, and lack of resources. The Force-field theory of change is particularly relevant to the current study which investigates curriculum implementation in accredited private higher education institutions operating in a highly regulated higher education environment.

3.3.2 Stages of change

Lewin believes that the implementation of change is a multi-stage process defined by three stages of change namely unfreezing, moving and refreezing. These stages of change can be used to explain how curriculum implementation as a change process can be effectively and successfully implemented in PHEIs in Botswana.

3.3.2.1   Unfreezing stage

The unfreezing stage of factors, as shown in Figure 3.4, is premised on the assumption that human behaviour is based on a quasi-stationary equilibrium supported by a complex field of forces (Burnes, 2004). It is a step whose purpose is to make people change their existing practices (Kritsonis, 2005; Burnes, 2004). For people to change these practices they must first recognise the need for change, and according to Ornstein and Hunkins (2009), this can only happen if they also understand the change (or curriculum implementation) and how it works. Kritsonis (2005) argues that this step is meant to overcome the vestiges of individual resistance as well as deep-seated group norms by destabilising the quasi-equilibrium through a process of unlearning old practices. This means that the whole purpose of unfreezing involves overcoming inertia and dismantling the existing mindset through a process of bypassing defense mechanisms of individuals and groups (Robbins, 2003).

The following strategies, according to Kritsonis (2005: 3), can be used to ensure "the success of unfreezing:

a)   Increasing driving forces that direct behaviour away from the existing situation or status quo;

b)   Decreasing the retraining forces that negatively affect the movement from the existing equilibrium; and

c)   A combination of the two strategies".

Complementary techniques that can also be used to ensure the success of the strategies above include:

a)   Ensuring that staff are motivated to be able to accept change; through training, effective communication;

b)   Ensuring a culture of trust that recognises the need for change; and;

c)   Ensuring maximum involvement in decision making by participants to the change process (Kritsonis, 2005).

3.3.2.2   Moving stage

According to Lewin (1947), unfreezing alone could not be an end in itself because while it creates motivation to learn new practices of implementing change, it could not on its own control or predict how change would progress (Burnes, 2004). Lewin therefore believed that to effectively implement, manage and move change in the required direction, it was necessary to take stock of all the forces at play that had an impact on how the change was to be implemented, and then on the basis of this, evaluate iteratively the available options (Kritsonis, 2005; Burnes, 2004). This stage is therefore viewed as the transition period marked by some state of confusion as implementers experiment and begin to understand new ways of implementing the curriculum (change process) (Sansome, et al., 2003). It is a stage that signifies changes in behaviour patterns of implementers and hence marks a period when old ways of doing things are challenged and new ways are attempted (Burnes, 2004).

Techniques that can be used to ensure the success of moving, include the following:

a)   Persuading staff to accept movement away from the status quo as well as encourage them to focus attention on challenges requiring change;

b)   Collaborating as a team to ensure successful change and;

c)   Harnessing all efforts of individuals and groups so as to form a critical mass that supports the change effort (Burnes, 2004; Robbins, 2003).

3.3.2.3 Refreezing stage

After change has been implemented and new ways of doing things have been adopted in the moving stage, refreezing occurs (Kritsonis, 2005). This stage marks the point when new patterns of doing things are institutionalised, a new mindset is crystalised and individuals' and groups' comfort levels begin to return to previous levels (Sansome, et al., 2003). This is confirmed by Robbins (2003) who argues that the refreezing stage marks the point when new ways or behaviours, attitudes, knowledge, skills and norms are integrated into the daily routines in order to stabilise the new equilibrium and balance the driving and restraining forces. According to Robbins (2003), formal and informal mechanisms are employed to reinforce new ways of doing things and to institutionalise these new ways.

According to Sansome, et al. (2003), the Force-field Theory of implementing change can be summarised using the following linear model:

B = f (P, E) where:
B = Behaviour patterns of those people implementing change;

P = People implementing the change; and

E = Environment in which the people implement the change. This environment involves both the internal environment and external environment of the implementers.

The linear model above is very relevant to the current study where the environment in which the PHEIs operate is viewed as having a critical influence on how the curriculum is implemented in the PHEIs in Botswana.

3.4   SUMMARY

Chapter 3 reviewed the conceptual and theoretical frameworks. The chapter began by discussing the construct of quality assurance focusing on the different forms of quality assurance namely, internal quality and external quality assurance that are used as tools

for the accreditation of institutions and their programmes. The rationale for accrediting PHEIs and their programmes was discussed as revolving around ensuring that PHEIs provide adequate resources and facilities to effectively implement their curricula. Critical success factors of quality assurance in HE were also discussed as a means of showing how both the internal and external stakeholders to curriculum implementation can provide a conducive environment for effective curriculum implementation.

Chapter 3 also discussed the concepts curriculum and curriculum implementation. As part of this discussion, the historical roots of curriculum were traced and different conceptions of curriculum were discussed as a means of building a strong case for why the curriculum is implemented differently in HEIs. The different conceptions of curriculum showed that the way different people understand curriculum is reflected in how they implement it.

As part of the discussion of the conceptual framework, and in line with the research objectives, the chapter provided an articulation of opportunities and factors that act as enablers to effective implementation of the curriculum by accredited PHEIs; strategies that can be used by accredited PHEIs to enhance the effective implementation of the curriculum; as well as potential challenges that accredited PHEIs may face when implementing curricula.

The chapter ended by discussing the theoretical framework that informs the study. The Force-field Theory of change was selected and discussed to guide the study. The theory posits that in any change process, there are two types of forces; namely, the driving and inhibiting forces, and by performing a balancing act of these forces, change can successfully occur. Curriculum implementation was taken as a process of change in this discussion.

The next chapter articulates the methodology used in the study. It also presents the main philosophy that guided the study, the research approach and design, the population and sampling, the methods of data collection as well as of data analysis.

CHAPTER 4
RESEARCH METHODOLOGY

4.1   INTRODUCTION

The purpose of this study as discussed in Chapter 1 was to develop a framework to promote effective curriculum implementation in accredited PHEIs in Botswana. Chapter 4 delineates the methodology applied in the empirical research process because the foundation of a research process lies in an overarching methodological framework that includes research questions, design, data structures and decisions about data analysis and reporting (Creswell, 2014). By the statement above, Creswell (2014) meant that when carrying out a study, researchers need to reflect on the various components of the study from the research problem to methods of data analysis and reporting. Important research methodology considerations that are therefore discussed herein include the research paradigm, research approach, research strategy, research methods, measures of data trustworthiness and ethical measures.

4.2   RATIONALE FOR EMPIRICAL RESEARCH

The current study goes beyond conceptual, contextual and theoretical data by also including empirical data from field work. Enago Academy (2016) argues that conceptual, contextual and theoretical research has its focus on the concept or theory that explains or describes the phenomenon under study and is done using desk research. In the context of this study, conceptual research helps the researcher to understand what causes a curriculum to be implemented the way it is in accredited PHEIs; how it is implemented; and what past studies say about how curriculum can be better implemented. Conceptual researchers therefore sit on their desk and use the literature to understand a phenomenon under study or to solve problems related to it without testing whether the solutions work (Enago Academy (2016). Empirical research therefore fills the gap by making research more practical and ensuring that solutions to problems related to a phenomenon under study are tested first before conclusions are drawn. Empirical research is viewed as:

"generally characterized by the direct collection of a large amount of data before much speculation as to their significance, or without much idea of what to expect, and is contrasted with more theoretical methods in which the collection of empirical data is guided largely by preliminary theoretical exploration of what to expect" (Bridgman and Holton, 2014: 3)

Empirical research, also called evidence-based research, is necessary in any study as it provides information about a research phenomenon based on directly observed and measured phenomena that derive knowledge from actual experiences rather than from theory or belief (Cahoy, 2016). According to Bradford (2015), empirical research is research in which data is acquired by direct observation or experimentation and is recorded and analysed either quantitatively, qualitatively or both. Basing research on theories alone as allowed for when one does a conceptual or theoretical research could produce results that are not valid because the theories could at the end of the day, be wrong in their assumptions (Enago Academy, 2016), hence, would need empirical evidence to back it up. This is confirmed by Bradford (2015) who argues that empirical research is used to confirm or disprove a theory.

Valid research according to Enago Academy (2016) requires more of both empirical and conceptual research for completeness and adequacy of results. In the current study, the researcher drew liberally from empirical, conceptual and theoretical research. Empirical research helps the researcher to understand the how, what, where and which of a research phenomenon in real-time, or understand things as they happen (Bradford, 2015). In the context of the current study, empirical research will help the researcher to gain a fuller understanding of how curriculum implementation occurs in accredited PHEIs by recording direct experiences of the implementing staff on how exactly the implementation occurs. Such empirical data will then be invaluable in either confirming or disconfirming findings of earlier studies on curriculum implementation in HE as well as in making a link with what literature on curriculum implementation says about how curriculum is implemented in HEIs.

4.3   RESEARCH DESIGN

A research design is viewed as a blueprint that gives a researcher maximum control of research variables when conducting a study in a manner that ensures the validity and reliability of results (Burns & Grove, 2011; Rukwaru, 2015). Polit and Beck (2012) and also Malhotra (2010) point out that a research design is a researcher's overall plan that is deployed to assist in answering the research question or testing the research hypothesis. A research design is also defined as a broad plan for specifying in clear terms both the processes and procedures of how to collect and analyse research data (Kalian, 2011; Cortey, 2013; Caruth, 2013).

The definitions above of research design dovetail with an earlier definition given by Rahi, 2017) who avers that a research design is a plan that describes how, when and where data are to be collected and analysed. In addition, Sousa, Driessnack and Mendes (2007) and Zikmund and Babin (2010) indicate that a research design is a framework or model for planning, implementing and analysing a study. The most comprehensive definition of a research design adopted in this study is given by Creswell and Plano-Clark (2017) that a research design is not only a plan but also a procedure for collecting, analysing, interpreting and reporting data in a study. The Creswell and Plano-Clark (2017) definition was adopted in the current study because it goes beyond collection and reporting of data to include interpretation and reporting, as shall be done in the current study.

All the definitions above therefore show that a research design is first and foremost a plan used for answering the research question or for testing a research hypothesis. In the context of the current study, the research question to be answered by the research design is: What framework can be developed to enhance effective curriculum implementation in accredited PHEIs? As indicated by Creswell and Plano-Clark (2017), part of this answering of the research question involves the whole process from data collection up to reporting the findings. As part of articulating the research design for the current study, the following subsections; namely, research paradigm, research approach, and research strategy will be discussed.

4.3.1 Research paradigm

The history of the term paradigm stems from the Greek work *paradeigma* which meant a pattern. This term was first used by Thomas Khun (1962) to mean a conceptual framework used by a community of scientists to examine phenomena (Gill, 2012). As a result of this historical background, a research paradigm began to be known in earlier times as a pattern, structure and framework of scientific ideas, values and assumptions (Olsen, Lodwick & Dunlap, 1992). However, contemporary studies define a research paradigm as an overarching philosophical or ideological stance, a system of beliefs about the nature of the world, and ultimately, the assumptive base from which the researcher goes about producing knowledge (Harris, 2011; Creswell, 2015; Stroud, 2011). Rahi (2017) describes a paradigm as essential collection of beliefs shared by scientists, a set of agreements about how problems are to be understood, how we view the world and thus go about conducting research Neuman (2011) also defines a research paradigm as a planning framework for research that has the following elements namely methodology, assumptions/ hypotheses and models. Furthermore, according to Weaver and Olson (2006), a research paradigm is a philosophy that provides lenses, frames and processes through which investigations into phenomena are accomplished. According to Harris (2011), a research paradigm has an influence on the research methodology to be deployed in the study particularly with regard to why the researcher collects data, what data is to be collected, where the data is to be collected, how the data is to be collected, and how data will be analysed, interpreted and reported.

The thinking above by Harris (2011) dovetails with the thinking of Brannen (2005) and Denzin and Lincoln (2011) who connected research methods with research paradigms. According to Brannen (2005), methodological choices used in research do not exist within a philosophical void but rather are driven by philosophical assumptions (ontological, epistemological, axiological and methodological) which constitute the research paradigm by definition and application. Denzin and Lincoln (2011) also aver that a research paradigm relates to the net set of assumptions about knowledge in which a researcher's ontological, epistemological, axiological and methodological assumptions are premised and reside.

Creswell (2013) further clarifies the connection between methodological choices and paradigmatic assumptions by asserting that a researcher's paradigmatic position in research is informed by their understanding of the nature of knowledge (epistemological position), nature of reality (ontological position), values that underpin the research (axiological position), and the process or method of carrying out the research (methodological position). Of the three commonly used ontological paradigms; namely, positivism, interpretivism and pragmatism (Harris, 2011; Chowdhury, 2014), this study is located in the pragmatic paradigm that mediates between positivist and interpretivist ontological paradigms. The pragmatic paradigm is discussed in detail in the section that follows.

4.3.1.1   Pragmatic paradigm

The roots of pragmatism lie in the earlier works of John Dewey whose belief was that knowledge or truth is that which works best, and if it works, it is probably true (Teddlie & Tashakkori, 2009; Bryman & Bell, 2015). Pragmatism is thus viewed as a philosophy that acts as a bridge between a paradigm and a methodology (Hammersley, 2012). It could also be regarded as a stand point at the interface between philosophy and methodology that provides a practical approach to solving a problem (Rahi, 2017; Creswell, 2013). This is supported by Creswell and Plano-Clark (2017) who argue that pragmatism is an attitude, method and philosophy that employs practical consequences of ideas and beliefs as a standard for determining their value and truth.

Johnson and Onwuegbuzie (2010) argue that the idea of pragmatism was necessitated by the desire to find a common ground between philosophical dogmatism and scepticism as well as to find a workable solution (and sometimes outright rejection) to the philosophical dualism of positivism and interpretivism. Pragmatism accepts the notion that quantitative and qualitative methods can be mixed to enrich a study (Creswell, 2013). Thus, it is viewed as an important compromise between positivism and interpretivism in the philosophical dualism. Irrespective of the circumstances, the pragmatic philosophy argues that qualitative and quantitative methods can be used to complement each other in a single study as a means for allowing for the completeness,

adequacy and solidity of findings (Tashakkori & Teddlie, 2010; Tashakkori & Creswell, 2007; Bryman & Bell, 2015).

The pragmatic philosophy is not aligned to a particular system of reality and works well with the mixed methods approach thus enabling a researcher to draw with no limitations from both quantitative (QUAN) and qualitative (QUAL) assumptions (Creswell, 2007; Almeida, 2018). Pragmatism "views knowledge as both socially constructed and based on the world we experience" (Creswell, 2014: 36). Pragmatism accepts that research findings can either be value-laden or can be value-free depending on the context and study purpose. In the current study, the findings are both value-laden and value-free. Creswell (2012) also avers that pragmatism views truth, meaning and knowledge as tentative and changing over time hence it is a philosophy that argues that what we obtain on a daily basis as knowledge, is provisional truth that works for that time and hence needs to be refined going forward for it to maintain its relevance. With regard to the purpose of the study, pragmatism argues that since research always occurs in social, historical, political and other contexts, the purpose of a study should only be to find out what works and to improve the prevailing situation (Chilisa, 2012; Creswell, 2012). In the context of the current study therefore, the researcher used the pragmatic paradigm to determine how the curriculum is being effectively implemented in PHEIs. This would enable the design of a practical framework that could be used to improve the way a curriculum is currently being implemented in the accredited PHEIs.

4.3.1.2   Justification for choosing the pragmatic paradigm for the current study

This study employed the pragmatic paradigm to inform its findings. Many factors were considered by the researcher before finally selecting pragmatism as the guiding philosophy for the study. First, the pragmatic paradigm gives the researcher freedom to use multiple methods, techniques and procedures to ensure that there is adequacy and completeness in the way the research question is answered (Mason, 2006). Second, by allowing the use of both quantitative and qualitative methods, pragmatism allows the researcher to critically examine the prevailing circumstances in which accredited PHEIs implement the curriculum so as to come up with rich data that can be used to support effective curriculum implementation going forward. Third, quantitative and qualitative

methods complement each other to provide a fertile ground for the coming up with valid and unquestioned research findings that can be used to effectively answer the research question(s) of the study.

4.3.2 Research approach

Bryman and Bell (2015) define a research approach as a procedure for carrying out research. Creswell (2012: 15) defines research approach as "a plan for research that spans the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation". From the definitions above, a research approach can be viewed as a procedure in which decisions about which research design, research method, and strategies for collecting and analysing data in a study are made. Creswell (2015) and also National Institute of Health Office of Behavioral and Social Sciences, (2018) argue that three mostly used research approaches include the mixed methods, quantitative, and qualitative research approaches. The mixed methods approach was used in the current study in the development of a framework to enhance curriculum implementation in accredited PHEIs.

4.3.2.1 Mixed methods approach

This study employed a mixed methods approach. Mixed method research is defined as "a type of research in which a researcher or team of researchers combine elements of quantitative and qualitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration" (Zandvamari & Daryapoor, 2013:2). As a third community of practice (Almeida, 2018; Ponterotto, Mathew & Raughley, 2013; National Institute of Health Office of Behavioral and Social Sciences, 2018; Hemming, Levine & Gallo, 2017; Chege, 2011), mixed methods research has been viewed as adding value to research by combining different methods of data collection together to enrich the findings of research. It is for this reason that the researcher chose the mixed methods approach in the current study.

The mixed methods research approach is viewed as both a method and methodology for conducting research that involves collecting, analysing, and integrating quantitative and qualitative research in a single study or a longitudinal program of inquiry (Hesse-Biber & Johnson, 2016; Creswell, 2015; Zoellner & Harris, 2017; Johanson & Christensen, 2012; Dunlop, 2013; De Lisley, 2011). As a method, mixed methods is a tool or technique for conducting research but as a methodology mixed methods signifies a systematic way in which research is carried out and spans activities from how data is collected to how it is interpreted (Creswell & Plano Clark, 2017; Hemming, Levine & Gallo, 2017; Bowen, Rose & Pilkington, 2017; Creswell, 2013; Neuman, 2011). The meaning and nature of mixing in mixed methods research is still highly contested (Creswell, 2013) hence as a construct, mixed methods research lends itself to a number of definitions as shall be shown in the section that follows.

Earlier studies regarded mixed methods as multi-methods, integrated, hybrid, and combined methods (National Institute of Health Office of Behavioral and Social Sciences, 2018; Creswell & Plano Clark, 2017; Almeida, 2018; Hall, 2012; Morse & Niehaus, 2016; Bryman & Bell, 2015). However, the meaning of mixed methods research has evolved and changed over time (of course while still a victim of contestation). Borrego, Douglas and Amelink (2009: 13) define the mixed methods approach as "a category of research approaches in which the researcher combines qualitative and quantitative research techniques, methods, approaches, concepts and language into a single study". A more comprehensive definition and understanding of mixed methods approach is given by Creswell (2015: 1) who avers that mixed methods is "an approach with philosophical assumptions as well as methods of inquiry, and which as a methodology, involves assumptions that guide the direction of the collection and analysis of both qualitative and quantitative data in the same study".

The mixed methods approach in this study is essentially of a parallel nature. Tthe following six designs are used in mixed methods research: sequential exploratory, sequential explanatory, concurrent triangulation, concurrent nested, concurrent transformative and sequential transformative (Creswell, 2013). In the current study, the parallel design also known as the concurrent triangulation design in which the quantitative (QUAN) and qualitative (QUAL) phases of the study are carried out at the

same time is therefore used and discussed in detail in this section. When employing the concurrent triangulation design in the mixed methods approach, both QUAN and QUAL data were collected and analysed in one single phase to provide confirmatory or conflicting findings that may enrich the study (Gallo, 2017; Almeida, 2018; Hall, 2012; Creswell, 2014; Guetterman, Creswell, Wittink, Barg, Castro, Dahlberg, Watkins, Deutsch & Gallo, 2017). The triangulation of both QUAN and qualitative data was done at the analysis phase of the study.

Figure 4.1 represents the concurrent (parallel) triangulation research design that assumes a QUAN-qual approach. The premise of this design is that QUAN and qual data is collected and analysed concurrently (Creswell, 2013; Terrell, 2012), with the QUAN phase given priority over the qual (Creswell, 2015). The main purpose of using this design is to ensure that the weaknesses of one method are compensated for by the strengths of the other method (Terrell, 2012; Creswell, 2007; 2013).
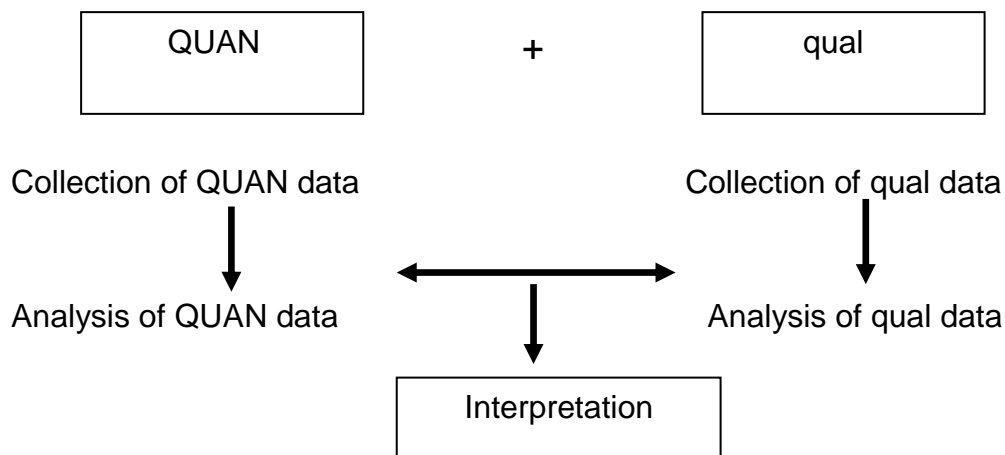
Figure 4.1: Concurrent Triangulation Design (Creswell & Plano-Clark, 2007: 181)

By using the concurrent triangulation design in the mixed methods approach, the primary aim is confirmatory, corroboration or cross-validation (Tashakkori & Teddlie, 2009). In the current study, qualitative results were used to validate quantitative results with regard to how a curriculum is implemented in accredited PHEIs.

The concurrent triangulation design has a number of major strengths and weaknesses (Johnson & Onwuegbuzie, 2010). The first major strength of the design is its familiarity with many researchers which lends itself to being used even by beginners in the

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research profession. The second strength of this design is that since data collection and analysis in the two phases (QUAN and qual) are done at the same time, it is not a time-consuming design when compared to sequential designs. Finally, and perhaps the main of the strengths of this design, it allows the weaknesses of one method to be offset by the strengths of the other method leading to the production of more valid research findings.

The concurrent triangulation design has one major weakness according to Johnson and Onwuegbuzie (2010). Concurrent use of the QUAN and qual phases of the research process requires expertise in both quantitative and qualitative research methods and a lot of investment in effort for a researcher to be able to comprehensively study a phenomenon. To deal with this twin challenge of effort and expertise requirements in the context of the current study, the researcher committed to enhancing his research skills by doing further reading, attending conferences, attending seminars and workshops as well as by publishing in reputable journals (as a means of putting theory into practice).

As has already been indicated above, this study employed a concurrent triangulation design in the research process that uses the mixed methods approach. It is therefore important at this point to discuss the reasons why the concurrent triangulation design was selected for this study. The first justification is that by using two methods of research at the same time as allowed for by concurrent triangulation, the research ensured that weaknesses inherent in one method were compensated for adequately by the strengths inherent in the other method. In the context of the current study, this design ensured that the weaknesses of the semi-structured interviews were compensated for by the strengths of a structured questionnaire and vice versa. Such a design would enable the researcher to come up with more valid and substantiated research findings (Creswell, 2013; Caruth, 2012; Cortey, 2013).

The second justification for choosing the concurrent triangulation design for this study was to allow for the collection of a richer and comprehensive data, adequate enough to answer the research questions regarding how accredited PHEIs implement the curriculum in a highly regulated environment. Thirdly, according to Creswell and Plano

Clark (2017), the use of the concurrent triangulation design enables the interpretation of results to either identify areas of data convergence as a means of validating knowledge claims of the study or identify areas of divergence of research findings so as to use this divergence as a basis for future research on how accredited PHEIs implement their curriculum. The fourth and final justification for the selection of the concurrent triangulation design for this study is that since data collection and analysis in both the QUAN and qual phases is a one-off process, this design is not time consuming and hence allows the researcher more time to adequately deal with issues related to the interpretation, conclusions and report writing.

4.3.2.2 Justification for selecting mixed methods approach in the current study

A number of decisions made by the researcher justified the selection of the mixed methods approach for the current study. The first reason was that by combining both quantitative and qualitative methods, the mixed methods approach applied both deductive (testing of theories and hypotheses) and inductive (discovery of patterns) approaches and hence provided a strong case for complete and valid results. In the context of the current study, deduction is used for testing hypotheses on variables that have an impact on how the curriculum is implemented in PHEIs while induction is used to establish patterns in the way the curriculum is implemented in highly regulated PHEIs.

The second justification for choosing this approach for the current study is that it allows the researcher through the use of multiple research methods, epistemologies and approaches, to collect multiple sets of data. Using multiple methods and approaches enables the strengths of one method to offset the shortcomings of the other thus producing valid results (Fetters, Curry & Creswell, 2013), in this case, on how a curriculum is implemented in highly regulated PHEIs in Botswana.

The third and perhaps very important reason for selecting the mixed methods approach for the current study is that it allowed the researcher to use different methods for different purposes (Creswell & Plano Clark, 2017; Chilisa, 2012; Mertens, 2010). For example, in the current study, the questionnaire was used to establish what lecturers

thought were challenges faced in implementing the curriculum in PHEIs, strategies used to mitigate the challenges and factors that act as enablers for effective curriculum implementation in the PHEIs. On the other hand, interviews were used on academic middle managers (AMMs) who included heads of department, module leaders, and Deans of Faculty on how they superintend over the implementation of the curriculum in their departments and Faculties in PHEIs. The collection of these different yet complementary versions of data enriched the study and led to more valid findings especially because qualitative data provides more detailed descriptions of how the curriculum is implemented in PHEIs.

4.3.3 Research strategy

This study employed a descriptive research strategy that uses surveys. A descriptive research strategy is concerned with finding out what is meant (Creswell, 2015; Belli, 2008; Shields & Rangarjan, 2013; Saunders, Lewis & Thornhill, 2012; Creswell, 2014; Muijs, 2011) by describing a behaviour or type of subject rather than looking for any specific relationships among two or more variables (Creswell & Plano Clark, 2017; Hemming, Levine & Gallo, 2017; Hall, 2012). Saunders, Lewis and Thornhill (2012) define a research strategy as a general plan for carrying out research that has as its characteristics and clear objectives derived from research questions, which specify the sources from which the researcher intends to collect data, and also which takes into consideration the constraints the researcher may have that include availability of data, adequacy of time, proximity of location and adequacy of resources such as finance.

Williams (2007) also defines a descriptive research strategy as a strategy that seeks to examine the situation as it exists in its current state. It is a strategy according to Salaria (2012) that deals with issues related to the current phenomena in terms of conditions, practices, beliefs, processes, relationships or trends. A descriptive research strategy is thus concerned with finding out what is meant by describing a behaviour or type of subject rather than looking for any specific causal relationships between or among two or more variables (Creswell, 2014; Creswell & Plano Clark, 2017; Hall, 2012). These definitions concur with the definition given by Sousa, Driesnack and Mendes (2007) who

argue that a descriptive research strategy seeks only to describe what actually exists, determine the frequency with which it occurs and categorise the collected data.

From these definitions, a descriptive research strategy is thus a process for collecting, recording and analysing data that could involve a wide variety of data collection methods, including questionnaires and interviews.

4.3.3.1   Survey research

Surveys are the most commonly used types of research in the social sciences (Creswell, 2014; Kowalczyk, 2015; Denscombe, 2010). In the context of this study, a broader and more inclusive perspective of survey that accommodates mixed methods was used. The word survey comes from the Anglo-French word *surveer* which meant to look over or *sur+veer* which meant to see (Merrian Webster Dictionary, nd). As a result of this historical meaning, the definition of survey research has variously been taken to mean any of the following three contexts: To examine the condition or situation, to value appraise, query someone or something in order to collect data for the analysis of some aspect of a group or area, to view and consider something comprehensively (Mathiazhagan & Nandan, 2010; Sincero, 2016; Kowalczyk, 2015). According to Williams (2007), survey research seeks to examine the situation as it actually exists in its current form by identifying the attributes of a particular phenomenon based on an observable basis of exploration, i.e., to create a snapshot of the prevailing situation related to the phenomenon of interest.

A survey also is defined as a process for collecting, recording and analysing data that could involve a wide variety of data collection methods, including questionnaires and interviews. According to Visser, Krosnick, Lavrakas and Kim (2013: 3), "all social psychologists and scientists have long recognised that every research method of scientific inquiry is subject to limitations and that choosing among research methods inherently involves trade-offs". This means that choosing a research strategy is a balancing act of weighing weaknesses of a strategy against strengths. Visser, et al (2013) further state in their book that since research strategies will always have strengths and weaknesses, many researchers and methodologists have tended to

support the use of multiple methods and argued that valid conclusions can mostly be derived by triangulating across methods and measures that have non-overlapping advantages and disadvantages. The arguments above are some of the reasons why the researcher chose to use both types of surveys namely structured questionnaire and semi-structured interviews which employ quantitative and qualitative methods respectively to investigate how accredited PHEIs implement the curriculum in a highly regulated environment.

According to Sousa, et al. (2007), when using this type of research strategy, the researcher observes, describes and documents various aspects of the phenomenon under study. In the context of the current study, the researcher described and documented aspects of curriculum implementation such as challenges faced, strategies used to mitigate the challenges, as well as factors that enabled and inhibited effective curriculum implementation in accredited PHEIs.

> A survey research strategy is therefore *"a type of research that is used to answer questions raised, to solve problems posed or observed, to assess needs and set goals, to determine if specific objectives have been met, to establish baselines against which future comparisons can be made, to analyse trends across time, and generally to describe what exists, in what form and amount, and in what context"* (Kowalczyk, 2015: 3).

From the definition above, a survey is hence a means for gathering data about characteristics, actions or opinions of a large group of people through the use of a representative sample (Creswell, 2015; Babbie, 2010). In the context of the current study, the survey that employs a questionnaire and interview guide for data collection was used to answer the questions about the challenges PHEIs face when implementing the curriculum, strategies PHEIs use to mitigate the challenges, and whether there are any factors or opportunities that act as enablers to the effective implementation of the curriculum by the accredited PHEIs.

Survey research has inherent strengths (Creswell, 2012; Saunders, et al., 2012; Sincero, 2016). Some of the strengths of surveys are the ones given below. First, surveys are efficient because they can use small samples to collect data that can be used to draw conclusions on large populations. Second, surveys are capable of collecting data from geographically spread areas through the use of postal and online questionnaires and also through the use of telephone interviews. Third, surveys use random and representative samples of the population under study (for quantitative data), and their results have high internal and external validity and their findings can be generalised to the whole population. Fourth, surveys have a high degree of flexibility as they can be combined with other research methods to produce richer data. Fifth, surveys can elicit data about attitudes, perceptions and opinions about a phenomenon which other research types cannot easily do. Sixth, surveys can be done at low cost as a researcher can choose not to travel at all but use the Internet, the post and a telephone to conduct surveys, and the cost will only be the production of hard copies of the questionnaire. Seventh, surveys use standardised questions, and this allows for greater precision in the measurement of gathered data. Eighth, as a result of the representativeness of samples in quantitative research, surveys are able to generate statistically significant data when compared to other research types.

Surveys have a number of inherent weaknesses (Creswell, 2014; Saunders et al, 2012). First, they are unsuitable when an understanding of the historical context of a phenomenon is required. To address this weakness, the researcher engaged in document analysis to gain an in depth understanding of the history of PHEIs in Botswana and how these institutions have been implementing the curriculum since the time these institutions started operating in Botswana. Second, surveys are prone to errors such as intentional misreporting of behaviour by respondents to confound results or to hide their inappropriate behaviour. To address these issues, respondents in this study were told before the survey that their responses would be kept in utmost confidence and that at any point should any of the participants wish to withdraw their participation for whatever reason, they would be free to do so. Third, the inflexibility of surveys is another weakness. Once the survey instrument is used, it cannot be modified no matter how genuine the modification is otherwise the results would be different. To

deal with this weakness, the researcher used multi-methods so that the weaknesses of one instrument are compensated for by the strengths of the other.

4.3.3.2   Justification for the choice of descriptive survey research in the current study

The following are some of the reasons that necessitated the choice of the descriptive survey in the current study. First, and according to Salaria (2012), descriptive surveys investigate the current occurrences in terms of conditions, practices, beliefs, processes, relationships or trends. Survey research was considered appropriate for the current study.

The survey method was appropriate for investigation all the above factors because both qualitative and quantitative data was going to be collected for adequacy and completeness. In addition, the use of multiple methods according to Creswell and Plano-Clark (2017) allows data from one research method to confirm findings of another method thus enriching the study or disconfirming results of another method and thus allowing room for further research in the area (Mertens, 2010; Creswell, 2015). In the current study, results from the qualitative phase of the study could be used to confirm or disconfirm results from the quantitative phase about how the curriculum is implemented in accredited PHEIs and vice-versa.

Furthermore, survey research produces results with high statistical significance due to the fact that the quantitative data uses a random and representative sample (Salaria, 2012). Also, since survey instruments are standardised, they have greater capacity for greater precision in terms of the measurement of gathered data when compared to other types of research (Bhattacherjee, 2012). This means that in the context of the current study surveys are able to generate more valid and precise results on how the curriculum is implemented in PHEIs when compared to other research types.

4.4   RESEARCH METHODS

This section discusses the population and sampling procedures adopted in this study. It first provides clarification of research sites and participants and then articulates the sampling procedures that were used in the study.

4.4.1   Research sites and participants

Six accredited PHEIs were used in this study. Eight accredited PHEIs in Botswana offer degree qualifications and of these eight, only six have been operating as degree-offering institutions for at least five years. This means that these six institutions have had a broad experience on what it means to operate in a highly regulated HE environment in terms of challenges faced and strategies used to ensure successful implementation of a curriculum. As a result, these institutions which were purposively selected were regarded as rich sources of data for this study, and staff from these institutions formed the population from which study samples for the quantitative and qualitative phases of the study were selected.

Population is defined as all the individuals or units of interest who share certain common characteristics in a study (Hanlon & Larget, 2011; Burns & Grove, 2011; Neuman, 2011). In the context of the current study, three populations included six PHEIs, 273 academic middle managers (AMMs). The AMMs or middle managers managed most of the activities in their faculties and departments. These included Deans of faculty, Assistant Deans of Faculties, Heads of Departments (HODs), Assistant Heads of Department (AHODs), and module leaders (MLs), and 1500 lecturers. Lecturers who were selected into the study were those who had at least five years of teaching experience as these were viewed as rich sources of data due to the experience teaching in the PHEIs. With reard to AMMs (Deans, HODs and Module leaders), these were agin people with atleast two years of experience in managing academic activities in the faculies and departments and were also viewed as rich sources of data for the study. Faculty Deans are the academic managers responsible for academic activities in the different faculties. HODs, also called chairpersons in other universities, are managers responsible for academic activities in their different

departments. MLs, also called course leaders are managers responsible for academic activives in particular specific (courses).

To ensure the right population of units or individuals for this study the eligibility criteria were clearly articulated. Eligibility criteria are defined as a list of characteristics that are required for membership in the target population (Burns & Grove, 2014). In the context of the current study, the eligibility criterion for selecting the six PHEIs for the study included the fact that at the time of this study the PHEIs had been operating as degree-offering institutions for at least five years. The selection of AMMs and lecturers into the study used the following eligibility criteria:

- The staff member should be an academic member (lecturer or AMM) in the selected PHEIs;
- The lecturer should be actively involved in teaching or academic management in the PHEIs; and,
- The lecturer should have been employed in the respective PHEI for at least one year.

After the correct population of individuals is identified, sampling is then carried out. Sampling is the process by which a proportion of the population which could be individuals, objects, events or situations, is selected from a population of interest to help in discovering something about the population (Salaria, 2012; Zikmund & Babin, 2010. A sample, according to Hanlon and Larget (2011), is a component of the population. In the current study, the researcher employed stratified random sampling as well as purposive sampling strategies to select the participants of the study.

Purposive sampling strategy is used to select six accredited PHEIs 12 AMMs for the qualitative phase of the study. Purposive sampling is defined as a strategy in which individuals or units that are considered information rich are targeted and selected for a study (Neuman, 2011; Creswell, 2013). AMMs are responsible for the management of curricula in their Faculties and departments while lecturers are responsible for the implementation of the curriculum.

Stratified random sampling was used to select 306 lecturers for the QUAN phase of the study from 1500 lecturers while stratified purposive sampling was used to select 12 AMMs for the qual phase of the study from 273 AMMs. Table 4.1 shows that the sample figure of 306 for the QUAN phase of the study was calculated from 1500 lecturers in PHEIs using a sample size table (The Research Advisors, 2006), with a margin of error of 5%.

Table 4.1: Sample Size calculation (The Research Advisors, 2006:1)

Population size	Confidence = 95%		
	Margin of Error = 0.05	Margin of Error = 0.025	Margin of Error = 0.01
10	10	10	10
20	19	20	20
30	28	29	30
50	44	48	50
75	63	72	74
100	80	94	99
150	108	137	148
200	132	177	196
. . .	. . .	. . .	. . .
1000	278	606	906
1200	291	674	1067
1500	306	759	1297
2000	322	869	1655
2500	333	952	1984

4.4.1.1 Stratified random sampling

Stratified random sampling is a probability sampling procedure that is used primarily on quantitative-oriented studies in which various subgroups (strata) in a population of interest are proportionately represented in the study sample (Creswell, 2015; Teddlie & Tashakkori, 2010). This definition is confirmed in the definition by Teddlie and Tashakkori (2009) who opined that stratified sampling involves identifying subgroups (stratification) in a population and then using simple random sampling procedure to select participants proportionately from each subgroup so that each subgroup is equitably represented. Therefore, according to Teddlie and Yu (2007) the stratified random sampling procedure is a mix of stratified sampling and random sampling.

Table 4.2 shows how calculations of sample numbers in each of the strata were done. It is shown in Table 4.2 that out of 1500 lecturers in their different institutions (strata), a sample of 306 lecturers proportionately representing their institutions were selected using simple random sampling where names of the lecturers were picked from the hat until the required sample number for each institution (stratum) was achieved. Names involved in the selection process were obtained from Faculty Deans of the six institutions. After the selection process, those lecturers whose names were picked were informed of their selection into the study through the offices of the Faculty Deans.

Table 4.2: Calculation of QUAN sample size for stratified random sampling

PHEIs	X1	X2	X3	X4	X5	f	Totals
Number (N_i) of lecturers in each PHEI	450	512	180	143	125	90	$\sum N_i$ =1500
Sample size (S_i = {($N_i/\sum N_i$) x $\sum S_i$} of lecturers selected from each PHEI	92	104	37	29	26	18	$\sum S_i$ = 306

Key:

N_i = Lecturer numbers in each of the six PHEIs, i = 1, 2, 3, 4, 5, 6.

$\sum N_i$ = Total population of lecturers in the six PHEIs, i = 1, 2, 3, 4, 5, 6.

S_i = Samples sizes for each of the six PHEIs, i = 1, 2, 3, 4, 5, 6.

∑Si = Total sample size of lecturers for the QUAN phase, i = 1, 2, 3, 4, 5, 6.

Xi = Accredited PHEIs, i = 1, 2, 3, 4, 5, 6.

Subsection 4.4.1.1 discussed the stratified random sampling procedure and the process of selecting the sample for the QUAN phase of the study. The next section below also discusses the stratified purposive sampling strategy and the process of selecting the qualitative for this study.

4.4.1.2   Stratified purposive sampling

Stratified purposive sampling is primarily used on qualitative-oriented studies (Hanlon & Larget, 2011). It is a sampling strategy in which the selection of study units (individuals, groups of individuals, events, objects etc.) is based on specific purposes associated with answering the research question (Neuman, 2011; Creswell, 2013). De Waure, Poscia, Virdis, di Pietro & Ricciardi (2015) also aver that stratified purposive sampling is used for selecting information-rich participants to a study. The definition of purposive sampling by de Waure, et al. (2015) dovetails with the one given by Cohen, Manion and Morrison (2007) who view stratified purposive sampling as the process in which a researcher handpicks participants from groups sharing the same characteristics to a study based on their judgement of their typicality and experience of the central phenomenon under investigation. Stratified purposeful sampling is used when enough information is known to identify characteristics that may influence how the phenomenon is manifest (Patton, 2015; Creswell, 2013; Guetterman, 2015; Cohen, Manion & Morrison, 2011). In purposeful sampling, Creswell (2015) argues that particular settings, events, organisations or people are deliberately selected for the critical information they can provide that cannot be collected from any other sampling procedure.

A stratified purposive sampling strategy was used in the current study to select 12 AMMs from the 273 AMMs in the selected six PHEIs to participate in the qualitative phase of the study. The smaller sample size in the qualitative phase is justifiable by the researcher's intent not to generalize from the sample to a population, but to explain, describe, and interpret a phenomenon (Maxwell, 2013). In support of small sample sizes in qualitative studies, other authorities also argue that sampling should not be

taken as a matter of representative opinions, but rather as a matter of information richness in which appropriateness and adequacy are critical elements that define the richness of data in a qual study (Creswell, 2013; Marshall & Rossman, 2011; Maxwell, 2013; Patton, 2015). Patton (2015) further opines that the stratified purposeful sampling strategy differs from stratified random sampling in that the sample sizes are likely to be too small for generalization or statistical representativeness.

While the purpose of a stratified purposeful sampling strategy is to capture major variations rather than to identify a common core, although the latter may also emerge in the analysis, in the current study, stratified purposeful sampling seeks to capture both the variations and common elements with regard to how the curriculum is implemented in the selected accredited PHEIs operating in a highly regulated environment. AMMs were selected in the qualitative phase of the current study because they play both a strategic and operational role in the implementation of curriculum in PHEIs. This is so because they participate in both strategic meetings and decision making with regard to how the curriculum is implemented in the institutions and also how they teach in their areas of specialisation. As a result, it is felt that AMMs in PHEIs are viewed in this study as the right source of rich descriptions of how the curriculum is implemented in PHEIs in terms of the role of the external (regulatory) environment, the role of top management in supporting the curriculum implementation process and also their dual role as being both managers and lecturers in the curriculum implementation matrix in their institutions.

Table 4.3 shows how the number of interview pariticipants was calculated in order to ensure that each institution is represented in the qual phase of the study. Only experienced AMMs who have been at the institutions for at least five years in the PHEIs were selected for participation in interviews with the selection favouring those with more years of management experience in Faculties and departments.

Table 4.3: Calculation of qual sample size for purposive sampling

PHEIs	Y1	Y2	Y3	Y4	Y5	Y6	Totals
Number (ni) of AMMs in each PHEI	80	91	35	31	20	16	$\sum ni$ =273
Sample size (si = {(ni/$\sum ni$) x /$\sum si$} of AMMs selected from each PHEI	4	4	1	1	1	1	$\sum si$ = 12

Key:

ni = AMM numbers in each of the six PHEIs, i = 1, 2, 3, 4, 5, 6.

$\sum ni$ = Total population of AMMs in the six PHEIs, i = 1, 2, 3, 4, 5, 6.

si = Sample sizes of AMMs for each of the six PHEIs, i = 1, 2, 3, 4, 5, 6.

$\sum sl$ = Total sample size of AMMs for the QUAL phase, i = 1, 2, 3, 4, 5, 6.

4.4.2   Data collection

Section 4.4.2 presents information on the structured questionnaire and the semi-structured interview guide.

4.4.2.1   Structured questionnaire

A structured questionnaire was used for data collection in this study (see Appendix 1). A questionnaire was invented by Sir Francis Galton as a tool for data collection that consists of a series of questions and other prompts whose main use is to gather data from respondents (Abawi, 2013; Polit & Beck, 2012; Babbie, 2010; Saris & Gallhofer, 2014). According to Given (2008), a questionnaire consists of a series of questions and prompts used for collecting data from respondents. It is also defined as "a means of eliciting the feelings, beliefs, experiences, perceptions, or attitudes of some sample of individuals which could be structured or unstructured (Acharya, 2010:7). Such a questionnaire according to Abawi (2013: 3) "if well-designed, should be able to meet the research goal and objectives and minimize unanswered questions, which is a common problem bound to many surveys".

There are three types of questionnaires in research; namely, the unstructured, structured and quasi-structured questionnaires (Acharya, 2010; Saris & Gallhofer, 2014; Phellas, et al., 2011). The current study employed a structured questionnaire. The structured questionnaire employed a 5-point Likert scale whose dimensions ranged from Strongly Agree (SA), Agree (A), Neutral (N), Disagree (DA) to Strongly Disagree (SDA). For ease of analysis using descriptive statistics, each of the Likert scale dimensions was assigned a weight as follows: SA-5, A-4, N-3, DA-2, and SDA-1.

A number of strengths are inherent in a structured questionnaire (Neuman, 2011; Creswell, 2013; Timpany, 2011). The first strength of a questionnaire is that it produces results with a high level of reliability (Timpany, 2011). This is due to the fact that a structured questionnaire has standardised wording and design and hence lends itself to providing reliable results. To ensure high reliability, the researcher used a structured questionnaire in the current study. The second strength of a structured questionnaire relates to ease of coding when analysing data. Creswell (2013) argues that the results of a structured questionnaire are much easier to code than can be done in any other data collection instruments. To ensure effective coding of data collected using the structured questionnaire, the researcher in the current study deployed the Statistical Package for Social Sciences (SPSS) version 22. The third strength of the structured questionnaire used in the current study relates to convenience. Timpany (2011) argues that a questionnaire can be answered at the respondent's convenience as long as it is answered within the given timeframe. To ensure convenience, the researcher allowed the questionnaire to be answered within a period of two weeks for those in the locality of the researcher while one month was allowed for those who had to post back their responses.

The fourth strength of a structured questionnaire lies in it being able to cover respondents in a wider geographical area including remote areas. Borowick (2017) argues a researcher can choose the methods of questionnaire administration that helps them to cover the preferred geographical area because a questionnaire can be administered through multiple means that include by post, internet, e-mail and hand delivery. In the context of the current study, the researcher used hand delivered some questionnaires and posted others to the participants. The fifth strength is that a

questionnaire is an economical way of collecting data owing, according to Timpany (2011), to the fact that less costly means of administering the questionnaire to a selected sample such as using post, e-mail, Internet and hand delivery can be used. The researcher used the post and e-mail in this regard. The final advantage relates to the ability of the questionnaire to minimise researcher influence. Timpany (2011) argues that the standardised nature of the structured questionnaire and also the fact that respondents answer the questionnaire outside the presence of the researcher means that chances of the researcher interfering in the data collection are almost nil.

A structured questionnaire has however some inherent weaknesses (Timpany, 2011; Borowick, 2017; Saunders, et al., 2012). The first and perhaps most common weakness relates to rate of return. Yount (2006) argues that the rate of return of questionnaires is sometimes quite low. To ensure an acceptable rate of return of the questionnaires, the researcher did some follow-ups using telephone and emails. The second weakness of questionnaire is about lack of guarantee on the willingness and/or motivation of respondents to respond. This, according to Timpany (2011), means that if the respondents are in a bad mood, they may not take their answers to the questionnaire seriously and will end up just ticking thus affecting the validity and reliability of the responses. To deal with his weakness, the researcher allowed enough time for respondents to both settle down from anything bothering them as well as to answer the questionnaire. In this case and as already alluded to, the researcher allowed two weeks for those in the vicinity of the researcher and one month for those outside the vicinity of the researcher to respond to the questionnaire.

4.4.2.2 Justification for the choice of the structured questionnaire in the current study

Three major reasons informed the decision by the researcher to choose the structured questionnaire as an instrument for data collection in the current study. The first reason relates to the issue of geographical spread of the participants from which data can be collected. Questionnaires in this study allowed the researcher to collect data from participants from a large geographical spread owing to the fact that they can be administered using means such as the internet, e-mail and by post. The second reason

is that of cost. Questionnaires according to Creswell (2012) and Timpany (2011) are some of the most economical way of collecting data on a phenomenon of interest. The third reason why the researcher chose structured questionnaires in the current study relates to issues of reliability of results. According to Timpany (2011), structured questionnaires are able to collect more reliable and valid results than any other instrument that is not standardised because they go through some standardisation during the design stage.

4.4.2.3   Semi-structured interviews

Interviews according to Abawi (2013: 7), "consist of collecting data by asking questions and such data can be collected by listening to individuals, recording, filming their responses, or a combination of methods". There are four types of interviews in research; namely, structured, semi-structured, unstructured (in depth), and focus group discussion (Abawi, 2013; Saunders, et al., 2012; Given, 2008). For this study, semi-structured interviews were used and these are discussed in depth.

Semi-structured interviews allow the interviewer more freedom to modify the wording and order of questions (Abawi, 2013) and to avoid a formalised list of questions (Doyle, 2014; Creswell, 2013; Chilisa, 2012; Phellas, et al., 2011). This means semi-structured interviews give the interviewer the discretion to choose the order of how the questions are asked. Most importantly, semi-structured interviews according to Harrell & Bradley (2009: 4) "are often used when the researcher wants to delve deeply into a topic and to understand thoroughly the answers provided". Semi-structured interviews were used in the current study.

Semi-structured interviews have a number of inherent strengths (Phellas, et al., 2011; Saunders, et al., 2012; Creswell, 2013). The first strength is that these interviews are easy to record. Phellas, et al. (2011) argue that a researcher can use audio and video gadgets to record the interviews and transcribe them at a later stage. In the context of the current study, the researcher used audio recording devices during the interviews. The second strength is that these interviews present a very efficient, simple and practical means of collecting data about the perceptions, attitudes, feelings and opinions

of respondents in a way that cannot be matched by other data collection instruments (Creswell, 2013; Saunders, , 2012). In the context of the current study, semi-structured interviews were very useful in collecting data about their perceptions, feelings, emotions and attitudes toward implementing the curriculum in a highly regulated environment.

The third strength is that semi-structured interviews have the inherent capability to resolve the problem of the researcher pre-determining issues that will or will not be part of the interviews since the flow and not the interviewer determines how the interview proceeds (Saunders, et al., 2012). In the current study, the researcher provided guiding questions to get the interview going but let the flow of the interview dictate how the interview proceeded. The fourth strength of semi-structured interviews is that by allowing interviewees to speak in greater detail and depth about a phenomenon of interest, they help in producing richer data about the phenomenon than any other non-interview data collection method (Creswell, 2015). In the context of the current study, the researcher allowed interviewees enough time to expand on their responses so that they were able to clearly articulate and provide adequate detail about the research phenomenon.

Semi-structured interviews also have some weaknesses (Creswell, 2013). The most common weakness of semi-structured interviews according to Phellas, et al. (2011) is that they are time consuming. Discussions between the interviewer and interviewee tend to take some time due to probing and clarifications required for the true picture of the phenomenon under study to come out. To mitigate the weakness in the current study, the researcher probed the interviewee while at the same time keeping check of time to ensure the interviews were completed within the allocated time. The second weakness of semi-structured interviews is that their success depends on the interviewing prowess or skills of the interviewer. According to Given (2008), the success of the semi-structured interview is as good as the person interviewing. To mitigate this weakness, the researcher ensured that all ther interviewers received adequate training on how to conduct the interviews.

The third weakness is that semi-structured interviews are prone to errors such as the interviewer unconsciously giving clues to the response they prefer during the interviews

(Creswell, 2013). Such a weakness affects the validity and reliability of the results. To mitigate this weakness, the researcher in the current study subjected all interviewers to rigorous training on the skills of interviewing in research. The fourth and final weakness of semi-structured interviews is the use of long winded questions which may confuse the interviewees ending up with them failing to answer the questions to the best of their abilities (Phellas, et al., 2011). To mitigate this weakness, the researcher subjected all interview questions to expert opinions and their recommendations were incorporated into the final interview schedule.

4.4.2.4　　　Justification for choosing semi-structured interviews in the current study

A number of reasons are presented on why the researcher selected semi-structured interviews to collect the data. The first reason is that semi-structured interviews provide an interviewee with a platform to explain in detail how PHEIs implement the curriculum in a highly regulated environment. Rich data was therefore collected from the use of this research method. Detailed and rich descriptions of how the curriculum is implemented in accredited PHEIs enabled the researcher to expose the challenges faced, the strategies used to mitigate the challenges as well as any factors that acted as enablers to effective implementation of the curriculum in these institutions. Secondly, the semi-structured interview helped to either confirm or disconfirm the results from the quantitative phase thus opening a window for future research on how accredited PHEIs operating in a highly regulated environment implement the curriculum. The next section links various components of the research process from research questions to research design phases.

4.4.3 Research process

Before the data collection could begin, the researcher ensured that all ethical issues were complied with. Ethical clearance was obtained from the university, the research permit from the relevant Government ministry in Botswana, and informed consent from participants. They were assured that the information they shared was going to be kept confidential. For the selection of participants, the research sought assistance of Faculty Deans. With the assistance of Faculty Deans at the accredited PHEIs, staff records

were perused. The records showed that the highest number of lecturers at the PHEIs were located at the main campuses or head offices in Gaborone, Botswana. As a result, the researcher administered 80% of the questionnaires to lecturers at the Gaborone main campuses and the remaining 20% at the satellite campuses in Francistown and Maun. In the Gaborone campuses the questionnaires were hand-delivered to the selected lecturers due to the proximity of the campus to the researcher's residence. Other questionnaires were posted to the satellite campuses using the emails of the selected staff. Permission to use their emails was obtained through the assistance of center/campus managers. The hand-delivered questionnaires were collected by the researcher within two weeks of administering the questionnaires, while the questionnaires sent by e-mail were received after one full month. Subsequent to the return of the questionnaires follow-up calls were made to non-returnees. Overall, the return rate of completed questionnaires from the 306 administered questionnaires was 84%.

With regards to the interviews conducted, the researcher first summarised the purpose of the study so that all the participants could clearly understand their roles. Following that, the consent form was distributed to the participants so that they could read and understand its contents before signing it. All necessary answers and clarifications were made before the participants could sign the consent forms and before the interviews could begin. The researcher also made sure the environment in which the interviews were conducted was conducive and free from noise or any distractions. Each interview session took between 30 and 45 minutes to complete. That ensured broad interaction or conversation between the interviewer and interviewees before their attention and concentration span could lapse. At the beginning of each interview session, permission was also sought from the interviewees with regards to whether they would be comfortable to be recorded on audio. Fortunately, all of them agreed to be recorded on audio. To safeguard the accuracy and context of the data all the interviews were conducted and transcribed within 48 hours of completing the interview sessions.

4.4.4 Aligning research items

Table 4.4 was used to link research questions, objectives, units of analysis, instruments and research design phases. This helped to paint a picture of how the research proceeded and what research questions and objectives were addressed in the study.

Table 4.4: Alignment of research questions, objectives, units of analysis, research instruments and research design

Research Questions	Research Objectives	Units of Analysis	Research Instruments	Research Design Phases
1. What opportunities and factors act as enablers to effective curriculum implementation by accredited PHEIs?	1. To investigate opportunities and factors that act as enablers to effective implementation of the curriculum by accredited PHEIs.	Lecturers, AMMs	Questionnaires validated by interviews	QUAN validated by QUAL
2. What challenges do accredited PHEIs face when implementing the curriculum?	2. To identify challenges faced by accredited PHEIs when Implementing the curriculum.	Lecturers, AMMs	Questionnaires validated by interviews	QUAN validated by QUAL
3. What strategies do accredited PHEIs use to enhance the effective implementation of the curriculum?	3. To examine strategies used by accredited PHEIs for enhancing effective implementation of the curriculum.	Lecturers, AMMs	Questionnaires validated by interviews	QUAN validated by QUAL
4. How effectively is the curriculum implemented in accredited PHEIs?	4. To establish the extent to which curriculum is effectively implemented in accredited PHEIs.	Lecturers, AMMs	Questionnaires validated by interviews	QUAN validated by QUAL

4.4.5 Data analysis

This section discussed methods of data analysis for both the QUAN and qual phases of the study. Mixed methods studies require a researcher to be knowledgeable in different methods and techniques of analysing QUAN and qualitative data (Creswell, 2013; Teddlie & Tashakkori, 2010; 2011; Braun & Clarke, 2016; Creswell, 2015; McMillan & Schumacher, 2010; Yin, 2016; Oktay, 2012; Vaismoradi, Jones, Turunen & Snelgrove, 2016).

4.4.5.1   Analysis of QUAN data

The Statistical Package for Social Sciences (SPSS) version 24 was used for the analysis of QUAN data using both descriptive and inferential statistics. According to Creswell (2013), the purpose of descriptive statistics is to summarise the data to allow the researcher to understand the patterns that emerge. As part of descriptive statistics, tools such as tables, means, and standard deviation were used to summarise data in the current study with regard to how accredited PHEIs implement the curriculum in a highly regulated environment. The descriptive statistics also exposed patterns emerging from the data in the current study with regard to challenges the PHEIs faced, the strategies they used to mitigate the challenges as well as factors or opportunities that acted as enablers to effective curriculum implementation.

Parametric and non-parametric statistical tools were used to analyse the data as part of inferential statistics. The following statistical tools such as regression analysis, analysis of variance (ANOVA) and covariance analysis were used for data analysis. The Mann-Whitney U-Test was also used to test whether gender had a moderating influence on how the curriculum was implemented in PHEIs. Correlation analysis was used to determine the presence of multicollinearity in the data. Regression analysis was also done to establish the nature of the relationship between the predictor and criterion variables. The study also employed structural equation modelling (SEM) to analyse the influence of predictor variables on how the curriculum was implemented in PHEIs. At the end of the analysis, a framework on how to enhance the implementation of curriculum in accredited PHEIs was developed.

4.4.5.2   Analysis of QUAL data

The purpose of qualitative research is to generate a subjective understanding of people's perceptions, beliefs, and interpretations of the situation around them (De Vos, Strydom, Fouché & Delport, 2013; Baker & Edwards, 2012; Sparkes Smith, 2014). In the context of the current study, the researcher wished to generate an understanding of how AMMs view how curriculum implementation takes place in their institutions especially with regard to factors that facilitate or inhibit effective curriculum implementation as well as strategies that are deployed to mitigate the effects of inhibiting factors (Snelgrove, 2014; Braun & Clarke, 2016; Willig, 2013). Since the design of this mixed methods study was concurrent triangulation of unequal priority, the researcher gave higher priority to quantitative (QUAN) data and less priority to qualitative (qual) data. Qualitative data was used for confirmatory purposes only. The interview guide was developed according to specific themes (see Appendix 2); hence all transcribed data was organised according to those themes. The transcribed data was therefore used to either confirm or disconfirm results from the quantitative phase of the study.

4.5   TRUSTWORTHINESS

This section discusses data trustworthiness relevant to both QUAN and qualitative data in each phase of the study. Trustworthiness is defined as the process of ascertaining the credibility, transferability, confirmability and dependability of qualitative data and hence is viewed as the truth value of a piece of research and arises when a study reflects the realities of the participants (Devault, 2018). Establishing trustworthiness in each of QUAN and qualitative data differs significantly. For quantitative researchers, the methods used to establish trustworthiness include reliability and validity while for qualitative researchers the methods used to establish trustworthiness include credibility, transferability, dependability, and confirmability (Devault, 2018; Connelly, 2016).

4.5.1 Reliability and validity

Saunders, et al. (2012) define reliability as a measure of how consistent the findings are based on the method of data collection and analysis used. Bryan and Bell (2011) also define reliability as the dependability of the research results or the extent to which the research can be repeated to obtain the same results. Zikmund and Babin (2010) argue that dependability is an indicator of internal consistency. In the current study, reliability was measured through the internal consistency reliability measure. Internal consistency is defined as the degree to which test items that probe the same construct produce similar results (Zikmund & Babin, 2010; Quinlan, 2011). Zikmund and Babin (2010) argue that the most commonly used test for internal consistency is the Cronbach alpha (α) coefficient. Statistics Solutions (2018) defines the Cronbach alpha (α) index as a measure of internal consistency reliability of a composite score in research while Goforth (2015) defines Cronbach alpha as a measure used to assess internal consistency reliability of a set of scale or test items with the resulting α coefficient of reliability ranging from 0 to 1 in providing this overall assessment of a measure's reliability. Goforth (2015) argues that many methodologists recommend a minimum α coefficient between 0.65 and 0.8 (or higher in many cases) with α coefficients that are less than 0.5 being usually considered unacceptable.

As part of reliability and validity testing of questionnaire items, the psychometric properties of the predictor variables were analysed (see Tables 4.5 to 4.10). This analysis helps in coming up with the psychometric nomenclature of the framework for enhancing the implementation of the curriculum in accredited PHEIs in Botswana. Internal consistency reliability was used for testing the reliability of the questionnaire. Internal consistency reliability was measured using Cronbach's alpha index. By definition, Cronbach's alpha index (α) is used for evaluating the uni-dimensionality of a set of scale items as a means of making a determination of the degree to which the scale items are closely related to one another (Tavakol & Dennick 2011; Griffith, 2015). Overall, results in Tables 4.5 up to 4.10 show that the questionnaire was good enough to be able to collect both reliable and valid data in the study. Validity of the scale in this study was also measured using the Keiser Meyer Olkin (KMO), Average Variance Extraction (AVE) and Bartlett's test of sphericity in addition to testing the questionnaire

for content validity using expert opinion. All the measures above were meant to come up with the psychometric nomenclature of the framework for effective curriculum implementation in accredited PHEIs.

Table 4.5: Psychometric properties of the regulation of PHEIs

Cronbach Alpha	Mean	Standard Deviation	KMO	Bartlett's Test	AVE	Factor Metrics	Eigen value
0.74	3.94	1.03	.689	97.539	73.92	.751	2.85
Q5 Poor quality of teaching in PHEIs							
Q6 Inadequate and poor quality of resources in PHEIs	4.01	0.920				0.664	
Q7 Poor status of degrees offered with little to no market relevance in PHEIs	4.21	0.528				0.902	
Q8 Mismatch between promises and reality after graduation in PHEIs	4.16	1.07				0.975	
Q9 Shortage of qualified staff in PHEIs	4.71	0.571				0.72	
Q10 High dropout rates in PHEIs	4.12	0.910				0.761	
Q11 Poor quality of graduates lacking the basic skills	4.69	0.681				0.813	
Q12 Inadequate facilities in PHEIs	4.82	0.719				0.819	
Q13 Poor institutional governance	4.33	0.637				0.902	

Results in Table 4.5 show that Cronbach's alpha index for the regulation of PHEIs was 0.74 which shows a high internal consistency reliability with regards to the scale or questionnaire items in this independent variable. The factor metrics in this variable were all above 0.5 hence it was evidence enough of the discriminant validity and scale reliability. Table 4.5 also shows that the Eigen values of the questionnaire items in this independent variable were greater than 1 showing that there was very little variance in the views of the respondents with regard to the influence of regulation of PHEIs on effective curriculum implementation. The KMO of 0.689 which is a measure of sampling adequacy was also greater than 0.5 which showed that sampling was effectively done. Table 4.5 further shows that Bartlett's test of sphericity of 97.539 was significant; hence it was concluded that the questionnaire items for this variable were appropriate enough to be able to produce valid and reliable results in the current study. The mean value of 3.94 is an indicator that regulation of PHEIs had influence on how curriculum is implemented in accredited PHEIs.

Results in Table 4.5 further affirm the reasons why PHEIs were subjected to strict regulatory conditions. It is observed from the results that critical antecedents to effective curriculum implementation were not satisfied. For example, it is shown in Table 5.18 that there was general agreement among the respondents that in the PHEIs, there was poor quality of teaching (M=3.94; SD=1.03), inadequate and poor resources (M=4.01; SD=.920), poor status of degrees (M=4.21; SD=.528), mismatch between qualifications acquired and realities of the job market (M=4.16; SD=1.07), shortage of qualified staff (M=4.71; SD=.571), high student drop-out (M=4.12; SD=.910), poor quality of graduates (M=4.69; SD=.681), poor facilities (M=4.82; SD=.719), and poor institutional governance (M=4.33; SD=.902). All these challenges pointed to institutions that had serious quality problems; hence the government of Botswana had to come up with tough regulatory measures to ensure that processes that included curriculum implementation in these institutions were effectively and successfully carried out.

It is also evident from the results above that before being accredited, PHEIs considered themselves first and foremost as business targeting profit-making with little regard for quality issues and this certainly affected the quality of curriculum implementation in the

institutions. The issue of leaving activities of PHEIs to the vagaries of the market (see Subsection 2.4.1) was one area that seemed to have been taken advantage of by these institutions to mostly focus on profit making rather than on effective curriculum implementation. The next table presents the psychometric properties of the characteristics and conception of the curriculum.

Table 4.6: Psychometric properties of the characteristics and conception of the curriculum in PHEIs

Cronbach Alpha	Mean	Standard Deviation	KMO	Bartlett's Test	AVE	Factor Metrics	Eigen value
0.78							
Q14 lists of core subjects or syllabuses for courses such as Mathematics, Science, English, Social studies.	4.53	0.637	0.500	1058.833	67.97	0.500	3.71
Q15 all planned activities that happen inside and outside the classroom	4.59	0.494				0.701	
Q16 a set of learning objectives to be achieved.	2.46	1.288				0.704	
17 all experiences of the learner that occur under the guidance of the school.	4.39	0.812				0.719	
Q18 a course to be completed.	4.09	0.744				0.557	
Q19 a means or instrument for making society more just and better.	3.10	1.015				0.848	
Q20 a change agent.	2.66	0.954				0.882	
Q21 bits and pieces of knowledge, skills and information students learn in order to pass examinations.	2.68	1.057				0.813	
Q22 a means of perpetuating one's culture	2.26	0.903				0.704	

Q23 The curriculum implemented at my institution is relevant in addressing the needs of both the students and industry	3.45	1.004			0.63	
Q24 The goals and implementation strategies of the curriculum at my institution are clearly defined enabling curriculum implementation to be effectively and successfully done	4.17	0.827			0.81	
Q25 The curriculum content at my institution is well organised hence requires no frequent changes during implementation	3.55	0.813			0.77	
Q26 The curriculum at my institution does not have content that is too loaded, too detailed and complicated hence its implementation is not too difficult	4.09	1.331			0.71	
Q27 The curriculum at my institution is not too ambitious and too demanding making its	3.61	1.042			0.66	
implementation easy and successful						
Q28 The curriculum at my institution is specific, concrete and practical in addressing real classroom teaching situations	3.95	1.027			0.96	

Results in Table 4.6 show that Cronbach's alpha index for the characteristics and conception of the curriculum was 0.78 which indicates high internal consistency reliability with regard to the scale or questionnaire items in this independent variable. Almost all of the factor metrics in this variable were above 0.5; hence was evidence enough of the discriminant validity and scale reliability. It is also shown in Table 4.6 that the Eigen values of the questionnaire items in this independent variable were greater

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than 1 showing that there was very little variance in the views of respondents with regards to the influence of characteristics and conception of the curriculum on effective curriculum implementation in PHEIs. The KMO of 0.5 shows that sampling was generally effectively done. Table 4.6 further shows that Bartlett's test of sphericity of 1058.823 was significant and this was an indication that the scale items for this variable were appropriate enough to be able to produce valid and reliable results in the current study. The mean value of 4.53 showed that characteristics and conception of the curriculum exerted influence on how the curriculum was being implemented in accredited PHEIs.

In terms of specific ways in which the conception and characteristics of the curriculum exert an influence on how it is implemented in accredited PHEIs, results in Table 4.6 provide a clear view of how each of the factors of the independent variable affected curriculum implementation. Characteristics of a curriculum as well as the way a person conceives or understands it determine how they implement that curriculum (see Subsection 3.2.2.1). Results in Table 4.6 show that with regard to the conception of the curriculum, the most common conception of curriculum among the respondents was that it was all planned activities done inside and outside the classroom (M=4.59; SD=0.494). Such a conception then means that there is a complete shut-out of all unplanned (hidden curriculum) activities that contribute in part to the wholesome development of the student. As an example, Subsection 3.2.2.1(ii) shows that teachers who view or understand a curriculum as a set of planned activities tend to use drill and practice approaches of implementing the curriculum just to complete the planned curriculum while those who understand the curriculum as all experiences of the learner (see Subsection 3.2.2.1(iv)) use learner-centered approaches when implementing the curriculum.

In the context of the current study therefore, since the most common understanding or conception of curriculum is that it is all planned activities, this shows that most lecturers in the accredited PHEIs use teacher-centered methods when implementing the curriculum and this cannot lead to effective curriculum implementation. The fact that most lecturers in PHEIS tended to favour teacher-centered approaches to implement the curriculum is confirmed by the fact that very few of the respondents believed that the

curriculum could be implemented as a change agent (M=2.66; SD=.954) or as a means of perpetuating one's culture (M=2.26; SD=.903) because such understandings require lecturers to implement the curriculum using learner-centered approaches which are highly interactive when compared to teacher-centered approaches.

With regard to the characteristics of the curriculum in accredited PHEIs, results in Table 4.6 show that there is a general acceptance that currently, and thanks to strict regulatory requirements, curricula in accredited PHEIs are relevant (M=3.45; SD=1.004), goals of the curricula are clear (M=4.17; SD=.827), curriculum content is adequate and not too loaded (M=4.09; SD=1.331), curricula content is well organised that it does not require frequent reviews and re-organisations (M=3.55; SD=.813), curricula content is not too ambitious and too demanding (M=3.61; SD=1.042), and curricula content addresses real classroom situations (M=3.95; SD=1.027). This is a good sign towards effective curriculum implementation as these results show that in terms of characteristics, curricula in accredited PHEIs are well developed and implementable. Such well-developed curricula therefore just require lecturers to use proper implementation approaches and for institutional management to provide adequate and appropriate resources for the curricula to be effectively implemented. The next table discusses psychometric properties of the characteristics of the external environment.

Table 4.7: Psychometric properties of the characteristics of the external environment

Cronbach Alpha	Mean	Standard Deviation	KMO	Bartlett's Test	AVE	Factor Metrics	Eigen value
0.88							
Q29Strict approval of curriculum by regulatory authorities.	3.95	1.090	0.50	7054.493	86.001	0.885	3.17
Q30 Strict accreditation of curriculum by the regulatory authorities.	4.07	1.192				0.963	
Q31 Strict accreditation of the institution by the regulatory	4.17	1.222				0.954	

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authorities.							
Q 32 A highly centralised and regulated HE environment	4.52	0.667				0.903	
Q33 Too much interference in the operations of PHEIs by regulatory authorities in Botswana in the guise of performing regulatory activities in PHE.	4.39	0.849				0.835	
Q34 Lack of two-way communication between government regulatory agencies and PHEIs	4.12	0.992				0.960	
Q35 Recruitment of new lecturers not easy due to strict accreditation processes	4.10	0.814				0.848	
Q36 The institution, faculties or departments not being allowed to make changes which constitute more than 25% of curriculum content without permission of regulatory authorities, no matter how pertinent the changes are.	4.08	0.745				0.811	
Q37 Lack of transparency in the way regulatory authorities conduct quality assurance activities despite having detailed procedures as some PHEIs do not seem to have their services strictly regulated as others.	4.39	0.844				0.808	
Q38 Lack of support from government or its regulatory agencies when implementing curriculum	4.43	1.056				0.727	

Q39 Regulation of activities of PHEIs by government agencies concentrates on monitoring and accountability, ie, compliance, rather than improvement of performance.	4.15	0.808				0.854	
Q40 Internal quality assurance activities are not effectively monitored by the government regulatory agencies	3.99	1.171				0.853	
Q41 Industry requirements on graduates put pressure on how curriculum is implemented at my institution.	3.54	1.170				0.786	
Q42 External regulators play a bureaucratic role rather than a facilitatory role and this is negatively affecting curriculum implementation at my institution.	3.62	1.017				0.819	

Results in Table 4.7 show that Cronbach's alpha index for the characteristics of the external environment was 0.88 which shows high internal consistency reliability with regard to the scale or questionnaire items in this independent variable. The factor metrics in this variable which are all above 0.5 are evidence enough of the discriminant validity and scale reliability. Table 4.7 also shows that the Eigen values of the questionnaire items in this independent variable were greater than 1 indicating that there was very little variance in the views of respondents with regard to the influence of the characteristics of the external environment on effective curriculum implementation in PHEIs. The KMO of 0.50 is a demonstration that sampling was generally effectively done. It is also shown in Table 4.7 that Bartlett's test of sphericity was 7054.493 and hence was evidence enough that the questionnaire items for this variable were appropriate to be able to produce valid and reliable results in the current study. The

mean value of 3.95 was an indicator that the characteristics of the external environment had an influence on how the curriculum was being implemented in accredited PHEIs.

Results in Table 4.7 also show that the external environment as expressed through government regulatory measures plays a major role in the way the curriculum is implemented in accredited PHEIs. As articulated in Sections 2.4 and 2.7, the government of Botswana came up with a number of critical interventions or measures to improve how PHEIs provided service to customers. However, some of the interventions were deemed too strict and potentially stifled effective curriculum implementation in PHEIs especially during the period before the PHEIs were accredited. While government regulations through accreditations of programmes and institutions were deemed constructive for improving the quality of activities in these institutions including curriculum implementation, Table 4.7 shows that certain issues around the regulations tended to be too strict as to affect effective curriculum implementation.

It is shown in Table 4.7 that the first regulatory issue that affects effective curriculum implementation is strict curriculum approvals (M=3.95; SD=1.090). This means that any attempts by PHEIs to come up with a new or better curriculum which is felt to be more implementable, are frustrated thus leaving PHEIs struggling for long implementing problematic curricula due to a number of reasons that could include resources and facilities. The second issue within the external environment that potentially affects effective curriculum implementation are strict curriculum accreditation requirements (M=4.07; SD=1.192). It takes far too long for a curriculum that has been approved to be accredited due to onerous accreditation requirements which some PHEIs find difficult to meet leading to some of the institutions cutting corners. Such onerous requirements then leave room for some PHEIs to begin to use other means to get their curricula accredited including corruption ending up with a poor curriculum being accredited and implemented thus affecting the quality of graduates (see Section 2.5). Through corrupt means also, some curricula may be accredited without consideration by regulatory authorities of resources and facilities in the particular institutions thus rendering such curricula either difficult to implement or unimplementable.

Third, there is a highly centralised regulatory environment in Botswana (M=4.52; SD=.667) and this coupled by a lack of two-way communication between government regulatory agencies and PHEIs (M=4.12; SD=.992) means that there is no effective communication and consultation between government regulators and PHEIs. Failure to have this communication and consultation means that critical ideas which PHEIs may have in terms of how the curriculum can best be implemented, are not heard or accommodated in the regulations promulgated by the regulatory authorities. Such a scenario means that government regulators end up prescribing regulations that do not take into account contextual realities of PHEIs thus affecting how the curriculum is implemented in the PHEIs.

Fourth, there is too much interference by government in the operational activities of the PHEIs (M=4.39; SD=.839) and this is done without dialoguing with PHEIs to agree on what works and what doesn't with regard to processes in the PHEIs particularly curriculum implementation. Such a situation makes the implementation of the curriculum particularly difficult if directives just come from the central offices of government regulators without due regards to what PHEIs believe or propose should be the best way to do things thus affecting processes such as curriculum implementation in these institutions.

Fifth, government regulators promulgated stringent requirements with regard to staff recruitment (M=4.10; SD=.814) making it difficult for PHEIs to recruit the talent they require when they require it. Such a situation makes it difficult for PHEIs to find lecturers on time who can effectively implement their curricula. The issue of highly qualified staff in higher education institutions has been a challenge in Botswana for quite some time and this coupled with stringent staff recruitment procedures especially of expatriates, make it difficult for curriculum to be effectively implemented by competent people in PHEIs. While it used to take a month or two to recruit a lecturer in PHEIs, it now takes up to six months for a vacancy to be filled and this has consistently affected successful curriculum implementation in these institutions.

Sixth, a lack of transparency by regulators (M=4.39; SD=.844) where rules are selectively applied and where other institutions seem to be unfairly targeted with

unrealistic regulations while others are given preferential treatment (see Section 2.5), has a negative effect on the quality of curriculum implementation in PHEIs in Botswana. Based on these results and articulations in Section 2.5, it is therefore concluded that some institutions with scant resources (human and material) may be continuing to operate without much monitoring by regulators while some that are considered well-resourced PHEIs seem to be always targeted, almost victimised besides having the highest number of PhD staff and state-of-the-art facilities, due to corruption. This unfair practice by regulators leads to the poorly resourced institutions compromising standards with regard to curriculum implementation.

Seventh, a lack of government support (M=4.43; SD=1.056) especially support in terms of training and other staff development initiatives is a barrier to effective curriculum implementation. This is so because without staff development programmes to capacitate implementing staff (lecturers), ensuring that staff teaching in these institutions are kept abreast of current curriculum implementation practices in line with the regulations government regulators promulgate may not be possible thus potentially affecting curriculum implementation in PHEIs. Some of the regulations around PHEI curricula which government regulators promulgate have been seen to be difficult to either interpret, understand or both thus affecting curriculum implementation. It is a known fact that PHEIs are not endowed with as many resources as public institutions and hence any opportunity for the government to chip in by calling for workshops and any other staff development training related to curriculum could go a long way in enhancing effective curriculum implementation in PHEIs.

Eighth, regulators tend to focus more on compliance than on improvement (M=4.15; SD=.808) thus stalling efforts by PHEIs to be innovative in their activities particularly with regard to effective curriculum implementation efforts. The practice of fidelity of implementation which is meant to enforce compliance rather than improvement (see Subsection 3.2.6.1) is a strategy which the Botswana regulatory authorities implement on PHEIs. PHEIs through this strategy, are asked to implement the curriculum without deviation from what was approved in the first place. Such a practice affects creativity and success in the way the curriculum is implemented in these institutions as some level of mutual adaptation may be required every now and then depending on the

availability of resources. There is a need for regulators to allow for innovativeness in the way the curriculum is implemented in PHEIs by allowing them to adapt implementation approaches to suit prevailing circumstances (see Subsection 3.2.6.2). The next table presents psychometric properties of characteristics of PHEIs.

Table 4.8: Psychometric properties of the characteristics of PHEIs

Cronbach Alpha	Mean	Standard Deviation	KMO	Bartlett's Test	AVE	Factor Metrics	Eigen value
0.791							
Q43 Members of the institution have a shared vision (a sense of oneness)	2.51	1.099	0.62	90.118	90.09	0.74	2.63
Q44 There is shared governance between management and staff in the operations of the institution to ensure effective curriculum implementation	1.88	1.239				0.65	
Q45 My institution ensures that every curriculum has an implementation plan that guides how the curriculum is to be implemented	3.89	1.097				0.78	
Q46 My institution creates opportunities for lecturers to participate in work-based learning through tools such as in-service training, coaching, mentoring and peer-assisted learning to enable effective implementation of curriculum by teachers	2.94	0.664				0.68	
Q47 The institutional climate at my institution is very accommodating and makes one feel at home for effective implementation of the curriculum	2.11	0.990				0.57	

Q48 The institutional culture at my institution encourages knowledge sharing and team work and hence is conducive to effective implementation of the curriculum	2.59	1.428				0.64	
Q49 The leadership at my institution is very supportive of staff during the implementation of curriculum	2.69	0.788				0.75	
Q50 Professional development activities at my institution empower staff to effectively implement curriculum	3.20	1.304				0.71	
Q51 The institutional structure at my institution makes reporting, communication and consultation effective during curriculum implementation	3.38	1.108				0.69	
Q52 Adequate time has been allocated for effective implementation of curriculum at my institution.	3.72	1.123				0.66	
Q53 Central administration support at my institution is timely and adequately given to ensure effective implementation of curriculum	2.82	1.189				0.56	
B54 Status quo comfort (complacency) at my institution is not an issue that affects effective implementation of curriculum since lecturers and institutional management are always seeking more effective ways of implementing curriculum.	2.60	1.125				0.54	

Q55 My institution hires highly trained and qualified staff to teach at the institution	3.02	1.089				0.55	
Q56 My institution has a robust staff development policy that encourages every lecturer to acquire higher academic and administrative qualifications	3.23	1.129				0.62	
Q57 My institution has a robust IT system for effective curriculum implementation and for administrative purposes	3.32	1.079				0.58	
Q58 Provision of teaching and learning resources is timely for effective curriculum implementation at my institution	3.16	1.118				0.59	
Q59 My institution hires highly experienced lecturers	2.83	1.083				0.57	
Q60 My institution admits into its programmes high caliber students.	2.56	1.074				0.61	
Q61 My institution has state of the art classroom facilities which are conducive to effective implementation of curriculum	3.17	1.067				0.72	
Q62 My institution has a library that has adequate and current reading resources for effective implementation of curriculum.	3.44	1.107				0.68	
Q63 Most staff at my institution have high workloads (teaching more than 8 lessons of at least 2 hours per week) and this affects the way they implement curriculum.	3.66	1.106				0.65	
Q64 There are large class sizes	3.07	1.105				0.67	

(more than 30 students per class) at my institution and this affects the way curriculum is implemented.								

Results in Table 4.8 show that Cronbach's alpha index for the characteristics of the institutions was 0.791 hence was a reflection of high internal consistency reliability with regard to the scale or questionnaire items in this independent variable. The factor metrics in this variable were all above 0.5 further providing adequate evidence of the discriminant validity and scale reliability in the questionnaire. Table 4.8 also shows that the Eigen values of the questionnaire items in this independent variable were greater than 1 showing that there were very minor if any, variances in the views of respondents with regard to the influence of institutional characteristics on effective curriculum implementation in PHEIs. The KMO of 0.62 shows that sampling was effectively done in this empirical study. Results in Table 4.8 also show that Bartlett's test of sphericity of 90.118 was significant and this was a demonstration that the questionnaire items for this independent variable were appropriate for ensuring valid and reliable results in the current study. The mean value of 3.51 provided further evidence to the fact that the independent variable (characteristics of the institution) had an influence on how the curriculum was being implemented in accredited PHEIs.

Table 4.8 shows that there are a number of factors within the institution that have an effect on curriculum implementation in PHEIs (see Subsection 3.2.7.2). Of these factors, Table 4.8 shows that most contribute negatively to curriculum implementation in the PHEIs.

First, results show that there is no shared vision (M=2.51; SD=1.099) or shared governance (M=1.88; SD=1.239) in PHEIs. Without a shared vision it means people just do as they please without a focus on what needs to be achieved in the long run and in such situations, it is difficult for the curriculum to be effectively implemented as there is nothing agreed to aim for. Also, without shared governance, it means the management of PHEIs do not consult their staff hence make decisions on their own and the net effect of this is that there is no shared ownership of decisions leading to staff either being

unwilling or not committed to implement decisions from management. In such a situation, activities such as curriculum implementation are affected as curriculum decisions from institutional management will either not be implemented on time or will not be implemented at all.

Second, most PHEIs are generally not committed to staff development activities (M=2.94; SD=.664) and the net effect of this is that curriculum implementing staff will not have opportunities to be upskilled and refreshed on current curriculum implementation practices thus compromising effective curriculum implementation.

Third, there are very limited opportunities for knowledge sharing in most PHEIs (M=2.59; SD=1.428). In the absence of knowledge sharing opportunities, implementing staff will not be able to learn from each other (horizontal interaction) and more critically, inexperienced lecturers will not have opportunities to learn from their experienced counterparts (vertical interaction) on issues related to effective curriculum implementation and such a situation will not promote effective curriculum implementation.

Fourth, results show that the work environment in PHEIs is not conducive and accommodating enough to make implementing staff comfortable to effectively implement the curriculum (M=2.11; SD=.990). This could be because PHEIs are owner-managed and these owner-managers are known not to consult anybody but just to pass arbitrary decisions. This demoralizes and demotivates staff who feel they should be allowed to contribute to what happens in the institution especially on issues of curriculum implementation.

Fifth, it is shown in Table 4.8 that the leadership in PHEIs is generally not very supportive of implementing-staff especially in terms of supporting curriculum implementation proposals and decisions made (M=2.69; SD=.788). This state-of-affairs is demotivating to staff and affects effective curriculum implementation as staff feel that their own initiatives to promote effective curriculum implementation are not considered and supported by top management.

Sixth, status-quo comfort (M=2.60; SD=1.125) is another factor affecting curriculum implementation in PHEIs. The results show that there is a general unwillingness by top management in PHEIs to change the way things are done in the institutions and this is affecting creativity and innovativeness of implementing-staff thus affecting the effectiveness of the curriculum implementation process. One reason for not accepting changes in the way the curriculum is implemented could be tied to the issue of resources whereby top management may feel it could be costly to introduce new ways of implementing the curriculum. The next table presents psychometric properties of characteristics of the lecturer.

Table 4.9: Psychometric properties of the characteristics of the lecturer in PHEIs

Cronbach Alpha	Mean	Standard Deviation	KMO	Bartlett's Test	AVE	Factor Metrics	Eigen value
0.84							
Q65 My professional knowledge about the curriculum is very good because I received relevant training in the area	4.68	0.509	0.72	87.640	82.375	0.82	3.97
Q66 My belief about teaching and learning is that the student must always be at the center of everything that happens in the classroom	4.33	0.627				0.69	
Q67 I show a lot of motivation and enthusiasm when implementing curriculum in my department	4.35	0.510				0.64	
Q68 My professional attitude is always very positive and I am always showing interest in my work during the implementation of a curriculum	4.09	0.621				0.64	
Q69 I have at least five years of teaching experience and I feel experience is important in the	4.45	0.585				0.63	

effective implementation of a curriculum							
Q70 I demonstrate professional adequacy (ability to plan and implement curriculum) and I consider this important in the effective implementation of curriculum	4.11	0.721				0.59	
Q71 I feel that age has an influence on how curriculum is implemented at my institution	3.73	1.130				0.58	
Q72 I am of the feeling that gender has an influence on how curriculum is implemented at my institution	3.46	1.209				0.76	
Q73 I am currently teaching the subjects/modules I am competent in and this makes me implement the curriculum more effectively and successfully.	3.97	0.913				0.67	
Q74 I feel I have control/autonomy on the way I implement curriculum	3.70	0.994				0.59	
Q75 I mostly use learner-centered approaches when implementing curriculum	2.97	1.227				0.64	
Q76 I mostly use teacher-centered approaches when implementing curriculum	3.60	0.878				0.72	
Q77 I always implement the curriculum as planned (fidelity of implementation)	4.03	1.229				0.62	
Q78 I always modify the planned curriculum during implementation to ensure that it suits the context in which it is implemented	3.30	1.033				0.70	

(mutual adaptation).							
Q79 I believe that curriculum is what teachers and students experience during the enactment or implementation of the intended curriculum, not what is documented in the textbooks and other materials (curriculum enactment).	3.50	1.209				0.63	
Q80 My role in the classroom during curriculum implementation is that of facilitator.	3.24	1.118				0.67	
Q81 I have received enough training on curriculum implementation.	3.60	1.120				0.69	
Q82 I do show concern and interest on the curriculum I am supposed to implement.	4.60	0.617				0.601	
Q83 I always try to know more about the curriculum before implementing it.	3.91	1.076				0.892	
Q84 I always want to know how implementation of the curriculum will affect me.	4.08	0.687				0.808	
Q85 I always spend too much time getting materials ready for use for curriculum implementation.	4.46	0.500				0.867	
Q86 I always want to know how implementing a curriculum would affect my students as this helps improving my planning for curriculum implementation.	4.35	0.651				0.615	
Q87 I am always concerned about relating what I am doing with what co-workers are doing	3.08	1.171				0.827	

during curriculum implementation							
Q88 I always want to have some idea about an approach that would best work during curriculum implementation.	4.36	0.670				0.807	

Results in Table 4.9 show that Cronbach's alpha index for the characteristics of the teacher was 0.84 which showed high internal consistency reliability with regard to the scale or questionnaire items in this independent variable. The factor metrics in this variable were all above 0.5 hence provide further evidence of the discriminant validity and scale reliability of the scale items. Table 4.9 also shows that the Eigen values of the questionnaire items in this independent variable were greater than 1 showing that there was very little variance with regard to the views of respondents on the influence of characteristics of the teacher on effective curriculum implementation. The KMO of 0.718 was an indicator that sampling was effectively done in the study. Table 4.9 further shows that Bartlett's test of sphericity of 87.640 was significant which meant that the questionnaire items for this variable in the current study were appropriate to produce valid and reliable results. The mean value of 4.68 was indicative of the fact that characteristics of the teacher had an impact on how the curriculum was implemented in accredited PHEIs.

With regard to how characteristics of the teacher specifically influence curriculum implementation in accredited PHEIs, results in Table 4.9 show a positive outlook overall with regard to effective curriculum implementation. Among some of the results that show potential for effective curriculum implementation by lecturers in accredited PHEIs are the following: staff in PHEIs are adequately qualified (M=4.68; SD=.509), have a positive belief about teaching and learning (M=4.33; SD=.627), are generally highly motivated to implement curriculum (M=4.35; SD=.510), have positive attitude towards their work (M=4.09; SD=.621), are fairly well experienced (M=4.45; SD=.585). Lecturers also show concern and interest on the curriculum they implement (M=4.60; SD=.617). However, results in Table 4.9 also show that one major factor that has a negative effect on how the curriculum is implemented in PHEIs is that most teachers do not use learner-centered approaches when implementing the curriculum (M=2.97; SD=1.227).

These results also dove-tail with earlier results that showed that most lecturers (77.5%) in the PHEIs have either a Master's degree or a PHD (see Table 5.6) and are also fairly well experienced with most of the lecturers (84.8%) having more than 5 years experience (see Table 5.8). All being equal, high educational levels and long years of experience (see Section 3.2.7) mixed with positive attitudes, high motivation levels and a positive view of the curriculum provide an opportunity for the curriculum to be effectively implemented in accredited PHEIs.

5.5.2   Cronbach's Alpha values

Subsection 5.5.2 shows the Cronbach's alpha values derived from the psychometric properties of each of the independent variables. The overall internal consistency reliability index showed that the research scale was considered good enough to produce reliable results in the current study as shown in Table 4.10.

Table 4.10: Summary of Cronbach Alpha values

Independent variable	No of items	Cronbach's Alpha Index
Regulation of PHEIs in Botswana	9	0.74
Characteristics and Conception of curriculum	15	0.78
Characteristics of the external environment	15	0.88
Characteristics of the institution	22	0.79
Characteristics of the teacher	24	0.84
Overall Cronbach's alpha scale index		**0.838**

The Cronbach's alpha indices in Table 4.10 establish the internal consistency reliability of the scale items. A scale with good internal consistency reliability should meet the minimum threshold of 0.70 index (Griffith, 2015; Tavakol & Dennick, 2011; Panayides,

2013). Statisticshow.com (2017) gives a more detailed description of how Cronbach's alpha can be interpreted as shown in Table 4.11.

Table 4.11: Interpreting Cronbach's alpha

Cronbach's alpha	Internal consistency interpretation
α < 0.5	Unacceptable
0.5 ≤ α < 0.6	Poor
0.6 ≤ α < 0.7	Questionable
0.7 ≤ α < 0.8	Acceptable
0.8 ≤ α < 0.9	Good
A ≥ 0.9	Excellent

Statisticshowto.com (2017:1)

Table 4.11 shows that the overall internal consistency reliability index for the whole scale in the current study was 0.838 which was good (Devault, 2018; Goforth, 2015) hence the questionnaire was viewed as capable of coming up with valid and reliable results. Furthermore, the Keiser Meyer Olkin (KMO), Average Variance Extraction (AVE) and Bartlett's Test of Sphericity (Tables 4.5 – 4.10) in the current study also demonstrated the robustness of the factor structure among the scale items in the sub constructs of the parsimonious framework of this study.

All factor loadings included in this study were statistically significant at the 0.01 level and also exceeded the arbitrary 0.5 standard hence KMO, AVE and Bartlett's Test demonstrated adequate convergent validity. Furthermore, these findings reduced the plausibility of threat to validity in this study, thus ensuring that the curriculum implementation framework was grounded on the antecedents of effective curriculum implementation in PHEIs in Botswana. The Eigen values of the respective sub-constructs of the scale items were also greater than 1 which indicated that the scale items were appropriate for the empirical study factor structure on curriculum implementation in PHEIs in Botswana. The next section analyses the data using correlation analysis, regression analysis and Structural Equation Modeling.

4.5.2 Validity

Zikmund and Babin (2010) define validity as the accuracy of a measure or the extent to which a score truthfully represents a concept. Creswell (2015) refers to validity as the technical soundness of a study. Ayodele (2012) also avers that validity relates to a test being capable of testing what it has been designed to test. In the context of the current study which seeks to establish how accredited PHEIs implement the curriculum, content validity was tested. Content validity relates to the determination of whether the test items in a measuring instrument cover all the areas of the study (Tashakkori & Teddlie, 2006). According to Creswell (2015), to ensure content validity in the study, the researcher did two things. First, the questions in the interview guide were extracted from all the identified subthemes of the study that included the nature of the curriculum, external factors, internal (institutional) factors as well as other moderating variables such as age, gender years of experience, and level of education. These factors had the potential to influence curriculum implementation in the accredited PHEIs. Second, the researcher subjected the interview guide to expert opinions to ensure that it covered a broad sample of related content about curriculum implementation, emphasised relevant content, and used clear questions that were able to measure the desired aspect of the construct under study. Recommendations from experts were incorporated into the final instrument.

4.5.3 Rigour and trustworthiness of qualitative data

The validity of qualitative data is analysed in terms of rigour and trustworthiness (Teddlie & Tashakkori, 2011). In the context of the current study which sought to establish how the curriculum is implemented in accredited PHEIs, trustworthiness of data comes in when the actual views of participants on how the curriculum is implemented are captured. Lincoln and Guba (1985) argue that qualitative data has trustworthiness or can be trusted, when it is worth paying attention to, that is, when it represents the views of the participants. To ensure rigour and trustworthiness in qualitative results in the current study, the Lincoln and Guba (1985) model of trustworthiness has the following measures: credibility, dependability, confirmability and transferability.

4.5.3.1   Credibility

a)   Credibility refers to the confidence of the data and is similar to internal validity in QUAN studies (Lincoln & Guba, 1985). In other words, a study is said to be credible when the findings reflect the views of the participants of the study (Neuman, 2008). To ensure the validity of the findings in the current study, the researcher used the following strategies: a) Prolonged involvement of participants in the study: The researcher ensured that a minimum of 30 minutes and a maximum of 45 minutes was set aside for the participants to fully participate in the study

b)   Use of methods of data collection and analysis which are well-established both in qual studies and in general to ensure credible data is presented in the study;

c)   Peer debriefing: The researcher asked a colleague to listen to audio recordings and then check this against the transcribed information to see if there was a good match between what was recorded and what was transcribed;

d)   The participants were informed of their right to stop participation at any point of the study. This ensured that only those with a genuine interest to participate and give honest accounts would participate; and,

e)   Pilot testing: A pilot test was conducted using five AMMs to test the efficacy of the interview guide and results were used to improve the quality of the instruments.

4.5.3.2   Dependability

Dependability relates to the consistency of results and compares with reliability testing in QUAN studies (Lincoln & Guba, 1985). According to Polit and Beck (2012), dependability relates to the stability of data over time and conditions and hence is about how accurate and consistent the results of a study are. To ensure dependability of qual data in the current study, the researcher provided an in-depth description of the interview results. The researcher also employed well-established research methods as a means of ensuring the dependability of the data.

4.5.3.3   Transferability

Holloway and Wheeler (2010) define transferability as a process that occurs when research findings are able to apply to similar situations or participants. This therefore means that transferability relates to issues of external validity which is the degree to which research findings of a particular study can be applied to other situations (Shenton, 2004). To ensure the transferability of the research findings of this study, the researcher employed the strategies below. First the researcher ensured that the eligibility criteria used to select the participants of this study were clear and captured the right people which the characteristics expected. Second, data collection sessions were made long enough to ensure that adequate and accurate data was collected for ease of transferability to similar situations. Third, the researcher employed well established research methods to ensure relevant and adequate data were collected.

4.5.3.4   Confirmability

Polit and Beck (2012) view confirmability as a process that relates to the neutrality or objectivity of collected data. This definition therefore points to the ability of a researcher to produce research results that are the actual outcomes or representations of the study and are not the researcher's preconceptions. This dimension is hence associated with objectivity in QUAN studies (de Vos et al, 2011). Strategies for ensuring confirmability of data in the current study are described below. First, the researcher established and maintained an audit trail of all the decisions and processes employed during the study. This enabled anybody who wished to check, authenticate and judge the veracity of the results and the authenticity of the research process to easily do so as a means of trying to prove the objectivity of results. This is supported by Etherington (2006) who argues that auditing is a good means of confirming the objectivity of research findings. Second, the researcher used triangulation to promote objectivity as well as to reduce researcher bias. Third, the researcher provided detailed descriptions of methods used in the study as a means of making it easy for any reader to decide on whether to accept or reject the data yielded from this study.

4.6   ETHICAL MEASURES

This section is an articulation of ethical issues that were upheld during the whole process of the current study. Five categories of ethical issues that were considered in the current study included ethical clearance, research permit, informed consent, beneficence, and anonymity and confidentiality.

4.6.1   Ethical clearance

The researcher obtained ethical clearance from the parent university (see Appendix 3).

4.6.2   Research permit

The researcher obtained the research permit from the Botswana Ministry of Education and Skills Development (see Appendix 4).

4.6.3   Informed consent

Seeking informed consent is a process of ensuring that a person knowingly, voluntarily, intelligently, and in a clear and manifest way, gives their consent to participate in a study (Shamoo & Resnik, 2015; Resnik, 2015). The seeking of informed consent is thus a means by which a person's autonomy is protected by preventing intrusion into their integrity, liberty and veracity (Fouka & Mantzorou, 2011; Koulouriotis, 2011; Hammersley & Trainou, 2012). As part of seeking informed consent from the participants of the study, the researcher therefore employed the strategies below. First, the researcher clearly explained to the participants any situation that potentially could cause harm or discomfort, and invade the privacy or threaten the dignity of the participants. The researcher in the current study ensured that the non-coercive disclaimer that indicates that participation to the study was voluntary and noone was going to be penalised for refusing to participate or for withdrawing after initially accepting to participate. Armed with this information, participants made their informed choices of whether to participate in the study or not.

4.6.4 Beneficence

The principle of beneficence relates to the Hippocratic principle that says: be of benefit but do no harm (Fouka & Mantzorou, 2011; Shamoo & Resnik, 2015). The premise of this principle is that when carrying out a study, the main aim should be to do good, to promote and to make things better (Resnik, 2015; Koulouriotis, 2011). In the same vein the aim of the current study was to make the curriculum better implementable by coming up with a framework that enhances curriculum implementation. To ensure beneficence during the study, the researcher made sure that all potential risks to the participants were identified and isolated so that the participants got involved in the study in an atmosphere that was free from any physical, emotional or psychological harm, and hence were able to provide their objective views about how the curriculum is implemented in PHEIs.

4.6.5 Anonymity and confidentiality

Cow and Wiles (2008) argue that anonymity and confidentiality are perhaps the most crucial ethical issues in research hence are central to research in social sciences. Confidentiality is viewed as the act of ensuring that any personal information provided by a participant to a study is not to be given to anyone not involved in the project, testing site, or organization (Resnik, 2015; Antioch University New England, 2010; Shamoo & Resnik, 2015). Anonymity on the other hand refers to the act of ensuring that individual responses or results in a study are not linked to participants (Resnik, 2015; Antioch University New England, 2010). These two acts are directly connected to the issue of beneficence, respect for the dignity and fidelity of participants in a study (Koulouriotis, 2011; Fouka & Mantzorou, 2011). To ensure that issues of confidentiality and anonymity were respected in the current study, the researcher made and also upheld the promise that confidentiality and anonymity issues were strictly managed in the study by not divulging the responses of the individual participants. There were no names, addresses or any information in the questionnaire and interview responses that could be used to identify either the individual participants to the study or their specific responses.

4.7   SUMMARY

This chapter discussed the methodology used in the study. Critical methodological issues discussed included the research design in which the discussion of the research paradigm, research approach and research strategy was done. The pragmatic research paradigm was used in the study because it allows for qualitative and quantitative methods to complement each other in a single study as a means for ensuring completeness, adequacy and solidity of findings. Qualitative data was used for the purpose of confirming or disconfirming quantitative results. chapter 4 also discussed research methods including population and sampling, data collection, data analysis, trustworthiness of data for both the QUAN and qual data, and ethical considerations. Stratified random samplimng as well as stratified purposive sampling were discussed as the strategies for selecting participants for the quantitative and qualitative phases respectively of the study to ensure proportionate representation. The chapter further discussed the structured questionnaire as well as the semi-structured interviews as instruments used for data collection. In addition, issues of reliability and validity of research instruments as well as of ethical considerations were also discussed in this chapter. The next chapter analyses and interprets both QUAN and qual data and marks the point where the two data sets are integrated. As part of data analysis, hypothesis (see Chapter 1, section 1.6) will be tested in chapter 5.

CHAPTER 5
DATA ANALYSIS AND INTERPRETATION

5.1   INTRODUCTION

The purpose of this study (see Chapter 1 section 1.5.1) was to develop a model (framework) to enhance the implementation of the curriculum in accredited PHEIs in Botswana. Chapter 5 therefore presents, analyses, discusses and interprets data guided by the research objectives, questions and hypotheses of this study (see Sections 1.5 and 1.6).

With regard to the analysis of quantitative data, a qualified statistician was employed to perform the descriptive analysis, psychometric properties analysis, correlation analysis, regression analysis and structural equation modeling. These analyses were employed in order to investigate the nomological web among hypothesized relationships espoused in this study as regard how the curriculum was implemented in PHEIs in Botswana at the time of the study. Qualitative data was integrated with quantitative data in order to verify hypothesized quantitative results. The analysis, integration and interpretation of the data follows as presented in this chapter: Section 5.2 analyses biographic data, presents descriptive analysis and tests the relationship between biographic variables and effective curriculum implementation in accredited PHEIs. Section 5.3 reports the psychometric nomenclature of the scale items, while Sections 5.4 to 5.7 present the results of the correlation analysis, regression analysis and structural equation modeling.

This study was guided by the following research questions (see Chapter 1 section 1.4):

1)   What opportunities and factors act as enablers to effective curriculum implementation in accredited PHEIs?
2)   What challenges do accredited PHEIs face when implementing the curriculum?
3)   What strategies do accredited PHEIs use to enhance effective implementation of the curriculum?
4)   How effectively is the curriculum implemented in accredited PHEIs?

Hypothesis testing was utilized to establish the extent to which independent variables were related to curriculum implementation (dependent variable), and the extent to which they influenced curriculum implementation in accredited PHEIs. The following hypotheses were therefore tested:

H01: There is no statistically significant and positive relationship between age and how the curriculum is implemented in accredited PHEIs.

H02: There is no statistically significant and positive relationship between gender and how the curriculum is implemented in accredited PHEIs.

H03: There is no statistically significant and positive relationship between educational level and how the curriculum is implemented in accredited PHEIs.

H04: There is no statistically significant and positive relationship between years of experience and how the curriculum is implemented in accredited PHEIs.

H05: There is no statistically significant and positive relationship between characteristics and conceptualisation of the curriculum and how the curriculum is implemented in accredited PHEIs.

H06: There is no statistically significant and positive relationship between the characteristics of the external environment and how the curriculum is implemented in accredited PHEIs.

H07: There is no statistically significant and positive relationship between characteristics of the institution and how the curriculum is implemented in accredited PHEIs.

H08: There is no statistically significant and positive relationship between characteristics of the teacher and how the curriculum is implemented in accredited PHEIs.
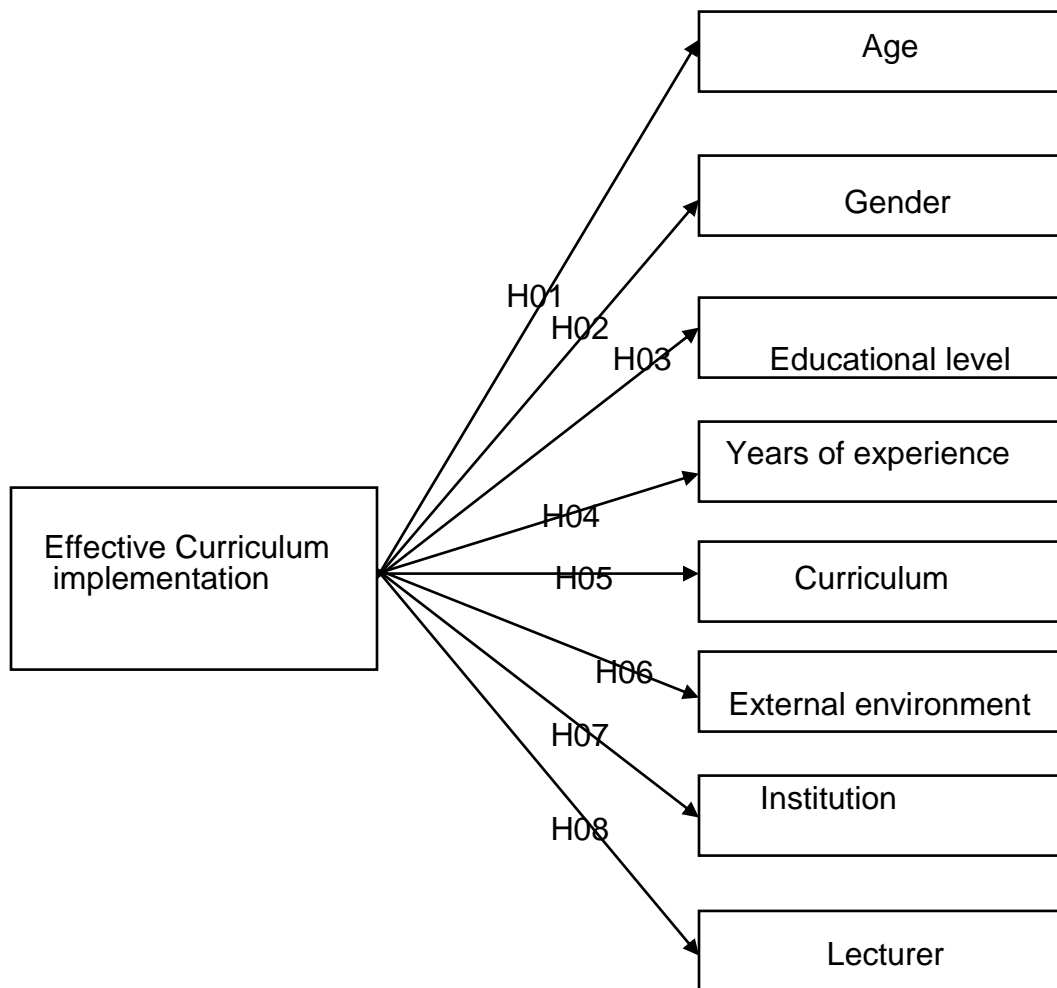
Figure 5.1: Hypothesis testing variables

5.3 ANALYSIS OF BIOGRAPHIC DATA

Section 5.3 presents results of the descriptive statistical analysis of the biographic data which include age, gender, qualification, and years of experience metrics (Section A of the questionnaire: Appendix 1). The section also tested the relationships between the hypotheses and the biographical metrics with the ultimate aim of finding out whether the metrics had an influence on how the curriculum was implemented in accredited PHEIs.

The qualitative data was also triangulated to complement the results of the quantitative data.

5.3.1 Age and curriculum implementation

Subsection 5.3.1 presents an analysis of the age differences among lecturers and determines the age group in which most of the lecturers were found. The subsection also presents the results of the correlation between ages of lecturers and how they implemented the curriculum (see Appendix 1: Questionnaire section G) is also done.

Table 5.1: Age of respondents

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less or equal to 20	25	9.7	10.6	10.6
	21-25	9	3.5	3.8	14.4
	26-30	53	20.5	22.5	36.9
	31-35	39	15.1	16.5	53.4
	36-40	14	5.4	5.9	59.3
	More than 40	96	37.2	40.7	100.0
	Total	236	91.5	100.0	
Missing	System	22	8.5		
Total		258	100.0		

Table 5.1 shows that slightly more than half (53.4%) of the respondents were aged between 20 and 35 years, while those above 35 years of age were 46.6%. This shows that at the time of this study staffing in accredited PHEIs in Botswana was fairly distributed in terms of age.

> *H01: There is no statistically significant and positive relationship*
> *between age of lecturers and how the curriculum is*
> *implemented in accredited PHEIs.*

Table 5.2: Relationship between age of lecturers and implementation of curriculum in accredited PHEIs (see Appendix 1: Questions section G)

ANOVA					
Age					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	397.468	4	99.367	2.940	.000
Within Groups	6170.809	183	33.720		
Total	6568.277	187			

Table 5.2 show that the $F_{(4, 183)} = 2.947$; $p = 0.00$; $p < 0.05$ results are statistically significant and that the null hypothesis is rejected. It could, therefore, be concluded that there is a statistically significant and positive relationship between the age of lecturers and effective implementation of the curriculum. This suggests that the age of lecturers could have an influence on effective curriculum implementation in accredited PHEIs at the time of this study. These results are consistent with the qualitative findings from interviews with the AMMs. The interview findings show that most of the AMMs believed that age influenced the manner in which the curriculum was implemented in accredited PHEIs. The following are some of the interview responses:

> *"Age also matters as students may perceive young lecturers as not being knowledgeable enough to be able to competently implement the curriculum".* (AMM7)

> *"I believe the more mature you become in terms of age, the more positioned you also become to be a better lecturer when compared to a younger lecturer. Age is very pertinent for one to be able to apply oneself with patience, calmness and wisdom".* (AMM8)

> *"Yes, age has an influence in terms of focus as an older person is more focused on his/her job when compared to a younger person".* (AMM10)

> *"Yes. I would say yes because age contributes to accumulation of knowledge and experience".* (AMM12)

Another AMM also felt that age should be linked with adequate knowledge and relevant experience for it to be influential on the manner in which lecturers implement the curriculum. The following response from one of the lecturers supports this conclusion:

> *"Age can have an influence on effective implementation of the curriculum if it is complemented by relevant knowledge of the curriculum and relevant experience by the lecturer, not alone".* (AMM6)

The findings above show that generally, there was agreement between the respondents that at the time of this study age influenced the manner in which the lecturers implemented the curriculum in PHEIs (see Subsection 3.2.7.3 (vi)). Most of the respondents felt that age was related to maturity and that with maturity comes patience and calculated judgement and decision making. The findings of the current study therefore resonate with findings of past studies as well as articulations in extant literature which show that age influences the manner in which people perform their roles. Ihis study, Parsons (2015) found that the age of a person is positively related with their ability to implement an innovation such as a curriculum while Jacobs also found that age had a direct impact on how people implement an innovation. In two earlier studies, Ibukun, et al. (2011) found that age played a significant and positive role in shaping an individual's perception and involvement in the implementation of an innovation while Buabeng-Andoh (2012) also found that an individual's decision-making abilities mature with age and as such age has an effect on how a person participates in the process of innovation implementation. All this information points therefore to a strong suggestion that age could have a positive effect on how people participate in the implementation of an innovation such as a curriculum.

Other studies however found that age did not significantly influence the manner in which older and younger people performed their duties. Two separate studies by Otanga and Mange (2014) and Kobia and Ndiga (2013) found that age did not have a significant impact on how teachers implemented the curriculum at their institutions.

5.3.2 Gender and curriculum implementation

Subsection 5.3.2 presents the results of an analysis of gender profiles of lecturers as well as the distribution of gender on the extent of curriculum implementation. Therefore, the hypothesis tested the relationship between gender and curriculum implementation (see Appendix 1: Questionnaire section G) is done.

Table 5.3: Gender of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	68	26.4	32.5	32.5
	Male	141	54.7	67.5	100.0
	Total	209	81.0	100.0	
Missing	System	49	19.0		
Total		258	100.0		

Table 5.3 shows that 32.5% of respondents were female and 67.5 % were male. These results therefore show that most of the accredited PHEIs staff were male.

H02: There is no statistically significant and positive relationship between gender of lecturers and effective implementation of the curriculum (see Appendix 1: Questionnaire section G).

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Table 5.4: Test of normality of data

Tests of Normality[a]

LECTREAD5	LECTREAD6		Kolmogorov-Smirnov[b]			Shapiro-Wilk		
			Statistic	df	Sig.	Statistic	df	Sig.
Agree	Disagree	Gender	.448	35	.000	.567	35	.000
	Agree	Gender	.465	71	.000	.541	71	.000
Strongly Agree	Neutral	Gender	.260	2	.			
	Strongly Agree	Gender	.336	24	.000	.640	24	.000
a. Gender is constant in one or more split files. It has been omitted.								
b. Lilliefors Significance Correction								

Table 5.4 shows the p value of p = 0.000; p < 0.05 meaning that the results were significant. This suggests that the basic test of normality was violated and that the data was not normally distributed. As a result of the fact that the data was not normally distributed a non-parametric test called the Mann-Whitney U-test was used as shown in Table 5.5.

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Table 5.5: Relationship between gender of lecturers and implementation of curriculum in accredited PHEIs

Test Statistics[a]		
	LECTREAD5	LECTREAD6
Mann-Whitney U	2593.500	3551.000
Wilcoxon W	4939.500	13562.000
Z	-5.961	-3.145
Asymp. Sig. (2-tailed)	.208	.314
a. Grouping Variable: Gender		

Table 5.5 shows that the p-values were 0.208 and 0.314 and the p > 0.05 showed that the results were not statistically significant; hence the null hypothesis was accepted. It was therefore concluded that the gender of lecturers did not influence how the curriculum was implemented in accredited PHEIs. This therefore suggests that gender was not an enabler of effective curriculum implementation in accredited PHEIs at the time of this study. These results were also confirmed by the majority of responses in the qualitative data from interviews with AMMs. AMMs in accredited PHEIs generally believed that gender did not influence the implementation of the curriculum in PHEIs and that both male and female lecturers implemented the curriculum the same way. The following are some of the interview responses:

> "Maybe not in itself as a biological factor. However, the way women perform may be moderated by certain things such as culture where women are looked down upon and this may affect their performance when implementing curriculum. I however believe that all being equal, gender does not impact or lead to variations of performance between male and female lecturers when implementing curriculum. I believe men and women perform the same with regards to curriculum implementation". (AMM1)

> "I don't think so that gender has an influence on how we implement curriculum. What is important is having a solid understanding of the curriculum and how to implement it". (AMM2)

> "It doesn't matter that you are a female or male, performance during curriculum implementation is the same". (AMM5)

> "My view is that gender is not an issue as effective curriculum depends on the personality and drive one has got. I know there are always those biases and female lecturers have to go an extra mile with regards to how they teach but I am convinced they perform the

same as male lecturers with regards to curriculum implementation". *(AMM8)*

"That is a difficult question, I am not sure. I however feel male and female lecturers perform the same when implementing the curriculum". (AMM4)

"Ah, stereotyping aside, gender is not a factor in curriculum implementation as human beings are born equal with same abilities". (AMM10)

The findings above suggest that at the time of this study gender did not influence the manner in which the curriculum was implemented by male and female lecturers in accredited PHEIs. The respondents felt that only gender biased people believe that gender influences curriculum implementation. Most respondents believed that gender differences did not impact on the way men and women performed their duties during curriculum implementation. These findings resonate with earlier findings in a number of studies. For example, Allana, et al. (2010) found that there were no differences in performance between men and women in curriculum implementation as they perform the same. Similarly, Awofala (2012) and Kobia and Ndiga (2013) found that gender did have an effect on how men and women participated in curriculum implementation.

On the other hand, the findings of this study contradicted those of other earlier studies which claimed that male and female lecturers differed in their performance when implementing the curriculum. For example, Arend (2012) found that male and female lecturers differed in the way they implemented the curriculum particularly in terms of classroom management practices and their beliefs on how students learn. Arend (2012) found that female lecturers managed classrooms better than male lecturers did and that the latter promoted teamwork. Similarly, Ng and Feldman (2010) whose study found that male lecturers tended to be more physically active than their female counterparts; valued independence and quick achievement, and were pushy and action-oriented when implementing the curriculum. However, the same study found that female lecturers valued team work and relationships and hence tended to manage classrooms better when implementing the curriculum. Another study by the National Survey of Student Engagement (2005, in Garver & Niskodé, 2007) found that female lecturers emphasized higher order thinking skills, active and collaborative learning, and diversity experiences more than male lecturers.

5.3.3 Educational qualifications and curriculum implementation

Subsection 5.3.3 presents an analysis of academic qualifications of the lecturers who participated in this study. Specifically, this study hypothesis tested the statistical relationship between educational level and how lecturers implement the curriculum in accredited PHEIs (see Appendix 1: Questionnaire section G).

Table 5.6: Relationship between educational qualifications and implementation of curriculum

Educational Qualification					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Masters	144	55.8	61.0	61.0
	Doctoral	39	15.1	16.5	77.5
	Others	53	20.5	22.5	100.0
	Total	236	91.5	100.0	
Missing	System	22	8.5		
Total		258	100.0		

Table 5.6 shows that most of the lecturers (61%) in accredited PHEIs possessed Master's degree qualifications while 16.5% had graduated with Doctoral degrees. Moreover, 22.5% had obtained professional qualifications such as Association of Certified Chartered Accountants (ACCA), Botswana Institute of Chartered Accountants (BICA) and Chartered Institute of Management Accountants (CIMA). The results above therefore showed that most of the staff (77.5%) in accredited PHEIs held Masters and Doctoral qualifications.

> *H03: There is no statistically significant and positive relationship between educational level and how the curriculum is implemented in accredited PHEIs (see Appendix 1: Questionnaire section G).*

Table Table 5.7: Relationship between educational level and implementation of curriculum in accredited PHEIs

ANOVA					
Educational Qualification					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3178.191	4	794.548	27.602	.000
Within Groups	5267.915	183	28.786		
Total	8446.106	187			

Table 5.7 shows that the F (4, 183) = 27.602; p = 0.000 and p < 0.05 results were statistically significant, and that the null hypothesis was rejected. These results therefore suggest that there was a statistically significant and positive relationship between educational level and how the curriculum was implemented in accredited PHEIs. This further suggests that educational qualification was a predictor of effective curriculum implementation in accredited PHEIs. The quantitative results from the questionnaire were further complemented by the qualitative findings from the interviews with AMMs in PHEIs. All the AMMs argued that educational level was a critical component for effective and successful curriculum implementation in accredited PHEIs. All the AMMs believed that higher educational levels helped to develop critical and creative thinking in lecturers and made them more effective when implementing the curriculum. The following are some of the interview responses from the AMMs:

> *"Absolutely educational level can influence the way a person implements curriculum. Education is structured such that you start from the simpler levels of concepts and as you go up the highest echelons of education, you begin to deal progressively with more complex concepts and ways of doing things with. This then has an impact on your level of thinking and mental processes. Just going higher in education has got that overall effect of building your mental capacities in terms of your approach to life, the way you approach challenges and so forth including the way you teach". (AMM1)*

> *"Yes definitely. You can never be able to teach beyond what you know yourself. For example, you can never be able to teach a course you never learned. My belief is that someone with a master's degree teaches better than someone with a Bachelor's degree because the master's degree person would have gone through advanced learning of the curriculum and should be able to implement it better". (AMM3)*

"Yes, educational level has an influence because it instils confidence in the student when they know that they are being taught by a highly educated lecturer. Also, as a lecturer, high education levels give you confidence to be able to effectively implement curriculum since you will be an expert". (AMM7)

"Very true, educational level counts very much because in education, it is unethical and poor best practice for a lecturer to teach students who are studying the same qualification as you possess. You need to have a higher qualification in order to ensure that the levels of thinking between you the lecturer and your students are not at the same level because if that becomes the case that you are at the same level, there is no value you will be adding as your thought processes will be the same or at par. It is therefore important that a lecturer should be at a much higher level of education to be able to implement curriculum effectively". (AMM11)

"Remember universities are institutions of higher learning and therefore it is very imperative that whoever teaches in these institutions should be of high caliber, somebody with high academic qualifications, someone with a minimum of a postgraduate qualification. If your level of education is high, for example, a masters or doctoral qualification, the way you approach your teaching, your teaching methods, and your knowledge levels will be of high standard leading to effective implementation of curriculum. All being equal, the more you are highly educated, the more you are able to apply yourself, the more are able to comprehend or come up with new and better strategies in terms of how you implement curriculum". (AMM8)

The findings above show that all the respondents agreed that higher educational levels played a critical role in effective curriculum implementation and particularly in the way lecturers implemented the curriculum (see Subsection 3.2.7.3 (i)). These findings further show that highly educated lecturers implemented the curriculum more confidently because of their superior knowledge of the content as well as their general capacity and ability to quickly and effectively process curriculum information. Furthermore, most of the respondents in PHEIs held either a Masters degree or a PhD qualification and a few possessed professional qualifications in Accounting. The extant literature further shows that a highly educated individual is more confident, more satisfied, and performs their duties with confidence and satisfaction.

The findings of the current study, therefore, resonate with findings of earlier studies that show that educational level is a predictor of effective curriculum implementation. Arguing from a position that effective curriculum implementation is an amalgamation of both cognitive and non-cognitive attributes, in a meta-analysis study on the influence of educational level on lecturer performance during curriculum implementation, Ng and Feldman (2009) found that higher levels of education developed creative and positive work behaviour that led to more confidence, and a feeling of personal satisfaction in lecturers during curriculum implementation. Battey, et al. (2016) as well as MacDonald, et al. (2016) also argue that the curriculum can only be effectively implemented by those with a working knowledge of the curriculum hence the need for higher educational levels. The above is also corroborated by Bell (2015) and Jess, et al. (2015) who indicated that staff with requisite knowledge, skills and experience in the discipline are critical for enhancing the quality of the curriculum implementation process. When someone has adequate knowledge of the discipline due to high educational knowledge, chances are that such people will be confident, enthusiastic and will have positive attitude toward the curriculum implementation process. This thinking is also supported by Void (2017) and also Phillips, et al. (2017) who say that appropriately and adequately trained people tend to be better equipped and motivated to implement the curriculum than their counterparts. In the current study, it can be observed that the issue of higher qualification levels is taken seriously by PHEIs as most of their staff members hold postgraduate qualifications.

The findings of the current study further also dovetail with findings by Wang and Noe (2010), as well as Asebiomo (2015) whose separate studies found that higher educational levels improved a people's information processing and absorptive capacity and hence developed in them the confidence and ability to effectively implement the curriculum. Furthermore, Awofala, et al. (2012) found that higher educational levels significantly and positively influenced how teachers conceptualised a curriculum and how eventually they participated in its implementation. This therefore means that higher educational levels lead to improved confidence, motivation and belief systems of teachers about curriculum implementation as well as their views about how students learn, all of which are important for effective curriculum implementation. Summing up the critical role of educational level in enhancing effective curriculum implementation,

Mullins (1992, in Salleh, et al., 2011) also argued that higher educational levels improved the competitiveness and skills sets of implementing staff as well as instilled the right attitudes, motivation, confidence and mindsets critical for effective and successful implementation of the curriculum.

5.3.4 Years of experience and curriculum implementation

Subsection 5.3.4 analyses differences in years of experience among lecturers and establishes whether there is a relationship between years of experience of lecturers and effective implementation of curriculum (see Appendix 1: Questionnaire section G).

Table 5.8: Years of experience of respodents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less or equal to 5	34	13.2	15.2	15.2
	6-10	79	30.6	35.3	50.4
	11-15	33	12.8	14.7	65.2
	16-20	24	9.3	10.7	75.9
	More than 20 years	54	20.9	24.1	100.0
	Total	224	86.8	100.0	
Missing	System	34	13.2		
Total		258	100.0		

Table 5.8 shows that slightly above 84.8% of the respondents in the PHEIs in this study had experience of 10 years. In addition, a sizable number (24.1%) of staff in accredited PHEIs had experience of over 20 years. In summary, the results in Table 5.8 show that lecturers in accredited PHEIs were fairly well experienced and could potentially implement the curriculum well.

> *H04: There is no statistically significant and positive relationship between years of teaching experience and how the curriculum is*

implemented in accredited PHEIs (see Appendix 1: Questionnaire
section G).

Table 5.9: Relationship between years of teaching experience and implementation of curriculum in PHEIs

ANOVA					
Years of Experience					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1232.186	4	308.047	17.846	.000
Within Groups	3158.809	183	17,261		
Total	4390.995	187			

Table 5.9 shows $F_{(4, 183)}$ = 17.846; p = 0.000; and p < 0.05. These results are statistically significant and as a result the null hypothesis above is rejected. It could therefore be concluded that years of teaching experience had a statistically significant and positive influence on the manner in which the curriculum was implemented in accredited PHEIs. This suggests that years of teaching experience was a predictor of effective and successful curriculum implementation in accredited PHEIs. The qualitative findings complement the quantitative results above that years of experience influenced the manner in which the curriculum was implemented in accredited PHEIs at the time of this study. The interviewed AMMs expressed the following views:

> *"Yes, years of experience have got a bearing on how lecturers implement curriculum because there is nothing that teaches somebody more than experience (actual doing). With more years of experience, you become more aware of those things that make you implement curriculum better and better all the time. So, I really believe that years of experience have a big bearing on curriculum implementation". (AMM2)*

> *"Years of experience have got a major impact on curriculum implementation because the more experienced a person becomes, the better he/she becomes on the job. The way a lecture delivers his/her lectures, his/her knowledge of pedagogy in terms of lecturing, and knowledge of students are all functions of years of experience and help to ensure better curriculum implementation". (AMM3)*

"Eh, if someone is a teacher like us then he/she should improve over time and experience helps them to do the improvement. So definitely years of experience help lecturers to improve how they implement curriculum". (AMM6)

"Yes, years of experience is very important because you begin to have confidence, have background knowledge of teaching that you acquire over the years that enable you to effectively plan and implementation curriculum. So, yes experience is very important and is key to effective curriculum implementation".(AMM7)

"Years of experience bring in a wealth of teaching knowledge and skills hence experience counts. I believe that a lecturer becomes a better lecturer because of the knowledge and skills accumulated over time". (AMM11)

The findings above highlight the critical role played by years of experience in effective curriculum implementation (see Subsection 3.2.7.3 (v)). The findings suggest that years of experience represent critical tacit knowledge of an organisation and this knowledge is significantly vital for enhancing the performance of employees in tasks such as curriculum implementation. Compared to an inexperienced one, an experienced individual has a wealth of knowledge and skills acquired over time which can be deployed for effective curriculum implementation. The findings of the current study also suggest that years of experience equip lecturers with the ability to plan their work more effectively and implement the curriculum more effectively because of the level of confidence and background curriculum knowledge acquired over time. These results resonate with findings of earlier studies on the role or influence of years of experience on a person's performance of an assigned task. Ibukun, et al. (2011) as well as Ohinde and Mbongo (2017) found that an experienced person operated from a deeper and superior knowledge base when compared to a less experienced one and hence possessed superior ability and capacity to plan and effectively implement the curriculum. Similarly, Tillou and Liarte (2008) averred that people with long years of experience implemented the curriculum better because they were less likely to make errors of judgement and performance when compared to those with less experience.

Furthermore, increased years of experience were found to contribute to improved communication skills, innovativeness, creativity, self-awareness, personal relationships with others, knowledge of the subject, and improved classroom management skills

(Ofemi, et al., 2015). In other words, the more the years of experience the more effective the implementation of the curriculum became. Similarly, Jacobs (2015) also found that classes taught by teachers with more years of experience tended to perform better than those taught by teachers with less experience while Henderson (2017) indicated that years of experience improves a person's creativity and hence positively affects the implementation of an innovation. From the above, it can be concluded therefore that the tacit knowledge which people of more years of experience posses is critical for the effective implementation of an innovation such as a curriculum.

5.4   REGULATION OF PRIVATE HIGHER EDUCATION INSTITUTIONS IN BOTSWANA

Section 5.4 presents factors that highlight reasons for the current strict regulation of the PHEIs in Botswana. The results of the current study show that the factors highlighted below played a catalytic role in the establishment of the current strict accreditation framework used by the Botswana government to regulate the PHEIs since the early 1990s. These factors include poor quality of teaching, inadequate and poor quality of teaching resources, inferior degrees, mismatch between promises and reality after graduation, shortage of staff, high drop-out rates in PHEIs, poor quality of graduates, inadequate facilities, and poor institutional governance (see Subsection 2.4.1).

Table 5.10: Poor quality of teaching in PHEIs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	258	100.0	100.0	100.0

Table 5.10 shows that all respondents (100%) unanimously believed that poor quality of teaching in PHEIs (see Appendix 1: Questionnaire section B question 5) contributed to the introduction of strict regulatory measures by the Botswana government. Effective teaching is one of the essential elements of effective curriculum implementation. On the other hand, poor teaching, especially in PHEIs can be caused by among other things, poor quality of facilities and poor or inadequate resources and institutional

governance. For these reasons the regulatory authorities in Botswana intervened with regulatory measures to ensure students and their parents got value for money. The findings above confirm assertions in the extant literature on reasons why PHEIs are accredited and strictly regulated.

In the early 1990s PHEIs experienced poor quality of teaching because of lack both human and material resources. As a result, all the stakeholders including the Botswana government became concerned and introduced tough regulations in the PHEIs. According to Harris (2008), the external stakeholders such as the government, parents, students and industry in Botswana lamented about the consistently detereorating quality of teaching in the PHEIs. According to Armaral (2009) and Teshome (2007), poor quality of teaching can also be caused by lack of accountability or answerability by the PHEIs and to address these, strict regulatory measures should be implemented by the government.

Table 5.11: Inadequate and poor-quality resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	258	100.0	100.0	100.0
	Total	258	100.0	100.0	

Table 5.11 shows that all respondents (100%) agreed that the inadequacy and poor quality of resources (see Appendix 1: section B question 6) contributed to the introduction of the regulatory framework for PHEIs in Botswana. As far as the PHEIs are concerned this regulatory framework is stringent. It could be argued that the inadequate performance of the PHEIs is not only caused by their ineffective implementation of the curriculum but also by lack of appropriate resources. For example, studies show that other factors that affect delivery of quality education in PHEIs include unqualified and inexperienced teaching staff (Banji, 2011). Obasi (2015) in one of his studies recognized the fact that some PHEIs in Botswana were well resourced and able to provide quality education and to effectively implement the curriculum. He, however, argued that the Botswana PHE regulatory framework was enacted to regulate the

PHEIs which could not provide or guarantee adequate teaching materials and were at the permanent risk of closure.

Table 5.12: Poor status of degrees offered by PHEIs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	258	100.0	100.0	100.0
	Total	258	100.0	100.0	

Table 5.12 shows that all respondents believed that the strict Botswana regulatory framework was partly introduced to regulate activities of PHEIs which awarded inferior degrees that had little or no market relevance (see Appendix 1: Questionnaire section B question 7). The poor quality of degrees offered was by extension a reflection of the poor quality of service offered in PHEIs. The Government of Botswana could therefore not accept this state of affairs and as a result introduced the regulation of the PHEIs.

Table 5.13: Shortage of qualified staff in PHEIs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	174	67.2	67.2	67.2
	No	84	32.8	32.8	100.0
	Total	258	100.0	100.0	

Table 5.13 shows that the majority of respondents (67.2%) felt that the PHEIs were highly regulated because of among other reasons a lack of qualified staff (see Appendix 1: Questionnaire section B question 8). However, only 32.8% felt that poor staffing was not one of the major reasons. A number of studies show that qualified staff represent a very critical component of the curriculum implementation matrix and without them, the quality of curriculum implementation is definitely compromised as was the case before PHEIs were regulated and accredited. According to Molutsi (2009), a shortage of

qualified teaching staff in Botswana was a perennial problem since independence in 1966 and its ripple effects were felt more in PHEIs. To ensure consumer protection against PHEIs that employed poorly qualified staff (Tertiary Education Council, 2013), as well as to ensure effective curriculum implementation (Halleck & Poisson, 2007; Obasi, 2015), the Botswana government introduced strict regulatory measures for the purpose of ensuring compliance by these institutions with expected standards of quality in the delivery of HE.

Table 5.14: High dropout rate in PHEIs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	258	100.0	100.0	100.0
	Tot al	258	100.0	100.0	

Table 5.14 shows that all respondents (100%) believed that high dropout rates in the PHEIs (see Appendix 1: Questionnaire section B question 9) was one of the major reasons why the Botswana government decided to introduce strict regulatory mechanisms on PHEIs. The success of any education institution is measured in part by the rate of progression of students from one learning level to the next. Managing the progression of students from one level to another is very important for the viability of any educational institution. In the context of PHEIs in Botswana, the progression rate has been very low over the years and this raised concerns in the government as the main sponsor of students into PHEIs (Statistics Botswana, 2015).

A number of government reports show that the transition rate of students in PHEIs is still very low. For example, the 2014/2015 Tertiary Education Report shows that while the national transition rate is pegged at 64.28% (Statistics Botswana, 2015), the transition rate in PHEIs was pegged at 29.66% which is the lowest among HEIs in Botswana. This shows a high dropout rate in PHEIs. There is no government in the world that can continue sponsoring students into higher education when half-way through the courses students drop out. The Botswana government had therefore to act as clearly high student dropout was a waste of financial resources.

Table 5.15: Graduates lacking basic skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	172	66.4	66.4	66.2
	No	86	33.6	33.6	100.0
	Total	258	100.0	100.0	

Results in Table 5.15 show that 66.4% of the respondents were of the view that a lack of basic skills (see Appendix 1: Questionnaire section B question 10) such as communication, problem-solving, and team work among PHEIs graduates, was one of the major reasons why government was forced to introduce stringent regulatory measures in PHEIs. Only 33.6% felt that this was not the reason why government introduced strict regulatory measures. An education system that fails to provide students with basic skills ends up producing graduates that fail to productively function in the labour market. In the context of PHEIs in Botswana, this problem led to many and frequent complaints by industry which indicated that graduates from PHEIs lacked both soft and hard skills to be able to effectively discharge assigned duties hence the Botswana government had to respond by introducing harsh regulatory procedures for PHEIs.

One of the major reasons why the Botswana government introduced tougher regulations on PHEIs was that graduates from these institutions could not find gainful employment because their programmes had failed to prepare them adequately to enter and fit into the job market. This is confirmed by Halleck and Poisson (2007) as well as Fielden and Varghese (2009) who both argued that due to the fact that there was little to no regulation of PHEIs in Botswana at the beginning, fraudulent practices that included faking results for students and sending under-qualified graduates into the market were prevalent. Alam (2013) and also Obasi (2015) both averred that there were lots of complaints from industry about graduates churned out from PHEIs who had not been adequately prepared to meet market demands in terms of basic skills required for productive engagement in industry.

Table 5.16: Inadequate facilities in PHEIs

		Frequency	Percent	Valid Percent	Cumulative Percent
			PHEREG4		
Valid	Yes	215	83.3	83.3	83.3
	No	43	16.7	16.7	100.0
	Total	258	100.0	100.0	

Results in Table 5.16 show that most of the respondents (83.3%) were of the view that the government of Botswana was forced to introduce strict regulatory measures by a lack of facilities in PHEIs (see Appendix 1: Questionnaire section B question 12). Only 16.7% of the respondents believed otherwise. The issue of inadequate or even lack of relevant facilities in PHEIs was a serious issue that affected effective curriculum implementation that also became an issue of concern for the government, parents and students in Botswana. Availability of facilities such as lecture rooms, laboratories, Internet and libraries is critical for successful implementation of curriculum in PHEIs. In the absence of these facilities, there is a big compromise in the quality of education provided in general and on curriculum implementation in particular. This is highlighted by Banji (2011) and also Kasozi (2014) who argued that a lack of facilities such as laboratories and libraries among other facilities, had a negative effect on curriculum implementation in PHEIs.

Table 5.17: Poor institutional governance in PHEIs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	197	76.4	76.4	76.4
	No	61	23.6	23.6	100.0
	Total	258	100.0	100.0	

Table 5.17 shows that most of the respondents (76.4%) were of the view that poor institutional governance in PHEIs (see Appendix 1: Questionnaire section B question 13) was one of the major reasons why the Botswana government introduced strict regulatory measures in PHEIs. Only 23.6% indicated otherwise. The issue of poor and ineffective governance in PHEIs has consistently been reported in both print and non-

print media in Botswana since it impacted the whole ecosystem of these institutions. Without proper governance, wrong or delayed decisions tend to be the order-of-the-day, something which could be costly not only in terms of wasted resources but also in terms of the quality of education provided and the reputation of the institutions. Institutions require decision makers who can make quick and well-thought through decisions and this was what was lacking in most PHEIs before they were regulated and accredited. In a study by Banji (2011) for example, it was found that the ineffectiveness of institutional governance was one of the major challenges affecting the quality of curriculum implementation and hence the quality of HE provision in most PHEIs. Amaral (2009) as well as Teshome (2007) also highlighted the paucity of effective leadership in the PHEIs in Botswana during the early stages of the rise of these institutions and its negative effect on the provision of quality HE through effective curriculum implementation. The next section discusses correlation and regression analysis as well as the structural equation modeling techniques for analyzing quantitative data.

5.5   CORRELATION AND REGRESSION ANALYSIS

Section 5.5 provides further analysis of predictor variables with regards to how they relate to effective curriculum implementation in accredited PHEIs in Botswana. Regression and correlation analysis are used to determine how significant the relationship between the predictor variables and the dependent variables is, is done.

5.5.1 Correlation analysis of independent variables

Subsection 5.5.1 demonstrates whether the independent variables; namely characteristics and conception of the curriculum, characteristics of the external environment, characteristics of the institution, and characteristics of the teacher positively correlated with each other and how such correlations influenced how curriculum is implemented in accredited PHEIs in Botswana.

Table 5.18: Correlation analysis of independent variables

		TCURRC	TEXTENV	TCHAINST	TTLECREADTEA	TCHACOM
TCURRC	Pearson Correlation	1	.858**	.032*	.215**	.332**
	Sig. (2-tailed)		.000	.646	.002	.000
	N		211	211	211	211
	Sig. (2-tailed)		.061	.000	.000	.002
	N		211	211	211	211
TEXTENV	Pearson Correlation		1	-.099	-.124	.448**
	Sig. (2-tailed)			.151	.073	.000
	N			211	211	211
TCHAINST	Pearson Correlation			1	-.292**	.497**
	Sig. (2-tailed)				.000	.000
	N				211	211
TTLECREADTEA	Pearson Correlation				1	.255**
	Sig. (2-tailed)					.000
	N					211
TCHACURR	Pearson Correlation					1
	Sig. (2-tailed)					
	N					

Key:

TCURRIC = Effective curriculum implementation

TEXTENV = External environment

TCHAINST = Characteristics of the institution

TTLECREADTEA = Characteristics and readiness of the lecturer

TCHACURR = Characteristics and conception of the curriculum

Correlation coefficients provide the basis of association between two variables which further permits the specialization of unique variance shared between variables as

postulated by Schumacher and Lomax (2004). Correlation results in Table 5.18 showed that characteristics and conception of the curriculum (TCHARCURR: r = 0.332, p < 0.01), external environment (TEXTENV: r = 0.858, p < 0.01), characteristics of the institution (TCHAINT: r = 0.132, p < 0.05) and characteristics of the teacher (TCHATEA: r = 0.215, p < 0.01) were all significantly, statistically and positively related to effective curriculum implementation in PHEIs.

5.5.2 Regression analysis

This section analyses the results using regression analysis (Table 5.19) in order to determine the relationships between interaction variables in the study. Part of the analysis determines how much the independent variables namely characteristics and conception of the curriculum, characteristics of the external environment, characteristics of the institution, and characteristics of the lecturer contribute to the variation in effective implementation of the curriculum in PHEIs (the dependent variable).

Table 5.19: **Regression model showing nexus of relationship between independent Variables**

Model Summary[b]											
Model					Std. Error of the Estimate	Change Statistics					Durbin-Watson
		R	R Square	Adjusted R Square		R Square Change	F Change	df1	df2	Sig. F Change	
dimension0	1	.887[a]	.786	.781	1.47862	.786	150.560	4	205	.000	2.816
a. Predictors: (Constant), TCHACURR, TEXTENV, TCHAINST, TTLECREADTEA											
b. Dependent Variable: TCURRIMPLEM											

Table 5.19 indicates that the independent variables namely characteristics of the curriculum, characteristics of the external environment, characteristics of the institution, and characteristics of the lecturer and conception of the curriculum accounted for 78.1 % of variation in the effective implementation of curriculum in accredited PHEIs. The

Durbin Watson value which was used for supporting the adjusted R^2 (Tabachnick & Fidel, 2013) had a value of 2.816 hence also provided parallel support for the assertion espoused above.

Section 5.6 that follows tests the hypotheses using regression analysis. As part of the regression analysis, tests of Tolerance Levels (TL) and Variance Inflation Factors (VIF) were done to ensure the non-violation of multicollinearity assumptions hence ensuring that that the independent variables namely characteristics and conception of the curriculum, characteristics of the external environment, characteristics of the institution, and characteristics of the lecturer did not shield each other in a manner that the actual variation of the dependent variable (effective implementation of curriculum) did not become unclear. In other words, non-violation of multicollinearity assumptions was meant to reduce chances of ambiguity with regard to how the independent variables influenced the dependent variable. With respect to collinearity diagnostics as indicated in Table 5.20, the tolerance levels (TL) where (TL<1) and Variance Inflation Factors (VIF) where (VIF≥1), show that multicollinearity assumptions were not violated in the hypothesized relationship in this study. Regression analysis in Table 5.20 relates to hypothesis testing to determine whether the independent variables are significantly and positively associated with effective curriculum implementation (dependent variable) in PHEIs.

5.6   HYPOTHESIS TESTING ON THE RELATIONSHIP BETWEEN INDEPENDENT AND DEPENDENT VARIABLES

This section is meant to report hypotheses testing to determine the strength of the relationships between the dependent variable (effective curriculum implementation) and independent variables (characteristics and conception of curriculum, characteristics of the external environment, characteristics of the institution, and characteristics of the teacher). Part of hypothesis testing also includes checking whether assumptions of multi-collinearity (see Section 5.6) had not been violated.

Table 5.20: Regression analysis model for effective curriculum implementation in accredited PHEIs in Botswana

Model Dependent Variable: TCURRIPLEM		Unstandardized Coefficients		Standardized Coefficients				95.0% Confidence Interval for B		Collinearity Statistics					
		B	Std. Error	Beta	t	Sig.		Lower Bound	Upper Bound	Zero-order	Part	Tolerance.	VIF		
1	(Constant)	62.111	3.359		18.493	.000		55.489	68.733					-.083	.390
														-.083	.390
														-.083	.390
	TEXTENV	-.394	.019	0.024	20.272	.000		0.421	0.347	0.858	.655	.409	2.442		
	TCHAINST	-.132	.023	0.333	5.752	.000		0.175	0.186	0.032	.186	.311	3.211		
	TTLECREADTEA	-.059	.037	0.028	6.277	.001		0.106	0.182	0.286	.172	.319	3.285		
	TCHACURR	.276	.058	0.262	3.876	.000		.0110	0.338	0.332	.125	.229	4.361		

Table 5.20 presents a global view of the step-wise regression model for curriculum implementation in accredited PHEIs. Based on the results in Table 5.20 and for ease of testing hypothesis on the relationships between each of the predictor variables and the dependent variable, Tables 5.21, 5.22, 5.23 and 5.24 which are all extractions from Table 5.20 were developed.

5.6.1 Characteristics and conception of curriculum and curriculum implementation

> *H05: There is no statistically significant and positive relationship between characteristics and conception of curriculum and effective implementation of the curriculum in accredited PHEIs.*

Table 5.21: Conception and characteristics of curriculum and effective curriculum implementation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics			
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Part	Tolerance	VIF
TCHACURR	.276	.058	0.262	3.876	.000	.0110	0.338	0.332	.125	.229	4.361

Results of the step-wise regression analysis in Table 5.21 shows that t = 3.876; β=.262; p = .000; p < .05; hence the results were significant indicating that the variable characteristics and conception of curriculum was statistically significant and positively related to the effective implementation of curriculum in PHEIs. H05 was thus rejected in this empirical study and hence it was concluded that the characteristics of the curriculum as well as how lecturers conceive or understand the curriculum did have a significant, statistical and positive effect on how the curriculum was implemented in accredited PHEIs. Tolerance = .229 (TL < 1) and VIF = 4.361 (VIF > 1) showed that the assumptions of multicollinearity were not violated, in this case. The quantitative results were also confirmed by qualitative results from interviews with Academic Middle Managers (AMMs). The views of all the AMMs were that, for a lecturer to effectively implement a curriculum, they needed to first and foremost have a clear understanding of that curriculum in terms of its nature and characteristics. Among some of the responses from the AMMs regarding the characteristics and conceptualisation of the curriculum and its impact on curriculum implementation were the following:

> *"To be frank with you, most lecturers who are currently teaching in my department are people that were never been lecturers before or intended to be lecturers and hence their conceptualisation of the curriculum is that it is only a programme to be completed. So, from how they teach I do not think that they have a good understanding of the curriculum and hence do not view it as all experiences of the learner but just as a programme or syllabus to be completed hence they implement it using teacher-centered approaches. In my view also, if a curriculum is characterised by poor design with unclear goals and objectives and loaded content such as is the case with the one we are currently using, this makes curriculum*

implementation difficult hence lecturers end up using teacher-centered approaches just to complete it". (AMM1)

"Yah, I think that is a very good question you have just asked because what especially guides the curriculum are the goals and objectives. If the characteristic of the curriculum is that its goals and objectives are not clear from the word go, then your curriculum implementation is not going to be able to achieve desired results or outcomes as lecturers will be conceiving the curriculum in so many different and confusing ways. At my institution and particularly in my department, curriculum is well developed as we developed it as a team sharing ideas in the department. We also got training from the quality department on how to effectively develop and implement a curriculum. Process maps are also there to guide us to be systematic in our curriculum development and to ensure effective implementation". (AMM4)

"In my department lecturers have a good and clear conception of the curriculum as relating to all experiences of the learners and also the characteristics of the curriculum are that it has clear objectives and goals as well as good content. As a result, lecturers deliver this curriculum using learner-centered approaches. I believe their conception of the curriculum is that it is the totality of all the experiences of the leaner and that it should lead to an all-round development of the leaner. In our classrooms, students do more in terms of class participation". (AMM3)

"Understanding or having a conception of the curriculum as all experiences of the learner helps the teacher to use interactive methods of teaching. Yes, the way a teacher understands curriculum determines how they teach and for lecturers in my department they use learner-centered interactive methods when teaching hence I am of the view that they understand curriculum as all experiences of the learner". (AMM5)

"My experience is that students want interactive teaching and learning and hence prefer learner-centered approaches. I believe that lectures conducted by my lecturers are highly interactive which makes me conclude that they use learner-centered teaching approaches and hence conceive curriculum as all experiences of the learner". (AMM7)

A few of the AMMs though felt that while they believed that their lecturers understood or conceived of the curriculum as experiences of the learners and needed to be implemented in a more interactive manner, they argued that their lecturers tended to implement the curriculum using teacher-centered approaches due to a number of variables thus taking a curriculum as a programme to be completed. The AMMs

indicated that time constraints as well as large classes are some of the variables that force them to teach curriculum just as a programme to be completed and hence they use teacher-centered approaches. Among some of their responses to interviews were the following:

> *"My lecturers use teacher-centered approaches because of a number of variables such as time factor as they are asked to complete a programme within a specified period of time. But I believe, from interacting with them, that despite using teacher-centered teaching methods they understood the curriculum to be beyond a syllabus or programme of learning activities". (AMM6)*

> *"I believe lecturers in my department understand curriculum as all experiences of the learner but still are not using learner-centered teaching approaches when implementing curriculum but use teacher-centered teaching approaches due to time constraints. However, I feel that despite these constraints, lecturers need to positively engage their students so that when they come out of the education system they are well rounded and dynamic enough to be able to effectively apply their knowledge and skills in various areas of the economy". (AMM8)*

> *"What I can basically say is that taking or conceptualising a curriculum as a syllabus or just a programme to be completed is wrong as it limits what a curriculum can do to students. Most of my lecturers still use teacher-centered approaches as they complain about time limitations". (AMM12)*

The results above showed that the way a curriculum is developed with regard to its goals, objectives and content particularly as well as the way people understand it to mean, have a bearing on how they implement it. It is shown in the results that if a curriculum has clear and achievable goals and objectives and if its content is not too loaded, lecturers will be motivated to implement it. Results also showed that lecturers whose conception of a curriculum is that it is a syllabus, content, product or programme of activities tend to implement the curriculum using teacher-centered approaches while lecturers who understand a curriculum as all the experiences of the learner, tend to implement the curriculum using team-focused, learner-centered approaches.

According to Tabaundule (2014), in order to understand a curriculum as content, syllabus or subject matter (the rationalization or Tylerian view) the lecturer focuses only on content to be taught and emphasises intellectual growth only. Such lecturers according to Hamilton (2014) tend to focus on the content as all the student should and

can learn from school. Such lecturers also according to Tabaundule (2014) tend to implement the curriculum in a manner that does not deviate from pre-specified implementation plans (without any creativity) and mostly use teacher-centered approaches.

On the other hand, lecturers who view a curriculum as all experiences of the learner, as praxis or agenda for social restructuring, or as change tend to ensure that the curriculum is more comprehensive, responsive, and differentiated in nature when implementing it (Glatthorn, 2005). Such lecturers tend to emphasise relevance, flexibility and responsiveness of curriculum when implementing it and hence tend to use learner-centered approaches to ensure wholesome or total development of the learner (Tabaundule, 2014). It also emerged from the results that some of the curricula have unclear goals and objectives, and this makes implementing such curricula very difficult. Also the results further showed that while a number of lecturers believed that implementing the curriculum using learner-centered approaches was very important for students to benefit from their learning, challenges such as time available to implement the curricula were a problem.

5.6.2 Characteristics of the external environment and curriculum implementation

H07: There is no statistically significant and positive relationship between the characteristics of the external environment and effective implementation of the curriculum in accredited PHEIs.

Table 5.22: External environment and curriculum implementation

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics			
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Part	Tolerance	VIF
TEXTENV	-0. 394	.019	0.024	20.272	.000	0.421	0.347	0.858	.655	.409	2.442

Results of the step-wise regression analysis in Table 5.22 shows that t=20.272; β=1.024; p=.000, p<.05; hence the results were significant. The null hypothesis was thus rejected, and it was therefore concluded that the characteristics of the external environment were statistically, significantly and positively associated with effective curriculum implementation in accredited PHEIs. Also, TL = .409 (TL < 1) and VIF = 2.442 (VIF > 1) demonstrating non-violation of assumptions of multicollinearity in this case. These results were also confirmed by the findings from the qualitative phase of the study, whereby interviews of AMMs showed that characteristics of the external environment played a critical role in the way the curriculum is implemented in accredited PHEIs. Interview results showed that the nature of the interaction between the regulatory authorities and PHEIs as well as the type of regulations passed on to PHEIs by the regulatory authorities played a significant role in the way curriculum is implemented in PHEIs. There was also overwhelming agreement amongst AMMs that the tight control mechanism on PHEIs by the external environment through the government regulatory authorities, played a critical role in ensuring that the curriculum was effectively implemented in PHEIs. Among some of the interview responses were the following:

> *"While I agree that the PHEIs operate in a highly regulated environment, I feel that the government has a right to protect its citizens, to protect learners, and to protect the investments (time and money) people are putting in education. Government therefore needs to regulate PHEIs to ensure that people get quality education. However, I feel that regulation should not be primarily implemented because of the sector, that is, whether public or private as public higher education institutions in Botswana are exempt from being strictly regulated as private. I think the driving force for regulation should be what the regulators want to achieve (objectives). I really have no problems with the regulation of PHEIs but it must be guided by clear objectives and implementation processes, allow for two-way communication between regulators and implementing institutions as well as being flexible enough to recognise local contexts of implementing institutions, something which I seem to be missing in the Botswana context. In terms of whether the regulatory environment has led to improvements or not in the quality of education in PHEIs, definitely, it has because now PHEIs are employing highly qualified staff and also we see a shift in the PHEIs in terms of the quality of programmes developed and their implementation in these institutions". (AMM1)*

"Yes, it is true that PHEIs are highly regulated and operating in a strict external environment. I take this in a positive sense because when the PHEIs are able to abide by what the regulators say, the issue of quality in these institutions will be assured since regulatory bodies are there to deal with issues of quality particularly in the implementation of curriculum. So yes, this regulation is fine as it improves processes in PHEIs though it should not be too strict like what is currently obtaining in Botswana". (AMM4)

"The world over, education is viewed as a fundamental right and it plays a critical role in the social and economic development of nations hence if there is no control, it becomes a failure in this role. Control as is happening with PHEIs in Botswana makes education purposeful. The world over, education has always been controlled as there is a need for checks and balances to ensure students are not short-changed but benefit from their schooling in the PHEIs". (AMM6)

"I feel that the role played by the external environment in regulating PHEIs is needed because we cannot have anybody coming from anyway to offer education without being regulated as this compromises the quality of education. I therefore go for the regulation of PHEIs, but it should not be that strict as it may end up affecting the operations of PHEIs that include effective implementation of curricula and also it should allow for PHEIs to also make recommendations for improvement than just being one-way communication from regulators". (AMM10)

"I would say it is not only the strictness of regulations from the external environment but also the lack of regular follow-ups by regulatory authorities that pose challenges to issues of quality in PHEIs. Overall however I believe regulation of PHEIs has made it possible for PHEIs in Botswana to be more careful about how they provide their services that's why issues of programme quality and implementation, staffing and other resources have greatly improved in many of these institutions. I think the exercise of regulating PHEIs in Botswana is good on the long run". (AMM12)

The results above seem to acknowledge that the PHE environment in Botswana was highly regulated. This is also confirmed by Kasozi (2014) who argued that while regulating PHE was important in ensuring quality delivery of HE, some of the regulatory procedures applied on PHEIs specifically tended to be too strict for the smooth operations of these institutions in many countries including Botswana. It also emerged in the study that there is a general agreement among lecturers and AMMs that despite being too strict, the regulation of PHEIs is important in ensuring and assuring quality of provision of HE. The issue of regulation of PHEIs in the context of Botswana is viewed

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as very important due to the fact that when PHE was first introduced, there was little to no regulation, hence it was a free-for-all in terms of how these institutions conducted their business (Tertiary Education Council, 2013; Kasozi, 2014). Results of the current study further specifically show (see Section 1.2) that despite the regulatory measures being too strict and selective, they led to improvements in the quality of service in these institutions especially with regards to the quality of staffing, quality of curriculum and its implementation, quality of facilities and the whole service provision chain in PHEIs in general.

Results of the study also show that the external regulatory environment of PHEIs in Botswana does not allow for two-way communication between the regulators and implementing institutions (see AMM10 interview response). This state of affairs posed problems as the voice and concerns of the implementing institutions were not being heard by regulators causing a disconnect between the promulgated regulations from regulatory authorities and effectiveness in the implementation of the curriculum by PHEIs. Such a disconnect means that some critical information from the PHEIs that may be used by regulators to improve the quality of provision of HE may not be known by regulating authorities or timeously given attention to. Also the results show that when regulators propose regulatory measures on PHEIs, they do not take into consideration local contexts of PHEIs as they seem bent on using a one-size-fits-all approach which is proving unworkable according to the study. The view by regulators of QA in PHEIs seem is that it must mainly focus on monitoring fidelity of implementation of processes and curricula and less on how the institutions could improve in their provision of HE (Oloo, 2010; Hitendra & Megan, 2009).

Various studies highlight the importance of the regulation of PHEIs in ensuring that the curriculum is effectively implemented. Thrash (2012) argues that the quality of curriculum content and resources for use in implementing a curriculum are directly impacted by the nature of government regulatory procedures. This is also supported by Cobanoglu (2011) who avers that external inputs such as regulatory requirements should always be congruent with local (Institutional) needs, capacities and preferences to ensure that curriculum is effectively implemented. As part of the external environment, the role of industry is also very critical in regulating how PHEIs develop

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and implement the curriculum to ensure the curriculum is relevant to the needs of industry with regard to churning out employable graduates. This is highlighted by Nasser et al (2011) who argue that quality demands by industry force PHEIs to develop and implement relevant curricula and to use resources that make effective curriculum implementation possible.

5.6.3 Characteristics of the institution and curriculum implementation

H08: There is no statistical, significant, and positive relationship between characteristics of the institution and effective implementation of the curriculum in accredited PHEIs.

Table 5.23: Characteristics of the institution and effective curriculum implementation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics			
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Part	Tolerance	VIF
TCHAINST	-.132	.023	0.333	5.752	.000	0.175	0.186	0.032	.186	.311	3.211

Table 5.23 shows that regression analysis results indicate that t=5.752; β=.333; p=.000; p<0.05; hence the results were significant. The null hypothesis was rejected, and it was therefore concluded that the characteristics of the institution were statistically, significantly, and positively related to effective curriculum implementation in accredited PHEIs. The results also show that Tolerance = 0.311 (TL < 1) and VIF = 3.211 (VIF > 1), indicating that there was non-violation of assumptions of multicollinearity. These quantitative results were overwhelmingly confirmed by quantitative results from interviews with AMMs. In the interviews, the AMMs argued that effective curriculum implementation could only occur in an environment that is conducive, that is, an environment characterised by adequacy of human and material resources, management support and team work among others. Some of the responses from AMMs

with regard to the role of institutional factors on curriculum implementation included the following:

> *"I will tackle this from a very personal point of view. In my current organisation I would say a big yes that the institutional environment is very important for effective curriculum implementation. My institution fully sponsor staff who wish to upgrade themselves and attain higher qualifications. For example, I was sponsored 100% to complete my master's in education degree and I am looking forward to being sponsored to do my PhD. Staff development at my institution is very robust that if anybody is willing to upgrade the management of the institution is more than ready to assist. The institution also sponsors staff to do publications in journals and to attend conferences as a way of ensuring staff always research in their areas of teaching. The work environment in the institution is also very conducive as it allows staff to share knowledge and to interact with management every time. With regards to material resources the institution has a robust information technology communication system that is not comparable to many of the institutions in Botswana and that enables us to do E-learning teaching in most of our programmes thereby enhancing how we implement curriculum". (AMM1)*

> *"At my institution unfortunately, management support is very little, and this affects effective curriculum implementation. This is so because there is no support for research, teaching resources come very late if they ever are bought at all when you ask for them, support departments are also not effectively doing their support duties, and this really affects the way we implement curriculum. The institution on a positive note, hires qualified and experienced staff thus ensuring an opportunity for curriculum to be effectively and successfully implemented". (AMM3)*

> *"To me characteristics of an institution relate to the ecology of the institution, ie, everything that goes on within the institution. My institution is an institution that has systems and processes that enable staff to effectively implement curriculum from ICT to processes and procedures that facilitate effective curriculum implementation. Leadership at my institution is very supportive in terms of resources, professional growth of staff, research publications, and conferences, all of which are supported with 100% sponsorship. I am also a beneficiary of professional development support by my institution. In terms of communication, collaboration and teamwork at the institution, my institution maintains an open climate policy". (AMM6)*

> *"On a positive note, there are some areas where my institution is very supportive. For example, teaching resources are readily*

available, there is freedom to implement curriculum freely, and also my institution supports professional growth of staff through external and internal programmes. On the other hand, too much administrative activities at my institution lead to heavy workloads and such a situation distract staff from effective curriculum implementation as time for planning and preparing to effectively implement curriculum is taken away by administrative activities. Also, a lack of two-way communication between management and teaching staff is another challenge affecting effective curriculum implementation as decisions are just made without consultation".
(AMM9)

The results above showed that the ecosystem of an institution has a bearing on whether the curriculum is successfully implemented or not. From the current study, these results showed that factors that include organisational culture, organisational structure, shared vision, shared governance, availability of an implementation plan (implementation processes), provision of adequate resources including time, effective leadership and opportunities for professional development among others are critical for effective curriculum implementation in PHEIs. It emerged from the study that while some accredited PHEIs have supportive management that provided adequate teaching materials and that hired qualified staff to implement the curriculum, there are also some institutions that do not effectively support their staff with resources for effective implementation of the curriculum. For example, it was observed from the study that there is no two-way communication between management and staff, teaching materials in some institutions take long to be delivered, and issues of staff development and research to support teaching and learning are non-existent. Such a situation demoralizes staff and affects the way lecturers implement the curriculum. According to Morgan and Xu (2011) institutional factors that have an influence on curriculum implementation fall into two dimensions namely the political and cultural dimensions. The political dimensions relate to issues such as administrative support, leadership, collaboration, negotiation and conflict resolution in the institution. A delicate balance of these political dimensions according to Morgan and Xu (2011) could create a conducive and supportive environment for effective implementation of the curriculum in PHEIs.

Building a shared vision (Education Review Office, 2009), ensuring widespread participation and taking collective responsibility in institutional affairs (Jolly et al, 2012), having an institutional plan that guides curriculum implementation (Li, 2010; Education

Review Office, 2010; Phillips et al, 2017), and ensuring shared leadership that allows for a two-way communication between top management and the operational core and that promotes teamwork (Gilbert, 2011) are some of the political dimension issues that can enhance effective curriculum implementation in PHEIs.

Another critical element of the political dimension that can ensure effective curriculum implementation in PHEIs is provision of opportunities for staff development. Capacitating employees with requisite knowledge and skills according to Mafora and Phorabatho (2013) is very important in providing lecturers with the technical expertise required to effectively participate in the curriculum implementation process as well as to participate in the implementation process with confidence and motivation. Curriculum implementation has for long been viewed as a black box owing to a lack of convergence between curriculum intent and practice (Tabaundule, 2014; Rudhumbu, 2015; Hargreaves & Fink, 2006). Two major factors that have an effect on curriculum implementation in PHEIs that relate to this lack of convergence or congruence from a political dimension's perspective are provision of adequate time and resources for effective curriculum implementation (Cincioglu, 2014; Rudhumbu, 2015; Yang, 2013). For lecturers to effectively implement the curriculum, they require time first of all to understand the curriculum and then to plan for its effective implementation (Tabaundule, 2014; Brown, 2014).

From a cultural dimension's perspective, institutional values, beliefs and norms both consensual and competing in individuals, groups, departments, Faculties and the whole institution need to be nurtured in an environment characterised by effective communication between internal stakeholders (management, teaching and support staff) in an institution, to ensure effective curriculum implementation (Hall & Hord, 2006). Rogan and Grayson (2003) argue that in the absence of effective communication to nurture shared beliefs and values, effective curriculum implementation in departments, Faculties and the whole institution may remain just a pipe dream.

It further emerged from the study that heavy workloads (see response from AMM9) especially due to the fact that lecturers are made to participate in many administrative tasks that take time away from lecturers with regard to time for planning and preparing

for curriculum implementation, pose challenges to effective curriculum implementation in PHEIs. Studies show that effective curriculum implementation occurs in an environment where implementing staff are given adequate time to implement the curriculum. Yang (2013) and Cincioglu (2014) in their separate studies found that adequate time is required for implementing staff to be familiar with the curriculum as well as to prepare in terms of skills and knowledge requirements. This was also confirmed by Ogunbiyi (2012) and Fullan (2007) who both argued that more importantly, adequate time is required for the actual operationalisation of the curriculum in classrooms especially in terms of how much lesson time is allocated for the actual teaching.

5.6.4 Characteristics of the lecturer and curriculum implementation

H09: There is no statistically significant and positive relationship between characteristics of the lecturer and effective implementation of the curriculum in accredited PHEIs.

Table 5.24: Characteristics of the lecturer and effective curriculum implementation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics			
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Part	Tolerance	VIF
TTLECREADTEA	-.059	.037	0.028	6.277	.001	0.106	0.182	0.286	.172	.319	3.285

Results in Table 5.24 show that t = 6.277; β=.028; p = .001; p < .05; hence the results were significant and the null hypothesis was rejected. It was therefore concluded that there was a significant, statistical and positive relationship between characteristics of the lecturer and effective curriculum implementation. Table 5.24 also shows that Tolerance = 0.319 (TL<1) and VIF = 3.285 (VIF > 1) hence assumptions of multicollinearity were not violated either in this case. Quantitative results were also confirmed by findings from the qualitative phase of the study from interviews with

AMMs. All AMMs indicated that characteristics of the lecturer that include adequate content knowledge, motivation, effective planning, pedagogical knowledge among others, are some of the critical aspects a lecturer should possess for effective curriculum implementation. Among some of the responses from the AMMs with regard to the critical role of characteristics of the lecturer, which also capture the issue of lecturer readiness in curriculum implementation, were the following:

"To me a good lecturer who effectively implement curriculum should demonstrate the following characteristics: has adequate knowledge of the curriculum, takes time to plan and prepare for his/her work, delivers lessons effectively, and uses research-based teaching. With regards to lecturers in my department though, I feel that most of them are well equipped with both the content knowledge and pedagogical skills to effectively implement curriculum. Only a few seem to struggle to due having had no training on pedagogy". *(AMM3)*

"The following characteristics of a lecturer ensure effective implementation of curriculum: having adequate content knowledge to be taught, knowing the nature of the audience to be taught, and planning and preparing for lessons as well as having passion to teach. Relating all this to lecturers in my department, I want to confess that I am very happy with their level of readiness to implement the curriculum". *(AMM5)*

"Being always abreast with any current trends in their field, showing motivation when teaching, communicating well with students, always willing to assist students, being knowledgeable of what they teach and being willing to upgrade their professional and academic qualifications are key characteristics of a lecturers who effectively implements curriculum in accredited PHEIs". *(AMM7)*

"When I say that lecturer A demonstrates readiness to implement curriculum and lecture B does not, I will mostly be referring to their personal characteristics. Somebody may have a great attitude that when you give them a task to do they just do it or if they are given deadlines they always try to meet those deadlines. One major challenge though that some lecturers in my department face that affect their readiness to effectively implement curriculum is lack of clear understanding of teaching methods to use for effective implementation of the curriculum. A number of them have not received any training on pedagogy and hence this affects their attempts to effectively implement curriculum". *(AMM1)*

"A lecturer who shows characteristics of readiness to implement curriculum is one whose teaching is research-based, who plans and

prepares before he/she goes to class to teach, who uses learner-centered teaching methods that are interactive, who brings his/her teaching to the level of the students, who shows interest and enthusiasm in his work, and who has enough content knowledge of what he/she teaches". (AMM5)

"Characteristics of a lecturer who shows readiness to implement curriculum in my department include having subject knowledge, having pedagogical content knowledge (knows what approaches to use for teaching, understands his/her students and caters for individual differences), and uses technology to enhance teaching". (AMM4)

Results of the study show that lecturer characteristics have a significant influence on effective implementation of curriculum. Lecturers who have high levels of education, and good teaching experience, are always confident to deliver the curriculum in their classrooms. Studies by Bowzer (2008), Gouws, et al. (2013), Baubeng-Andoh (2012), Ornstein et al (2011) and Ofem, et al. (2015) also confirm the importance of these characteristics in the implementation of the curriculum. Arguing from a position that lecturers are the most important factor in shaping how a curriculum is enacted in the classrooms as they play a more direct role than textbooks since they are the ones who make the final decisions about what gets taught, Bouck (2008) averred that lecturer characteristics that include educational level, years of experience, professional adequacy, professional attitude and interest as well as belief about teaching and learning, have a significant and positive influence on how a lecturer understands and participates in the curriculum implementation process.

Bordbar (2010) in his study, found that having a higher educational level was a predictor of effective curriculum implementation as it led to the development of confidence in the implementing staff. It also emerged from the study that if lecturers were not highly educated, they would probably be unable to process curriculum implementation information more effectively hence would not be able to come up with creative approaches to implementing that curriculum. Results also show that a highly educated person always attempts to keep abreast of current curriculum trends in their subject area and hence implement the curriculum better.

Experience is another characteristic that was highlighted in the study as being a critical characteristic influencing effective curriculum implementation. Results show that an experienced lecturer possesses a wealth of knowledge and skills accumulated over time and is, therefore, able to effectively implement the curriculum. This result dovetails with findings of earlier studies. In a study on the role of experience on how a person implements an innovation such as a curriculum, Ibukun, et al. (2011) found that an experienced person operates from a deeper and sophisticated knowledge base than a less experienced one and hence is able to plan and implement a curriculum innovation better. In the current study, the results show that accredited PHEIs have their fair share of highly experienced lecturers and this presents opportunities for the curriculum to be effectively implemented in these institutions. In terms of educational level the results also showed that staff in accredited PHEIs are fairly well educated as the majority had postgraduate qualifications, with most having Master's degrees. This dual combination of adequate curriculum knowledge (educational level) and practice (years of experience) pointed to potential for effective curriculum implementation in these institutions. This was so because high educational levels and long years of experience contributed to professional adequacy as well as professional attitude and interest - two factors that without a doubt, are critical to effective curriculum implementation.

It also emerged from the study that some lecturers in PHEIs lacked a clear understanding of the pedagogy related to implementing the curriculum (see responses from AMMs 1 and 3) hence had challenges in effectively implementing it. These were lecturers who had not undergone any training on teaching but were very good in terms of content in their areas of specialisation. Such lecturers find communicating their rich content difficult when implementing the curriculum. Such lecturers therefore need to go through training in pedagogy and internal workshops on a short-term basis can help them.

A lack of adequate understanding of the curriculum and how to effectively implement it, is a challenge to effective curriculum implementation in PHEIs. It emerged from the study that most of the lecturers had Master's degrees, so such lecturers needed to be encouraged to study up to PhD level so that they could have more knowledge of the curriculum in their areas of specialisation. The curriculum as well as how it is

implemented are complex issues that demand high levels of thinking and creativity by a teacher (Awofala, et al., 2012); hence required lecturers who have high levels of education and experience.

The results in Table 5.24 further show that characteristics of the lecturer in terms of the level of teacher readiness with respect to planning, content knowledge, enthusiasm and general positive attitude, are critical lecturer variables that drive effective curriculum implementation. Interview results also showed that lecturers showed a lot of interest in the curriculum they implemented, and this is very important as having interest is a sign of having a positive attitude. For lecturers to be effective in implementing the curriculum, they must effectively plan their work as this will give them confidence to effectively implement curricula. Also, the interview results further showed that lecturers who demonstrated readiness to implement the curriculum as part of their characteristics, are able to effectively plan their work by breaking down complex concepts into smaller and simpler ones for students to easily understand. It also emerged in the study that one major challenge facing lecturers, that by extension, also affects their readiness to effectively implement curricula, were delays in getting materials required to plan for an effective implementation of curricula. Such materials included textbooks, projectors, and other teaching materials which lecturers required for effective implementation of different curricula.

The idea of lecturer readiness as part of the characteristics of the lecturer therefore evokes the idea of professional adequacy, professional attitude and interest, as well as teacher beliefs about teaching and learning. Fullan (2007) argues that professional adequacy which relates to having confidence and competence to implement a curriculum, is a critical element in a lecturer's ability to participate in a curriculum implementation process. For a lecturer to effectively implement a curriculum as part of readiness, they need to have confidence, competence and a positive attitude toward the implementation process (Ornstein, et al., 2011). With regard to teacher characteristics that include professional attitudes and interest, Buabeng-Andoh (2012) argues that a lecturer who demonstrates readiness to implement a curriculum is noted from the interplay between their feelings, beliefs and thought process. According to Hargreaves

and Fink (2006), positive attitudes and interest of implementing staff (also called professional attitudes and interest) as demonstrated through enthusiasm, are critical to the success of the curriculum implementation process. In their study of professional attitudes and interest, Drent and Meelissen (2008) found that no matter how available and adequate teaching resources are and how adequately qualified and experienced a lecturer was, as long as that lecturer did not possess the right attitude and did not show appropriate levels of interest, the curriculum would never be successfully and effectively implemented.

Grouws, et al. (2013) also argued that characteristics of a lecturer that include their epistemic beliefs about teaching and learning, form part of their readiness to implement a curriculum since any conflict between a lecturer's beliefs and curriculum ideas can be a major source of failure in the curriculum implementation process. Epistemic beliefs of lecturers relate to their views or beliefs about the nature of knowledge, knowledge acquisition and models of knowing (Kang & Wallace, 2004). These beliefs shape a lecturer's conception of curriculum content, pedagogy and specific contexts in which implementation takes place (Lee, et al., 2013; Epler, 2011). Such beliefs therefore have a bearing (direct and indirect) on the ability and/or readiness as well as the nature of pedagogy a lecturer will deploy to successfully implement a curriculum.

5.7   LINEAR MODEL OF THE CURRENT STATUS OF CURRICULUM IMPLEMENTATION IN PRIVATE HIGHER EDUCATION INSTITUTIONS

Table 5.27 shows Beta values for each independent variable. According to Kellar and Kelvin (2013:175), "the Beta value helps in measuring the extent of the strength of the relationship between the independent (predictor) variables and the dependent (criterion) variable hence is the reason why the Beta regression coefficient permits for the assessment of the strength of the relationship between the predictor variables and the criterion variable". Kellar and Kelvin (2013) argue that when the beta value is high, it also means that the predictor variables have a greater influence on the criterion variable. The tolerance levels as well as the Variance Inflation Factor (VIF) also help to explain any violation of multicollinearity in the study. O'Brien (2007: 2) alludes to the fact that "a tolerance less than 1 means that there is little multicollinearity, while the

reciprocal of the tolerance which is known as the Variance Inflation Factor (VIF) also shows us how much the variance of the coefficient estimate is being inflated by multicollinearity". The tolerance levels (TL) where TL<1 and Variance Inflation Factors (VIF) where VIF≥1 show that multicollinearity assumptions were not violated in the hypothesized relationship in a study (Kellar & Kelvin, 2013; Polit, 2010). In the current study TL < 1 and VIF > 1 (See Table 5.28), which shows that multicollinearity assumptions were not violated.

In the current study, a regression analysis (see Table 5.27) on how the dependent variable (curriculum implementation) is being implemented in PHEIs in Botswana was done, and is illustrated in the linear model below:

$Y = \beta 0 + b1x1 + b2x2 + b3x3 + b4x4$, where:

Y = curriculum implementation

X1 = Characteristics and conception of curriculum

X2 = Characteristics of the external environment

X3 = Characteristics of the institution

X4 = Characteristics of the lecturer

After substitutions, the final linear model is as shown below:

$Y = 62.111 + .276x1 +-.394x2 + -.132x3 + -.059x4$

$Y = 62.111 + .276x1 - .394x2 - .132x3 - .059x4$

It is noted that the linear model above resonates perfectly with the fulfilment of linearity assumptions as articulated by Hair, et al. (2006). Based on the linear model above, and also as shown by the Beta values in Table 5.20, the current contribution of each of the independent variables (see Section 3.2.7) towards curriculum implementation in PHEIs is shown.

Characteristics and conception of the curriculum currently contribute 27.6% to effective curriculum implementation in accredited PHEIs. This shows that to some good extent, the curriculum in accredited PHEIs is well developed and implementable. This may also mean that the goals of the curricula in accredited PHEIs are clear, content is not too ambitious and not too loaded but is within the ability of lecturers to implement it in the given timeframes. According to Table 5.20, a 1% change or improvement in the current characteristics and conception of the curriculum will therefore enhance effective curriculum implementation in accredited PHEIs by 26.2%. Such improvement could be in terms of relooking at the goals of the curriculum to check if they can be refocused and be more achievable than before. It could be also in terms of a relook at the content to see if it is still relevant and implementable or a look at the implementation strategies to ensure they support effective curriculum implementation.

Characteristics of the external environment currently contribute -39.4% to effective curriculum implementation. This means that there are issues in the external environment in which the curriculum is being implemented that affect effective curriculum implementation. Such issues as reviewed in literature (see Section 3.2.7.1) as well as in the empirical study results (see Section 5.6.2 and Table 4.7), include lack of government support, lack of two-way communication between regulator and PHEIs, a highly centralised regulatory system, strict approval and accreditation processes, among others. It is therefore shown that a 1% change in the current external environment will contribute 2.4% towards effective curriculum implementation in PHEIs. Such a change or improvement could include ensuring that there is two-way communication between regulators and PHEIs as well as relaxing without compromising regulatory processes.

The linear model further shows that characteristics of the institution (see Subsection 3.2.7.2) currently contribute -13.2% toward effective curriculum implementation in accredited PHEIs. This means that there are factors within the institutions that negatively affect effective curriculum implementation in the PHEIs. Such factors include a lack of shared vision, lack of shared governance, limited opportunities for staff development, limited knowledge-sharing culture, non-supportive institutional leadership, and status quo comfort (see Table 5.21). A 1% change in the current characteristics of

the institution will therefore contribute 33.3% to effective curriculum implementation. This therefore shows that the whole institutional climate (ecosystem of the institution) has the biggest impact on how a curriculum is implemented in accredited PHEIs.

It also emerged in the linear model that characteristics of the teacher (see Subsection 3.2.7.3) currently contribute -5.9% to effective curriculum implementation in accredited PHEIs. This is despite the fact that characteristics of the teacher as a predictor variable is positively related to effective curriculum implementation. One major reason characteristics of the teacher have a negative contribution to effective curriculum implementation currently is that most lecturers do not use learner-centered approaches when implementing the curricula (see Table 4.9). A 1% change in the current characteristics of the teacher will enhance effective curriculum implementation by 2.8%.

5.8   STRUCTURAL EQUATION MODEL

This section deals with structural equation modeling. Structural equation modeling (SEM) is a combination of correlation and regression analysis used to explain the nexus of the relationship between the model and the data with respect to goodness of fit (Maydeu-Olivares & García-Forero, 2010). Surh (2006: 1) defines structural equation modeling as "a flexible methodology for representing, estimating, and testing a network of relationships between variables (measured variables and latent constructs)", hence is viewed as an extension of factor analysis meant to test interrelationships between a range of variables (Sinharay, 2010; Porritt & Baker, 2015). Harrison and Friston (2007: 3) describe SEM as path analysis, that is, "a multivariate method used to test hypotheses regarding the influences among interacting variables". From the definitions above therefore, it can be concluded that SEM is a flexible analysis method of establishing relationships between interacting variables.

Based on the afore-mentioned, this study employed a structural equation modeling (SEM) approach to develop a model that represents the causal relationships among the variables. AMOS 18 was used to solve the structural equation models because it is user friendly and can provide consistent and unbiased parameter estimates under conditions of missing data (Antonio, Yam & Tang, 2007). The metrics indicated in Figure 5.2

explicate the fitness of the data to the model and the values provided parallel support to the threshold values postulated in the extant literature. Furthermore, the hypothesized relationship indicated in Table 5.19 resonated with the regression values espoused in the regression coefficient in Table 5.20. As part of coming up with a structural equation model, the extent of association between independent variables and the dependent variable is established in Table 5.25.
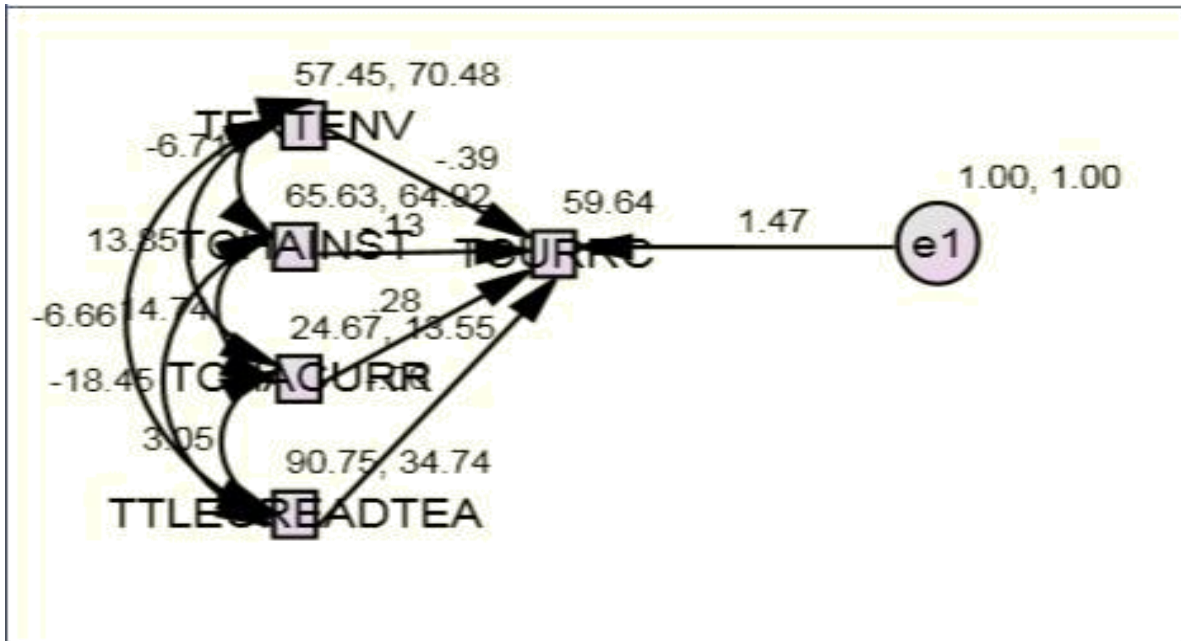
Figure 5.2: Structural equation model for effective curriculum implementation

Results in Tables 5.25 to 5.32 help to clarify and explain the structural equation model SEM) in Figure 5.2. The structural equation model shows the current level of curriculum implementation in accredited PHEIs by demonstrating the structural association between the independent variables as well as showing whether there is a positive relationship between the dependent and independent variables.

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Table 5.25: Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
TCURRIMPLEM	<---	TEXTENV	.384	.019	20.526	***	
TCURRIMPLEM	<---	TCHAINST	.130	.022	5.824	***	
TCURRIMPLEM	<---	TTLECREADTEA	.015	.052	5.352	.006	
TCURRIMPLEM	<---	TCHACOM	.224	.057	3.925	***	
TCURRIMPLEM	<---	e1	1.457	.071	20.503	***	

Table 5.25 shows positive relationships between all the independent variables and the dependent variable. It is shown that characteristics of the external environment, characteristics of the institution, characteristics and conception of the curriculum, and characteristics of the teacher, on a relationship continuum, have a high to very high relationship (see the p-values in Table 5.25) with effective curriculum implementation in accredited PHEIs. These results also corroborate the regression and correlation analyses as espoused in Tables 5.19 and 5.20. The path analysis thus indicates the fitness of the model to the data.

In further explicating the relationship between the dependent variable and the independent variables, Table 5.20 (shown earlier on) shows that characteristics of the institution which include the work environment, having an implementation plan, resources among others also contributed the highest percentage (33.3%) of the variation in improvement in the implementation of the curriculum in PHEIs, with characteristics and conception of the curriculum having the second highest contribution by contributing 26.2% of the variation in the implementation of the curriculum in PHEIs. Characteristics of the curriculum particularly relating to perceived relevance of the curriculum, clarity of goals and objectives, and relevance and adequacy of content while characteristics of the external environment contributing the smallest variation (2.8%) to effective implementation of curriculum in accredited PHEIs. The positive influence of the predictor variables on the criterion variable is further explicated in Table 5.26.

Table 5.26: Means: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
TEXTENV	57.450	.579	99.208	***	
TCHAINST	65.626	.556	118.085	***	
TCHACURR	24.673	.254	97.185	***	
TTLECREADTEA	90.754	.407	223.243	***	
e1	1.000				

Table 5.26 shows that the mean estimate values of the independent variables are all positively and significantly related to the dependent variable (curriculum implementation) in accredited PHEIs. This shows that there is a positive and linear relationship between the independent variables and the dependent variable, that is, the independent variables have a significant and positive influence on how the curriculum is implemented in the accredited PHEIs. The positive relationship between the predictor and criterion variables is further explained by the intercept value in Table 5.27.

Table 5.27: Intercepts (Group number 1 – Default mode

	Estimate	S.E.	C.R.	P	Label
TCURRIMPLEM	59.644	3.314	17.996	***	

Table 5.27 is a further demonstration of the linear relationship between the dependent variable and independent variables. The positive intercept value (59.644) shows a positive relationship between the criterion and predictor variables and help to explain that each of the independent variables exerts a positive, significant and linear effect on how the curriculum is implemented in accredited PHEIs. For the predictor variables to be able to exert a positive, significant and linear influence on the criterion variable, there should exist a positive and linear association between the predictor variables as demonstrated by the positive intercept. Table 5.28 further demonstrates, through covariances, the positive and linear association between the predictor variables.

Table 5.28: Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
TCHACURR	<-->	TTLECREADTEA	3.052	1.511	2.020	.043	
TCHAINST	<-->	TTLECREADTEA	-18.452	3.514	-5.251	***	
TEXTENV	<-->	TTLECREADTEA	-6.657	3.444	-1.933	.053	
TCHAINST	<-->	TCHACURR	14.740	2.284	6.453	***	
TEXTENV	<-->	TCHACURR	13.853	2.336	5.931	***	
TEXTENV	<-->	TCHAINST	-6.708	4.689	-1.431	.153	

The co-variances in Table 5.28 also demonstrate the degree of association in the hypothesized relationship and confirm earlier correlation analysis results in Table 5.19 which show a strong linear association between predictor variables (see Figure 5.2). This therefore shows that any changes in one of these variables with regard to how they influence curriculum implementation, will also result in changes in the other variables, i.e., a change in predictor variable X will cause a change in predictor variable Y. Table 5.28 more specifically shows a very strong linear relationship between the following pairs of predictor variables: characteristics of the institution and characteristics of the teacher (TCHAINST and TTLECREADTEA), characteristics of the institution and characteristics and conception of the curriculum (TCHAINST and TCHACURR), characteristics of the external environment and characteristics of the teacher (TEXTENV and TCHACURR). Such strong associations between pairs of predictor variables indicate a strong enough influence of these variables on curriculum implementation in accredited PHEIs. The strong and positive relationship between the dependent and independent variables, is also shown through the variances in Table 5.29.

Table 5.29: Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
e1	1.000				
TEXTENV	70.484	6.876	10.251	***	
TCHAINST	64.917	6.332	10.251	***	
TCHACURR	13.547	1.321	10.251	***	
TTLECREADTEA	34.735	3.388	10.251	***	

Table 5.29 further confirms the potential for a positive relationship between the predictor variables and the criterion variable as shown in Figure 5.2. It is shown in Table 5.29 that all predictor estimates are positive thus showing a positive relationship with the criterion variable. The characteristics of the external environment (TEXTENV=70.48) have the potential to show the strongest positive association with effective curriculum implementation if factors that affect curriculum implementation in the external environment are addressed while characteristics and conception of the curriculum (TCHACURR=13.55) shows a relatively high potential for a strong relationship with effective curriculum implementation in PHEIs. Other predictor variables that include characteristics of the institution (TCHAINST=64.92), characteristics of the teacher (TTLECREADTEA=34.74) also show and confirm the potential for a strong relationship with effective curriculum implementation in PHEIs.

The SEM model (Figure 5.2) therefore presents the current state of curriculum implementation in PHEIs and helps to confirm earlier findings that all the predictor variables are statistically significantly and positively associated with effective curriculum implementation in PHEIs. The characteristics and conceptualization of curriculum is significantly, statistically and positively related to effective implementation of curriculum (see Table 5.20) as β=.262; p = .000; hence H05 was thus rejected in this empirical study. The characteristics of external environment according to the SEM is significantly, statistically and positively related to effective curriculum implementation since β=.024; p =.000; hence H06 was rejected in the study. The characteristics of the institution is also

significantly, statistically and positively related to effective curriculum implementation as β=.333; p = .000; hence H07 was rejected in the current study. Finally, the variable characteristics of the teacher is also significantly, statistically and positively related to effective curriculum implementation since β=.011; p = .004; hence H08 was rejected in this study.

To demonstrate the fitness of the SEM model in Figure 5.2 in explaining the association between the independent and dependent variables, the researcher evaluated the Root Mean Square Error and Approximation (RMSEA) statistics which was found to be 0.398 (See Table 5.30); Normed Fit Index (NFI) statistics to be 1.0 (See Table 5.31), and the Confirmatory Factor Analysis (CFA) with minimum discrepancy divided by the degree of freedom (CMIN/DF) to be 0.2.79 (see Table 5.29). Each of these indicators suggests that a good model fit has been identified in this study.

Table 5.30: Model Fit Summary (CMIN)

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	20	.000	0		
Saturated model	20	.000	0		
Independence model	5	626.680	15	.000	41.779

Calculating model fit: CMIN/DF = 41.779/15 = 2.79

For good fit of the data from predictor variabes to the model, the minimum discrepancy (CMIN) divided by the Degree of Freedom (DF) should be between 1 and 3 as postulated in the extant literature (Tanaka, 1993; Arbuckle, 2005; Tabachnick & Fidell, 2007). In the current study, Table 5.30 shows that CMIN/DF = 2.79 which is between 1 and 3, and much closer to the max value 3 which shows near perfect fit of the data to the model and hence the fitness index (2.79) is a strong indicator of the association between the predictor variables and the criterion variable.

Table 5.31: RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Independence model	.398	.371	.424	.000

The results in table 5.31 show that the Root Mean Square Error of Approximation (RMSEA) which is used for calculating the standardized residual correlations ranges from 0 (perfect fit) to 1 (poor fit). The RMSEA in this study is 0.398. Since 0.398 is closer to 0 than to 1, it shows that the model is near perfect fit in terms of how the predictor variables influence the criterion variable.

Table 5.32: Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	1.000		1.000		1.000
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

The results in Table 5.32 show that the Normed fit index which is the proportion in the improvement of the overall fit of the hypothesized model compared to the independent model, ranges from poor fit of 0 to perfect fit of 1 as contended in extant literature. An NFI of 1 as shown in Table 5.32, demonstrates a perfect fit of the model. The relative fit indices of Bollen's Incremental Fit index (IFI), Tucker Lewis Index (TLI), Bentler-Bonnett Normed Fit Index (NFI) cannot be below 0 and above 1 for good fitting models as demonstrated in this empirical study.

5.11   SUMMARY

Chapter 5 analysed and interpreted quantitative data with qualitative data being used for confirmatory purposes. This chapter marked the point when both sets of data were integrated. Research questions were restated and the hypotheses that guided the study were also stated, tested and reported. Data analysis began with the analysis of biographic data and testing of related hypotheses to establish whether there was a relationship between biographic factors and how the curriculum was implemented in accredited PHEIs. Analysed data showed that biographic variables that include age, educational level, and years of experience have a significant influence on how the curriculum is implemented in PHEIs while gender has no influence. Further analysis of

data included correlations analysis, regression analysis and coming up with the linear and structural equation models as a means of explaining how the curriculum was being implemented in PHEIs. The study also found that predictor variables that included characteristics and conception of the curriculum, lecturer readiness, characteristics of the external environment, characteristics of the institution, and characteristics of the teacher all had a significant and positive influence on effective curriculum implementation in accredited PHEIs.

A linear as well as a SEM models were also developed from the collected data as a demonstration of the current state of curriculum implementation in accredited PHEIs. The SEM and the path analysis showed positive association or covariances between the independent variables (characteristics and conception of the curriculum, characteristics of the teacher, characteristics of the institution, and lecturer readiness) and the dependent variable, a scenario which by extension, points towards a positive association between all the independent variables and the dependent variable (effective curriculum implementation) in PHEIs. Path analysis also showed that each of the four independent variables had a strong positive association with effective curriculum implementation. It is further shown in the analysis of the linear model that if each of the independent variables was improved by 1%, the current state of curriculum implementation in PHEIs would be enhanced or improved by considerable margins.

The next chapter (Chapter 6) provides the summary, conclusion, and recommendations to the study.

CHAPTER 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1   INTRODUCTION

This study was predicated on the assumption that curriculum implementation in accredited PHEIs can be enhanced by developing a model (framework) to improve the manner in which the curriculum can be implemented. The purpose of the study therefore was among other things to develop a framework that could be used for effective curriculum implementation in the accredited PHEIs. The foundation of the framework was based on the nature of the relationship between the dependent variable or effective curriculum implementation and the predictor variables namely, characteristics of the external environment, characteristics of the institution, characteristics of the lecturer, and characteristics and conception of the curriculum (see Chapter 3 and Subsection 3.2.3.5). The study specifically answered the following research questions (see Chapter 1 Section 1.4):

1) What opportunities and factors act as enablers to effective curriculum implementation by accredited PHEIs?

2) What challenges do accredited PHEIs face when implementing the curriculum?

3) What strategies do accredited PHEIs use to enhance effective implementation of the curriculum?

4) How effectively is curriculum implemented in accredited PHEIs?

6.2   SUMMARY OF RESEARCH FINDINGS

This section presents a summary of the scholarly and empirical findings from earlier studies. The section also focuses on the following seven broad areas: Demographic variables, regulation of accredited PHEIs, characteristics of the external environment, characteristics of the institution, characteristics of the lecturer, conception and characteristics of the curriculum (See Chapter 5 sections 5.3 to 5.8). The summary of the research findings includes the proposed framework that could be used to enhance curriculum implementation in accredited PHEIs which will form part of the conclusion.

6.2.1 Key scholarly review findings

This section presents a summary of the literature review. In addition, reasons for regulating the PHEIs are discussed.

The study first traced the historical development and growth of PHE in Botswana and other parts of the world, argues that the neo-liberal policy that was enacted in many countries across the world was the cause of poor curriculum implementation in the sprouting PHEIs. It was argued (see Section 2.2) that the finance-driven neoliberal policies which required that states such as Botswana reduce the cost of public services in order to stabilize their macro-economies and stimulate their micro-economies led to the sprouting of PHEIs many of which were fly-by-night institutions with meagre resources to provide quality HE to students. The inability of the PHEIs to provide quality HE led to the introduction of strict regulatory measures in Botswana and other parts of the world (see Subsection 2.4.1).

Specific motives for regulating PHEIs included consumer protection against poor service delivery by PHEIs, information gathering to ensure the public was made aware of accredited and non-accredited or bogus institutions, ensuring alignment between public policy and the activities of the PHEIs, and the monitoring of financial records of for-profit PHEIs to ensure that they were viable and not at permanent risk of closure (see Subsection 2.4.1).

The study also exposed two critical issues with regard to the success of curriculum implementation. First, the study showed that a lecturer's conception or understanding of a curriculum determines how they will implement it (see Subsection 3.2.2.1 (i)). For example, a lecturer who understands a curriculum as a product, content or subject matter tends to use teacher-centred approaches to implement the curriculum while a lecturer who understands a curriculum as all the experiences of the learner tends to use learner-centred teaching approaches to implement the curriculum. Second, a number of factors (enabling and inhibiting) influence curriculum implementation (see Subsection 3.2.7). Such factors relate to the characteristics of the external or regulatory

environment, the institution, the implementing lecturers, and the nature of the curriculum.

It also emerged from the study that a number of strategies could be used for effective implementation of a curriculum (see Subsection 3.2.6). Such factors include fidelity of implementation (FoI) (see Subsection 3.2.6.1), mutual adaptation strategy (see Subsection 3.2.6.2) and curriculum enactment strategy (see Subsection 3.2.6.3). All these strategies could be used, under different circumstances to ensure effective curriculum implementation.

6.2.2 Key empirical findings

This section summarises key findings from the empirical part of the study. Part of the summary relates to the influence of biographic variables, external environment, the institution, the lecturer and the nature of the curriculum on effective curriculum implementation in accredited PHEIs.

6.2.2.1　　Biographic variables and curriculum implementation

Demographic variables that were discussed in the study included age, gender, educational level and years of experience. The results showed that age, years of experience and educational level influenced on how lecturers in accredited PHEIs implemented the curriculum while gender did not have an influence.

i.　Age

The results showed that at the time of this study age (see Subsections 3.2.7.3 (vi) and 5.3.1), influenced the manner of implementing the curriculum in accredited PHEIs and hence confirms findings from earlier studies. Studies show that older lecturers are more patient and calculative in their actions or more mature in decision-making abilities and as a result implement the curriculum better than younger lecturers (Buabeng-Andoh, 2012). It could therefore be concluded that patience and mature decision-making are

two critical elements of age that make the curriculum implementation more effective and reduces mistakes that occur during the implementation process.

In addition, good decision making facilitates creativity and innovation during curriculum implementation. Buabeng-Andoh (2012) and Miller and Karakowsky (2005) found that age had a moderating influence on an individual's decision-making perspectives and choices during the process of implementing an innovation, and that older employees possessed a relatively superior level of work and life knowledge that makes them perform better in a number of situations than younger employees. All these arguments point to the fact that age has a positive moderating influence on curriculum implementation in accredited PHEIs.

ii.   Years of experience

The study showed that years of experience (see Subsections 3.2.7.3 (v) and 5.3.4) are critical predictors of effective curriculum implementation in accredited PHEIs. It was shown in the study that years of experience represented critical tacit knowledge of an organisation which was very important in enhancing the performance of employees in tasks such as curriculum implementation (Ng & Feldman, 2009). It was further shown in the study that experienced lecturers had a broader knowledge base than less experienced ones, and hence were able to plan and implement curriculum innovation better.

The findings of this study further showed that more years of experience led to improved communication skills, innovativeness, creativity, self-awareness, improved personal relationships with others, improved mastery of the subject, and improved classroom management skills, all of which are critical ingredients for effective curriculum implementation (Ofemi, et al., 2015). Ibukun, et al. (2011) found that high levels of experience empowered people with practical knowledge and also led to high levels of motivation leading to effective curriculum implementation. This means that the more the employees are empowered or capacitated with practical, field knowledge the more they become more motivated and implement the curriculum better than the less experienced

employees. Experienced teachers know many curriculum implementation barriers and how to avoid them as well as which curriculum enablers they should take advantage of. Such practical knowledge leads to effective curriculum implementation according to Otanga and Mange (2014) and Mason, et al. (2013).

iii.   Educational level

The findings of this study show that the educational level (see Subsections 3.2.7.3 (i) and 5.3.3) plays an influential role in effective curriculum implementation. Previous research shows that people with higher educational level possess superior information processing abilities needed for understanding and performing complex processes such as curriculum implementation (Wang & Noe, 2010). The findings of this study further show that level education demonstrates their cognitive abilities and skills are critical for an effective implementation of the curriculum (Mayer, et al., 2011). This shows that level of education plays a significant role in the way the curriculum is implemented in accredited PHEIs.

The importance of high level education in the effective implementation of the curriculum is further emphasised by Finger and Houguet (2009) who argued that higher educational levels represent an individual's solid curriculum knowledge in terms of content. This therefore, suggests that one who is more informed or knowledgeable about a particular curriculum would quite likely be more effective in curriculum implementation than a teacher who is not. Bordbar (2010) and Perraita and Costa (2007) found that high educational levels or adequate curriculum knowledge predicts effective curriculum implementation and increases confidence, motivation and positive attitudes.

Confidence and positive attitudes are also viewed by Ornstein, et al. (2011) as critical for effective curriculum implementation. Effective curriculum implementation requires innovativeness and that superior work practices and high levels of education can provide these. This corroborates Salleh et al's (2011) findings that high levels of education develop unique knowledge in people leading to innovativeness, creativity and superior work practices, all of which are critical for effective curriculum implementation.

iv.   Gender

The findings of this study show that gender had no influence on curriculum implementation (see Subsections 3.2.7.3 (vii) and 5.3.2). It was shown in the study that, all things being equal, men and women implement the curriculum at the same. These results therefore show that the ability to effectively implement the curriculum is not a function of one's gender but depends on other variables such as level of educationl and years of experience. Awofala (2012) and Kobia and Ndiga (2013) found that gender did not have an effect on how people perceived and participated in the implementation of an innovation. Furthermore, Allana, et al. (2010: 3) found that gender encompassed socially constructed and culturally based roles of men and women which unfairly defined non-existent performance differences between male and female lecturers.

6.2.3 Regulation of PHEIs

This study highlights a number of reasons why PHEIs were highly regulated (see Sections, 2.4, 2.7 and 5.4). Among these are poor quality of teaching, inadequate and poor quality of resources, poor status of degrees offered by PHEIs, shortage of qualified staff, high dropout rates, graduates from these institutions lacking basic skills, inadequate facilities in PHEIs and poor institutional governance. The findings of this study further show that the regulation of PHEIs in Botswana led to a number of positive effects on how the curriculum is now implemented. For example, the quality of staff in PHEIs, which now mainly consists of Master's and PhD degree holders, has improved; the quality of programs has developed; and the curriculum implementation process greatly improved too. The quality of facilities in the PHEIs has also improved and this has also led to better curriculum implementation in the PHEIs. However, the rigidity of the regulations as well as a lack of two-way communication between the regulators and the PHEIs has been found to affect effective curriculum implementation.

The findings above confirm previous research findings that the quality of services in some PHEIs improves in a regulated environment. Mok (2009) and also Lim (2010) found that some PHEIs failed to provide quality services due to poor quality of teaching,

the low quality of degrees offered, and the mismatch between promises and reality after graduation. The findings also corroborate Davids (2010) argument that serious staff shortages and poor institutional governance led to high regulations of many PHEIs to improve the quality of services. The findings of this study therefore showed that due to the reasons above, the government of Botswana felt compelled to institute tough regulatory requirements on PHEIs instead of continuing to leave the running of private higher education to the vagaries of market forces which found expression through the PHEIs. The Botswana government had to come up with a stringent regulatory framework to ensure delivery of quality higher education so that effective curriculum implementation could be guaranteed.

6.2.4 Characteristics of the external environment

The study showed that the PHEIs operated in a highly regulated external environment (see Sections 2.4.1, 2.4.2, 2.7, 3.2.7.1 and 5.4). Paradoxically, the highly regulated environment improved curriculum implementation in PHEIs on one hand while it stifled service delivery in the PHEIs on the other. In Botswana the external environment, as defined by government and its regulatory agencies, communities, business and other stakeholders, contributes to a large extent to improved curriculum implementation in PHEIs. According to Thrash (2012) the external environment or government regulations positively impact on the quality of the curriculum content, the quality of the resources to be used, the effectiveness of the curriculum implementation. Cobanoglu (2011) argues that external inputs such as regulatory requirements can have a positive influence on how curriculum implementation is done in educational institutions if they are aligned to local realities at institutions. The findings of this study also show that employers who are part of the external environment exert a lot of pressure on educational institutions to produce graduates with requisite knowledge and skills and this calls for effective curriculum implementation. Furthermore, Nasser, et al. (2011) posit that employers exert strong opinions on the nature of the curriculum and how it should be implemented. The positive ripple effects of this therefore are that these strong opinions compel PHEIs to find ways and resources to ensure their curricula is effectively implemented.

According to Fielden and LaRocque (2008:5), "governments have an obligation to ensure that their citizens receive a good education from whatever source by putting in place mandatory regulatory mechanisms that ensure that teaching staff, programmes, facilities, equipment and materials are of best quality". The findings of this study show that although some PHEIs were well resourced and capable of providing quality education through effective curriculum implementation, others were very poorly resourced and at permanent risk of closure. Hence the external environment or government regulatory agencies had to come in with regulations to ensure that the populace was not taken advantage of. The findings of this study show that industry also played a significant role in ensuring improved quality of graduates from PHEIs. According to Altrichter (2005) political forces, government regulatory agencies), lobbying groups, and public concerns have a significant impact on how the curriculum is implemented in educational institutions.

6.2.5 Characteristics of the institution

It was shown in this study that the ecology and culture of an institution played an important role in the effective implementation of the curriculum in accredited PHEIs (see Subsection 3.2.7.2 and Table 5.21). The findings of this study show that some PHEIs had supportive managers in terms of timely provision of teaching resources, opportunities for staff development, funded research initiatives and conducive work conditions. On the other hand, other PHEIs made curriculum implementation a very tenuous exercise because their managers could not adequately support their staff.

Morgan and Xu (2011) argue that a supportive institutional environment consists of effective administrative support, leadership, collaboration, negotiation and conflict resolution. This study found that in many institutions there was very limited two-way communication between the operational core and top management thus making information flow very difficult, and this affected curriculum implementation. Communication is the life blood of every effectively functioning organisation. Without effective communication between top management and the operating core, urgent issues needed for effective curriuculum implementation may not be addressed. There is therefore a serious need for communication in these institutions to be improved.

6.2.6 Characteristics of the lecturer

It was shown in this study that teacher characteristics are critical components of the curriculum implementation matrix (see Subsection 3.2.7.3 and Table 5.22). The findings of this study show that lecturers played a more direct role than textbooks in shaping curriculum implementation in classrooms because they make the final decisions about what gets implemented or not. The type and amount of content and methods of teaching depend on the lecturers' knowledge, experience and attitudes (Carson & Dawson, 2016; Attard, 2017). Effective lecturers possess adequate knowledge of the content, use learner-centered teaching approaches, and use research to inform their teaching. They are also motivated and enthusiatically and effectively implement the curriculum (Carson & Dawson, 2016). According to Schmidt, Houang and Cogan (2002) teacher characteristics significantly influence the quality of instruction and student educational experiences.

The findings of this study also show that generally the respondents agreed that teachers needed high levels of education and experience to effectively implement the curriculum. The findings further show that the teaching staff in the PHEIs in Botswana were generally well educated as the majority possessed Master's and Doctorate degrees, and that most of them were fairly highly experienced and could effectively implement the curriculum.

6.2.7 Characteristics and conception of curriculum

The findings of this study show that the goals, objectives and content of the curriculum and the way it is conceptualised by the implementers critically influence the effectiveness of its implementation (see Subsection 3.2.7.4 and Table 5.23). The findings of this study further show that most of the curricula in accredited PHEIs are well developed with clear goals and objectives, and also that the content in the different curricula was not too loaded and could be effectively implemented. According to Schagen (2011) and Luo (2016), characteristics of a curriculum can either be a hindrance to or a driver of its successful implementation. The findings further show that most lecturers conceive or understand the curriculum as all experiences of the learner

and hence implement it using learner-centered teaching approaches (Tabaundule, 2014). The findings further show that in cases where lecturers use teacher-centered approaches, they gave reasons of time limitations and large class sizes. The next section concludes the study in line with the research questions.

6.3   CONCLUSIONS

A number of conclusions have been drawn from the findings of this study. The conclusions are based on the answers to the four research questions that guided this study (see Section 1.4). Overall, it could be concluded that the curriculum was fairly well implemented in the accredited PHEIs at the time of this study. However, there were existing implementation gaps that needed to be adequately addressed. In a nutshell, this study concludes that there is still room for improvement provided the challenges hindering the effective implementation of the curriculum in the PHEIs are met.

6.4.1   What opportunities and factors act as enablers to effective curriculum implementation by accredited Private Higher Education Institutions?

A number of factors that enabled an effective implementation of the curriculum in accredited PHEIs in Botswana at the time of this study were uncovered by the findings. The availability of qualified staff in the PHEIs is the first enabling factor. The findings showed that the majority of the staff in accredited PHEIs possessed Master's degrees while others held Doctoral degrees. This suggests that availability of qualified staff presents an opportunity for an effective implementation of the curriculum in the PHEIs. Further supporting the view that education level is an enabler of effective curriculum implementation, the results showed that highly qualified or educated people possess superior information processing abilities and absorptive capacities which result in the development of the right attitudes, motivation, confidence and mindsets critical for effective and successful implementation of the curriculum.

The second enabling factor is that the majority of staff in PHEIs possessed a wealth of experience in the lecturing profession and therefore were abler to effectively implement the curriculum in PHEIs. Years of experience or tacit knowledge is perceived in this

study as a critical element in the curriculum implementation matrix. This is confirmed in past studies and the extant literature that experienced people operated from a deeper and superior knowledge base when compared to less experienced ones.

The presence of well-developed curricula is the third enabling factor as far as the effective implementation of the curriculum in accredited PHEIs is concerned. The majority of the respondents in this study believed that the curricula at their institutions were well developed with clear goals and objectives and adequate content. As far as this study is concerned the quality of the curricula presented an opportunity for an effective implementation of the curriculum.

A number of accredited PHEIs provided both internal and external opportunities for staff development. It could therefore be concluded that this is the fourth enabling factor for an effective implementation of the curriculum in accredited PHEIs. Staff in the accredited PHEIs felt that they were empowered by being given opportunities to either further their academic qualifications or participate in refresher courses because this improved their abilities to effectively implement the curriculum.

The fifth enabling factor for an effective implementation of the curriculum in the PHEIs is the ability of the respondents to conceptualise or comprehend the curriculum. The majority of the respondents indicated that they used interactive teaching methods to ensure maximum participation of the learners during the implementation of the curriculum in PHEIs. This assertion was viewed as critical for effective curriculum implementation because students should always be provided with opportunities to actually do the learning themselves rather than being spoon-fed by their lecturers through teacher-centered teaching methods.

The availability of information communication technology (ICT) is the sixth factor enabling an effective implementation of the curriculum in PHEIs. ICT allowed PHEIs to use teaching and learning platforms such as blackboard to enhance curriculum implementation. Most of the respondents indicated that their institutions had acquired learning management systems (LMS) thanks to the availability of ICT.

The seventh and final enabler of an effective implementation of the curriculum paradoxically is the highly regulated PHEI environment. PHEIs in Botswana have been for a long time operating in a highly regulated environment and this environment has always provided both enabling opportunities as well as challenges for effective curriculum implementation. This environment has compelled PHEIs to recruit highly qualified staff, has ensured adequate teaching resources, that curriculum development and implementation meet set standards and has ascertained that quality audits are conducted periodically to maintain high standards of performance in the provision of education in the PHEIs.

6.4.2 What challenges do accredited Private Higher Education Institutions face when implementing the curriculum?

It could be concluded that curriculum implementation in accredited PHEIs was affected by five major challenges at the time of this study. The first major challenge was that of time constraints. The findings of this study showed that lecturers in accredited PHEIs were always bogged down by too many administrative tasks as well as by the need to meet examination deadlines. With regard to administrative tasks, the results of this study showed that staff in the PHEIs attended to many meetings and were being assigned too many clerical tasks that took away much of their time to plan for effective curriculum implementation. With regard to meeting assessment deadlines, the respondents indicated that they were required to meet deadlines for at least four assessments per semester, hence they were compelled to expedite curriculum implementation. As a result, they resorted to using teacher-centered approaches in order to finish the syllabus and this compromised effective curriculum implementation.

The second challenge facing accredited PHEIs was that of large class sizes. Many of the respondents indicated that this was, perhaps, the biggest challenge caused by institutions that cut costs and employ few lecturers. Consequently, the lecturers resorted to teacher-centered teaching approaches when implementing the curriculum. Thus, this affected the quality of teaching and learning in the PHEIs. The recommended class sizes in the PHEIs for example, for undergraduate programmes, were between 25 and

30 students per class but sometimes other classes have up to 45 students per class. This certainly has a negative effect on the implementation of the curriculum.

Lack of teaching qualifications by a number of lecturers in PHEIs is the third challenge that makes the implementation of the curriculum difficult. By extension this suggests that the lecturers do not have the ability to apply appropriate pedagogy when implementing the curriculum. The findings of this study show that lecturers without teaching qualifications tended to always use teacher-centered approaches, and, as a result, could not effectively implement the curriculum.

The fourth challenge that affected effective curriculum implementation in accredited PHEIs was the fact that the private higher education environment was highly regulated. As indicated above, the question of a highly regulated environment presented itself as a paradox as on one hand, it led to the improvement of curriculum implementation through the regulations it promulgated while on the other hand it stifled effective curriculum implementation by being too strict and not being open to two-way communication. The results of this study showed that regulatory authorities tended to come up with regulatory frameworks that did not take into consideration local contexts of individual PHEIs and used a one-size-fits-all approach. This affected how the individual PHEIs implemented the curriculum. For example, some PHEIs offered certificate and diploma courses only while others offered degree courses only. Despite this, the regulations did not take these considerations into perspective. This challenge was exacerbated by the lack of two-way communication between the regulatory authorities and the PHEIs. Furthermore, once a PHEI submits certain core textbooks to the regulatory authorities during curriculum development for the developed programme to be approved, it becomes very difficult to change such textbooks during curriculum implementation as the regulatory authorities take time to approve such changes. This affects curriculum implementation in the PHEIs.

The fifth challenge is that either inadequate teaching resources or late delivery of the resources such as textbooks and laboratory equipment in some of the PHEIs affected the implementation of the curriculum. Some of the respondents in both the questionnaire and interviews indicated that they did not have adequate resources at

their institutions to effectively implement the curriculum. Without the correct textbooks and equipment, it becomes very difficult for the lecturers to effectively implement the curricula. Besides the teacher, the second most critical element in curriculum implementation are the teaching resources. It was therefore felt that as part of institutional management support, adequate teaching resources needed to be made available at the beginning of each teaching semester.

The sixth challenge is heavy workloads. It emerged from the study that lecturers have heavy workloads owing to the multiplicity of administrative tasks they are given to perform. These administrative tasks take a lot of time which lecturers could use not only for planning effective implementation of the curriculum, but, importantly, to gain a deep understanding of the curriculum they are meant to implement. It could therefore be argued that if lecturers do not have time to understand the curriculum they cannot effectively understand and plan it.

6.4.3 What strategies do accredited Private Higher Education Institutions use to enhance effective implementation of the curriculum?

The findings of this study show a number of effective strategies which accredited PHEIS used to enhance the curriculum implementation. The first strategy was staff development. Staff development in a number of the PHEIs included both internal and external initiatives. With regard to internal initiatives, PHEIs encouraged their staff to attend capacity building workshops that were coordinated by their Faculties. In these workshops faculties identified areas of difficulty when implementing the curriculum and then invited either internal or external specialists to facilitate the workshops. With regard to external initiatives, some PHEIs financially sponsored their staff to upgrade their academic qualifications through external universities. As a result, many lecturers in these institutions acquired either Masters or Doctoral qualifications and this has led to effective curriculum implementation in the respective institutions.

The second major strategy used by accredited PHEIs was the introduction of ICT. The deployment of LMS systems in the PHEIs enhanced curriculum implementation owing to the ubiquity of these systems which allowed students to learn anytime, and

anywhere. A number of such PHEIs used the LMS systems such as blackboard to enable students to access content either through their computers or mobile devices such as smartphones. Since 2013, any of these PHEIs in Botswana began investing large sums of money into setting up ICT systems to enhance learning and teaching. Currently ICT has been fully integrated into education and processes that include assessments, sudents feedback on lecturers, use of methodologies such as flipped classrooms, blended and distance learning, have all been made possible in these institutions due to the prevalence of advanced technology. The only challenge though, is Internet bandwith which sometimes makes Internet connectivity slow. Overall however, the introduction of technology in the curriculum implementation made teaching and learning both interesting and effective in accredited PHEIs.

The third strategy used by accredited PHEIs was to hire highly qualified, experienced and diverse staff. The results of this study show that most of the staff at the accredited PHEIs possessed postgraduate qualifications and long experience. Moreover, some PHEIs ensured effective talent management so that their staff could not leave the organisation. As part of talent management, such staff were either promoted to positions of responsibility or paid salaries commensurate with their qualifications and experience. PHEIs also ensured that there was a cross-exchange of diverse curriculum ideas from people with diverse experiences on how the curriculum was implemented.

The fourth strategy used by accredited PHEIs to promote effective curriculum implementation was for the research efforts of staff as a means of ensuring that approaches to curriculum implementation were backed by research. However, this study found that some of the accredited PHEIs did not support the research efforts of their staff and this hindered an effective implementation of the curriculum.

The fifth and final strategy used by accredited PHEIs to ensure that their staff developed and implemnted the curricula. This approach ensured ownership of the curriculum and provided assurance that the staff understood what they were implementing. Most of the respondents in the study indicated that they were the ones who developed their

curricula and hence clearly understood its goals, objectives, contents, requirements and demands. As a result, they gained confidence in effectively implementing it.

6.4.4 How effective is the curriculum implemented in accredited PHEIs?

The findings of this study suggest that the curriculum in accredited PHEIs was fairly well implemented. Factors that support this (see Subsection 6.4.1) include availability of fairly well qualified and experienced staff, staff development efforts by a number of the PHEIs, availability of well-developed curricula which were clear on the goals, objectives and content to be taught, pressure from the regulatory environment and use of ICT. The study also found that qualified and experienced staff implemented the curriculum better because of their level of confidence and knowledge of content. It was also shown in this study that the staff in PHEIs are more motivated to implement a well-developed curriculum than implementing one they feel is poorly developed. The findings of this study also show that ICT has hugely enhanced curriculum implementation owing to the ubiquitous nature of ICT. It could therefore be concluded that the regulatory environment has immensely improved the way the curriculum is implemented in accredited PHEIs. It has compelled the institutions to improve the quality of staff, teaching resources and facilities.

6.5 PROPOSED FRAMEWORK FOR EFFECTIVE CURRICULUM IMPLEMENTATION IN ACCREDITED PRIVATE HIGHER EDUCATION INSTITUTIONS

The purpose of this study was to propose a model (framework) that could be used by PHEIs to effectively implement the curriculum (see Section 1.4 and Subsection 1.5.1). Figure 6.1 provides a pictorial representation of the proposed framework and shows that each of the four predictor variables namely, characteristics and conception of the curriculum ($r=.332$, $p<.01$), characteristics of the external environment ($r=.858$, $p<.01$), characteristics of the institution ($r=.132$, $p<.05$), and characteristics of the teacher ($r=.251$, $p<.01$) were statistically significant and positively associated with effective curriculum implementation in accredited PHEIs. The current status of curriculum implementation in accredited PHEIs is represented in a linear model (see Section 5.8).

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The SEM (see Figure 5.2) also helps to further present and explain the current state of curriculum implementation in accredited PHEIs in Botswana. The components of the model as well as their link to the extant literature are discussed.
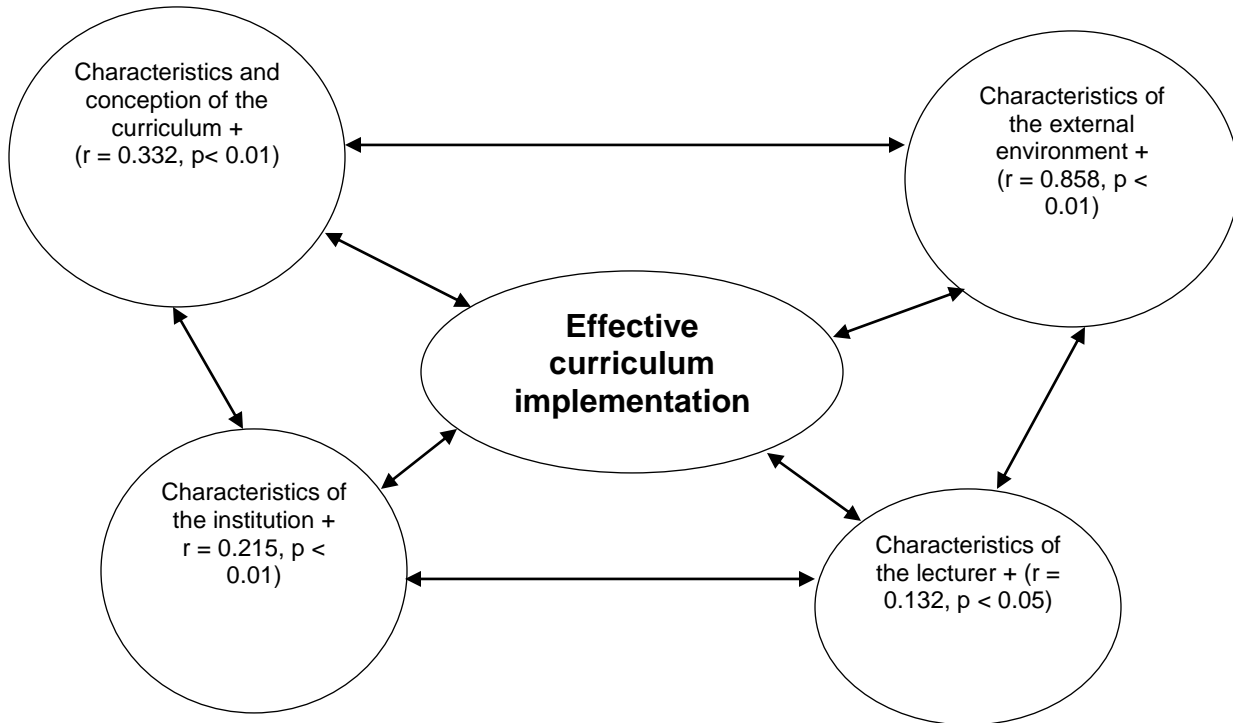
Figure 6.1: Proposed framework for effective curriculum implementation in PHEIs (Developed by the researcher).

Figure 6.1 therefore shows that effective curriculum implementation in accredited PHEIs is significantly and positively associated with all the four interacting predictor variables namely characteristics of the environment (r=.858; p< .01), characteristics of the institution (r=.251; p<.01), characteristics of the lecturer (r=.132; p<.005) and characteristics and conception of the curriculum (r=.332; p<.01). This means that an improvement in each of the four predictor variables will cause a positive effect in the way the curriculum is implemented in accredited PHEIs. With regard to characteristics of the external environment, if regulators ensure two-way communication with PHEIs, craft regulations and policies that consider contextual realities of the PHEIs and also ensure that quality assurance processes in PHEIs are used for both monitoring and improvement rather that monitoring only as is currently the case, this could lead to a positive effect and effective curriculum implementation in the accredited PHEIs. If institutions also improve on the provision of resources, internal communication with staff

and training of staff on best practices of implementing cthe curriculum, among others, the frame suggests that there could be improvement in the way the curriculum is implemented in accredited PHEIs. Also, if lecturers plan their work and employ learner-centered teaching approaches, a positive effect in the way curriculum is implemented could be realized. Finally, the proposed frameworksuggests that any improvements in the quality of the curriculum could lead to a positive effect on the way curriculum is implemented in accredited PHEIs, such improvemens could be in terms of clarity of goals, level of complexity of tasks, among others. All the regression analysis values in each of the independent variables are positive and this helps to further confirm that the independent variables have a positive relationship with curriculum implementation as already hypothesised (see Subsection 5.5.2).

Furthermore, each of the independent variables is explained in section 5.7 in terms of how a change in each independent variable can improve curriculum implementation in accredited PHEIs.

6.5.1 Characteristics of the external environment

Chapter 5 (Section 5.5) shows a positive correlation between the criterion variable - curriculum implementation - and the predictor variable - characteristics of the external environment ($r = 0.858$, $p < 0.01$). The framework in Figure 6.1 therefore shows that for curriculum implementation to effectively take place in accredited PHEIs, the external environment must be statistically significant and positively related to effective curriculum implementation. Given this scenario, Table 5.20 shows that a small change (1%) such as allowing for a two-way communication between regulators and PHEIs or relaxing staff recruitment policies on the characteristics of the external environment will result in a 2.4% increase on how effectively the curriculum is implemented in PHEIs. The role of the external environment in the effective implementation of the curriculum is very important. According to Bouck (2008) and McGee III (2006), environmental factors that play a vital part in the success of curriculum implementation include: Central legislation and regulation; system of policy formation and decision making; time, resources and facilities made available to institutions; and attitudes of politicians and other opinion leaders toward the curriculum, in their own individual and/or collective way (Altrichter,

2005). Altrichter (2005) also argues that all too often, government and its regulatory agencies become too preoccupied with policy and regulatory processes, overlooking and underestimating the contextual challenges and processes of curriculum implementation in schools. This then according to the proposed framework, means that a slight change in the strict regulatory framework and the external environment could ensure that PHEIs implement the curriculum better.

6.5.2 Characteristics of the institution

It emerged from the study that characteristics of the institution play a pivotal role in effective curriculum implementation in accredited PHEIs (see Subsection 3.2.7.2 and Tables 5.21 and 5.27). The framework in Figure 6.1 therefore, shows that for the curriculum in accredited PHEIs to be effectively implemented, characteristics of the institution must be statistically significant and positively related to effective curriculum implementation ($r = 0.215$, $p < 0.01$). Once the criterion above is satisfied, any slight (1%) change or improvement in the institutional ecosystem or environment could result in a 33.3% improvement in the way curriculum is implemented in these institutions.

Adequacy of teaching resources is one of the institutional matters identified in this study as critical for causing a 33.3% improvement in the implementation of the curriculum in the PHEIs (Gilbert, 2011). Others include shared governance (Mortimer & Sathre, 2007; Desha, 2010), shared vision (Education Review Office, 2010), capacity-building through internal and external training of staff (Mafora & Phorabatho, 2013) prioritised staff training, and appropriate pedagogical training. Other strategies that are proposed in the study which PHEIs could adopt in order to be able to achieve the 33.3% improvement in the way curriculum is implemented in accredited PHEIs included hiring and retaining staff with high educational qualifications and long experience. This therefore calls for the development and deployment of an employee recruitment and retention strategy in the accredited PHEIs that specifically addresses this need.

6.5.3 Characteristics of the lecturer

The findings of this study show that characteristics of the lecturer are important for effective curriculum implementation in accredited PHEIs (see Tables 5.22 and 5.27). The proposed framework (Figure 6.1) shows that for the curriculum to be effectively implemented, the relationship between the characteristics of the teacher and curriculum implementation must be statistically and positively significant ($r = 0.132$, $p < 0.05$). This means negative factors that affect the lecturer's effective implementation of the curriculum should be addressed and enabling factors harnessed and consolidated. Any slight (1%) change in the characteristics of the lecturer could result in a 2.8% improvement in curriculum implementation. Lecturer Characteristics (see Subsection 3.2.7.3) include but are not limited to having adequate knowledge of the curriculum area (Govender, 2013; Ofem, et al., 2015; Seehorn, 2012), having adequate teaching experience (Mason, et al., 2013; Otanga Mange, 2014), being able to use appropriate teaching approaches (learner-centered approaches), and being confident and enthusiastic (Ornstein, et al., 2011). All these characteristics were found to be significant predictors of effective curriculum implementation that can individually or collectively contribute 2.8% of variation in the way the curriculum is implemented in accredited PHEIs.

The findings above suggest that lecturer recruitment and retention polices of the PHEIs should seriously encourage employment of highly educated and experienced staff for the benefit of effective curriculum implementation. In addition, institutions should in their recruitment systems target lecturers who show interest and positive attitudes towards their work. It emerged from the study that the curriculum will never be successfully and effectively implemented no matter how highly qualified and experienced lecturers are and that no matter how adequately available teaching resources are if lecturers do have show positive attitudes and interest towards the curriculum. Positive attitudes and interest therefore, matter more than qualifications and experience in the effective implementation of the curriculum. It is therefore incumbent upon PHEIs to employ and retain staff that possess a mix of right attitudes, high qualifications and experience if they wish to improve curriculum implementation by the 2.8% margin.

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6.5.4 Characteristics and conception of the curriculum

The findings of this study show that institutional and conceptual characteristics are vital for effective curriculum implementation in accredited PHEIs (see Tables 4.6 and 5.20). The proposed framework (Figure 6.1) shows that for the curriculum to be effectively implemented, the relationship between the characteristics and conception of the curriculum and curriculum implementation must be statistically and positively significant ($r = 0.332$, $p < 0.01$). This can be done by addressing all factors related to the characteristics and conception of the curriculum that negatively affect effective implementation of the curriculum. Once the negative factors are addressed, and the enabling factors are consolidated, any slight (1%) change in the characteristics and conception of the curriculum can result in a 26.2% improvement in the way the curriculum is implemented in accredited PHEIs.

An individual's understanding of a curriculum determines how effectively they will implement it. For example, Tabaundule (2014) and Hamilton (2014) believe that teachers with a limited understanding of the curriculum tend to use only teacher-centered approaches when implementing the curriculum. On the other hand, teachers who fully understand the curriculum tend to use learner-centered approaches to more effectively implement the curriculum (Abell & Lederman, 2007; Brown, 2014; Kridel, 2010; Tabaundule, 2014).

PHEIs therefore should ensure that the goals and objectives of the curricula they develop are clear and achievable and that the content is not loaded but is implementable (see Subsection 3.2.7.4). This therefore also entails that for an implementable curriculum to be developed, the curriculum development team should be equipped with knowledge and curriculum development skills from needs analysis up to the last stage of curriculum development. To this effect refresher courses on curriculum development should be run for all the staff members involved.

In summary, Figure 6.1 shows that an improvement in each of the four predictor variables will cause an improvement in the way the curriculum is implemented in

accredited PHEIs. All the regression analysis values for all the independent variables are positive - which shows that all the predictor variables have a positive influence on curriculum implementation as already hypothesised (see Section 5.8). The next section provides recommendations for improving curriculum implementation in accredited PHEIs.

6.6   RECOMMENDATIONS

In line with the findings and conclusions of this study a number of recommendations can be made to improve curriculum implementation in accredited PHEIs. The recommendations address both external and internal issues as well as the ecology of the institutions where the curriculum is implemented.

6.6.1   Recommendation 1

Government regulatory authorities should consider the contexts of individual institutions when accreditating and regulating them. For example, a one-size-fits-all framework for institutions offering certificates and diplomas only and for those offering degree qualifications cannot address the different curriculum implementation challenges in these institutions. Quality of resources and processes, and procedures in these institutions are different and hence require regulations that cater for those differences. For example, recruitment requirements for certificate and diploma-offering institutions are different from degree offering ones, and these differences should be seriously considered.

6.6.2   Recommendation 2

Government regulatory authorities should take serious measures to improve communication with accredited PHEIs as currently communication is one-way and top-down. This lack of communication closes out contributions from the PHEIs that could improve curriculum implementation in PHEIs. Two-way communication between the

regulators and the accredited PHEIs is critical for effective curriculum. Two-way communication is also the life-blood of progressive organisations.

6.6.3 Recommendation 3

The findings of this study show that some accredited PHEIs lacked basic resources and facilities such as libraries, textbooks, lecture rooms and laboratories. This study recommends that PHEIs should invest more of these resources into effective implementation of the curriulum. Partnerships with other institutions and organisations could assist in ensuring the constructing of more buildings within the institution. These buildings can be used to brand and market the partners.

6.6.4 Recommendation 4

PHEIs should ensure that their staff received relevant training periodically. This study found that some of the managers in the accredited PHEIs did not provide their staff with capacity building opportunities. Capacitating staff with knowledge and skills to effectively implement the curriculum is an institutional management responsibility can go a long way to improving curriculum implementation in accredited PHEIs. Such opportunities include refresher courses and/or further studies. Highly educated people possess superior information processing ability that gives them confidence and the right attitude to effectively implement the curriculum.

6.6.5 Recommendation 5

Accredited PHEIs engage all their staff in teaching courses so that they have relevant teaching skills and are able to apply appropriate pedagogy when implementing the curriculum. The findings of this study show that while most of the academic staff in the accredited PHEIs had good academic qualifications and hence adequate content knowledge in their areas of specialisation, a number of them lacked professional training. In other words, a number of the teaching staff are not qualified to provide pedagogical or curriculum implementation training.

6.6.6 Recommendation 6

PHEIs need to streamline roles of academic and support staff and ensure that job descriptions are clear, and each individual is allocated tasks that fit their qualifications and positions in the organisation. The findings of this study show that the staff in accredited PHEIs is always bogged down with heavy workloads emanating from a myriad of administrative and mundane tasks. As a result, the staff do not have time to study the curriculum and to device plansfor effective implementation of the curriculum

6.6.7 Recommendation 7

Accredited PHEIs should always adopt the stipulated and accepted range of class sizes from 25 to 30 students per class to ensure that the curriculum is to be effectively implemented in these institutions. This would enable lecturers to provide individual attention to students leading to effective curriculum implementation. Extant literature indicates that effective curriculum implementation is in part defined by the ability of to cater for individual student needs and differences. However, with class sizes as large as they are in some of the accredited PHEIs, effective curriculum implementation cannot always occur. Lecturers with large classes normally end up employing lecturer-centered teaching methods most and this unfortunately affects-student interaction hampers effective curriculum implementation.

6.6.8 Recommendation 8

Accredited PHEIs should invest in talent management strategies in order to be able to retain their top academics and ensure that the curriculum is effectively implemented. Such strategies could include commensurate salaries, promotions and any other incentives that can make such staff feel compelled to stay at the institutions. Retention of qualified and experienced staff is also an important element in the effective curriculum implementation matrix. In as much as the accredited PHEIs may have robust staff recruitment strategies which perhaps they may be implementing well, it is about how long they are able to keep their top-notch or highly qualified and experienced staff with the right attitudes.

6.6.9 Recommendation 9

It is recommended that PHEIs which were not found to support their staff in this study on issues of research should work out strategies for promoting research financially and otherwise. Part of the funding strategy for research could include partnerships with related industries so that staff can carry out research in areas relevant to the industries and the industries could fund their research. Building a community of researchers in an institution is considered a critical strategy in promoting research-led curriculum implementation. Research is a critical element for effective curriculum implementation and hence needs to be promoted in all the accredited PHEIs. The PHEIs could also ensure that experienced staff engaged in research consultancies and apply for research grants. Such a strategy could raise the much needed funds to promote research at the institutions. However, the institutions themselves should create research budgets no matter how small they may be.

6.7   AVENUES FOR FURTHER STUDIES

Data for this study was collected from degree offering accredited PHEIs in Botswana operating in a highly regulated environment. The data was used to propose a framework that could be used in all the degree- and non-degree offering PHEIs. However, it would have been more useful to find out if a similar framework would have been relevant for unaccredited institutions. For this reason, a similar study is recommended for unaccredited PHEIs in Botswana. The findings would show whether such institutions face similar challenges as the accredited ones. A more encompassing framework is necessary to address the challenges faced by the PHEIs in Botswana and the factors and strategies that can mitigate the challenges and enhance the implementation of the curriculum in all PHEIs in Botswana.

6.8   LIMITATIONS OF THE STUDY

A number of limitations that may have had some bearing on the nature and quality of results of this study are reported. The use of mixed methods approach in this study

allowed for more answers to the research questions. The author believes that the intrinsic value of this study will be increased by the proposed framework for enhancing effective curriculum implementation in accredited PHEIs.

The first limitation of this study is that it focused only on accredited PHEIs and disregarded unaccredited PHEIs operating in the same highly regulated environment. It may also have been interesting to find out whether the challenges facing accredited PHEIs are the same as those facing unaccredited PHEIs in Botswana.

The second limitation is that only internal stakeholders, that is, lecturers and academic middle managers, were interviewed. It would have been more informative to interview the external stakeholders or regulators on how they perceive curriculum implementation in accredited PHEIs. While this omission was not going to change the nature of the challenges posed by a strict regulation on the the curriculum in the accredited PHEIs, it could, perhaps, have added another dimension in terms of sustainability and contribution of the regulations in the improvement of curriculum implementation in the accredited PHEIs.

The third limitation is that this study only focused on degree-offering PHEIs and excluded non-degree-offering PHEIs. It would have been more useful to find out how the non-degree offering PHEIs implement the curriculum, the challenges they experience and the strategies they use to deal with these curriculum implementation challenges.

6.9   CONCLUDING REMARKS

Conducting this study for me personally was as much an overwhelming experience as it was an enriching one. It was overwhelming because of the amount of work that needed to be done from data collection to data analysis and report writing. I have learnt a lot and have come out of this study wiser and more enlightened about research Most importantly I have built excellent academic and social relationships. I have also learnt from the numerous challenges I had to deal with some of which included respondents who were difficult and always claimed to be busy despite signing letters of consent. I

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had to exercise a lot of patience during the time I administered the questionnaire and conducted interviews. I have also learnt that perseverance is critical to the success of any type of activity.

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Thank you

RESEARCH QUESTIONNAIRE

BY

NORMAN RUDHUMBU PhD STUDENT (UNIVERSITY OF SOUTH AFRICA)

The questionnaire below is part of the PhD study that seeks to develop a model for effective curriculum implementation in accredited private higher education institutions (PHEIs) in Botswana

A. INSTRUCTIONS:

1. You are kindly requested to take 30 minutes of your time to complete the questionnaire by

   putting an **X** in the appropriate box bearing your response. Your responses will be treated in utmost confidence.

2. Using the scale below, please indicate how you agree or disagree with the statements from section B to section E with regards to your planning and implementation of curriculum change:

   (5 – Strongly Agree, 4 – Agree, 3 – Neutral, 2 – Disagree, 1 – Strongly Disagree)

B.IMPORTANT DEFINITIONS:

1. *Curriculum implementation is a process of putting into practice of a new curriculum practice in the classroom (Ornstein & Hunkins, 2014). It is the actual teaching of the curriculum.*

2. *Curriculum implementation is therefore about how the officially designed curriculum is translated by the teacher into a syllabus, schemes of work, and lessons to be delivered to students.*

3. *Quality assurance is a systematic review of institutions and their educational programmes to ensure that acceptable standards of education, scholarship, and infrastructure are being maintained.*

4. *Accreditation is the process of certifying the competency, authority, or credibility of an institution and its programmes upon assessment of its successful implementation quality regulatory standards set by the regulatory bodies.*

SECTION A: BIOGRAPHIC CHARACTERISTICS

Please put an X in the box to indicate your response

1. Age (in years): □ less or equal to 20 □ 21 – 25 □ 26 - 30
□ 31 – 35 □ 36- 40 □ More than 40

2. Gender: □ Male □ Female

3. Education: □ Master's Degree

□ Doctoral Degree □ If other, please specify _ _ _ _ _ _ _ _ _ _ _ _ _

4. Experience (in years): □ Less or equal to 5 □ 6 - 10 □ 11 – 15
as middle manager □ 16 - 20 □ More than 20 years

SECTION B: REGULATION OF PHEIS IN BOTSWANA

The following are some of the major reasons why strict accreditation requirements were introduced by the Botswana government as a regulatory measure in PHEIs:

5. Poor quality of teaching in PHEIs:

□ Yes □ No

6. Inadequate and poor quality of resources in PHEIs:

7. Poor status of degrees offered with little to no market relevance in PHEIs:

8. Mismatch between promises and reality after graduation in PHEIs:

□ Yes □ No

9. Shortage of qualified staff in PHEIs:

        □ Yes   □ No

10. High dropout rates in PHEIs:

        □ Yes   □ No

11. Poor quality of graduates lacking the basic skills (communication, problems-solving, and team work) in PHEIs:

        □ Yes   □ No

12. Inadequate facilities in PHEIs:

        □ Yes   □ No

13. Poor institutional governance/management in PHEIs:

        □ Yes   □ No

SN	SECTION D: LEVELS OF LECTURER READINESS					
	The following levels of readiness reflect my level of preparedness to implement curriculum:	SA 5	A 4	N 3	DA 2	SDA 1
14.	I do t show concern and interest on the curriculum I am supposed to implement.	□	□	□	□	□
15.	I always try to know more about the curriculum before implementing it.	□	□	□	□	□
16.	I always want to know how implementation of the curriculum will affect me.	□	□	□	□	□
17.	I always spend too much time getting materials ready for use for curriculum implementation.	□	□	□	□	□
18.	I always want to know how implementing a curriculum would affect my students as this helps improving my planning for curriculum implementation.	□	□	□	□	□

SN		SA 5	A 4	N 3	DA 2	SDA 1
19.	I am always concerned about relating what I am doing with what co-workers are doing during curriculum implementation	☐	☐	☐	☐	☐
20.	I always want to have some idea about an approach that would best work during curriculum implementation.	☐	☐	☐	☐	☐
SECTION E: CHARACTERISTICS OF THE EXTERNAL ENVIRONMENT						
SN	*The following characteristics of the higher education* *(external) environment have an influence on how curriculum is implemented in PHEIs:*	SA 5	A 4	N 3	DA 2	SDA 1
21.	Approval of curriculum by regulatory authorities.	☐	☐	☐	☐	☐
22.	Accreditation of curriculum by the regulatory authorities.	☐	☐	☐	☐	☐
23.	Accreditation of the institution by the regulatory authorities.	☐	☐	☐	☐	☐
24.	A highly centralised and regulated HE environment	☐	☐	☐	☐	☐
25.	Too much interference in the operations of PHEIs by regulatory authorities in Botswana in the guise of performing regulatory activities in PHE.	☐	☐	☐	☐	☐
26.	Lack of two-way communication between government regulatory agencies and PHEIs.	☐	☐	☐	☐	☐
27.	Recruitment new lecturers not being easy due to strict accreditation processes	☐	☐	☐	☐	☐
28.	The institution, faculties or departments not being allowed to make changes which constitute more than 25% of curriculum content without permission of	☐	☐	☐	☐	☐

		SA	A	N	DA	SDA
	regulatory authorities, no matter how pertinent the changes are.	☐	☐	☐	☐	☐
29.	Lack of transparency in the way regulatory authorities conduct quality assurance activities despite having detailed procedures as some PHEIs do not seem to have their services strictly regulated as others.	☐	☐	☐	☐	☐
30.	Lack of support from government or its regulatory agencies when implementing curriculum	☐	☐	☐	☐	☐
31.	Regulation of activities of PHEIs by government agencies concentrates on monitoring and accountability, ie, compliance, rather than improvement of performance.	☐	☐	☐	☐	☐
32.	Internal quality assurance activities are not effectively monitored by the government regulatory agencies	☐	☐	☐	☐	☐
33.	Industry requirements on graduates put pressure on how curriculum is implemented at my institution.	☐	☐	☐	☐	☐
34.	External regulators play a bureaucratic role rather than a facilitatory role and this is negatively affecting curriculum implementation at my institution.	☐	☐	☐	☐	☐
35.	I propose that external accreditors should be used by BQA to accredit our programs instead of using accreditors from local institutions who may have vested interests and may not add value to our programmes.	☐	☐	☐	☐	☐
SN	**SECTION F: CHARACTERISTICS OF THE INSTITUTION**					
	The following characteristics of the institution have an effect on *how curriculum is implemented in the institution:*	**SA** **5**	**A** **4**	**N** **3**	**DA** **2**	**SDA** **1**

36.	Members of the institution have a shared vision (a sense of oneness)	□	□	□	□	□
37.	There is shared governance between management and staff in the operations of the institution to ensure effective curriculum implementation	□	□	□	□	□
38.	My institution ensures that every curriculum has an implementation plan that guides how the curriculum is to be implemented	□	□	□	□	□
39.	My institution creates opportunities for lecturers to participate in work-based learning through tools such as in-service training, coaching, mentoring and peer- assisted learning to enable effective implementation of curriculum by teachers	□	□	□	□	□
40.	The institutional climate at my institution is very accommodating and makes one feel at home for effective implementation of the curriculum	□	□	□	□	□
41.	The institutional culture at my institution encourages knowledge sharing and team work and hence is conducive to effective implementation of the curriculum	□	□	□	□	□
42.	The leadership at my institution is very supportive of staff during the implementation of curriculum	□	□	□	□	□
43.	Professional development activities at my institution empower staff to effectively implement curriculum	□	□	□	□	□
44.	The institutional structure at my institution makes reporting, communication and consultation effective during curriculum implementation	□	□	□	□	□
45.	Adequate time has been allocated for effective implementation of curriculum at my institution.	□	□	□	□	□

No.	Statement					
46.	Central administration support at my institution is timely and adequately given to ensure effective implementation of curriculum	□	□	□	□	□
47.	Status quo comfort (complacency) at my institution is not an issue that affects effective implementation of curriculum since lecturers and institutional management are always seeking more effective ways of implementing curriculum.	□	□	□	□	□
48.	My institution hires highly trained and qualified staff to teach at the institution	□	□	□	□	□
49.	My institution has a robust staff development policy that encourages every lecturer to acquire higher academic and administrative qualifications	□	□	□	□	□
50.	My institution has a robust IT system for effective curriculum implementation and for administrative purposes	□	□	□	□	□
51.	Provision of teaching and learning resources is timely for effective curriculum implementation at my institution	□	□	□	□	□
52.	My institution hires highly experienced lecturers	□	□	□	□	□
53.	My institution admits into its programmes high caliber students.	□	□	□	□	□
54.	My institution has state of the art classroom facilities which are conducive to effective implementation of curriculum	□	□	□	□	□
55.	My institution has a library that has adequate and current reading resources for effective implementation	□	□	□	□	□

SN						
	of curriculum.					
56.	Most staff at my institutions have high workloads (teaching more than 8 lessons of at least 2 hours per week) and this affects the way they implement curriculum.					
57.	There are large class sizes (more than 30 students per class) at my institution and this affects the way curriculum is implemented.					

SN	**SECTION G: CHARACTERISTICS OF THE TEACHER**					
	The following characteristics of the teacher have an effect on *how curriculum is implemented at my institution:*	SA 5	A 4	N 3	DA 2	SDA 1
58.	My professional knowledge about the curriculum is very good because I received relevant training in the area	□	□	□	□	□
59.	My belief about teaching and learning is that the student must always be at the center of everything that happens in the classroom	□	□	□	□	□
60.	I show a lot of motivation and enthusiasm when implementing curriculum in my department	□	□	□	□	□
61.	My professional attitude is always very positive and I am always showing interest in my work during the implementation of a curriculum	□	□	□	□	□
62.	I have at least five years of teaching experience and I feel experience is important in the effective implementation of a curriculum	□	□	□	□	□

63.	I demonstrate professional adequacy (ability to plan and implement curriculum) and I consider this important in the effective implementation of curriculum	□	□	□	□	□
64.	I feel that age has an influence on how curriculum is implemented at my institution	□	□	□	□	□
65.	I am of the feeling that gender has an influence on how curriculum is implemented at my institution	□	□	□	□	□
66.	I am currently teaching the subjects/modules I am competent in and this makes me implementing the curriculum more effectively and successfully.	□	□	□	□	□
67.	I feel I have control/autonomy on the way I implement curriculum	□	□	□	□	□
68.	I mostly use learner-centered approaches when implementing curriculum	□	□	□	□	□
69.	I mostly use teacher-centered approaches when implementing curriculum	□	□	□	□	□
70.	I always implement the curriculum as planned (fidelity of implementation)	□	□	□	□	□
71.	I always modify the planned curriculum during implementation to ensure that it suits the context in which it is implemented (mutual adaptation).	□	□	□	□	□
72.	I believe that curriculum is what teachers and students experience during the enactment or implementation of the intended curriculum, not what is documented in the textbooks and other materials (curriculum enactment).	□	□	□	□	□
73.	My role in the classroom during curriculum implementation is that of facilitator.	□	□	□	□	□

SN		SA 5	A 4	N 3	DA 2	SDA 1
74.	My role in the classroom during curriculum implementation is that of final authority who possesses all knowledge.	☐	☐	☐	☐	☐
SN	**SECTION H: CHARACTERISTICS AND CONCEPTION OF THE CURRICULUM**					
	The following characteristics of the curriculum that I am implementing at my institution have an influence on how the curriculum is implemented:	**SA 5**	**A 4**	**N 3**	**DA 2**	**SDA 1**
75.	The curriculum being implemented at my institution is relevant in addressing the needs of both the students and industry.	☐	☐	☐	☐	☐
76.	The goals and implementation strategies of the curriculum are clearly defined enabling curriculum implementation to be effectively and successfully done.	☐	☐	☐	☐	☐
77.	The curriculum content is well organised that it does not require frequent changes during implementation and this is good for the success of the curriculum implementation process.	☐	☐	☐	☐	☐
78.	The curriculum does not have content that is too loaded, too detailed and complicated making its implementation too difficult and ineffective.	☐	☐	☐	☐	☐
79.	The curriculum is not too ambitious and too demanding making its implementation easy and successful.	☐	☐	☐	☐	☐
80.	The curriculum is specific, concrete, and practical in addressing real classroom teaching situations.	☐	☐	☐	☐	☐
81.	lists of core subjects or syllabuses for courses such as	☐	☐	☐	☐	☐

	Mathematics, Science, English, Social studies, etc.					
82.	all planned activities that happen inside and outside the classroom	□	□	□	□	□
83.	A set of learning objectives to be achieved.	□	□	□	□	□
84.	All experiences of the learner that occur under the guidance of the school.	□	□	□	□	□
85.	A course to be completed.	□	□	□	□	□
86.	A means or instrument for making society more just and better.	□	□	□	□	□
87.	A change agent.	□	□	□	□	□
88.	Bits and pieces of knowledge, skills and information students learn in order to pass examinations.	□	□	□	□	□
89.	a means of perpetuating one's culture	□	□	□	□	□

APPENDIX 2: INTERVIEW GUIDE

RESEARCH INTERVIEW GUIDE

BY

NORMAN RUDHUMBU PhD STUDENT (UNIVERSITY OF SOUTH AFRICA)

The interview guide is part of the PhD study that seeks to develop a model for effective curriculum implementation in accredited private higher education institutions (PHEIs) in Botswana

A. INSTRUCTIONS:

1. You are kindly requested to take 30 to 45 minutes of your time to answer questions in this interview. Your responses will be treated in utmost confidence. You will first be asked questions about your academic and professional background and thereafter your knowledge about quality assurance processes as well as how curriculum is implemented in accredited private higher education institutions will be sort.

SECTION A: DEMOGRAPHIC CHARATERISTICS

Tell me about your academic and professional background clearly stating your qualifications and years of experience. Do you think the following factors: educational level, age, gender and years of experience have an influence on how a lecturer implements curriculum in higher education institutions? Kindly explain your answer on each factor.

SECTION B: ACCREDITATION IN PHE IN BOTSWANA AND CHARACTERISTICS OF THE EXTERNAL ENVIRONMENT

What do you think are some of the reasons why there has been strict accreditation as part of regulating PHEIs and their programmes in Botswana? Has this accreditation led to improved quality of services in these institutions?

Identify and explain some of the factors in the external environment that have an effect on how the curriculum is implemented in PHEIs in Botswana. Explain the nature of each factor's effect (positive or negative) to curriculum implementation.

SECTION C: CHARACTERISTICS AND CONCEPTION OF CURRICULUM

Identify and explain which factors related to the characteristics of the curriculum have an effect on how the curriculum is implemented in PHEIs. Explain the nature of each factor's effect (positive or negative) to curriculum implementation.

What is your comment to the assertion that a person's conception or understanding of what a curriculum is influences how he/she implement the curriculum? For example, how do you think one person who understands a curriculum as a list of syllabus topics and another one who understands a curriculum as all experiences students go through under the guidance of the school teach the curriculum?

SECTION D: LEVELS OF READINESS AND CHARACTERISTICS OF THE LECTURER

If I come to you and say, "Lecturer A demonstrates readiness to implement curriculum by Lecturer B does not demonstrate any readiness at all". What would I be implying for the two lecturers? Give specific examples of characteristics of each of these lecturers.

Identify and explain which factors related to the characteristics of the teacher have an effect on how the curriculum is implemented in PHEIs. Explain the nature of each factor's effect (positive or negative) to curriculum implementation.

SECTION E: CHARACTERISTICS OF THE INSTITUTION

Identify and explain which factors within a PHEI have an effect on how the curriculum is implemented in the institution. Explain the nature of each factor's effect (positive or negative) to curriculum implementation.

APPENDIX 3: ETHICAL CLEARANCE

UNISA | university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2017/04/12

Dear Dr Rudhumbu,

Decision: Ethics Approval from
2017/04/12 to 2019/04/12

Ref: **2017/04/12/35812257/8/MC**
Name: Dr N Rudhumbu
Student: 35812257

Researcher:

Name: Dr N Rudhumbu
Email: nrudhumbu@gmail.com
Telephone: +2673635412

Supervisor:

Name: Prof EC du Plessis
Email: dplesec@unisa.ac.za
Telephone: 0828093903

Title of research:
A model for effective curriculum implementation in accredited private higher education institutions in Botswana

Qualification: D Ed in Curriculum Studies

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2017/04/12 to 2019/04/12.

The low risk application was reviewed by the Ethics Review Committee on 2017/04/12 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.

3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.

4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.

6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.

7. No field work activities may continue after the expiry date 2019/04/12. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2017/04/12/35812257/8/MC** *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,

Dr M Claassens

CHAIRPERSON: CEDU RERC

mcdtc@netactive.co.za

Approved - decision template – updated 16 Feb 2017

Prof V McKay

EXECUTIVE DEAN

APPENDIX 4: RESEARCH PERMIT

Telephone : 3655400 / 3655483
Fax : 3914271
E-mail: botsamote@gov.bw

Block 6, Government Enclave, Headquarters
Private Bag 00517 Gaborone

REPUBLIC OF BOTSWANA

MINISTRY OF TERTIARY EDUCATION, RESEARCH, SCIENCE AND TECHNOLOGY

REF: MOTE 1/18/6 III (14)

16 August 2017

Dr Norman Rudhumbu
P O Box P O Box 501564
GABORONE

Dear Sir

APPLICATION FOR RESEARCH PERMIT

Reference is made to the above captioned subject.

Your application for Research Permit for the proposed research tilted ***"A Model for Effective Curriculum Implementation in Accredited Private Higher Education Institutions"*** has been granted for you to conduct a research at Botho University. The permit is valid for one (1) year. You are kindly advised to peruse Section 4.4 to 5.0 of the 'Guidelines for Application for Research Permit' in Botswana.

Any changes in the proposed research should be communicated, without fail, to the Permanent Secretary, Ministry of Tertiary Education, Research, Science and Technology citing above reference.

By copy of this letter, the Director of Research, Science and Technology is advised to take note of this development and ensure

that deliverables to Government are timely met.

Thank you.

Yours faithfully

Oupa T Masesane
For Permanent Secretary

cc: Dr Veronica M Makwinja
      HOD, Education, Research and Consultancy Department
      Faculty of Graduate Studies and Research
      Botho University

      Director, Department of Research Science and Technology

BOTSWANA 5   TOLL FREE:0800-600-185   BOTSWANA

APPENDIX 5: COPY OF CERTIFICATE OF EDITING

Centre for Academic Development
Communication & Study Skills Unit

Corner of Mobutu and Mobuto Road, Gaborone, Botswana	Private Bag 0022 Gaborone, Botswana	Tel: [267] 355 2419/20 Fax [267] 390 2884 E-mail: cad@mopipi.ub.bw

UNIVERSITY of BOTSWANA

21 May 2018

To whom it may concern,

Dear Sir/Madam,

Re: Letter of confirmation of language editing

I hereby confirm that I have proof read and edited the following PhD Thesis using Windows 'Tracking' System to reflect my comments and suggested corrections for the student to action:

A MODEL FOR EFFECTIVE CURRICULUM IMPLEMENTATION IN ACCREDITED PRIVATE HIGHER EDUCATION INSTITUTIONS IN BOTSWANA BY NORMAN RUDHUMBU

A Thesis Submitted in Fulfillment of the Requirements for the Degree of DOCTOR OF PHILOSOPHY (Curriculum and Instructional Studies) In the Faculty of Education at the UNIVERSITY OF SOUTH AFRICA.

Although the greatest care was taken in the editing of this document, the final responsibility for the product rests with the author.

Yours faithfully,

Dr Joel M. Magogwe
Senior Lecturer, Communication & Study Skills Unit
Tel: 3552421(W)
Email: magogwej@mopipi.ub.bw

APPENDIX 6: INSTITUTIONAL RESEARCH PERMIT

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Ref: 0137/GBE/GSRC/2017

3rd July 2017

TO WHOM IT MAY CONCERN

RE: REQUEST FOR PREMISSION TO CONDUCT RESEARCH

The department of Graduate Studies in Education, Research and Consultancy under the Faculty of Graduate Studies and Research would like to confirm that Dr. Norman Rudhumbu, a Botho University lecturer and UNISA PhD student is carrying out a study on "A MODEL FOR EFFECTIVE CURRICULUM IMPLEMENETATION IN ACCREDITED PRIVATE HIGHER EDUCATION INSTITUTIONS IN BOTSWAMA". The department of Graduate Studies in Education, Research and Consultancy has given him permission to conduct the study as part of his PhD studies and is also kindly requesting all participants to assist him with the information required by him to successfully carry out his study.

Should you require any further information please do not hesitate to contact me.
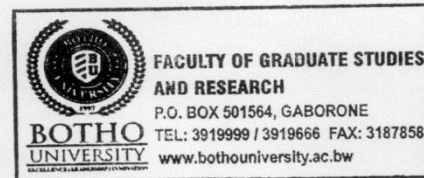
Sincerely yours

Dr. Veronica Makwinja

Manager: Research and Consultancy

Botho University

Tel: +2673919999

E-mail: veronica.makwinja@bothouniversity.ac.bw

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