

**The Contribution of Higher Education to Regional Socio-
economic Development: The University of Buea,
Cameroon, as a Growth Pole.**

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degree of Magister Educationis in the Department of Education
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KEYWORDS

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ABSTRACT

‘The Contribution of Higher Education to Regional Socio-economic Development: The University of Buea, Cameroon, as a Growth Pole’

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M.Ed Full Thesis, Department of Education Studies, University of the Western Cape.

Development discourse in Africa has witnessed several paradigm shifts, from classical development theories of modernisation and dependency, to neoliberalism, and to the strong argument of the role of higher education and the knowledge economy in development. However, subsequent research focusing on rates of return and econometric measurements argued against the assumed potential of universities in the development process in Africa. This shift discouraged investment in higher education in Africa while advocating that primary and secondary education would provide better development returns for the sub-region. However, recent arguments have been increasingly supported by robust empirical evidence from the West that higher education and universities significantly contribute to social and economic development of their regions.

This research investigates how higher education institutions contribute to regional development, using the University of Buea in the Fako region as a case study. Policy documents reviewed and interviews with major stakeholders in the region, present a significant ‘delink’ or disjuncture between university policy and regional development efforts. This, from the policy perspective, has been strongly attributed to the national rather than to the regional mandate around which the university was established. However, data from the economic and social indicators investigated, reveal that the University of Buea by its very presence has been a significant agent in the development of the municipality.

Quantitative data collected through structured questionnaires and analysed using the Counterfactual method and the Export and Import-substitution approach, reveal that the University of Buea has unintentionally generated major economic development in the region. This is seen in the huge number of direct and indirect jobs provided, the increased number of business and economic activities attracted

into the region, the amount of capital brought in by out-of-town students and visitors, graduate retention by local businesses, as well as the level of infrastructural development of the region. The data revealed that the University of Buea has also been a significant contributor to local development through extension and community services rendered by various academic departments.

The research concludes with a strong argument that the university's role in regional development can be significantly linked to an application of the Growth Pole concept as a new model for the contribution to regional development by higher education institutions. The Growth Pole concept argues that single player universities, by virtue of their presence in a region, can trigger and sustain regional development through socio-economic boosting of the region.

April 2010



DECLARATION

I hereby declare that “*The Contribution of Higher Education to Regional Socio-economic development: The University of Buea, Cameroon, as a Growth Pole*” is my own work; and has not been submitted for any degree or examination in any university.

I further declare that other sources used or quoted in this work have been indicated and acknowledged by complete references.

Full name: Samuel N. Fongwa

Signed _____

Date: _____



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"We are like dwarfs sitting on the shoulders of giants. We see more ... not because our sight is superior or because we are taller than they, but because they raise us up, and by their great stature add to ours". (John of Salisbury, 1159)

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TABLE OF CONTENTS

<i>KEYWORDS</i>	<i>I</i>
<i>ABSTRACT</i>	<i>II</i>
<i>DECLARATION</i>	<i>IV</i>
<i>ACKNOWLEDGEMENTS</i>	<i>V</i>
<i>TABLE OF CONTENTS</i>	<i>VII</i>
<i>LIST OF FIGURES</i>	<i>XI</i>
<i>LIST OF TABLES</i>	<i>XII</i>
<i>ACRONYMS AND ABBREVIATIONS</i>	<i>XIII</i>
<i>CHAPTER ONE</i>	<i>1</i>
<i>INTRODUCTION TO THE STUDY</i>	<i>1</i>
<i>1.1 BACKGROUND TO THE STUDY</i>	<i>1</i>
<i>1.2 HIGHER EDUCATION IN CAMEROON</i>	<i>4</i>
<i>1.3 STATEMENT OF THE PROBLEM</i>	<i>6</i>
<i>1.4 AIM AND OBJECTIVES OF THE STUDY</i>	<i>8</i>
<i>1.5 RESEARCH QUESTIONS</i>	<i>8</i>
<i>1.6 RATIONALE FOR AND SIGNIFICANCE OF THE STUDY</i>	<i>9</i>
<i>1.7 DELIMITATIONS OF THE STUDY</i>	<i>10</i>
<i>1.8 ORGANISATION OF THE DISSERTATION</i>	<i>11</i>
<i>CHAPTER TWO</i>	<i>13</i>
<i>LITERATURE REVIEW AND THEORETICAL FRAMEWORK</i>	<i>13</i>
<i>2.1 INTRODUCTION</i>	<i>13</i>
<i>2.2 HIGHER EDUCATION AND DEVELOPMENT</i>	<i>15</i>
<i>THE CONCEPT OF DEVELOPMENT</i>	<i>15</i>
<i>2.2.1 PARADIGM SHIFTS IN HIGHER EDUCATION AND DEVELOPMENT</i>	<i>18</i>
<i>2.2.2 HIGHER EDUCATION AND DEVELOPMENT IN AFRICA – A HISTORICAL PERSPECTIVE</i>	<i>22</i>

2.3 HIGHER EDUCATION IN REGIONAL ECONOMIC DEVELOPMENT	25
THE CONCEPT OF REGIONAL DEVELOPMENT:	25
2.3.1 HIGHER EDUCATION IN INCOME GENERATION AND INDUSTRY DEVELOPMENT	26
2.3.2 HIGHER EDUCATION IN HUMAN CAPITAL DEVELOPMENT	29
2.4 HIGHER EDUCATION IN SOCIAL DEVELOPMENT	33
2.4.1 HIGHER EDUCATION IN HUMAN DEVELOPMENT	33
2.4.2 HIGHER EDUCATION IN CULTURAL AND SUSTAINABLE DEVELOPMENT.	35
2.4.3 HIGHER EDUCATION IN POVERTY REDUCTION	36
2.5 SUMMARY OF REVIEWED LITERATURE	39
2.6 THEORETICAL FRAMEWORK	40
2.6.1 INTRODUCTION	40
2.6.2 MODELS OF HIGHER EDUCATION IN REGIONAL DEVELOPMENT	40
1) LAND-GRANT UNIVERSITIES IN THE US	41
THE LAND GRANT PRINCIPLE: THE POWER OF ENGAGEMENT	42
2) RESEARCH UNIVERSITIES	44
3) ENTREPRENEURIAL UNIVERSITIES	46
4) UNIVERSITIES AND PUBLIC RESEARCH INSTITUTIONS (PRIS) AS DRIVERS OF TECHNOLOGICAL DEVELOPMENT – THE EAST ASIAN EXPERIENCE.	48
5). UNIVERSITIES AS AGENTS OF LOCAL ECONOMIC DEVELOPMENT AND POVERTY REDUCTION – A CASE OF SUB-SAHARAN AFRICA	49
2.6.2 SUMMARY OF THEORETICAL SECTION	50
2.7 THE GROWTH POLE CONCEPT	53
2.7.1 APPLICATION OF THE GROWTH POLE CONCEPT	55
 CHAPTER THREE.....	 58
 RESEARCH DESIGN AND METHODOLOGY.....	 58
3.1 INTRODUCTION	58
3.2 RESEARCH APPROACH	58
3.3 STUDY DESIGN	59
3.4 SAMPLING SIZE AND SAMPLING STRUCTURE.....	62
3.4.1 PURPOSIVE SAMPLING	63
3.4.2 STRATIFIED SAMPLING	64
3.4.3 SYSTEMATIC RANDOM SAMPLING:	65
3.5 DATA COLLECTION INSTRUMENTS	66
➤ DOCUMENT REVIEW:.....	66

➤	STRUCTURED QUESTIONNAIRES:	67
➤	SEMI-STRUCTURED QUESTIONNAIRES	67
➤	FIELD OBSERVATION	68
3.6	<i>DATA COLLECTION PROCESS</i>	69
3.7	<i>RELIABILITY AND VALIDITY</i>	71
3.8	<i>DATA ANALYSIS</i>	72
3.9	<i>ETHICAL CONSIDERATIONS</i>	74

CHAPTER FOUR **77**

DATA PRESENTATION AND ANALYSIS **77**

4.1	<i>INTRODUCTION</i>	77
4.2	<i>GENERAL INTRODUCTION TO THE STUDY AREA</i>	78
4.2.1	THE REPUBLIC OF CAMEROON	78
4.2.2	HIGHER EDUCATION IN CAMEROON	79
4.2.3	THE BUEA MUNICIPALITY	81
4.2.4	THE UNIVERSITY OF BUEA	82
4.3	<i>POLICY CONTEXT FOR UB IN REGIONAL DEVELOPMENT</i>	83
4.3.1	POLICY EXPECTATIONS FOR HIGHER EDUCATION IN REGIONAL DEVELOPMENT IN CAMEROON	83
4.3.2	UB RESPONSE TO POLICY EXPECTATION IN REGIONAL DEVELOPMENT: THE 'MISSING LINK'	88
4.3.3	SUMMARY OF POLICY ASPECTS OF UB IN REGIONAL DEVELOPMENT	91
4.4	<i>THE UNIVERSITY OF BUEA IN ECONOMIC DEVELOPMENT</i>	92
4.4.1	UB IN BUSINESS ATTRACTION INTO THE REGION – THE COUNTERFACTUAL	92
4.4.2	THE UNIVERSITY OF BUEA IN LOCAL JOB CREATION – COUNTERFACTUAL II	100
4.4.3	UNIVERSITY SPENDING IN THE REGION	104
4.4.4	HUMAN CAPITAL FORMATION AND GRADUATE RETENTION IN THE REGION	109
4.5	<i>THE UNIVERSITY OF BUEA IN SOCIAL DEVELOPMENT</i>	112
4.5.1	THE CONTRIBUTION OF UB TO SOCIAL SERVICES PROVISION	112
4.5.2	SOCIO-CULTURAL DEVELOPMENT AND NATIONAL INTEGRATION	113
4.5.3	ROLE OF UB IN INFRASTRUCTURAL DEVELOPMENT	115
4.6	<i>SUMMARY OF UB IN REGIONAL SOCIO-ECONOMIC DEVELOPMENT</i>	119
4.7	<i>THE UNIVERSITY OF BUEA IN COMMUNITY AND EXTENSION SERVICE</i>	120
4.7.1	MEDICAL SERVICES: THE UB HEALTH CENTRE	121
4.7.2	GEO-HAZARD MONITORING PROGRAMME	121
4.7.3	AGRICULTURE IMPROVEMENT IN THE REGION	122
4.7.4	ENVIRONMENTAL HEALTH AND CONSERVATION PROJECTS	124

4.8 SUMMARY OF FINDINGS.....	127
-------------------------------------	------------

CHAPTER FIVE.....	129
--------------------------	------------

CONCLUSIONS AND RECOMMENDATIONS.....	129
---	------------

5.1 INTRODUCTION.....	129
------------------------------	------------

5.2 CONCLUSION.....	130
----------------------------	------------

5.2.1 POLICY PERSPECTIVE	130
--------------------------------	-----

5.2.1 THE UNIVERSITY OF BUEA AS A GROWTH POLE.....	131
--	-----

5.2.2 THE UNIVERSITY IN REGIONAL PARTNERSHIPS.....	134
--	-----

5.3 RECOMMENDATIONS FOR FURTHER RESEARCH.....	138
--	------------

5.4 LIMITATIONS OF THE STUDY.	139
---	------------

REFERENCES.....	141
------------------------	------------

APPENDIX 1.....	155
------------------------	------------

APPENDIX 2.....	161
------------------------	------------

APPENDIX 3.....	163
------------------------	------------

APPENDIX 4.....	164
------------------------	------------

APPENDIX 5.....	165
------------------------	------------

APPENDIX 6 (QUESTIONNAIRES).....	166
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Appendix 1: UWC Thesis registration and ethics clearance form

Appendix 2: Respondents Information Sheet

Appendix 3: Informed consent form for respondents

Appendix 4: Application to University of Buea for data collection authorisation

Appendix 5: Letter of research authorisation from University of Buea

Appendix 6: Questionnaires 1- 4

LIST OF FIGURES

Figure 2.1: Changes in marginal returns to education in Latin America in the 1990s...	28
Figure 2.2: Average earnings of five African countries by education.....	31
Figure 2.3: Poverty levels in Paraiba, Brazil by education level	38
Figure 2.4: Analytical framework of UB in regional development.....	57
Figure 4.1: Average students' expenses per month in US dollars.....	105
Figure 4.2: University of Buea students' hometown regions.....	106
Figure 4.3: Revenue collection	109
Figure 4.4: Graduate retention of students in the Buea Municipality.....	111
Figure 4.5: Approved building plans in the Buea Municipality (1990 – 2002).....	116
Figure 4.6: Infrastructural development per township in the municipality.....	117
Figure 4.7: UB in community-oriented research.....	123
Figure 4.8: UB in environmental conservation research.....	125
Figure 5.1: University of Buea as a growth pole	133

LIST OF TABLES

Table 2.1: Coefficients of correlation between higher education and social development indicators	34
Table 3.1: Summary of research methodology.....	74
Table 4.1: Policy expectations for UB in its contribution to regional development....	84
Table 4.2: Business respondents perception of UB in regional development.....	94
Table 4.3: Economic Impact Analysis	98
Table 4.4: Estimate of indirect counterfactual jobs created by the UB.....	103
Table 4.5: Students' overnight visitors expenditures	107
Table 4.6: Social facilities in three townships in the Buea Municipality.....	112
Table 4.7: Summary of findings of UB in regional development	127



ACRONYMS AND ABBREVIATIONS

AFC:	Alliance Franco-Camerounaise (Franco-Cameroon Alliance)
ASEAN:	Association of South East Asian Nations.
ASTI:	Advanced School of Translation and Interpretation
BUN:	Buea University Newsletter
CDC:	Cameroon Development Cooperation
CHE:	Council on Higher Education (South Africa)
CTE:	Cameroon Tea Estate
DVC/RCB:	Deputy Vice Chancellor in charge of Research and Collaboration with the Business World
EU:	European Union
GER:	Gross Enrolment Ratio
HEA:	Higher Education Attainment
HEIs:	Higher Education Institutions
IMF:	International Monetary Fund
MINESUP:	Ministre de l'Enseignement Supérieure (Ministry of Higher Education - Cameroon)
MIT:	Massachusetts Institute of Technology
NEPAD:	New Partnership for Africa's Development
OECD:	Organisation for Economic Cooperation and Development.
PAID-WA:	Pan African Institute for Development – West Africa.
PRIs:	Public Research Institutions
SOWEDA:	South West Development Authority
UB:	University of Buea.
UNESCO:	United Nations Educational, Scientific and Cultural Organisation
WB:	World Bank

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Background to the study

The concepts of development and recent development approaches have undergone significant shifts during the last half century. Development approaches have moved from classical development theories of modernisation and dependency, human capital theory, through Keynesianism and state intervention, neoliberalism, participatory approaches to development, and lately, with the knowledge economy and arguments for a role of higher education in recent development discourse (Coetzee et al., 2001; Cooke & Leydesdorff, 2006; De Beer & Swanepoel, 2006; Okolie, 2003; Schultz, 1961).

Various definitions for the term ‘development’ have been proposed; however there is general consensus that the term ‘development’ is indicative of a transition or movement from a lower and less complex mode of life to a more complex one indicative of a favourable change (Coetzee et al., 2001). The role of knowledge and innovation is argued to be a key factor in this change process. This was clearly experienced in the rapid transformation of the Western World during the Industrial Revolution and after World War II when universities were looked upon as critical agents in knowledge production and application. This has also been witnessed in the United States of America where Land Grant universities pioneered the agricultural innovation (Tilak, 2003).

The contribution of higher education institutions (HEIs) to development is arguably gaining more ground in development discourse in recent years. A review of the history of university institutions in the West and even in sub-Saharan Africa argues that the university has always been an agent of development; a contribution which had however been eclipsed by other development players with emphasis on multinational corporations (IMF, World Bank, EU, NEPAD, etc.) and central national governments. A historical look at pioneer mediaeval universities reveals that they were founded as

religious institutions with the dual functions of “teaching (priest, public servants, lawyers) and scholarship in a variety of disciplines such as biblical, classical, philosophical, medical etc” (Martin & Etzkowitz, 2000:16).

Martin and Etzkowitz (2000) after studying the ‘evolution’ of the university history opined that two distinct conceptions of the role of the university were predominant from onset in the history of HEIs. One was termed the pure or ‘immaculate’ conception in which the purpose of the university was education and knowledge ‘for its own sake’ while the other viewed the university from an instrumental or utilitarian ethos with the purpose of skills training and the creation and dissemination of useful knowledge for the society. This therefore highlights the fact that the university from conception had been considered a tool for human capital creation, and for meeting the needs of the society – a key aspect of present day development discourse.

However, the mediaeval university era witnessed a shift from the ‘pure conception’ university to what was referred to as the classical university. The Cardinal Newman type, which was an example of the classical university, was seen as having an ivory tower (separate from the society) with independent scholars producing knowledge for its own sake and passing it to students who aimed at developing their full potentials. This classical model however evolved in the European setting to the famous Humboldtian University where teaching and research were practiced with a strong reliance on state funding (Arbo & Benneworth, 2007).

The second construct of universities witnessed a strong digression from the classical university to the technical universities. Early versions of these institutions were the Land Grant universities, the Polytechniques and Grande Ecoles in France, the technical high schools in Germany and Switzerland and the institutes of science and technology in Britain (Etzkowitz et al., 2000:322). These institutions produce knowledge more as a tool for development of the society and the national state.

There was thus a strong tension between the notion of the university as a knowledge producer for the sake of knowledge and the application of knowledge to meet societal needs. In spite of the tension which grew between both attributes of university

structure and function, the classical university ethos thrived in terms of research and teaching, and received strong support from the state. In the 19th century, they enjoyed huge popularity with the establishment of prestigious institutions such as Harvard, Oxford, Berlin and Paris universities. (Martin & Etzkowitz, 2000).

By the 1970s, there was a shift in the focus of research and science. Emphasis was being laid on the application of science to solve national problems while increasing its relevance in the society. This led to the role of the university in training more human capital for knowledge application in the different sectors of economies. Then there evolved a new shift in the expectations of government and society on the university – “science as a strategic opportunity”, (Harloe & Perry, 2004:213) with much emphasis laid on growth and national welfare, the development of foresight and a new partnership between the industry and university (Ruivo, 1994).

In the wake of these demands, there has been a most recent and significant shift in development discourse which has placed immense emphasis on the role of the university in development. Harloe and Perry (2004: 214) noted that:

In this current era, innovation becomes the driving concern. Recognition of science’s capacity for innovation leads to a wish to exploit this systematically in order to achieve various forms of socio-economic goals. This necessitates a new role for universities in which priority is placed upon extracting economic and competitive benefit from knowledge production. To fulfil this role, universities must produce exploitable knowledge and facilitate its diffusion.


However, these expectations have not been significantly expressed in the higher education system of most sub-Saharan African states. Though the pioneer African university was founded on the argument of it being a tool in the development of African states (Yesufu, 1973), it has been greatly hampered in this process by local and regional, as well as global crises.

Cloete (2007) noted that there is growing evidence supporting arguments for the role of higher education as a necessary, if not a sufficient, aspect for Africa’s development; a notion which is neither new, nor uncontested in Africa. The UNESCO Economic Commission for Africa provides enthusiastic support for the ‘development university in Africa’. They argue that the university is a ‘key instrument for national

development and should not be excluded from but rather integrated into national development policies' (Yesufu, 1973; Sawyerr, 1988).

Until recently, the university's role in knowledge production and innovation has more often than not been overlooked by national governments themselves, encouraged by development agencies; whereas emphasis has been laid on primary education (Nga, 2004). The most prominent in sub-Saharan Africa was the case where major development agencies such as the World Bank and International Monetary Fund considered higher education in Africa as being more of a luxury than a need (Brock-Utne, 2000; Mamdani, 2008; Tilak, 2003). While studies of rates of return by Psacharopoulos and Patrinos (2002) argue for less spending on higher education due to the perceived low social returns, a number of recent researchers (Bloom et al., 2005; Nga, 2004) advocate that higher education has the potential to contribute immensely to the development of the continent.

In conclusion to this section, the changing environment in higher education regarding demands on its contribution to development could be summarised according to Abrahams and Melody as follows



The landscape of higher education is changing. In the main, the demand is centred around the creation of new 'knowledge societies' from all sectors to support economic growth and to address the development challenges (Abrahams & Melody, 2005).

The next section will consider the nature, size, and structure of the higher education system in Cameroon. This will provide a context for the study before looking at the aims and objectives.

1.2 Higher education in Cameroon

Higher education in Cameroon dates back to the early years of post independence. It started in 1961 with the creation of the National Institute for University studies with the aim of preparing students for university degrees in Law, Education, Economics and Arts (Njeuma et al., 1999). With the identification of other demands for human capital to meet administrative needs, various higher education institutions (HEIs) were created.

The post independence period in Cameroon between the early 1960s and early 1990s has witnessed a higher education system plagued with as many problems and challenges as in most African and Third World Countries. The obvious problems encountered have been those of accessibility for students, infrastructure, autonomy of the institutions, language barriers, and the use of curricula (designed in the 1960s) which have become obsolete for use in the 1990s. These problems have been compounded by an inability to respond to both the academic as well as socio-economic needs of the local and regional population. There was also a critical need to accommodate the rapidly growing student numbers in the lone University of Yaoundé which between 1984 and 1991 had risen from 17,000 students to 39,151 (Ngwana, 2003).

According to Ngwana (2003), higher education in Cameroon was considered 'sick' and seen to have lost the impetus of quality needed to meet government demands of human capital training, as well as contribute to development. What was dearly needed was a major policy change which was the government's response in Decree No. 92/74 of 13 April 1992 and its corresponding Decree of implementation No. 93/034 of 19 January 1993, instituting some major reforms in the HEI system as mentioned below.

Following the above mentioned policy document, five new universities were created over the national territory. The higher education system in Cameroon saw the dawn of a new era as the overly used University of Yaoundé (later known as University of Yaoundé I) benefited from the assistance of the newly created universities. These universities were: the University of Yaoundé II, University of Dschang, University of Ngaoundere, University of Douala and the only English-medium university – the University of Buea. Other major reforms that came with the creation of these universities were the broadening of the participation to other stakeholders as well as the introduction of tuition fees for students (Ngwana, 2003).

The changing perspective of the role of higher education institutions has also played a great role in shaping the events around higher education in Cameroon. With the emphasis being laid on the role of HEIs in local and regional socio-economic development and poverty reduction, higher education policy in Cameroon has shifted significantly to locate higher education institutions in the global picture of responding

to societal needs. According to Bloom et al. (2005) in their World Bank report on *Higher Education and Development in Africa*,¹ the poverty reduction policy document in Cameroon has significantly acknowledged the role of higher education in poverty reduction as well as in human capital creation needed for development.

1.3 Statement of the problem

The preceding discussions have shown that there is an increasing argument that higher education has been a major agent in the development and transformation of the more advanced economies (Bloom et al., 2005). This has been most witnessed in the different avenues through which universities such as the Land Grant universities, the research institutions in the USA, entrepreneurial and services universities in western Europe and the regional colleges in the Nordic countries have been useful in national and regional development (OECD, 2007; Sawyerr, 2004). However, research carried out by Psacharopoulos (1988), Psacharopoulos and Patrinos, (2002), as well as other development bodies, argue against the role of higher education for development in Africa. Further evidence for this was that the World Bank considered higher education in Africa as a ‘luxury’ rather than a need for development (World Bank, 1980, 2004) preferring more investment in primary education and infrastructural development.

Pritchett (1999) and Psacharopoulos (1988) used cross national econometric measures and theories to emphasise investments in “basic” education and advocate cost recovery on higher education in Africa while McMahon (1999) argued that “the positive correlation between primary and secondary education and private investment returns can be explained by the effect of trained human capital in offsetting diminishing returns to investment in physical capital”, thus arguing for higher education in human capital creation as a major tool in development (De Meulemeester & Rochat, 1995).

Subsequent research (Bloom et al., 2005; Tilak, 2003) has also questioned the methodologies for analysis and basis for conclusion of studies on rates of returns. These studies argue that the methodological conceptions focused on econometric indicators while ignoring social aspects in development processes (Tilak, 2003). Tilak

¹ Research report commissioned by the World Bank (AFTHD) on Higher Education in African Countries; published by Harvard University.

opines that higher education in developing countries has suffered neglect because of the World Bank policies that discouraged investment in higher education for a long period, and the improper use of estimates of rates of return.

The neglect therefore followed a general assumption supported by thin empirical evidence that higher education has no significant effect on economic growth, equity, poverty reduction and social development in developing countries (Tilak, 2003:1).

Research carried out by Bloom et al. (2005) in another cross country study for the World Bank in Africa, argues that higher education has a huge potential for economic and social development in the continent. This view has also been strongly backed by Castells (2001b:216–217) as he argues that “the ideological and political origins of most Third World universities cannot be ignored but should not be permitted to suffocate the necessary evolution of the universities towards its central role in modernisation and development”. This argument signifies that the role of the university in developing countries is evolving; and this evolution is also being seen in its contribution to the development of national and regional economies.

Therefore in the midst of this debate on the contribution of higher education to development in Africa, coupled with the fact that there has been little empirical research carried out in the sub-Saharan African region, this research seeks to understand the actual though complex relationship between national development strategies and development, and how universities are responding (or not) in their daily activities to the local and regional needs of their communities. Also important is the need to carry out empirical investigation in order to understand how similar or different higher education affects development in the Buea Municipality, and to compare this with the experience of other regions as documented in the literature.

Though the relationship between higher education and development is not necessarily a linear one, and while the arguments and views from those involved in rates of returns using different methodologies continue to dissent the magnitude of the relationship between higher education and development, there is a growing argument requiring empirical evidence to demonstrate whether higher education has a significant potential to trigger and enhance development in Africa. This research thus aims to understand

the process of universities in development in Africa by answering the question “How is higher education in Africa – with focus on the University of Buea in the Buea Municipality of Cameroon – contributing to regional socio-economic development?”

1.4 Aim and objectives of the study

The main aim of the study as mentioned above is to investigate the contribution of the University of Buea (UB) to the economic and social development of the Buea Municipality in the south west region of Cameroon. This aim will thus be achieved through the following objectives:

- (a) Investigate the national and regional development policies to understand the expected role of the UB in regional development.
- (b) Conduct an assessment of the level of university / community cooperation towards local development using defined social and economic indicators.
- (c) Demonstrate, using a modest impact study and specific economic indicators, the economic benefits on the local economy from the very presence of the university.

1.5 Research questions

The attainment of the aim and objectives of the research process were guided by the following empirical research questions:

- i. What are the policy expectations on UB towards regional development?
- ii. In what ways is the UB contributing to the social and economic development of the Buea Municipality in the south west region of Cameroon?
- iii. In what ways has research conducted at the UB benefited the local community in its social and economic development endeavours?
- iv. What has been the contribution of UB towards the cultural and social transformation of the municipality?
- v. How has the presence of the UB contributed to economic growth in the municipality?

1.6 Rationale for and significance of the study

The importance of the study can be summarised in the following statement from an OECD report:

To be able to play their regional role, HEIs must do more than simply educate and research – they must engage with others in their regions, provide opportunities for lifelong learning and contribute to the development of knowledge-intensive jobs which will enable graduates to find local employment and remain in their communities (OECD, 2007:11).

Though this quote was situated more in the OECD regional context, it has been argued that while Higher Education Institutions (HEIs) are contributing to regional development in the West, they also have the potential to do the same in developing countries, in particular in sub-Saharan Africa. Therefore in line with the above quote, this research seeks primarily to demonstrate, using a detailed literature review, a more holistic understanding of the complex relationship that exists between higher education and regional development on a global scale. This is followed by a desire to understand how African HEIs, in the pursuit of their task as ‘developmental universities’, are contributing to regional development.

Some researchers have advocated that HEIs have a central role in the developing of nations and regions (Bloom et al., 2005; Castells, 2001b). This has however not been significantly proven in African research through the use of empirical case studies of the contribution and impact of universities in their regions. This research is thus significant in that it attempts to empirically quantify and qualify the contribution HEIs are making in regional development in the chosen case study in Cameroon. This could also help to encourage African governments to revise their budget allocations in favour of more investments in higher education.

The understanding of the importance and contribution of HEIs in Africa to the development of their regions remains a very significant step in the process of policy setup and practical implementation of required attitudes in the development process. The use of empirical evidence becomes critical to this understanding process. This

research is therefore significant in laying the ground work for subsequent research in this field for higher education and regional development in sub-Saharan Africa.

This research has thus been highly appreciated by the university administration as well as the local community for its sensitisation role both in the academic milieu as well as in the community and business milieu which all formed part of the target respondents. This is in agreement with a statement by Cloete (2007:22) in a HEENA² report:

While it seems that a broad, ‘statistical’ case has been made for linking higher education to development ...what is much less clear is: **“how does it actually work?”** Undertaking more fine-grained studies to gain a better understanding of the different ways in which institutions link to development in their supra-national, national and regional contexts, will not only contribute to making the case for linking higher education to economic development, but it could also be ‘illuminating’ for institutions and academics who are interested in ‘connectivity’.

This study is thus significant as it can be considered a ‘fine-grained study’ undertaken to investigate the actual link that exists between the UB and the development of the Buea region. This will shed more light on the debate regarding higher education in development in Africa and should serve as a form of sensitisation for academics as well as other stakeholders interested in the links between universities and socio-economic development of their regions.

1.7 Delimitations of the study

While most similar studies on higher education institutions in regional development have focused on economic impact studies with a more quantitative design, this study will be carried out within the following conceptual and methodological boundaries:

- The study has been limited to gaining an explorative understanding of the contribution of the UB to the social and economic development of the Buea Municipality. A very modest impact study has been done to unpack the complex dynamism of how the UB contributes to regional development; it employs a methodology different from other more detailed impact studies (Brown & Heaney, 1997; Carroll & Smith, 2006) which include huge multiplier effects and argue for causality relationships.

² Cloete, N. (2007) A Conceptual report towards establishing Higher Education in African Research.

- Conceptually, the study has been limited in scope to a number of indicators carefully selected from the literature on previous similar studies. These indicators include; university/community engagement for regional development, student and staff expenses, import and export substitution, graduate retention, and local job creation in the region.
- While the majority of impact studies depend hugely on quantitative data and limited qualitative methods, this research is more qualitative in approach while using quantitative data to enhance understanding of the few measurable indicators.
- The study limits its area of research to the Buea Municipality with a focus on the Molyko Township where the university is located. However, the terms Buea region and Buea Municipality have often been used interchangeably in the study to mean the same thing.

1.8 Organisation of the dissertation.

This thesis is divided into five main sections.

The first chapter has been used to provide an introduction to the research proper. Introductory issues have been presented in order to provide a broader insight into the main research theme. This section has also been used to present the main research aims, objectives and research questions.

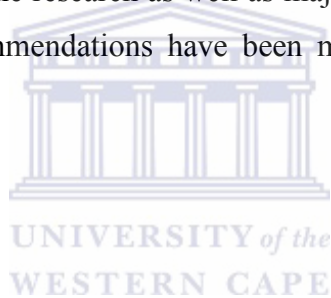
The second chapter provides a detailed literature review on the role played by universities in regional social and economic development in different regions. The literature review is followed by the definition of key terms which provided the theoretical discourse used to situate the research subject in a body of theoretical argument. The main literature looks at five main models of HEIs in regional development and tries to establish from empirical evidence whether the UB reflects any of these in its regional activities.

The third chapter is a detailed description of the research methodology, which was principally qualitative with some quantitative data. This section provides the tools and methods of the data collection process and also provides the indicators which have

been used in the analysis of the data through the conceptual map for data analysis. It also indicates aspects of ethical compliance during the research process.

Chapter Four, the main part of this thesis is an in-depth presentation and analysis of the data, using defined indicators. Indicators have been developed and adapted from other similar research projects. The analysis presents an understanding of how the present findings from the UB correlate with or diverge from findings from other studies. This has been done using both descriptive narratives and tables to show trends and tendencies. Two analytical tools used include the counterfactual and export and import substitution methods. Analysis using both methods argues significantly that the UB has made a major contribution to the development of the region by transforming the Molyko region to a growth pole.

Chapter Five concludes the dissertation, with a summary of the main findings and their implications as observed in the research as well as major implications of the study. At the end of the thesis, recommendations have been made where further research is necessary.



CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK.

2.1 Introduction

After looking at the general context in which this study is situated as well as a broad summary of the main aim and objectives of the study, this chapter starts with a detailed presentation of the literature on higher education and development. This has been done paying keen attention to the theoretical arguments on the role of Higher Education Institutions (HEIs) in regional development as well as routes or models that have so far evolved in different regions towards sustained socio-economic development.

An understanding of the contribution of HEIs has been attempted through several studies. These have sought to both quantify and qualify the contribution of universities to the development of different regions, with greater emphasis so far on more advanced economies where the literature provides more empirically investigated case studies. (Antikainen, 1981; Bridges, 2007; Carroll & Smith, 2006; Farrant, 2001).

It has been argued that HEIs have made a major contribution to the development of regions, ranging from small countries to countries which extend across vast regional and continental levels (Goddard & Puukka, 2008; Goldstein & Renault, 2004). Obvious accounts of such economic impact by early institutions such as the Land Grant universities and the research universities such as the Massachusetts Institute of Technology in the Silicon Valley region, boost the argument for HEIs in economic development. Developing and emerging economies, with examples of the Association of South East Asian Nations (ASEAN), have through their HEIs gained knowledge which when applied, has seen their economies accelerate the development process in an unprecedented way; this process has been referred to as a 'leap-frog' of the development efforts (Nga, 2004).

In the conceptualisation of this review, it is necessary to define clearly what entails a region. The concept of a region in a broad sense could range from an immediate

hinterland, to a large part of a country, to a state in federal republics, or even wider pan-national areas. Chatterton and Goddard (2000:478) further highlighted the fact that “regions are emerging and are being defined...” while Cooke and Leydesdorff (2006:6) argue that in the field of regional development, “the concept of region as administratively defined is of primary importance... leading to the definition of region as *an administrative division of a country*”. According to this definition the concept of region in this study, will be limited to the administrative unit of the Buea municipal council in the Fako division around which the university operates and where its impact can be significantly measured. This therefore tends to imply that for the different models to be reviewed, the definition and conceptualisation of the region under study may not be the same.

Goddard et al. (1994) argue that there are four aspects of universities’ definition of a local (regional) community. These include:

- i. the relationship between an institution and its physical surroundings as influenced by historical and institutional context;
- ii. the different scales with which attributes or impacts of the university should be measured or assessed;
- iii. the different geographical scale or territory over which the university provides different types of ‘local’ (or regional) service, and
- iv. the perceptions held by the institution and its management of the local community, which is identified in institutional missions (Charles, 2003:14).

In this study, while all four definitions of the university region will be helpful in the analysis, “the different scales with which attributes or impacts of the university should be measured and assessed” will be used in the economic impact analysis. This point has been selected for analysis firstly because a historical context of the university as mentioned in the first point falls out of the scope of this thesis. Secondly, the university cannot be assessed, based purely on services provided, as it is not a service university and finally because the study goes beyond the perception of management into what the university is actually doing in the development of the local community.

Hence looking at the Buea Municipality, the impact of the UB can be better measured when defined to the Molyko area where the university has more influence as stated in section 1.7 above.

After this brief introduction, the next section provides an in-depth review of some key literature on higher education and development. This has been divided into four broad sections. The first section looks at the broad literature on the arguments for higher education in development, both at a global level as well as the shifts which have been witnessed in Africa. This will be followed by a review of higher education in regional development from an economic and social perspective with a number of indicators which have dominated the literature. The next section will look at the five different models of higher education in regional development as described in the literature and finally the chapter presents a theoretical framework which has informed or framed the analysis of the study.

2.2 Higher education and development

The concept of development

The concept of development has witnessed a good number of theoretical shifts and has been widely defined by different authors and in different fields of study as well as contextually; hence the need for a specific definition which is given below and has been applied throughout this research.

The term ‘development’ in general, encompasses values such as sustainability, empowerment, capacity building, participation, transparency, accountability, equity and the expanded roles of women (Coetzee et al., 2001). Coetzee notes that ‘development’ is a concept that carries with it the connotation of a favourable change; in moving from worse to better; evolving from simple to complex; advancing away from inferior; a form of social change that will lead to progress.

Cypher and Diethz (1997) consider the concept of development as an improvement of socio-economic and political dimensions of society that leads to increased income and standard of living conditions; while Mihalic (2002:83) has defined the term as “a socio-economic change and progress, embracing indicators which include increases in

per capita income, a reduction in poverty level among the masses, more social justice, modernization in terms of social changes, higher levels of employment and literacy, improvement in and wider access to medical treatment, a better life with more opportunities for self-improvement". Therefore, a holistic approach must be adopted; an approach which looks not only at the economic aspect on which some authors tend to focus, but on the social, human and political facets as well (Le Roux, 1995).

While research on rates of returns and econometric measurements argue against the role of higher education in Africa's development, higher education has been argued for by research (Bridges, 2007; Charles, 2003; Goddard, 2008; OECD, 2007) as a crucial factor in local, regional and national development for most developed economies. Arguments have thus been put forward that the same has the potential to trigger and sustain development in the Third World economies (Bloom et al., 2005; OECD, 2007; World Bank, 1993). These have been in the background of a vast number of research studies that have been carried out to evaluate the impact higher education and its institutions have had on the developed as well as the emerging economies. As further argued by OECD (2007b:1),

...the contribution of HEIs to developing their regions has not previously been a major concern for public policy of HEIs themselves. But this is changing with the expansion of higher education in the non-university sector, which in some regions has aimed to address regional disparities.

This proposition has received significant backing from national and international organisations as explained by Goddard and Chatterton (2001:9) in a keynote paper to a United Nations Education, Social and Cultural Organisation (UNESCO) sponsored International Congress:

Within advanced economies, there is a growing concern that teaching and research in universities should be directed towards specific economic and social objectives. Nowhere is this 'demand for specificity' more clear than in the field of regional development. Whilst they are located in regions, universities are being asked by a new set of regional actors and agencies to make an active contribution to the development of these regions.

The European Union (EU) has also expressed demands on its universities as the continent focuses on its goal of becoming the most competitive and dynamic knowledge-based society in the world. This has developed as the EU sees knowledge production as the engine of economic and social development. The commission thus believes that “given that they are situated at the crossroads of research, education and innovation, universities in many respects hold the key to the knowledge economy and society” (Commission of the European Communities, 2003:58).

Economic and social trends in the United States have witnessed the role of HEIs in regional development through the Land Grant colleges of the 18th century and even recent shifts to more entrepreneurial forms of management in HEIs in Europe. Universities are thus expected to orient their activities towards meeting this responsibility and at the same time not ignoring the basic functions of teaching and research. This brings in the notion of the Mode 2 university³ which to a significant ideological extent deviated from the core Mode 1 university system which looked at research and science as ultimately for knowledge purposes. Mode 2 universities are seen as more service oriented and seek in their activities of teaching, research and community service to meet the needs of the contemporary society, resulting in a strong level of interaction and engagement with their regions. This ideological stance deviates greatly from Mode 1 universities which saw themselves as mainly teaching and research institutions where community service was considered to be a distraction from core university business (Harloe & Perry, 2004).

Higher Education Institutions (HEIs) have achieved significant impacts in their contribution to economic development through the growth and wide acceptance in what has been referred to as the ‘third task’, ‘third mission’ or ‘third leg’ of the university, adding to the two pioneer missions of teaching and research (OECD, 2007). This new task of the university has sought to understand the role of the university in the development of its local and regional community through its interplay with other stakeholders, local industries, as well as the society at large. Several HEIs

³ Universities generate science within disciplinary contexts; problems are set and solved by means that are controlled by the specific disciplinary committee themselves (Harloe & Perry, 2004:214).

have adopted new management systems in order to respond to this need for regional engagement which Clark (1998) argues requires ‘a strengthened steering core, a diversified funding base, a stimulated academic heartland, an enhanced developmental periphery and a general entrepreneurial belief’.

The European approach to the role of HEIs in general, and universities in particular, in development has witnessed a significant shift in its structure as well as the management of most European universities. Most European universities have moved from the ideological position of the university to a more instrumental one. Ideologically, universities in Europe were seen as a depository for national culture and identity. They were more engaged in transmitting and preserving national ideologies than in cultural integration, research and innovation for national and regional development (Maassen & Olsen, 2007). A major change in the European university structure has been the shift from the Humboldtian university management system, as well as from the period in which academia had full management authority over the university, to the “proactive university” or “adaptive university”. This resulted in an ‘... institutional self reliance and less dependence on the state’ (Clark, 2004) and a higher level of partnership with other stakeholders such as businesses, hence deviating from the pioneer universities (Shattock, 2005).

A more detailed look into these changes and shifts in HEIs as seen in the next section reveals that universities have increasingly been adapting themselves to meeting local, regional, national and even supranational development needs in recent decades. However it has been argued as well that these changes and responses of HEIs and universities have been more of a response to contemporary needs than a proactive endeavour.

2.2.1 Paradigm shifts in higher education and development

The contribution of higher education to development has less often been a proactive initiative from the institutions themselves but rather a response to contemporary societal needs. Even in the western economies evidence from the literature (Tilak, 2003) shows that the contribution of higher education to national and regional development has usually been a response to major happenings around states and economies in development initiatives. Tilak argues that “higher education also

expanded fast in many countries during the post-war period” (Tilak, 2003:3) where states turned to higher education institutions for assistance in rebuilding nation states in the post-war periods. Hence research was geared towards meeting national needs and not predominantly for the sake of knowledge alone.

Another shift in regional strategies for development is highlighted by the concept of globalisation where development is no more looked upon merely from a regional point but from a global perspective. For any regional economy to be able to meet with the changes now witnessed globally, there is a huge need for rapid production of knowledge as well as adaptation to fast-changing technology and economic processes. Robertson (in OECD, 2007:15) refers to this as “glocalisation”, where it is argued that “globalisation is accompanied by a regionalisation process where the region becomes more and more important innovation arenas”. This has placed more emphasis on the role of HEIs as innovation centres shifting from notions of comparative advantage to competitive advantage (Arbo & Benneworth, 2007:15).

A further major shift in the perception of the role of higher education in development according to Castells (2001a) is what is referred to as the new economy “... in which productivity and competitiveness are based on knowledge and information”. The rise of the knowledge economy was discussed by Castells (1996) and expounded upon by Cooke and Leydesdorff (2006), both of whom argued that knowledge production, and its application and circulation, have replaced the notion of comparative and competitive advantage, giving rise to the notion of a ‘constructed advantage’. According to Gibbons et al. (1994) this has resulted in the emergence of Mode 2 universities as a response by HEIs to the need to produce exploitable knowledge and also facilitates the diffusion of this knowledge for quick application in national and regional development.

Though the Mode 2 university system co-existed in a somewhat tense balance with the Mode 1⁴, it was only towards the end of the nineteenth century and in the wake of the twentieth century that the role of universities in regional development or the ‘Third

⁴ Research is created in broader, trans-disciplinary contexts. It is carried out in a ‘context of application’ and the previous distinction between ‘pure’ and ‘applied’ research are increasingly transgressed: fundamental problems are investigated...and the possibility of application are increasingly shaping programs. (Ibid)

mission' of the university was highly argued for by major stakeholders (Harloe & Perry, 2004).

Charles (2003) further proposes that the role of higher education in development has been backed by a number of external and internal driving forces. Some of these external forces are noted below.

- The aftermath of the Cold War in the late 1940s saw a greater link between the university and the state in the application of scientific knowledge.
- Globalisation and increased competition have highlighted the strategic role of science and technology in developing a competitive advantage in the markets.
- The need for new technologies such as information and communication has enhanced the arguments for the development of the 'knowledge economy'. This has put significant pressure on universities to help deliver the needed knowledge and its application.
- Constraints on public expenditures have increased demand for public accountability and for demand for funding from external sources.
- Firms and companies have become more reliant on knowledge produced by universities and HEIs.

According to Charles (2003) what has motivated HEIs in regional development activities is the changing conceptualisation in the regional development process.

The shift in orientation of regional strategies since the 1980s towards supply side initiatives, regional institutional capacity and endogenous development, led regional development bodies and agencies to look to universities as providers of a number of inputs to the development process... (Charles, 2003:8).

Though most of these strategies are more indicative of Western dynamics, the call for higher education to take a central role in regional and national development has also been extended to the African continent and other less developed economies. There has been a loud call to make higher education central to the process of economic

development and technology catch-up, and to increase the democratisation of the continent. As stated by the former UN secretary general,

the university must become a primary tool for Africa's development in the new century. Universities can help develop African expertise; they can enhance the analysis of African problems, strengthen institutions, serve as a model environment for the practice of good governance, conflict resolution and respect for human rights... (Annan, 2000)⁵.

The background to this declaration was that, prior to the early 1990s, higher education in Africa was not considered by major development bodies to be central to the development process. This was particularly witnessed in 1986 at a meeting of African vice-chancellors in Harare, Zimbabwe, where the World Bank argued that higher education was more of a luxury rather than a necessity for Africa's development (Brock-Utne, 2000:218). This notion advocated directly and indirectly for primary and secondary education to take the forefront in the development efforts at the expense of higher education.

In conclusion to the above section, the literature reveals that higher education has contributed to development of the Western economies and this has resulted to a shift in thinking across the globe. This recent paradigm shift in the expectations of HEIs regarding development at the global level and in the African context was earlier highlighted by Yesufu (1973:82) who argued that African universities

...must not pursue knowledge for its own sake, but for the sake of and the amelioration of the conditions of life and work of the ordinary man and woman. It must be fully committed to active participation in the social transformation, economic modernization, and training and upgrading of the total human resources of the nation....

This view has recently been reiterated by the newly inaugurated president of the Association for African Universities, Is-haq Oloyede. He argues that

“to ignore the higher education sector in economic sustainable development efforts would be to ignore the power of knowledge residing in the universities and the power of the youth in contributing to

⁵ In Bloom et al. (2005) Higher education and economic Development

responsible, critical and effective decision making in future...” (Gower, 2009:1).

The contribution of higher education to development in Africa has thus been characterised by significant shifts in the notion of higher education as an agent for development in national states and in their respective regions. Different views have been expressed on the role of higher education in development from its conception in the early 1960s till recent years. The section below will present a detailed overview of the major shifts in higher education and development in sub-Saharan Africa.

2.2.2 Higher education and development in Africa – a historical perspective.

It is important therefore to present a brief historical review of higher education in Africa. This has been done in the following paragraphs with a keen focus on the different arguments on the role of higher education in development at both national and regional levels. This historic look as opined by Clarke (1995) is very important in the understanding of higher education in Africa.

Historical scholarship records that the majority of HEIs in Africa were created in the early 1960s when many African states attained independence from their colonial masters (Tilak, 2003). These institutions were created and established in most cases as satellite institutions of universities in colonial powers, with the main objective of training the elites. Assie-Lumumba (2006) argues that, though HEIs and universities were created to attend to social and economic development as well as nation state building, early institutions struggled between “the actualisation of their European medieval roots and colonial foundations and the African history and present-day social structures”. In other words, most African HEIs have tried to situate themselves in line with their European medieval universities at the time of creation while also struggling to reflect the African needs which they were created to meet.

The above argument was clearly seen in the fact that most African universities at the time focused on the liberal arts subjects representing the medieval European university as well as post independent Africa. This was done unfortunately at the huge expense

of technical and vocational training which remains a dire need for contemporary Africa.

However the late 1960s witnessed the dawn of a theory which greatly shaped the focus of higher education in Africa. The Human Capital theory which argues for investment in human skills and abilities as a major factor in production is seen to have had a significant effect on the attitudes of national states towards higher education at the time (Smith, 1998). With the decade declared as the Development decade by the United Nations, education was seen as a powerful tool for social progress and an increase in the gross national product (GNP). This brought forth a shift from physical capital to training of the working population with the argument that “an educated population is a productive population” (Olaniyan & Okemakinde, 2008:158). This had been emphasised by previous research as Psacharopoulos and Woodhall (1997:102) assert that:

Human resources constitute the ultimate basis of wealth of nations. Capital and natural resources are passive factors of production, human beings are the active agencies who accumulate capital, exploit natural resources, build social, economic and political organization, and carry forward national development.

Another empirical finding (Garba, 2002) shows that from the review of cross-country regressions there has been a positive correlation between educational attainment and economic growth and development while Odekunle (2001) asserts that investment in human capital has produced positive outcomes on the growth of entrepreneurial activity and technological innovation. This has also been confirmed by Ayeni (2003) who argues that education as an investment has future benefits of creation of status, job security and other benefits in cash and in kind (Olaniyan & Okemakinde, 2008).

There was thus an increasing call from UNESCO for African leaders to investigate the relevance of the educational system in meeting societal needs (Assié-Lumumba, 2006). Schultz (1977:322) argued that “it simply is not possible to have the fruits of a modern agriculture and the abundance of a modern industry without making large investments in human beings”. Post et al. (2004) further state that the modernisation theory strongly linked economic progress (development) with technical expertise, a

strong reflection of the role of human capital formation and training in the development process. There was thus a change of thought that investing in human capital was critical for development. So even in the era of modernisation thinking, “new knowledge opportunities were expected to create more skilled workers, who would then create a more valuable economic product (Post et al., 2004:220).

However this was to change as the dependency concept became increasingly manifest in the African higher education system in the 1970s. As argued by Altbach (1977), there existed three main manifestations of the dependency relationship between the developed countries and most sub-Sahara African countries; namely normal dependency, centre-periphery relationship and finally neo-colonialism. These concepts will however not be discussed in the context of this study as it strays from the focus of the thesis. However, though the effect of the dependency relationship between the West and African states was initially more economic, its advanced stages witnessed a significant negative effect on investments in higher education. There was an increased dependency on the West economies not only for economic sustenance but even for academic curriculum for HEIs.

The dependency relationship witnessed another major blow in the late 1970s and during the ‘lost decade’ of the 1980s where due to failure in the prices of primary goods in international markets, African states witnessed huge economic depression. During this period, investment in higher education was strongly discouraged and African states were forced against their wish to disinvest in higher education which had hitherto been a cherished good (Assié-Lumumba, 2006). This was compounded by the Structural Adjustment Programmes (SAPs) by the World Bank and IMF on which most African states relied in the wake of the global economic crisis of the 1980s.

Studies of rates of returns in Africa also deterred investment in higher education where according to research by the World Bank and authors such as Psacharopoulos (1998), higher education was seen to provide lesser public returns than secondary and primary education, thus arguing for reduced investment in higher education. However, Tilak (2003) opines that there had been an improper use of estimates of rates of returns. This study intends to argue in support of this point through an analysis of the data which

shows a significant contribution made by higher education on the local region around the university.

In this concluding statement to the notion of higher education and development in Africa, it has been briefly but clearly observed that higher education has contributed to the development of advanced economies. This development has not been limited to only economic aspects of development, but to social and even political aspects as well. Amidst the controversy on the actual contribution higher education is making to Africa's development, there is however a call that higher education assumes a significant role in the development process in the African continent and that HEIs take up this new set of demands in both policy and practical levels. The need to use defined indicators to gather empirical evidence of both the tangible and intangible contributions by higher education to national development thus serves as a further motivation in the undertaking of this research.

To understand the different indicators to be used in the study, as previously mentioned in the introductory part of section 2.2, the next section will look at the economic and social contribution of higher education development. In this process, the researcher sought to understand the various theoretical dynamics of higher education in development while identifying major indicators to be investigated in the case study.

2.3 Higher education in regional economic development

In looking at the contribution of higher education in regional development, it will be helpful to situate higher education in the broad context of regional development. Being a somewhat broad concept, regional development has been defined and operationalised in a limited space in order to accommodate the place of higher education in development.

The concept of regional development:

According to Holtta (2000), regional development is understood to mean “the existence, creation, and strengthening of informal and formal linkages as a set of functioning institutions, organisations, funding structures and streams, interactive networks and forums for collaboration, for the pursuit of common economic, social and cultural goals”. This definition of regional development is not limited to higher

education but rather incorporates HEIs' activities at regional level. From the above definition, regional development thus has to do with the creation and strengthening of linkages (both formally and informally) between institutions and their surrounding society for mutual benefits. For regional development to be successful, all regional or local stakeholders need to be integrated in the development process; this includes local governments, other non-governmental institutions and the local population.

The different aspects through which higher education has been seen to have contributed to regional economic development as identified in the literature include income generation, industry development and human capital development.

2.3.1 Higher education in income generation and industry development

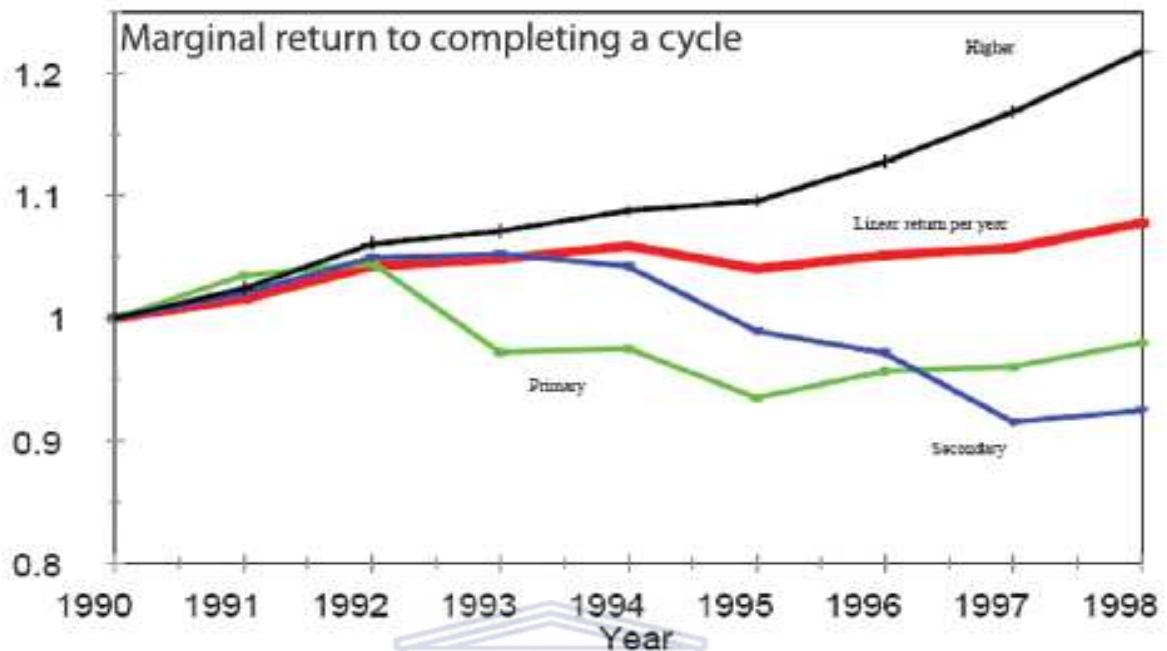
Carroll and Smith (2006:5) in a study of the economic impact of the Bowling Green University on the Ohio State economy for the 2002 academic year, reveal that due to the operations of the university, 5472 full-time jobs were created yearly. Of this number, 3667 were the result of direct university construction, 715 resulted from business-to-business or indirect activity, while 1090 resulted from employees' spending. The total economic impact on the region (which sums up all the direct, indirect and induced effects) amounted to about \$321.9 million. However, it is worth noting that this study is limited to the economic impacts of the university on the region and ignores the social and intangible impacts and contributions of universities to regional development. This has been identified as a methodological limitation and has been corrected in the present research by including social indicators in the investigation.

Bloom et al. (2005) in a cross country study of higher education (HE) in national development across a number of African states identified key areas in which HE can contribute to regional development, such as in poverty alleviation and democracy, thus arguing that "the findings challenge the belief that tertiary education has little role in promoting economic growth...". Other significant empirical findings highlighted in this study are the following contributions by HE to economic development:

- A study in Taiwan revealed that higher education played a major role in the country's economic growth. This study revealed that for every one per cent of those who completed higher education, there was a 0.35 per cent rise in industrial output; with the largest output effect being witnessed in the fields of natural science and engineering (Lin, 2004).
- A similar study by Jenkins (1995) in a time series analysis of the United Kingdom (UK), revealed a direct relationship between total factor productivity and different levels of higher education attainment (from first degree graduates to postdoctorate studies). The study showed that for every one per cent increase in higher education qualifications, there was a corresponding growth in annual output of between 0.42 and 0.63 per cent.
- Bloom et al. (2005), by using the arguments put forward by Wolff and Gittleman (1993) show that university enrolment rates can be positively correlated with labour productive growth. A similar correlation can be applied to the number of trained engineers and graduated scientists.

These studies agree with research carried out in Latin America by Behrman et al. (2003) on rates of return on education cycles from primary, secondary and higher education. Analysis of their research data as presented on Figure 2.1 below shows the changes in marginal returns to education in primary, secondary and higher levels of education. Analysis of the graphs supports the argument that even in Latin America, there has been an increasing economic return for every completed course of higher education, compared to returns for primary and secondary levels of education. This however had not been the case in the late 1980s and early 1990s where the graph indicates a higher return rate to primary level of education completed. This however also agrees with a shift in paradigms where arguments for the role of primary education to development, based only on rates of returns, is giving way to a new way of thinking for higher education and its centrality in development discourse. With the advent of the knowledge economy and globalisation, it becomes increasingly important that universities and HEIs assume their role in regional development (Pillay, 2008a).

Figure 2.1: Changes in marginal returns to education in Latin America in the 1990s.



Source: Behrman et al. (2003)

Recent research has shown that higher education is a net contributor to the prosperity of a modern economy (Barclays Bank, 2002; Charles & Benneworth, 2002; Hill, 2004). It achieves this through a number of mechanisms including providing employment, attracting revenue and expenditure from students and visitors, but above all, through its crucial role in the development of the ‘knowledge economy’ (Goddard & Puukka, 2008:12). Some of these indicators have been investigated and presented in the analysis chapter.

Case study research (Carroll & Smith, 2003; Farrant, 2001) has also been done to establish how HEIs contribute to regional and local development. Farrant (2001), in a study of the University of Massachusetts Lowell (UML), establishes different facets through which a university institution could contribute to the development of its locality. These contributions have been done mainly in the attraction of income into the region by the activities of HEIs in the region. In the study, what stands out as of major importance is the proactive step taken by the institution to initiate several

partnerships between the community and professors and students from specific departments in order to identify and agree on community needs. Some of these partnerships include engineering professors involved in education and training programmes at technology centres in the region, community out-reach partnerships towards environmental projects and projects towards sustainable housing; all resulted in economic and social benefits as well as providing short-term and permanent employment for the local population.

The contribution of higher education to the economic development of its regions is also emphasised by Barrows (2001). He highlights the fact that the university serves as a bridgehead between the local and the global community, and more importantly, universities will enhance and induce and improvement of primary and secondary education in the region. However it is recommended that for an existing university to be able to respond to local and regional needs,

“it may need to be restructured so that it becomes entrepreneurial, its management coming to resemble and to behave like that of a profit-making corporation directed at finding the best (business) opportunities, one not hamstrung by the perceived operational inefficiencies of traditional collegiality” (Agwara & Juma, 2005:306).

Higher education in the developing economies as in the Western economies has been recognised as having the potential to contribute not only to economic development but also to the social, cultural and environmental development at the local, regional and national level (Chatterton & Goddard, 2000). According to Thanki (1999), the contribution of universities to regional development is divided into economic and non-economic or socio-cultural factors. The economic perspective sees the university as an ‘economic entity’ and a commodified knowledge producer, while human capital production and institutional actors in networks make up the non-economic contribution.

2.3.2 Higher education in human capital development

The contribution of higher education to regional development has been manifested also in the production of human capital for economic and social development. Higher education is being urged to move from an elitist system which characterised most

pioneer institutions, and is still present in most parts of Africa, to a more open system with massification being the buzzword (Trow, 2005). It is argued that this will increase access as many more people will become empowered as human capital is developed. Case studies revealed in a report (OECD, 2007) show that higher education has been very responsive to employers by responding to new skill demands, and ensuring lifelong learning for continuous development. In Aalborg University in Denmark, higher education has been built around meeting the contemporary needs of the society which is not the case in very many universities in Africa. This guarantees a high degree of cooperation with the society and the private sector (OECD, 2007).

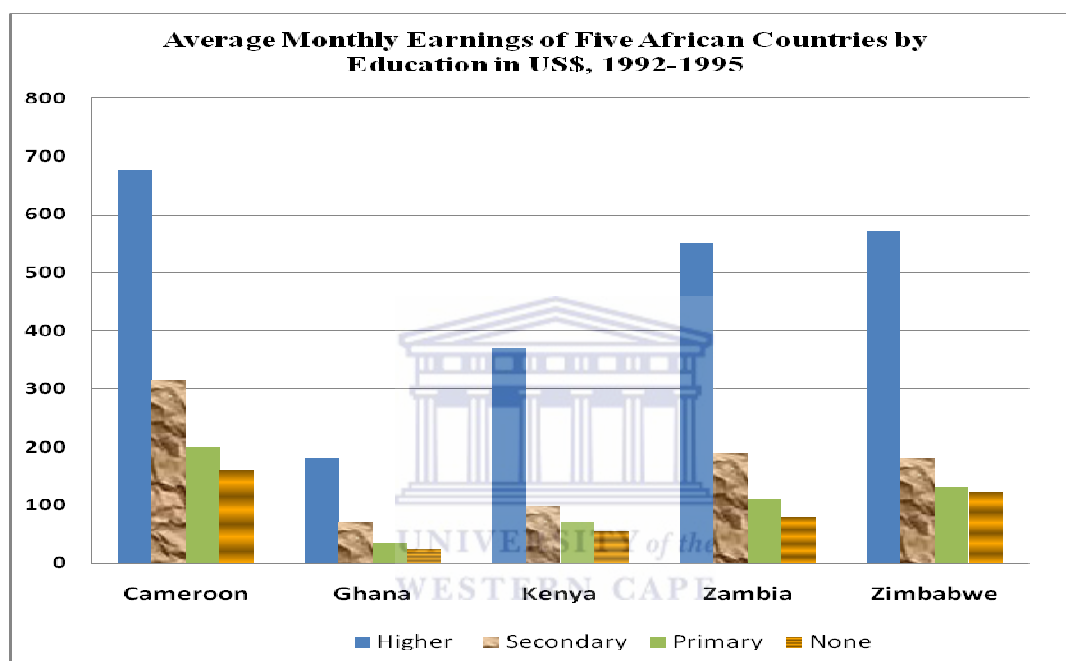
The main engine of economic growth as argued by some authors (Becker, 1962; Lucas, 1993; Schultz, 1961) is human capital. Human capital plays an important role through productivity enhancement of both labour and physical capital. Most university institutions have not only provided human capital for the system itself but have been the force behind the human capital being supplied into skilled labour and the service sector, hence assisting development.

Looking at the case of most of the rapidly growing East Asian economies, the World Bank (1993) noted that there was a significant growth in both the quality and quantity of education and training for human capital production. The emphasis on human capital derives from the understanding that information and knowledge are not the same, and that “knowledge is attached to human beings and can be embedded in capital goods. It is not a separate production factor” (Lambooy, 2005:1141). Thus the role of human capital, as was the case in the early 1960s, remains an integral part in the new development discourse. Castells (2001a) agrees strongly with this by proposing that the knowledge economy is based on the combination of technological infrastructure, connectivity and human resource. Emphasis has increasingly been laid on human resource where it has been argued that “without human resource nothing works” (Cloete & Moja, 2001). With human resource requiring not just technical skills amongst a minority but a broad level of education in the population at large, universities need to produce researchers and innovators.

Studies carried out by Appleton and Teal (1998) on rates of return in manufacturing companies in five African countries reveal that there is a very wide positive difference

in the earnings of those with higher education qualifications as compared to those with primary and secondary education. These high earnings are argued to partly indicate that those with higher qualifications are able to work abroad. This could arguably increase the already present problem of brain drain. However this will not be discussed in the context of this research. Figure 2.2 below presents the dynamics in the various earnings by country and level of education across the five countries.

Figure 2.2: Average monthly earnings of five African countries by education in US\$, 1992-1995



Source: Appleton and Teal (1998)

From Figure 2.2, it can be observed that workers with higher education levels have the capacity to earn at least double the amount earned by those with only secondary education. As previously seen in the study by Behrman et al. (2003) in Latin America (Figure 2.1), this study further supports the argument that higher education can actually provide economic development through increased earnings as those with higher levels of education are seen to earn more than those with lesser levels of education. Though there are significant differences in earnings between the countries, what remains clear from the graph is the fact that in all cases, higher education provides much better earnings.

In summary, the reviewed literature on the contribution of higher education in economic development notes the following points which serve as a foundation for the current study.

- The literature reveals that against the evidence on rates of return and even the economic basis of arguments put forward by Psacharopoulos (1988), Pritchett (1999) and Patrinos (2002), Bloom et al. (2005) and Behrman et al. (2003) argue for a significant and potential contribution of higher education in economic development. Behrman et al. (2003) use marginal earnings in Latin America to argue for a positive correlation of higher education and economic development. There is therefore a substantial body of literature based on research on the role of higher education in economic development. From a holistic perspective, there are less tangible aspects of the term “development” which were seldom included in econometric studies on rates of return. These will be studied in the next section.
- Economic contributions to regional development have been observed to increase earnings, regional incomes from the direct and indirect jobs created by universities, revenue collected through taxes in university hosting regions, and human capital.
- There has also been a significant gap in the literature with respect to the contribution of HEIs and universities to the development of typical rural regions. Benneworth and Charles (2002), confirm this and argue that the contribution of university institutions to regional development has not been an intrinsic aspect of all universities, but has been contingent on those regions with particular situations and who have fulfilled particular requirements, making of them “totemic sites of the new economy” as characterised by Armstrong (2001). The less successful regions which they referred to as “non-totemic sites” are typical of most African regions and face location specific barriers to the accumulation of knowledge capital. Therefore this study aims at looking at how universities in Africa, confronted by these challenges, are contributing to development in their regions.

After considering some of the economic aspects through which higher education contributes to development, the next section will be looking at the social indicators which have been identified in the literature and through which higher education and universities have contributed to regional and national development.

2.4 Higher education in social development

From the vast body of literature reviewed, the majority of studies on the contribution of HEIs to regional development have been limited to economic indicators. However, a growing argument has been put forward that the intangible contributions of HEIs to social and cultural development are as important to the development of regions and communities as the more tangible economic aspects.

Tilak (2003) argues that most studies on rates of return of higher education seldom capture non-economic benefits, leaving out issues such as human development, health, life expectancy, mortality rates, poverty and gender. Further discussion on the relationship between higher education and these aspects shows that higher education is found to be very important in human development.

Tilak (2003) after an analysis on the impact of higher education on poverty reduction and social development reasons that

“higher education has a very significant role in the development of the societies – in terms of economic development, human development, gender-biased development, improvement in health, life expectancy, and reduction in fertility, infant mortality and poverty” (2003:11).

Hence some of these social indicators for higher education in regional development have been discussed below in more detail. These include human development, cultural and sustainable development, and higher education in poverty reduction.

2.4.1 Higher education in human development

The table below by Tilak (2003) presents a brief summary of the different aspects of human development.

Table 2.1: Coefficients of correlation between higher education and social development indicators

<i>Between</i>	N	GER (around 1990) [54]	HEA (Latest year) [34]
<i>And</i>			
Human Development Index (1990)	49	0.60309	0.55183
Gender Development Index	42	0.63454	0.55238
Gender Empowerment Index	11	0.60562	0.65397
Life Expectancy	54	0.52611	0.54091
Infant Mortality Rate	50	-0.46108	-0.46099
Total Fertility Rate	54	-0.56698	-0.47447
Poverty (International)	15	-0.56614*	-0.29956+
Note: Figures in [] refer to number of valid countries for which data are available; N: number of observations; r: coefficient of correlation Poverty (International): % of population below the line of income poverty of \$1 * statistically significant at 5% level; + not significant even at 10% level; all others are significant at 1% level.			

Source: Tilak (2003)

According to Tilak (2003), life expectancy and infant mortality as indicators of the human development index have a corresponding significant relation to higher education. He further argues that higher education reduces infant mortality rates as people with higher levels of education are more aware of the need for preventive health care. Tilak's analysis indicates that higher education has a significant relation to human development index as well as to the gender development index. This implies a direct proportional relation between the levels of higher education attainment (HEA) in the society human development index. Higher education is also considered to influence fertility rates from a dual perspective. The first view argues that higher education may bring in attitudinal changes on the need to reduce fertility rates to enhance development, while the second views higher education as a hampering tool in high fertility rates, as prolonged study periods may lead to delayed marriages, consequently reducing fertility rates. This has been witnessed in Japan and South Korea which have the highest levels of higher education and the relatively lowest total fertility levels of 1.4 and 1.5 respectively. By contrast, Nepal and Cambodia with higher education rates of less than one per cent of the population, have fertility rates of 4.8 and 5.3 respectively.

2.4.2 Higher education in cultural and sustainable development.

Regional access to cultural facilities at higher education institutions may be a more pressing issue in lagging regions that have a less developed educational infrastructure. This is observed where the university facilities are available for use by the local community. This may include health services, libraries, recreational and sports facilities. The university students also play a central role in entertainment provided in the region through comedy, live music and dance events, thereby having the potential to increase the overall 'popular' cultural reputation of the city or region (Chatterton & Goddard, 2000).

The social and cultural role of universities has also been highlighted by Silver (2007) who argues that universities have a leading role in the transformation and enhancement of their wider regions through the social and cultural facilities they provide. This has been captured in the quote below

Universities have a massive impact on their locality, not only as a result of the – often large – movement of people at the beginning and end of terms. Their social and cultural impact is felt through their provision of sports facilities, art galleries, cinemas and theatres, while as employers, and providers of skilled graduates, universities contribute to their local economies.... One of the core aims of UK higher education has been to meet the needs of the wider community, and the expansion of higher education has meant an increasing impact on that community⁶ (Silver, 2007:548).

One aspect that stands out clearly from this report and recent research on the contribution of HE to regional development, is the inclusion of the social and cultural dimension (Charles & Benneworth, 2001; Saha, 1991) as well as democracy aspects (Cross et al., 1999). When qualifying the contribution of HE to development, previous research topics were more limited to the economic aspects.

In the OECD (2007) report, it is argued that HEIs can engage with cultural groups to help build their capacity to better serve members. Facilities such as museums, libraries, galleries, orchestras, auditorium, sporting facilities, community radio and

⁶ Universities UK. "Universities: Engaging with Local Communities." Available from http://bookshop.universitiesuk.ac.uk/downloads/students_communities.pdf (accessed: 9 June 2006).

television form part of a cultural base which can contribute to the cultural development of a region.

The report further emphasises that HEIs can ensure environmental sustainability through a number of ways:

- generating human capital in the field of educating programmes for sustainable development,
- acting as a source of expertise through research, consultancy and demonstration,
- playing a brokerage role in bringing together diverse regional actors to the sustainability process,
- demonstrating good practices via on-campus management such as building design, waste minimisation, sustainable waste recycling, “green campus” initiatives, and offering recognition and reward incentives for staff to be involved in sustainable development programs in the regional community. (OECD, 2007:173).

Cortese (1999:1) supports this notion as he argues that “institutions of higher education bear a profound responsibility to increase the awareness, knowledge, skills and values needed to create a just and sustainable future”.

2.4.3 Higher education in poverty reduction

The knowledge society, knowledge economy and scientific research and innovation have been the main mechanisms in assisting development in the Western economies. Higher education in developing nations have according to Tilak (2003) shown a negative relationship between poverty and gross enrolment ratio (GER) into higher education. From Table 2.1 above, the statistically significant coefficient shows that there exists an inverse relationship between poverty and GER.

Higher education institutions in the OECD region have been able to assist rural communities in poverty reduction and alleviation projects. In the Netherlands, a rural enterprise initiative at the University of Twente supports innovative enterprises in agriculture, working with a local bank to make access to small loans possible to the

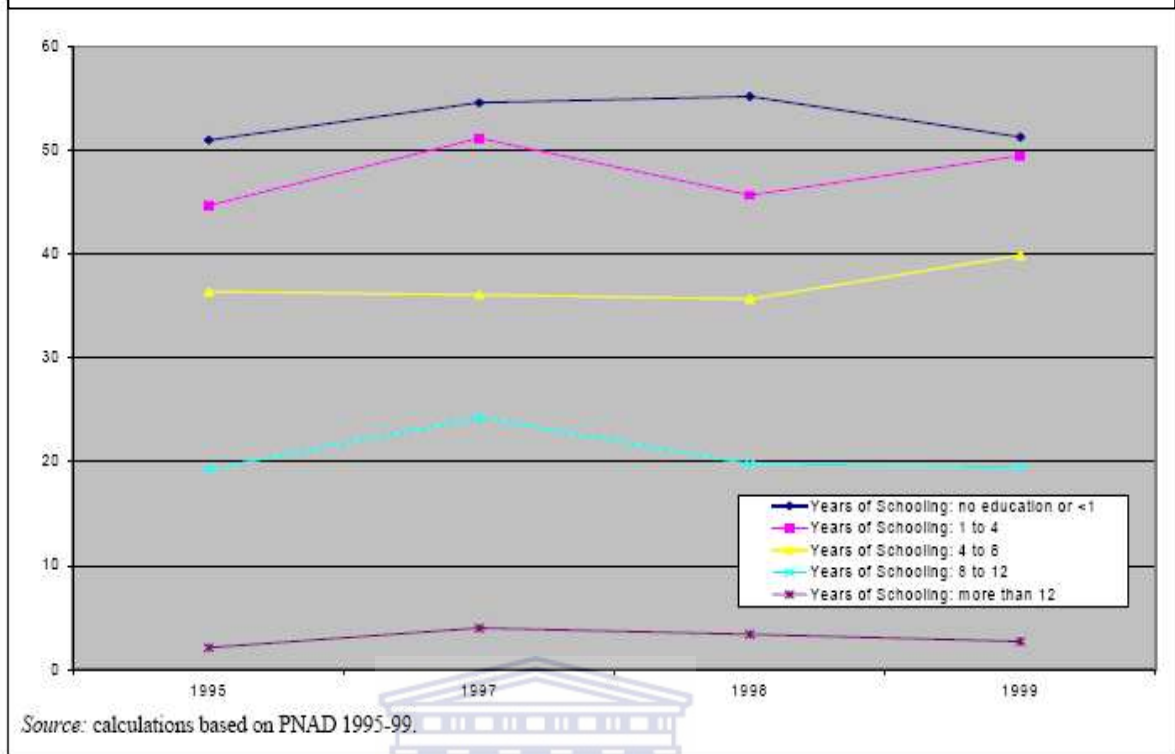
local community (OECD, 2007). This can be an example of a very good platform for agriculture inclined areas to tackle poverty and development in the African region.

University institutions have also approached poverty reduction through community engagement projects which have not only offered jobs to the unemployed but have also made it possible for new skills to be developed and marketed. In most university institutions, menial jobs of cleaning and security are filled by locals. This creation of jobs serves to alleviate poverty (Farrant, 2001).

Poverty reduction is also achieved through the skills acquired by local students who become better placed to engage in entrepreneurial activities in the region. It becomes easier for a university graduate to be able to engage in a business venture. This view is supported by the British Department for International Development (DfID) in its target of halving poverty by 2015. The department argues that “the elimination of poverty and progress towards sustainable development will only take place if there are increased and improved levels of education” (Harber, 2002:267). The reasoning behind this is largely economic and based on human capital theory: In enabling poor people to develop skills, education enhances productivity and provides an essential underpinning for economic growth. Without improved levels of education, sustained and equitable economic growth will not take place. There is a close parallel between the rates of economic growth of a country and the overall level of education of its economically active population. (DfID, 2000:2).

From a study carried out by Verner (2004) in Paraíba - Brazil for the World Bank on the role of education in poverty reduction, empirical data reveals quite clearly that there has been a widening in the gap between the poverty levels of the educated and less educated. From the data analysed as presented in Figure 2.3 below, there exist very large differences in poverty levels by education, with the poverty levels of people with some level of higher education being still very low.

Figure. 2.3 Poverty levels in Paraiba, Brazil by education level



The figure reveals that people with more than 12 years of education, which equals those with higher education, have the least poverty levels while there is a corresponding increase in poverty levels with a decrease in levels of education. Thus the higher the level of education, the less poor-prone the individual is. In general, it can thus be argued that though primary and basic education can be enough to keep one above the poverty line, their standards of living as well as conditions of living can be very much improved by secondary and higher levels of education which provides better social and private economic opportunities and benefits (Tilak, 2003).

The above section has thus presented the different arguments for higher education in development in its broad view and regional development with social and economic facets through which this development takes place. The next section presents a more detailed summary of these aspects and ushers in the conceptual framework section.

2.5 Summary of reviewed literature

The literature review section looks at the main arguments for higher education and its contribution to development and also present some of the identified gaps in the broad literature.

A summary of the various studies looking at the economic contribution as well as impact of higher education to development thus present us with the following key points:

- Though the actual role and contribution of higher education to development remains a complex notion in research, there is an increasing body of research and literature which sheds more light on the actual and potential role higher education has on economic and social development.
- The contribution of higher education to development has been considered through the aspects of human capital production, technological innovation, economic investment in the local economies, democracy advancement and the attraction of economic activities into the region by employers and other creators of jobs.
- Some HEIs have also responded to the need of regional engagement for development through managerial readjustment processes giving rise to new types of institutions (entrepreneurial) as well as new forms of engagement (tiers of engagement).
- The literature presents significant argument on the rates of return to education, with a growing though complex recognition of the high rates of return to higher education.
- The reviewed literature however presents a significant gap in the amount of research on the contribution of HEIs to regional development in sub-Saharan Africa which is a further motivation for the present study.
- Very limited studies have been done in Africa to measure the direct and indirect impact or contribution universities make to the immediate community.

The above review casts more light on the complex debate on the role, contribution and, even more so, the potential higher education has towards economic development for both private and social ends of a community. Through the literature reviewed thus far, a good platform for argument has been laid; where using empirical evidence from the case study, the researcher has been able to show how the contribution of higher education to the case study region reflects previous research carried out in other regions which have been reviewed as well as bringing in contributions of higher education in regional development which are diagnostic to the case study region.

The next section presents the conceptual framework on which the study will be framed and analysis of the data done. This has been done by an in-depth analysis of identified models of HEIs in regional development across major regions and how the case study fits – or not – into any of these regions.

2.6 *Theoretical framework*

2.6.1 Introduction

After looking at the different facets through which higher education contributes to both economic and social development, it becomes important to situate this research in a theoretical framework for analysis. For this to be achieved, the researcher has looked at the different models of engagement of HEIs in regional development. This has been done in order to develop a model and framework which is used to understand the dynamics at the case study institution in perspective of the broader picture that has been witnessed in other regions. Five models of HEIs in regional development have been identified.

2.6.2 Models of higher education in regional development

As previously mentioned, the experience of higher education institutions in regional development has not been the same across continents, regions, countries, counties and communities. Many reasons have accounted for this variation in trends. Some include differences in regional needs over time, lack of political and institutional will, lack of financial abilities, and cultural identities at particular points in time. Though not only in a bid to respond directly to regional needs, HEIs have undergone transformations from the Alexander von Humboldt notion of the university as a custodian and

conveyor of knowledge, wisdom and values, to new models which make the institutions responsive enough to remain relevant to the society which supports them, “particularly in relation to societal needs which require illumination by the creation and supply of knowledge” (Blažėnaitė & Tjeldvoll, 2007:202). These forms of responsiveness by HEIs in this research have been divided into five models identified as follows:

1) *Land-Grant universities in the US*

Starting with the case of the United States of America, regional engagement for development began with the Morrill Act of 1862 and 1890 establishing the Land Grant colleges of agriculture (McDowell, 2003) which received funding from government in the form of state land. Their key mission was teaching and research on agriculture while not ignoring other definite functions of universities. According to Graubard (1997, in McDowell, 2003), the uniqueness of the American concept of engagement needs to be emphasised, not only because of the Morrill Act and the innovation introduced by the land-grant principle with its emphasis on research in agriculture and many other fields, but also because of the concept of “service” which brought in a whole new meaning in state universities that pledged to assist their citizens in ways that had never been considered (McDowell, 2003:33).

The Land Grant universities did not only assist in service to the community, but opened doors to colleges for young people whose previous experience was primarily on farms, or in bakeries and factories. (McDowell, 2003:34). So besides its economic impact, land-grant colleges responded to issues of access in the American system at the time. Taylor (1981:37) argues that the land-grant principle brought in the concept of thought and action; he further stated that “it is the business of the university to demonstrate the connection of knowledge, art and practice” which hitherto had been limited to theology, the letters and law. The land-grant colleges therefore challenged the prevailing norms of scholarship by moving on to practical research.

According to Huffman and Evenson (1993), the success of the land-grant college system was sustained from 1920 to the end of the Second World War when there was the “Transition to Science” era in the American agricultural sector. McDowell (2003)

thus argues that the Land Grant system has been revolutionary in the history of higher education in three ways, namely:

- a. its classrooms and degrees were accessible to the working classes,
- b. its agenda of scholarship considered no subject beneath its purview, and
- c. it provided access to new knowledge for those who would never have qualified, nor wanted, to be in its classrooms.

According to Miller (2001), the land-grant universities that served to create and transfer science-based technology into use by agricultural producers is arguably ranked first of all the compelling scientific achievements contributing to human development and welfare in the United States in the twentieth century (McDowell, 2003:36).

The Land Grant principle: the power of engagement

The Land Grant colleges were founded on two principles of engagement which are quality and relevance of scholarship being practiced.

1) Engagement and the quality of science being practiced.

According to Kuhn (1970), scientists of Land Grant colleges were engaged in solving real practical problems at the time through their involvement in public service activities contributing to the advancement of discovery scholarship and the solving of theoretical problems. The Land Grant researchers were compelled to engage in problem-solving research thus increasing their skills and thus were able to provide workable answers to farmers' practical needs through objective and consistent research. The sustained funding and growth of the Land Grant research was based on the fact that their research was solving real life problems of the local farmers (McDowell, 2003). The Land Grant colleges were therefore actively engaged in providing quality research on the community's identified problems.

2) Engagement and the relevance of science being practiced

More important than the actual research from the Land Grant colleges is the level of relevance of the research that was generated by scientists in the colleges. McDowell

(2003:42) describes the difference in quality and relevance as “the quality of science practiced is different from the relevance of the science practiced”. Relevance has more to do with the scientific agenda and the usefulness of the products of that scholarship to the society. The issue of relevance in HEIs and regional development as witnessed by the Land Grant colleges has been emphasised by Sir Charles Wilson, principal emeritus of the University of Glasgow where he argues that “those who would make a whole philosophy out of ‘relevance’ would ...like the universities to come closer to the world of action and practice, and to sacrifice some of their detachment in favour of societal (regional) involvement” (Wilson, 1979:22-23).

This notion of the regional dimension of the university demands that part of university scholarship be aware of societal issues related to the particular areas of scholarship to be relevant. The Kellogg commission arguing on the future of the Land Grant universities states,

“we are convinced that unless our institutions respond to the challenges and opportunities before them, they risk being consigned to a sort of academic Jurassic Park – of great historic interest, fascinating places to visit, but increasingly irrelevant in a world that has passed them by” (Kellogg Presidents’ Commission, 1996).

This strengthens the argument that the success of the Land Grant universities was founded on a dual engagement principle of quality and relevance where the application of research and scholarship was fundamental in addressing relevant societal issues. This success of the Land Grant principle as applied to agricultural problems of the society can very much be applied to the regional development mission of larger universities. The emerging engagement will ensure that research universities play a larger and more vital role in the development of their societies and regions. The Land Grant principle could be very practical in the African context if the necessary precursors were put in place (McDowell, 2003).

Engagement of HEIs in Africa needs to begin from the top political structures. The AAU president Oloyede (in Gower, 2009:1) stated that “if African leaders continued to neglect education, the continent will not develop”. He further argues that “we need to carry our political leaders along. Through constant engagement, it is essential that

various African governments raise the benefits of education as the driving force behind sustainable development..." (Gower, 2009:1).

2) Research universities

The second model of higher education institutions in regional development has been the recent cases of core traditional universities in the development of their regions through scientific research, patents and spin-off industries. With the establishment of the Bayh-Dole Act in 1980 in the United States, universities were empowered to commercialise their own intellectual property. This ushered in the experience of Silicon Valley, and Route 128 in New England, assuming totemic significance in relation to the possibility of creating new industrial districts or regenerating older ones through strong links with research intensive universities (Goddard & Puukka, 2008). A related study carried out between 21 university research centres and nearly 200 collaborating firms, brings out four relationships between research universities and spin-off industries towards particular development pathways (Pillay, 2008b).

Type I relationship involves the creation of new science-based industries which depend greatly on the research university for various kinds of support, proactive technology, and establishing an identity for the new industry. The creation of this firm reflects the role of the university in regional development through its very presence in the region as well as in its engagement with the local firms.

Type II relationship involves the relocation of industries into a region because of the presence of a research intensive university which provides local manpower needs of the relocating firms via its student and staff population, and also provides technical assistance to local suppliers and sub-contractors. The attraction of the firms to the region also brings job seekers, thus increasing the amount of capital flow into the region and promoting regional development.

Type III relationship involves the diversification from existing less technological based industries to more technological based firms resulting from the technological links that have developed between a research intensive university and the local firm.

The university also helps to build the local identity of the industry as well as providing needed man power.

Finally, Type IV relationship involves the upgrading of the technological base of existing industries. Local research universities have the ability to contribute to technical problem-solving activities through contract research and consulting services, developing industry-relevant degrees and continuing education programs, and creating internships and best practice activities with the industries (Pillay, 2008b).

The main driving force behind these institutions is their capacity to make use of the 'new competitive advantage', which according to Best (2001) highlights regional development economics, the dynamic of which draws upon knowledge-based economy. This knowledge-based construction requires approaching development in different directions namely: economy, governance, knowledge infrastructure, community and culture (Cooke & Leydesdorff, 2006).

University spin-off industries as a model of HEIs in regional development have been significantly witnessed in the USA and western Europe. Examples of this are the University of Stanford, Massachusetts Institute of Technology (MIT), and the University of California, San Diego. Spin-off industries arose due to a constructed advantage in the knowledge economy, to a great extent reflecting the traditional Triple Helix Model of interaction, with the university transferring innovative research to the markets and the government ensuring that benefits from this research reach the regional population (Etzkowitz & Leydesdorff, 1998; Etzkowitz et al., 2000). Simha (2005) further highlights the regional role of these research institutions as he identifies five distinct functions of these universities in development which are:

- a. developing the regions human capital base,
- b. enhancing business development in the region,
- c. consumer of local goods and services,
- d. agent for economic development in the region, and
- e. research universities as community player.

The creation of research institutions also assists in ensuring the integration of other stakeholders in the development process. This was observed in Taiwan in the early 1970s where research institutions were accommodated under the Industrial Technical Research Institutions with the goal of delivering the country into a semi-conductor era (Agwara & Juma, 2005). Through cooperation with the private sector, these institutions have created science parks in the region, providing a typical example of regional economic transformation through technology.

3) *Entrepreneurial universities*

The third identified model of HEIs in regional development sees universities as entrepreneurs. In most European universities, their engagement in regional development has been through the notion of 'Entrepreneurial Universities' (Clarke, 1998). This concept has been described by Perlman et al. (1988:18) and the managerial change agents in a university are referred to as "academic intrapreneurs". These are individual successful academics who build significant research or teaching enterprises outside traditional structures, and are funded almost entirely from external sources.

Looking at the history of higher education with Europe being the host of most pioneer universities, the notion of regional and national development took-off with HEIs historically playing an important role in nation- and state-building. This was mainly in supplying states with educated human resources, building a national consciousness and identity, integrating national elites, and providing a national research capacity for economic and social development (Maassen & Olsen, 2007).

There has however been a major shift in this ideological construct of the European university to an increasing enterprising institution. The concept of entrepreneurial university in some literature is used synonymously with traditional innovative universities but according to Clark (1998) "entrepreneurial points more powerfully to deliberate local effort, to actions that lead to change in organisational posture, carries the overtones of enterprise – a wilful effort in institution building that requires much special activity and energy". Shattock (2005:17) argues that:

Entrepreneurialism stimulates external collaboration notably with industry and commerce, but not exclusively so, and reinforces academic performance by attracting additional resources and widening the research and teaching agenda. Such activity produces institutional self reliance and less dependence on the state.

Hence, while traditional universities focused more on research, patenting and innovation with very little organisational change, entrepreneurial universities witnessed planned transformation through the establishment of several innovative programs at smaller units rather than through the main administration as in research universities. This resulted in the creation of the Mode 2 university in which scholarship has a greater interest in problem solving research than on knowledge creation as in Mode 1 universities. This therefore, as already mentioned, entails wider adjustments in the organisation of the institutional units.

The entrepreneurial role of the HEIs in Europe has also been based on the principle of industrial clusters in which academic institutions adopted a more entrepreneurial role while firms developed an academic dimension. In this model of 'learning regions and industrial clusters', HEIs can play a role in the development of clusters through:

- 1) knowledge dissemination to related industries down the supply chain;
- 2) advice on policy and regulation to national and regional agencies. (OECD, 2007:34).
3. science-based discovery and new business formation;
4. direct advice to firms to enhance management capabilities;
5. provision of skilled labour; and
6. consumption of specialist supplies.

Another major aspect in entrepreneurial universities in most European countries, as recorded in the literature (Bridges et al., 2007; OECD, 2007), is the identification of these institutions by national governments as a tool for regional development. These institutions are created in order to preserve national population dynamics as well as to provide particular services to the local and regional population. This has been typical

in most Nordic countries, especially in Norway, where regional colleges have been created with the aim to ensure that these universities play significant roles in regional development and national integration. These colleges do not have the same status as full universities, but have a regional mandate to increase human capital in the region while forging active partnerships with the regional stakeholders, working towards regional development at different levels (OECD, 2006).

4) *Universities and Public Research Institutions (PRIs) as drivers of technological development – The East Asian experience.*

While universities in the USA and central Europe steered regional development through patenting and innovation, the role of universities in most East Asian economies was quite different – as they assumed the role of shapers of human capital formation (Pillay, 2008). These institutions focused on training highly skilled, technologically sophisticated graduates who could easily be employed by domestic firms seeking to break into the global industries, and by institutions steering regional economic development. A major aspect of the role of universities was the training of specific and required human capital resources which were immediately integrated into the economic system. This has been witnessed in the exponential growth of tertiary enrolments in Taiwan, China, and South Korea by the turn of the new century. As mentioned in the case of the Land Grant college system of local development, the engagement of HEIs must be of a quality and relevance to the local or regional need of the society (McDowell, 2003). This is also seen in the East Asian experience where the training of human capital was for specific and relevant employment in the national development agenda.

The PRIs drove national and regional development in Taiwan (China) and other East Asian economies as they gradually moved from imitation-based to fast-follower innovation (Pillay, 2008). This was mainly through the task of leveraging technology by public institutions and diffusing it to the private sector. These institutions did not focus much on fundamental scientific research but rather on evaluating available technologies. However recent policy changes in most East Asian economies such as Hong Kong, Singapore and China are aimed at promoting academic innovation

through institutional and organisational reforms to ensure a transition from imitation-based to innovation-based research. This could thus lead these emerging innovative economies to embrace the Bayh-Dole Act of 1980 of the USA, into patenting and the trading of intellectual property rights.

Summarily, HEIs in the East have been very instrumental in economic growth and catch-up of their regions and economies through the following:

- a. increasing access into HEIs which is still very lacking in other developing economies;
- b. engaging in relevant training of the human capital being formed;
- c. integrating university mission into the national development agenda, as most of the graduates are shaped to fit into the national firms; and
- d. leveraging technology.

These different policies and their application have been important in shaping higher education in the ASEAN economies to make a significant contribution to national and regional development. It should however be noted that very little social, cultural and environmental development has been mentioned about these institutions and hence must be considered in future development endeavours as well as in subsequent studies.

5). Universities as agents of local economic development and poverty reduction – a case of sub-Saharan Africa

The trend of higher education institutions in regional development in most parts of the developing economies of sub-Saharan Africa, Latin America and some parts of Asia, has been more of assisting local economies to reduce poverty, ensuring local economic development and assisting in local job creation, most often though without an institutional mission. Looking particularly at sub-Saharan Africa (excluding most of South Africa), the historical background on which HEIs were created now leaves the institutions with very limited capacity both financially and politically to make significant contributions to national or regional development (Mosha, 1986). With limited funding sources, limited infrastructure, and low institutional autonomy, the institutions have most often served the political agendas of ruling governments and their impact in regional development has most often been inadvertent (Sawyer, 2004).

With the higher and extreme need for African economies to catch up with other continents in the development process, compounded with the limited economic and political will of most African state governments, higher education in Africa has been called upon to assume a central stage in the development of the African continent. Development agencies (World Bank and IMF) which hitherto advocated for more primary and secondary education at the expense of higher education, have in the last decade placed emphasis on the need for higher education in the continent to assist significantly in the process of national and regional development if the continent intends to make any rapid progress (Bloom et al., 2005). Moshia (1986:118) endorses this as he argues that “development education therefore calls for universities to plan and implement programmes and projects that are relevant to national needs”.

Higher education in most African states is plagued with problems and challenges such as limited funding, poor infrastructure, low research quality and quantity, low staff remuneration resulting in staff exodus in search for “greener pastures”, high levels of government control, hence low institutional autonomy, over-crowded campuses, ambiguous institutional missions and other hurdles believed to have a hampering impact of the regional effect on the institutions (Moshia, 1986; Sawyerr, 2004). Bloom, et al. (2005) in their cross-country study on the role of higher education on the development of African states, observed that most African governments are integrating higher education in their Poverty Reduction Strategic Plans. Thus while higher education in the West and Transition economies are instrumental for economic growth, technological development and innovation, higher education in Africa is yet to assist its economies break through the poverty line.

2.6.2 Summary of theoretical section

In conclusion of this section it can be argued that the UB does not squarely fit in, or cannot be applicable to, any of the above mentioned university models. In as much as some of the institutions were established with definite regional missions for particular purposes of economic development and or edge-cutting research, the UB with a national mandate, has operated more on a regional scale while research and community commitment has been significantly limited to basic research which makes part of this study. However, though with little or no evidence, the argument continues

that UB has significantly contributed to regional development hence the establishment of the actual contribution of the UB to the development of the municipality remains a major objective of the study.

It will be inappropriate to conclude this section without highlighting key aspects of the different models of HEIs in regional development which have guided the conceptualisation of this research. While the five models have been presented differently for a better understanding of HEIs in regional development, it has been observed that some key aspects are common to most of the institutions. These aspects have formed the nexus through which this research has been operationalised.

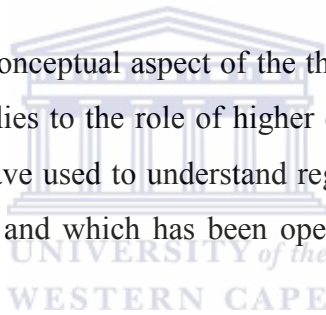
- The first key aspect as observed from the Land Grant universities which is also reflected in the entrepreneurial universities is the notion of engagement and problem oriented research. These institutions were created with a specific regional policy towards meeting local development needs. This was also observed in the case of the Nordic universities which were even termed regional universities.
- The Public Research Institutions (PRIs) in the south-east Asian region did not focus on mainstream scholarship for knowledge purpose alone, but sought to use the knowledge obtained in meeting problems of their contemporary societies. This resulted in significant contributions to the development of their regions.
- Entrepreneurial universities also significantly refer to the notion of university management as a major aspect in regional development. Hence for an institution to provide significant service to its immediate region, its management or institutional leadership must reflect that of a corporate organisation in terms of policy and practice.
- Entrepreneurial universities were seen to be good examples of institutions which have broken the ‘ivory tower’ usually attributed to universities and have

come out to provide services to their immediate communities thus enhancing development.

- The research universities highlight the triple-helix model where the relationship of the university with the state and market was kept in a balance so as to influence their society positively. These institutions were also seen as huge consumers of local goods thus increasing markets in the region and also becoming significant ‘community players’ in the level of involvement in community activities.

These aspects and attributes of universities in regional development have thus been observed in other regions and this research seeks to investigate how the University of Buea reflects these in its policy and practical endeavours.

The next section presents a conceptual aspect of the theoretical aspects of the Growth Pole concept and how it applies to the role of higher education institutions. This is a concept which economists have used to understand regional growth and development patterns in industrial sectors and which has been operationalised for analysis in this study.



2.7 The Growth Pole Concept

The Growth Pole theory conceived by English economist William Petty (1623-1687) and further elaborated upon by French economist François Perroux (in Gantsho, 2008) seeks to explain the process of economic growth in a spatial setting. This is done by understanding the process through which industries and economic institutions are grouped around a central core; and are able to impact economic growth (and development) for them as well as for the surrounding region (Bhandari, 2006). Perroux (1950; 1955) argues that in its early formulation of the theory, there is the assumption that growth does not appear everywhere at the same time, but it manifests itself in “points” or “Poles” of growth.

The Growth Pole concept has been viewed from a geographical space such as a city or region, which, because of its advanced development, serves as a core and is responsible for stimulating and transmitting economic growth and development to the periphery (under-developed regions). Though the theory was initially conceived in an abstract economic space, its later applications have been more geographically defined with specific geographical space such as cities or regions. For purposes of this study, the Growth Pole concept will be applied in the geographical setting of the Buea Municipality in the Fako division of the south-west region of Cameroon.

The reason for the application of the theory to the limited geographic region is two-fold. First is the fact that the concept has most often been viewed and analysed in a geographical space where there exist a clear division or level of interaction between the core region from where development originates into a peripheral region which benefits. In the argument of the university as a growth pole, the University of Buea is viewed as the core region whilst the municipality which was a typical rural region prior to the university is considered the periphery. This is also because looking at the south-west region in a broader context, it is only the Buea Municipality which has been significantly affected by the presence of this core (the University of Buea) to an extent which can both be quantified and qualified.

According to Davin et al. (in Gantsho, 2008), the growth pole is formed when an industry, through the flow of goods and incomes which it generates, is able to

stimulate the development and growth of other industries related to it; a concept referred to as ‘technical polarisation’. They further argue that this industry might as well be able to determine the prosperity of the tertiary sector by means of incomes it generates, resulting in what is also referred to as income polarisation, or stimulate an increase of the regional economy by causing a progressive concentration of new activities which they referred to as psychological and geographical polarisation.

Looking at the geographical aspects of the theory, the Growth Pole theory has been safely assumed to induce external economies in local firms – inducing growth not only through direct trading between firms and industries located in the same area but also through a structural change in the region (Gantsho, 2008). In this geographical argument, Waugh (2005) brings in the core-periphery relationship in the growth pole. In the relationship, the core forms the most developed and industrialised part of the country or region, while the less developed and rural areas form the periphery. In this setting, Waugh argues that either of two things will happen; either the core keeps growing and prospering, causing migrants from the rural areas to come into the prospering core region for the social and economic benefits such as jobs, medical and social amenities; or the second scenario takes place. In this second scenario, development and prosperity begin to spread from the core into the peripheral regions. Sometimes a second core region is formed and followed by many more secondary core regions; hence a growth pole is formed enhancing development in the region.

This second scenario which forms the basis of the argument for universities as growth poles has been witnessed in the USA as well as in Japan. In the conceptualisation of a growth pole Waugh (2005:569), argues that after the establishment of an industry in a region, “it may generate a multiplier effect”. This will be seen in its attraction of other forms of economic development, creation of jobs, provision of services and wealth in the host region – a case of ‘success breeds success’.

While most of the growth pole discourse has been limited to industrial regions and their capacities to transform rural and peripheral regions, this study seeks to argue that universities and HEIs have a similar capacity as industries and even possess an added advantage of serving as growth poles in regional development. Studies of university institutions in regional development (Carroll & Smith, 2003; Goddard & Puukka,

2008) have revealed that the presence of universities in particular geographic regions, have been critical in the development and transformation of their surrounding regions. Cross country studies as well (Bloom et al, 2005) have revealed that the presence of universities and higher education is vital to trigger and sustain economic growth in African settings.

Universities in Europe, sub-Saharan Africa, Latin America and the emerging Asian economies have been crucial in the development of their regions, through spin-off companies, attraction and retaining of human capital, increase in local GDP and economic activities, improvement of social services and infrastructural development as well as the promotion of sound values in the region.

Goddard and Puukka (2008:8) argue that “for those agencies charged with city and regional development, HEIs are

- a major business generating tax and other revenues;
- global gateways in terms of marketing and attracting inward investment in the private sector;
- generators of new businesses and sources of advice to existing businesses;
- enhancers of local human capital through graduate retention and professional updating of the existing workforce;...”

The above mentioned points are key points in the economic and social development of regions. This strengthens the argument that HEIs have the ability to liaise with regional and city development agencies to influence their immediate regions through growth points which can be applied to the Growth Pole concept.

2.7.1 Application of the Growth Pole concept

The Geography Dictionary (2004) defines a Growth Pole as “*A point of economic growth. Growth poles are usually urban locations benefiting from agglomerations of economies and should interact with surrounding areas, spreading prosperity from the core to the periphery*”.

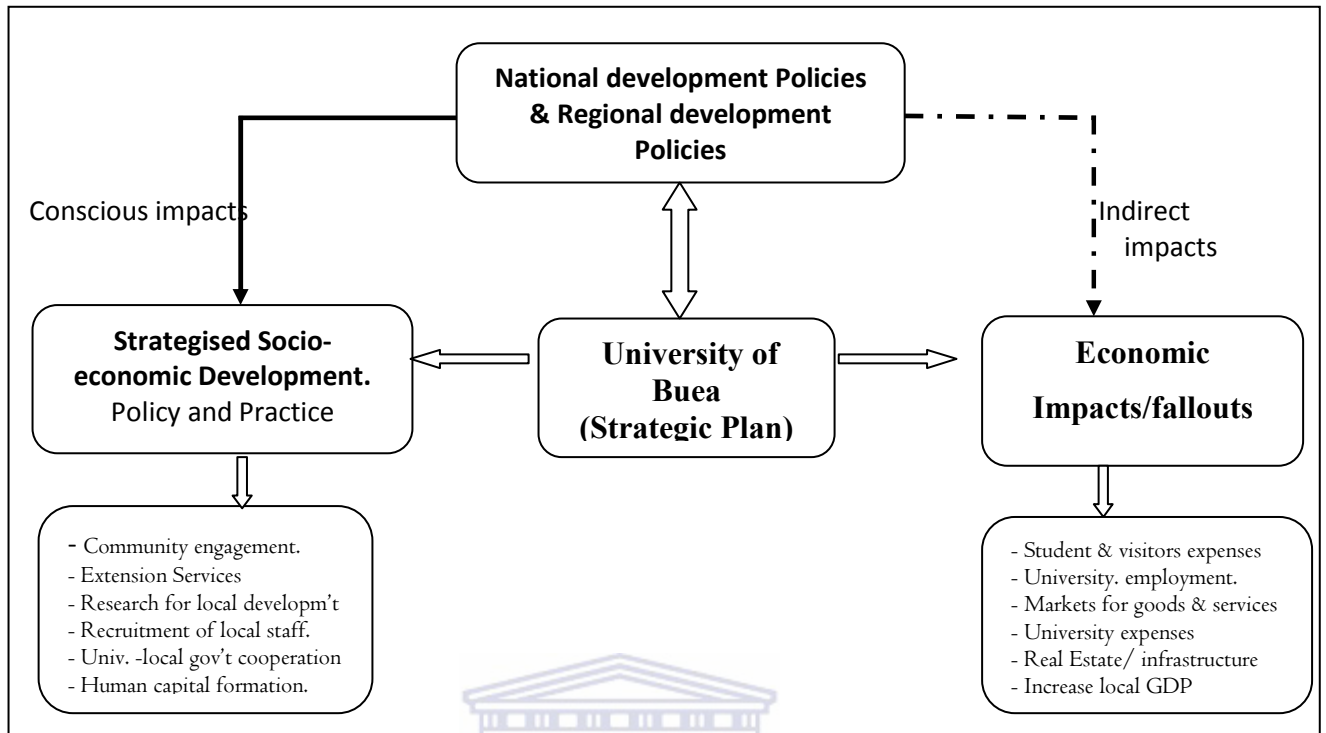
From the above definition, the growth pole is a region which has grown from the presence of an agglomeration of economic activities which are in interaction with one another, spreading outwardly towards the development of the larger region.

The use of this theory in this study makes the assumption that from the onset of the processes prior to the establishment of the university in the region, all the different localities were at the same level of economic growth and development. Using this assumption, it can be argued, thus, that the main difference in the level of economic growth between the university town and neighbouring communities is the presence of the university in the municipality.

This study will use empirical evidence to look at the structural changes that have taken place in the Buea Municipality and how these can be applied to the Growth Pole concept. The analysis will investigate the extent to which the University of Buea has acted like a major industry in the region, responsible for attracting other related industries and income into the region, resulting in what could be referred to as an 'economic active pole'. This will be done in correlation with the development policies under which the university was established. How these policies have oriented the activities of the university and subsequent transformation of the region will be assessed. Key indicators have been identified as shown in Figure 2.4 below which will be used as units of analysis of the data collected.

In concluding the theoretical discourse above, a summary of the conceptual framework for the study is presented in the diagram below. Figure 2.4 below is a diagrammatical description of the conceptual framework through which the study has been operationalised. In order to achieve the three-fold aim of the study and thus an understanding of the contribution of the University of Buea in the regional development of the municipality as indicated in Section 1.4, the analytical framework below has been used in the analysis of collected data.

Figure 2.4: Analytical framework of UB in Regional Development.



Source: Researcher



The analysis has been done with a keen interest on how national and regional policies have incorporated higher education in general and the University of Buea in development expectations. Key policy documents which have been identified are the national poverty reduction strategic plan, university decrees, the UB 1998-2003 strategic plan, as well as the Buea Municipal strategic plan for development. The second objective of the study aims at looking at the conscious efforts of the UB in building partnerships towards regional development, while the last section looks at the economic and social benefits just because of the presence of the university in the region.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter undertakes a detailed presentation of the process of empirical data collection and analysis. This has been done through a detailed discussion of the research design that was used to gain access to the relevant data as well as the data collection process from the conception of the study design, through the selection of the particular case study, the preparation of the data collection tools, the actual data collection process, data analysis as well as the limitations and challenges encountered in the process.

3.2 Research approach

Based on indicators used in similar studies to measure the contribution of HEIs to regional development (Batterbury & Hill, 2004; Farrant, 2001; Kettunen, 2004), a single research approach – either qualitative or quantitative – was not adequate in the data collection process. Therefore though the study is more situated in a qualitative setting, some quantitative methods have been applied to collect particular data. Quantitative methods of analysis have also been used for a better understanding of the contribution of the UB in regional development. The researcher adopted this approach in order to gain in-depth understanding from the multiple sources of information during the data collection process. This was done through the use of designed structured and semi-structured questionnaires as well as interviews.

Creswell (1998:15) describes the reasoning behind qualitative research as

...an inquiry of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants, and conducts the study in a natural setting.

He further argues that there are eight main areas of concern which the qualitative researcher must pay adequate attention to. These points were carefully observed during the entire research process. According to Creswell (1998) the first and important aspect of a qualitative study is that the research question must be of a 'how'

or ‘what’ nature; in the present study, the research seeks to understand “How the UB has contributed to regional development...”. Secondly, the research topic must have been explored in previous studies; and thirdly, this has to be demonstrated by an in-depth review of the literature. This was done in the second chapter of this thesis. Fourthly is the need to understand, through a detailed study, the individuals in their natural settings. This was observed during the data collection process as the researcher spent time in the region interacting with the natural setting. Creswell (1998:17-18) continues in arguing that the researcher in a qualitative study needs sufficient time and resources to spend on extensive data collection in the field as well as a detailed analysis of the collected text data. While he also requests that audiences must be receptive to the qualitative approach, the author demands that the researcher’s role be that of an active learner rather than that of an expert. Being an exploratory study, there is a wide range of issues which the researcher only discovered during the process of data collection and interaction with the respondents.

Routio (2004) argues that the thorough search of literature should be the starting point for exploratory studies. In this process, the researcher tries to situate the research into a previously used theoretical model. However, in the rare case where no previously used model is suitable enough for the study, exploratory case study research could look at the object alternatively, from different perspectives as revealed in the literature. This is also reflected as Babbie and Mouton (2001:80) state that “the most important research design considerations which apply here are the need (i) to follow an open and flexible research strategy and (ii) to use methods such as literature review...which may lead to insight and comprehension”.

3.3 Study design

Several research approaches such as impact studies (Batterbury & Hill, 2004; Carroll & Smith, 2006; Van Heerden et al., 2007), case studies (Farrant, 2001), Balanced Scorecard analysis, (Kettunen, 2004), cross country analysis (Bloom et. al., 2005; OECD, 2007), correlation studies (Bloom et al. 2005) and many others have been carried out to establish a relationship between higher education institutions and the development of their regions. The majority of these studies have individually been criticised for one methodological limitation or the other; the main criticisms being that

(i) they over focus on economic aspects with very little attention to the subtle social issues and (ii) most of the impact estimated has been amplified as institutions seek for increased funding. However, an examination of many similar studies as well as a close review of the literature argue that HEIs do contribute to regional development (Siegfried et al., 2007).

Creswell (1998:272), regards the case study design as “an exploration of a ‘bounded system’ (bound by time and or place) or a case (or multiple cases) over time through detailed in-depth data collection involving multiple sources of information rich in context”. In the present research there is a particular institution as case study and data was collected from multiple sources. Semi-structured questionnaires were administered to university administrators, municipal council administrators, local development stakeholders and to students of the University of Buea.

Osuala (1982:186) opines that the case study design should be used to gain in-depth understanding, replete with meaning for the subject, focusing on process rather than outcome, on discovery rather than confirmation. This agrees with Babbie and Mouton (2001) who argue that the design enables the researcher to build a hypothesis based on the happenings which have been observed in the field, rather than trying to test a pre-stated hypothesis; hence an inductive approach.

Yin (1994) argues that case studies can be either single or multiple-case designs, with the former used to confirm or challenge a theory, or also to represent a particular case. He further states that single case study designs are ideal for revelatory studies where the observer tries to understand a phenomenon which hitherto was inaccessible; these kinds of studies, according to Yin, require careful investigation in order to avoid misrepresentations.

Case studies of universities in regional development have been advocated for by previous research in order to understand the dynamics which are particular in specific regions. As stated by Harloe and Perry (2004:219-220)

“The nature of universities’ sub-national engagement varies cross-nationally... Not all universities are same, with the result that different approaches will evolve to allow universities to seize opportunities and

manage threats in their current environment. Consequently, more empirical case studies are needed involving different types of HEIs in different regional and national systems and circumstances.”

The choice of the case study design has been adopted from previous research (Batterbury & Hill, 2004; Carroll & Smith, 2006; Farrant, 2001) which has focused more on particular case studies than on a broader national system. This is also tied to the fact that regions are specific in their needs and expectations. The impact of higher education is argued to diminish as one moves further away from the host community (Bridges, 2007). Therefore the need to understand specific dynamics is only applicable to the study of particular institutions in the particular region, hence the choice of a case study design.

The advantage of a case study design in the context of this study as Denzin and Lincoln (2000:436) argue lies in the fact that it allows the researcher to optimise understanding of the individual case rather than generalise beyond.

The process of choosing a case study was not less exigent, but made use of relevant indicators from the literature. These indicators such as student and staff indicators, local job creation and employment, and university community partnership for development, were adopted by review of literature of other studies. Stake (1995) recommends that the selection process offers the opportunity of maximising what can be learned, while taking note of limited time and resources. Hence the selected case should be manageable with relatively willing subjects as well as respondents.

Case studies have been criticised for the fact that their findings can hardly be generalised; this argument questions the ability of findings of one case study to be valid externally. Furthermore, reporting of the findings could be highly selective, resulting in biased conclusions. These biases can be minimised by Yin's (1984) argument that this should not be the critical question but rather how well the researcher manages to generate theory from findings which is what the researcher has done. With regards to the question of generalisability, Denscombe (1998:37) argues that “the extent to which research findings from case studies can be generalised to other cases depends on how far the case study example is similar to the one being compared with”. *Relatability* of a case study thus could be considered to be more

important than generalisability (Bassey, 1981 in McAleely, 2007). This therefore implies that being a case study, the findings from this research cannot be generalised to other university regions in Cameroon or in the sub-Saharan region, but rather the way in which the methodology as well as the empirical dynamics can be related or compared to case study research in other regions when put in the appropriate context.

3.4 *Sampling size and sampling structure.*

The unit under study was the UB in the Buea Municipality in Cameroon and its role in the social and economic development of the region. For the objectives of the study to be met there was a need to include other sample units such as the municipal council, the students and other stakeholders in the regional development process. The reason for the inclusion of these secondary units was, first, for purposes of triangulation – where data on similar indicators under investigation could be collected from different sources, hence increasing reliability. Secondly, being major stakeholders in the development of the region, it was important to get a holistic view of the dynamics of development on the field. Some of this data cannot be obtained from the university alone.

Looking at the concept of sampling in qualitative research, Neuman (2000:196), argues that sampling is less rigorous in qualitative rather than quantitative studies as an understanding of the concept is more important than the sample size. As quoted below:

Qualitative researchers focus less on a sample's representative or on detailed techniques for drawing a probability sample. Instead, they focus on how the sample or small collection of cases, units, or activities illuminates social life. The primary purpose of sampling is to collect specific cases, events or actions that can clarify and deepen understanding... (Neuman, 2000:196).

The choice of the UB out of the seven state universities in Cameroon was informed by a number of reasons. Central to this is the fact that the University of Buea is the only university which as at 2005 had a strategic plan which can now be assessed in terms of regional engagement and its implementation. This makes the institution more ready for

a study which seeks to assess this strategic plan in terms of regional engagement for development.

Secondly, the UB stands out as a better example of ‘single player universities’⁷ in a peripheral region’ and thus according to Boucher et al. (2003), should be a major player in the region in terms of knowledge production and its economic impact in the region. UB is thus better placed for proactive regional policy formulation towards regional influence. This is due to the fact that prior to its creation, the municipality was in a typical rural village setting, and its present transformation could be attributed mainly to the presence of the university, which is one of the objectives of the study.

Also, the researcher, being a graduate of the UB, already has some fore-knowledge of the institution and the region which could be helpful to facilitate both data collection and ensure better qualitative analysis.

The UB is the only English medium university in Cameroon. A different choice would have presented considerable challenges in terms of communication (interviews and questionnaires) since the other universities have the French language as their *lingua franca*.

The data collected in this study therefore focused on four main target groups, which were considered vital for answering the research objectives as stated in the first chapter. These groups included the UB administrators, students of the same university, administrators in the Buea municipal council, and finally local development stakeholders, ranging from key informants to major development organisations in the region. The choice of these target groups will be discussed in a later section of this chapter.

3.4.1 Purposive sampling

The purposive sampling technique was used to identify respondents who were then contacted for interviews and also required to complete questionnaires. Targeted individuals included strategic government departments as well as university authorities

⁷ These are universities which have a major role to play in their regions in terms of knowledge production and economic impacts. They are usually the only universities in rural regions and thus have a huge contribution to make in the development agenda of the region. (Boucher et al., 2003)

who cannot be attained using a random sample. Interview schedules with officials in the Ministry of Higher Education as well as with university authorities would not be done on the basis of random selection as there are particular individuals responsible for particular tasks which are of interest to the researcher. This is argued for by Osuala (1982:127) as he states that “many sociological research studies focus on very specific subgroups of the population, for whom sampling frames are not readily available”. This sampling method was also central to the process of identifying key informants who have lived in the municipality for ten years or more and can give a better appreciation of the changes which have occurred in the region after the establishment of the UB.

Thus the deputy vice-chancellor in charge of research and collaboration with the Business World (DVC/RCB), four deans of faculties, five programme coordinators, and ten heads of department were targeted using the purposive sampling method for interviews and semi-structured questionnaires.

3.4.2 Stratified sampling

Neuman (2000:198) describes stratified sampling as the sampling of special subjects. This method is used to select specific cases which are particularly informative. It is also used when a researcher intends to identify particular cases for in-depth investigation. Though similar to the purposive method of sampling, the stratified method looks at a group of subjects who could have equal potential for information but cannot all be investigated; this is opposed to purposive sampling where most often only a very limited range of subjects are available for investigation.

Looking at the indirect contributions of the university to economic development, the different sectors which were interviewed and provided with questionnaires were business corporations, entrepreneurs, non-governmental organisations, hospitality services, financial services and transport services. These were stratified to increase the probability for each of the different activities to have an equal chance of being chosen. The stratified sampling process classifies all the target businesses into different categories and lists five potential targets per category or sector. Of the five potential activities in each group, three representatives were selected on a random basis for interview and data collection. This provided the researcher with fifteen different

business activities from which data was collected. Most of the respondents were managers and or owners of the enterprises. However due to time constraints and a limited financial budget, data was only collected from ten of the potential fifteen targets.

It should be noted that the major development stakeholders selected as target sources for data collection are those which were identified as having a major influence in the day-to-day activities of students and staff in the municipality and whose presence could be strongly tied to the presence of the university in the region. However, the data collection process was limited to just five main business types though many more could be of significance to the research question. This is due to two main reasons; first is the limited scope of the study, which is not very much inclined towards the impact in econometric terms but rather to gain an understanding of the complex dynamics in the region. The second reason has been attributed to limited available resources in the form of finance and human resource. The researcher thus decided to limit the potential stakeholders available to participate in the study to six main groups, namely business corporations, entrepreneurs, non-governmental organisations, hospitality services, financial services and transport services.

3.4.3 Systematic random sampling:

Students on campus were presented with a questionnaire on a systematic random base. The researcher trained two students to assist in the distribution of the questionnaires at two central areas on campus which were considered the most visited by students. Participating students were briefed on the research area and ethical issues of consent before the questionnaire was applied. The students were requested to fill the questionnaires and return them immediately in order to avoid the possibility that responses be influenced by others if the questionnaires were returned later.

Questionnaires were taken to student residences where they were distributed on a random systematic basis. This was done through the process whereby a first student apartment is chosen randomly, while the next residence is chosen after every five other residences. Students within the residences were chosen randomly by no particular criteria but by a systematic method where one of every five students rooms was administered with a questionnaire.

3.5 Data collection instruments

The data collection process made use of policy documents which were used as secondary data sources, a structured questionnaire which was administered to the UB students and three sets of semi-structured questionnaires for the UB administrators, the Buea municipal council respondents and local development stakeholders including key informants. Owing to the fact that some of the respondents were not comfortable filling in the questionnaires and preferred interview sessions, the researcher used the appropriate questionnaires to conduct interview sessions with these respondents.

The next section will present a brief description of the data collection process with the different collection tools.

➤ Document review:

For a better understanding of the subject under study, a number of policy documents were identified as being central to the understanding of the contribution of the UB in the development of the municipality. Three sets of policy documents were collected and reviewed. The policy documents collected for secondary data during this investigation include:

- ✚ The state Decree No. 92/074 of April 1992 transforming the Buea University centre into a fully-fledged university and Decree No. 93/034 of January 1993 organising the UB. Collected from the Ministry of Higher Education archives office, these decrees were assessed to determine the national mandate of the UB in terms of its contribution to national and regional development.
- ✚ The UB 1998 – 2003 strategic plan. Though the strategic plan may not be considered a policy document, it serves as a reflection of how much the university sets out to do for the community – how the UB has responded to the ‘third function of the university’ – and this can be assessed in terms of regional engagement for development and services to the community. This was collected from the office of the DVC/RCB’s office.
- ✚ The Buea Municipality strategic plan was also assessed to assess whether/not, and how, it incorporates the UB in its development strategy.

➤ **Structured questionnaires:**

Four hundred structured questionnaires were administered to students. Half of the number was administered to students on campus while the other half was administered to students in the off-campus residences. Students were encouraged not to fill the questionnaires more than once so as to ensure maximum representation of the total student population. The choice of the students as respondents was mainly to get an understanding of three main concepts as observed in the literature. First is the students and visitors expenses in the region, second is the ‘export and import substitution’ impact of the UB in the region as seen from the number of students coming from other regions to study in the UB as well as local students who would have gone to study in other regions, and lastly the concept of graduate retention and the economic activities of the students in the region and their views of the role of the UB in the development of the municipality. Though the concept of graduate retention would have been better understood by interviewing employers in the region, available resources required the researcher to limit the findings to student perception of remaining in the region on degree completion.

➤ **Semi-structured questionnaires**

These were divided into three major groups of respondents. The first was the UB administrative staff which included the DVC/RCB, five deans and vice-deans of faculties, five heads of department and three programme coordinators. The semi-structured, open ended questionnaires were aimed at assessing the level of understanding, interpretation and implementation of the ‘Community Service’ aim of the UB as documented in the 1998–2003 strategic plan. It also aimed to understand how this is being implemented by the administration and the level of University-community partnership from the perspective of the academicians themselves. Hence a total of ten questionnaires and five interviews with heads of department, deans, vice-deans and programme coordinators were administered and collected.

The second target group was the municipal council officials. The aim was to get the municipal employees’ assessment of the contribution made by the UB in the development of the municipality and also to assess university-local government partnerships for development; which has been argued for in the literature as a very

central aspect if universities and other HEIs are to make significant contributions to regional as well as national development (OECD, 2007).

Three interview sessions were obtained at the level of the municipal council. The first was with the secretary general who holds a less political post compared to the mayor who is more versed with the running of the municipal council over the years. This is because his position, as opposed to the mayor and deputies, is a much more permanent position and not elected five-yearly. The second interview session was with the head of works department who is in charge of all development projects in the municipality. While the last interview session was with the municipal treasurer who has a succinct knowledge of the economic dynamics of the municipality as he has worked in the office for the last thirteen years. It should be mentioned that an interview session was requested with the mayor, but as one of the limitations of the study, it was not possible to get an audience with the mayor in spite of the numerous visits and appointments made.

The third set of semi-structured questionnaires were administered to major development organisations in the area as well as to key individuals who have lived or operated in the municipality for at least ten years. The assumption behind the choosing of this group of respondents is that after living in the region for such a long time, they could better appreciate the social and economic changes that have occurred in the region and how instrumental the UB has been in this transformation. University-community cooperation was also a main finding in the questions addressed to these target groups. Data from five major organisations were obtained through questionnaires and interviews. These organisations include the South West Development Authority (SOWEDA), the Delegation for Rural and Community development, the Franco-Cameroon Alliance (AFC) office in Buea, and the office of the German-Cameroon technical cooperation for development (GTZ), all of which are actively involved in economic and social development activities in the region, and the Buea Out-Reach Program – an NGO committed to the development of rural women.

➤ **Field observation**

After spending four years in the case study region during undergraduate study, and about four months during the data collection process, the researcher had the

opportunity to witness some changes that have taken place in the region and which have been incorporated in the analysis for a better understanding of UB in local development.

The observations were focused on the daily interactions that take place between the students and the local inhabitants. Also important in the observation was the level of economic activity of the region during university sessions and when the university is on break or holidays. This was seen especially during the Christmas holidays and during semester breaks. However, biases were minimised by numerous sources of data collection.

3.6 Data collection process

It was necessary to obtain permission and authorisation for data collection from the different groups of respondents involved in the study. The ethical clearance was sought and received from the higher degree committee at the University of the Western Cape, and permission to conduct research was sought from the UB administrators, the municipal council officials and individual development authorities in the municipality.

The process of clearance and authorisation commenced with the University of the Western Cape where the data collection tools together with the informed consent forms and information sheets to be used in the study were reviewed and approved by the faculty. A copy of all documents is attached as Appendix 1. Next was the need for authorisation from the University of Buea where an appointment was made with the deputy vice-chancellor in charge of Research and Collaboration with the Business world (DVC/RCB) whose office was more relevant for the needed assistance. During the appointment session, an application requesting permission to collect data from the institution, with a brief description of the research proposal (aims and objectives), was presented to the DVC/RCB. At the end of the session, informal authorisation to collect all relevant data for the research was granted while a formal letter was being established. A copy of this letter is attached as Appendix 4. A request for a copy of the research findings at the end of the research paper was made by the DVC/RCB. This

was provisionally accepted depending on the project funders and the University of the Western Cape copyright regulations.

A copy of the covering letter and research summary was also sent to the registrar through the university mail services. After about three weeks an authorisation to work with the DVC/RCB for the data collection process was established. The first data, which was a copy of the 2007 Statistical year book of Cameroon's Higher Education, was thus collected from the office of the DVC/RCB. The researcher was then requested to obtain a temporary library pass to allow access to university documents as well as other library books which could be relevant for the study.

At the level of the community, permission for data collection at the Buea municipal council was not easily obtained as it had to be applied for through the mayor's office, a process which normally took about four weeks. Copies of the covering letter from the research supervisor alongside the information sheet and consent form (attached as Appendices 2 and 3) were presented to the mayor's office for authorisation to collect data through questionnaires and interviews of some key personnel at the municipality. After about three weeks, permission to collect data was granted. The secretary general at the council was assigned to the researcher for all the needed assistance; which was obtained through a semi-structured questionnaire, as well as secondary data in the form of a council strategic plan and some tax revenue records of the municipality. Revenue collection records for the past eighteen years were obtained from the municipal treasurer's office, with only two years omitted, and an interview session with a senior official in the council works department was also sought for and granted.

Permission to collect data was also applied for and obtained from other major development organisations such as the South West Development Authority (SOWEDA), the German Development Office (GTZ-office), the department for Rural and Community Development. These were all key targets for the collection of relevant data as they represent major stakeholders in the development process of the municipality.

3.7 Reliability and validity

The reliability and validity of the quantitative data was ensured by the collection of data from different available sources. The triangulation technique was used to ensure that the qualitative data could be compared and accepted if there was no significant difference, or discarded if significant differences could not be scientifically accounted for.

The reliability of the collected data was ensured through a series of processes. Firstly, the student questionnaires were distributed on a systematically random base. On analysis, this was a very close sample to that of the whole institution, as recorded in university official documents, as well as to the whole national higher education system. This indicated that the data could be considered a representation of the whole.

The validity of the data was ensured by the use of a pilot questionnaire study. Although a total of six lecturers were scheduled for the study, it was actually done with only four lecturers at the UB. This was due to the unavailability of the other two when the researcher was being pressed by time constraints. The lecturers were served with the questionnaire and an information sheet which provided a summary of the research process. Certain proposals and recommendations from some lecturers as to the ability of the questionnaire to collect the relevant data were effected. This ensured that the data collection tools were able to collect reliable data. A vivid example was the fact that since it was during an examination period, the data collection tool (questionnaire) should be adapted so that it could serve both as an interview guide as well as a semi-structured questionnaire. Since some of the target respondents might not be available for interviews, the questionnaire could be completed at home. Another important contribution was the fact that in investigating the UB strategic plan, the questions needed to be limited to aspects of regional development in the strategic plan.

The validity of the policy documents being used was ensured by the following arguments. Looking at the higher education system in Cameroon, the main policy documents which have influenced higher education are the April 1992 and March 1993 decrees which respectively created the state universities and organised the University of Buea. These policy documents thus provide a better understanding of the

recent dynamics in the higher education system in Cameroon. The use of the University of Buea 1998–2003 strategic plan instead of the 2007–2015 strategic plan was the argument that the former can be better assessed in terms of its implementation while the latter plan is still in its implementation phase and hence cannot be properly assessed in terms of regional engagement for development. This also applies to the use of the 2004–2008 Buea municipal council strategic plan which also served as a policy document under analysis.

3.8 Data analysis

Data analysis has been described by Mouton (1996) as involving two main steps. The first step involves reducing the collected data to manageable proportions and the second step is the identification of patterns and themes inherent in the data with specified variables in the data set, thus giving sense to the data. This is also supported by De Vos et al. (2002) who defined data analysis (qualitative) as the process of bringing order, structure and meaning to the mass of collected data. It is a messy, ambiguous, time-consuming, creative and fascinating process, and it does not proceed in a linear fashion.

The nature of this study employs both qualitative and quantitative methods of analysis. After the collection of qualitative data, the data was first roughly classified into major thematic headings for analysis. The digitally-recorded interviews alongside the qualitative open-ended questionnaires and notes from the researcher's jotters were transcribed. This transcribed material was later read time and over again with close attention being given to the different themes that have been identified for subsequent analysis. They were then coded in a tabular form into main indicators for subsequent analysis.

Analysis of the data was done mainly through a pattern-matching logic. Yin (1994) proposes that this pattern is used where the empirical data is compared with one or several alternative predictions. Though Yin argues against this analytical tool for a descriptive study, he states that patterns matching it "is still relevant as long as the predicted pattern of specific variables is defined prior to data collection" (Yin, 1994:106). In the study, the case study data has been analysed based on a comparison

with the different models of HEIs in regional development as established in Section 2.6. The pattern-matching logic will be done in conjunction with a repeated observation technique. The analysis can be done with the use of data collected from the various sources, allowing a repeated observation of the responses and data collected by triangulation.

Quantitative data was analysed using the Statistical Package for Social Sciences (SPSS); a process which evolved a series of steps from coding the data, entering the data into data sheets for analysis, cleaning, and finally running frequencies and cross tabulations. Univariate analysis was done for single variables in order to determine frequencies, central tendencies, dispersions and comparisons. Bivariate analysis of the data included the combination of two different variables in order to describe relationships and trends running through defined operationalised indicators (Babbie & Mouton, 2001). The Microsoft Excel programme was also used to run some bar and flow charts.

The data analysis was mainly descriptive. This allowed presentation of data in a more accurate and summarised manner, making for better understanding of the complex interactions between the various development stakeholders as well as the multiple indicators being studied. The descriptive statistics presents the analysed data, making use of frequency tables, charts and bivariate analysis techniques. According to Marshall and Rossman (1995), during the step of interpretation of the data, it is important that the researcher searches for other plausible explanations for these data and the linkages among them. These explanations must then be identified and described, to demonstrate how and why the explanation offered is the most plausible. Creswell (1998) argues that at this point in the analysis process, researchers need to step back and form larger meanings of what is going on in the situation or sites and look into more micro interpretations of the particular dynamics. This was a major tool used in the analysis and interpretation of the data discussed.

Two main analytical methods employed in the study, as used by Siegfried et al (2007), are the counterfactual method and the export-import substitution analysis method. These methods will be described in further details in Section 4.4, with the presentation of the relevant data.

Table 3.1: Summary of Research Methodology

Research question	Information sought	Data source	Collection strategy	Data Analysis
Policy expectation of UB in regional development.	Mandate of UB in regional development.	- National & Regional development policy documents. - University of Buea policy documents.	- Review of Policy docs. - Interviews (specific) - Document review.	- Data transcription and content analysis - Pattern Matching
Role of UB in regional Development	UB response to national & regional development expectations. UB / Local government cooperation	- UB strategic plan Mission statement - Municipal council - Council strategic plan.	- Review of UB strategic plan. - Interviews with UB admin - Interview with Council authority - Council reports review	- Data transcription and content analysis
Economic Impact of UB Entrepreneurship	- Student expenses on local economy - UB local expenses - Est. Of those depending on local economy - Indirect jobs to locals	- Students questionnaires - UB finance department - Local Businesses - Employee dependants - Entrepreneurs dependants.	- Random sampling and extrapolation of tot. Std Pop. - Secondary quantitative - Local head count. - Random sample interview - Random sample interview	- Coding, - SPSS frequency tables, charts. - SPSS frequency tables, charts. - Counterfactual. - SPSS frequency tables, charts.
University /community engagement. - research (Social Impact)	- Services to the community. - Teaching services to local Schools - HIV/AIDS assistance - Adult illiteracy programs - Environmental awareness	- Reports on community engagement research. (Departments, Faculty and Institution). - Locals in the community	- Semi-structured interviews with specific admin. personnel's. - Interviews with targeted locals. - Review of faculty reports.	- Repeated observations. - Pattern Matching. - Repeated observations

3.9 Ethical considerations

The conducting and reporting of scientific investigations requiring academic recognition demands that the researcher adheres to different levels of ethical obligations. For this study, three levels of identified compliance have been taken into account. These are: academic ethical considerations, professional ethical issues and

ethical considerations with respect to the subjects under study. The reliability and validity of the data and research process are aimed at conforming to the academic ethics of the University's research process. This has also been ensured by providing references for all previous research used in the study (Babbie & Mouton, 2001).

The data collection process was done in absolute adherence to subject ethical regulations of the University of the Western Cape. The data collection process was only commenced after the research proposal had been approved by the University of the Western Cape's Senate Research Committee. Upon approval of the research proposal the research only commenced after the researcher had complied with the ethical requirements at the faculty. This consisted of presenting the data collection tools, consent forms and signed information sheet, which compels the researcher to adhere to ethical issues related to confidentiality of the identification of the respondents as well as the appropriate use of the collected data.

Permission to conduct the research was requested and obtained from the UB administration, the Buea Municipality, Cameroon and other relevant organisations through the presentation of a cover letter from the university, researcher's consent form and a brief introduction of the research topic. Each questionnaire was sent out along with the information sheet and the consent form which introduced the research to the target respondent as well as indicated the commitment on the part of the researcher to confidentiality and appropriate use of the collected data for research purposes solely.

For every tape-recorded interview, the researcher obtained consent for the use of the recording device from all the interviewees. The interviewees also had the right to stop the recording at any point when information considered sensitive was being presented.

The data analysis was done using standard analytical procedures and tools, with the responsibility of ensuring that all gathered information was treated sensitively and confidentially. In further compliance with the UWC research ethical obligations, the researcher undertook to protect the identities and interest of all concerned, minimise misleading conclusions as well as obviate all forms of plagiarism. The researcher also undertook to submit the research findings to all relevant bodies where necessary.

Copies of the authorisation letters from both thesis supervisors and from the UB have been included as Appendices 1 and 2; while copies of ethical clarification letters from the faculty as well as from every respondent have also been attached as Appendices 3 and 4.

The researcher also agreed to comply with the professional ethical obligations of making the final results of the findings available to all the different bodies which were active in the realisation of the research. These included the University of the Western Cape, the data providing institutions, the funding organisations, the Centre for Higher Education Transformation (CHET), and the general public.



CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1. *Introduction*

The main aim of this explorative and descriptive study as stated in the first chapter is to understand the contribution of the UB to the social and economic development of the Buea Municipality. In the second chapter, a detailed review of the literature on higher education and regional development was presented along with a conceptual framework for the study. In the third chapter, an elaborate description of the research methodology as carried out on the field was presented.

This chapter focuses on the presentation, analysis and discussion of the collected data and how it answers the research aim and objectives. This is preceded by a background summary of the research area which includes a broad view of Cameroon as a nation state, followed by a description of the higher education system and finally a brief description of the UB in the municipality of Fako division of the south-west region of Cameroon. This brief general introduction is necessary to provide a contextual environment in which the research was done.

The last part of the chapter provides a summary of the main findings and discussions. The research findings have been discussed in relation to the theoretical perspectives presented in Chapter Two.

The collected data revealed three major themes. This section is therefore organised around the following themes:

- Higher education in Cameroon and brief overview of the UB in the Buea Municipality.
- National, regional and institutional policy expectations and demands on the UB in its contribution to regional development.

- The UB in regional development. This will focus on economic and social development contributions of the UB to the development of the community. This has been analysed in terms of levels of cooperation and community engagement.
- The role of the UB as a growth pole in the region, which will be a modest economic impact study. This point will look at the economic and social impact of UB in terms of businesses and services and visitors attracted into the region

4.2 General introduction to the study area

For the purpose of a better understanding of the contextual setting in which the UB and higher education in Cameroon is located, it is necessary to present a brief introduction to Cameroon as well as the Buea Municipality which hosts the university under study.

4.2.1 The Republic of Cameroon

The Republic of Cameroon is located in the central African sub-region. Cameroon is bordered by Nigeria to the west, Chad to the north, the Central African Republic to the east and Gabon, Congo Brazzaville and Equatorial Guinea to the south. The country has a population of over 18 million people and about 24 major languages. The most significant colonial legacy in Cameroon is the English and French bilingual and bicultural system which is also strongly expressed in the academic system and highly dominates public policy (Ngwana, 2003).

This bilingual system dates back to the First World War period when the English and French joined forces to oust the Germans who had been colonial masters since 1916. The country was divided into ten provinces shared between the English and French; with two provinces under the English and the remaining eight under the administration of the French. As was the case in most African countries in the early 1960s, French Cameroon acquired independence from France to become La Republic du Cameroon as it was called at the time. Following a plebiscite in 1961, the English part, then called the Southern Cameroon, opted to join their French counterparts instead of joining the Federal Republic of Nigeria, which was the other option. This resulted in

the formation of the United Republic of Cameroon, with the aim of consolidating the union as well as the integration of the two cultures.

4.2.2 Higher education in Cameroon

Higher education in Cameroon dates back to the early years of post independence starting in 1961 with the creation of the National Institute for University Studies which was established with the aim of preparing students for university degrees in Law, Education, Economics and Arts (Njeuma et al., 1999). Following the increase in demand for human capital to meet administrative needs, various HEIs were created. Among these institutions were the University Centre for Health Sciences (CUSS) created in 1969, the International School of Journalism, known by its French acronym ESIJY (École Supérieure Internationale de Journalisme de Yaoundé) created in 1970, and the Institute of International Relations and the National Advanced School of Engineering (Ecole Nationale Supérieure Polytechnique), both created in 1971. By Decree No 62/DF/189 of July 1962, the National Institute for University Studies was transformed to the first ever Cameroon University – University of Yaoundé. Thus by 1977, there existed two major forms of higher education in Cameroon – the general education at the University of Yaoundé including four new university centres, and the professional studies in the advanced professional schools (Njeuma et al., 1999).

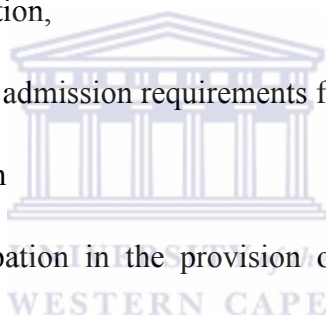
According to the 2007 Statistical Year Book of Cameroon Higher Education (MINSUP, 2007), higher education in Cameroon comprises six state universities, forty five private HEIs (including religious institutions) and the Ministry of Higher Education, which is charged with the mission of overseeing the higher education system. The Ministry of Higher Education performs a two-fold mission in the form of control and evaluation as contained in Decree number 2005/142 of 29 April 2005. The six state universities consist of the University of Yaoundé I and Yaoundé II (which originate from a split of the mother University of Yaoundé), the University of Ngaoundéré, the University of Douala, the University of Dschang and the University of Buea, the only English medium university.

The post independence period in Cameroon between the early 1960s and early 1990s has witnessed a higher education system facing many challenges as in most African and other economically developing economies. Obvious problems have been those of

access, academic infrastructure, autonomy of the institutions, language barriers and the use of curricula designed in the 1960s which have become obsolete for use in the 1990s. This has been compounded by an inability to respond to both the academic as well as the socio-economic needs of the local and regional population (Ndongko & Gwei, 2000; Ngwana, 2003).

According to Ngwana (2003), higher education in Cameroon was considered ‘sick’ and seen to have lost the impetus of quality needed to boost it in facing challenges. There was a dire need for a major policy change and the government responded in Decree No 92/74 of 13 April and its corresponding Decree of implementation No. 93/034 of 19 January 1993, instituting some major reforms in the HE system. Before moving to a more detailed look at the reforms of this policy, some key policies which were also promulgated by the 1992 university policy document include the following:

- University administration,
- University access and admission requirements for university studies
- University supervision
- Stakeholders’ participation in the provision of university funding (Ngwana 2003).



Looking at the changing demands on higher education in regional development, it is worth mentioning that so far, all public universities in Cameroon have been established as national institutions rather than as regional universities. Looking at the different models of universities in regional development as observed in Section 2.6, the UB, though not created with a regional mission, has evolved to ameliorate poverty levels while offering menial jobs to local inhabitant and creating a platform for the attraction of businesses into the region. With increasing expectations in socio-economic, local and regional development, and poverty reduction from higher education stakeholders and the society at large, higher education policy in Cameroon has shifted significantly to locate HEIs in national development needs. According to Bloom et al. (2005), the poverty reduction policy document in Cameroon has significantly acknowledged the role of higher education in poverty reduction as well as

in human capital creation needed for development. This will be presented in detail in Section 4.3 below.

The next section presents a brief description of the Buea Municipality and a presentation of the major features of the University of Buea, from its establishment.

4.2.3 The Buea Municipality

The Buea Municipality is a moderate economy with agriculture as the major activity of the local people. The population of the town in both urban and suburban rims, with settlements such as Molyko township, has grown rapidly over the last two decades from about 30,000 to about 200,000. The UB is located in this municipality, in the Molyko area (Buea Municipality, 2008). The municipality is endowed with two agro-industrial plantations – Cameroon Development Cooperation (CDC) and the Cameroon Tea Estate (CTE) – which have been the two major economic activities in the region, offering employment to locals as well as importing labour from other regions to work in the huge plantations. However, with the rapid urbanisation in the region in the last two decades, significant portions of the plantations have been replaced by urban settlement and other business activities, thereby reducing the economic impact of these corporations in the region.

Buea has an average economic setting typical of most African sub-Saharan economies with agricultural, administrative and small and medium-sized enterprises taking the central stage. A huge potential for tourism is being under-utilised. Agriculture is the main occupation of the local inhabitants as well as most inhabitants from other regions. Agriculture is very viable because of the fertile volcanic soils and the good climate in the region.

The Cameroon Tea Estate (CTE) and the Cameroon Development Corporation (CDC) mentioned above both produce and export their products to local and foreign markets. The banana plantations are operated by the CDC.

The financial sector is also witnessing an impressive increase in the number of banks, corporative societies and other financial houses dotted around the town⁸. This has

⁸ Annual Reports, Ministry of Agriculture and Development, South West Region (2008)

resulted in an emergence of small and medium size enterprises. The area also has the only English medium University in Cameroon, which has contributed to the rise in business activities around Molyko township where it is located. The municipality plays host to a good number of government employed civil servants and entrepreneurs who reside therein.

It should be mentioned here that the financial services, small and medium-sized enterprises and local businesses have experienced a rapid increase in the past decade and this has been seen in the agglomeration of these ventures in the Molyko township where the UB is located.

4.2.4 The University of Buea

The University of Buea (UB), the only English medium university in the country, was created after the 1993 Higher Education reforms in Cameroon when the then university centre for language studies (Advanced School for Translators and Interpreters – ASTI) was upgraded into a fully-fledged university which focused on Translation and Interpretations, Languages and the Arts. This was in an effort to reduce the already over-crowded University of Yaoundé which was the only university at the time.

The university was founded in 1993 with an initial population of approximately 2048 students which according to the 2007 Higher Education Statistical year book (MINSUP, 2007) has grown to about 11,866 students by the 2006/2007 academic year. These figure, however, differ from those in the UB strategic plan which records a take-off figure of 1978 and 10,203 in the 2006/2007 academic year. The university is composed of six faculties, namely the Arts, Education, Health Sciences, Natural Sciences, Social and Management Sciences and the newly created Faculty of Bio-medical Sciences. The UB currently runs on the BMP program hence offering Bachelors, Masters and PhD degrees in a wide number of disciplines.

The UB has witnessed challenges like most African universities in the form of inadequate infrastructure, insufficient teaching staff to meet up with the increasing student numbers, inadequate funding for research and teaching, limited autonomy of the leadership and limited collaboration with external stakeholders. In the midst of

these challenges and more, the UB has forged through in producing graduates and carrying out research at both fundamental and applied levels to produce knowledge while meeting local and national needs (UB 2007-2015 Strategic Plan).

4.3 Policy context for UB in regional development

From the review of the literature in Chapter Two, there has been an increase in global demand, expressed at national and regional levels across different continents and national states, for a central involvement of higher education in development. As argued by Goddard and Puukka (2008:8):

“this broadening of regional policy has wide-ranging implications for the expectations placed on HEIs by cities and regions. They are now expected to participate in public and private partnership and contribute to balance regional building.”

In the light of this argument, it therefore becomes important that a thorough investigation and analysis of the policy environment and expectations for HEIs be established if their regional contribution has to be succinctly understood. Being one of the objectives of this study, the following section presents a policy analysis of the demands and expectations placed on the UB in regional development.

4.3.1 Policy expectations for higher education in regional development in Cameroon

The development policy demands and expectations for higher education in Cameroon have been examined and investigated from different perspectives using different policy documents or references. From a brief look into the policy environment of higher education in Cameroon, it can be argued that HEIs in Cameroon have different expectations in terms of regional development. The policies used for analysis in this study have, however, been limited to those more concerned with universities. The policy's demands on technical and vocational institutions have not been considered in the scope of this study.

Table 4.1 below presents all the policy documents of interest to the study and how policy demands on higher education in national development have been expressed. The table is followed by a detailed discussion and analysis of these policies as they

have influenced higher education in general and the UB in particular, regarding their expected role in national and regional development.

Table 4.1: Policy expectations for HEIs and the University of Buea in its contribution to regional development.

Policy document reviewed	Broad expectation of higher education to national development.	Direct or indirect expectations from UB in regional development.
Cameroon Poverty Reduction Strategic Papers (PRSPs)*	i) Training to meet business practices. ii) Health Education (especially HIV/Aids) iii) University as an agent in poverty reduction.	i) Reflect the needs of the south-west region and the immediate Buea Municipality. ii) HIV/Aids sensitisation. iii) Reflect regional needs. iv) Assist in national poverty reduction in the region.
Cameroon Higher education Reform: Decree No. 92/074 of April 1992.	i) Creation of five new state universities (which included the UB) to increase access to state universities.	i) Increase human capital production for the national development.
Ministerial Decree No. 93/034 of January 1993 organising the UB	i) To contribute to national development and promote social and cultural values	i) Contribute to the development of the south-west region and promote the values of the Fako region.
Buea Rural Council 2004-2008 Strategic Development Plan	N/A	i) Improve education standards in the municipality.
UB Strategic Plan 1998-2003	N/A	i) The University is dedicated to service to the community.
*Source: Bloom et al. (2005),		

Source: Policy documents collected by researcher.

From the table above, the 2003 Poverty Reduction Strategic Paper (PRSP) has been used as the main national document to assess the national expectation for higher education in national and regional development. As indicated in the table above, this paper has recognised the role and potential of higher education in national and regional development. Main aspects in this expectation have been in the training of graduates, which will be relevant to the present needs of the society in terms of business. The paper acknowledges that if the economic and business life of the country has to be improved and maintained, HEIs and universities must play a vital role in training students in relevant skills to meet this challenge.

The second aspect reflected in this policy document is the call for the globalisation⁹ of the world problem of the HIV/Aids pandemic. Higher education institutions are expected by this policy document to contribute in the sensitisation of the public on issues relating to the disease. If this has to be done well, then each institution is expected to begin the sensitisation process from its campus, then its immediate community and subsequently the city and then the region, hence directly and indirectly contributing to social development of the region.

The last aspect in this policy document of major interest to this study is the expectation placed on HEIs as agents in poverty reduction. The document argues in no unclear terms that if poverty levels are to be reduced, higher education has to be actively involved in the process. This, in the literature, has been observed to take place in different ways which include provision of local employment, partnership with local suppliers and providers and graduate retention capacity of the institution. Further analysis of the case study will present a better understanding of how this has been achieved by the UB. Higher education is thus not only centred on training and education or sensitisation but is expected to make this knowledge more applicable and more problem-oriented so that it can meet the needs of the locals, hence reducing both economic and social poverty.

⁹ Linking of local areas to global realities (Barrows, 2001:306)

Review of the PRSPs of 31 African States, by Bloom et al. (2005:8-9) argues that “although some countries ...make some reference to higher education in their PRSPs, only three (Cameroon, Malawi and Zambia) consider it a way to reduce poverty”.

In the literature review (Section 2.4.3) above, poverty reduction was seen as a significant social development indicator which also has economic aspects to it. Higher education in Cameroon has been considered to be a significant way to contribute to poverty reduction in regional and subsequently national development. Higher education has thus been identified as a major target for increased funding so as to indirectly address issues of poverty reduction. Though no clear strategy has been established as to how increased higher education will be translated into poverty reduction, the literature already argues from other research that for every increase in the stock of higher education in a country there is a corresponding increase in the levels of development (Bloom et al., 2005).

Recent higher education reforms, have also expressed direct and indirect expectations for universities in meeting national development needs. The most recent significant university reforms in Cameroon are represented in Decree No 93/026 of 19 January 2006. This reform was aimed at broadening the participation of different stakeholders in the financing and management of HEIs in Cameroon. This was to be achieved through the following objectives:

- To provide universities with more academic and management autonomy.
- To provide all Cameroonians with equal opportunities to obtain university education.
- To expand and increase higher education opportunities and make university programmes more professional and more responsive to market needs.
- To make universities more accessible to local, regional, national and international communities.
- To decongest the over-crowded Yaoundé University by raising university centres to the status of fully-fledged universities, each with a specific mission geared towards an overall national development perspective.

- To revive and maximise inter-university and international cooperation.

It is worth noting here that there has been a conscious effort at the national level to bring in other stakeholders in the management of higher education in Cameroon. Higher education in Cameroon is, therefore, in a sense breaking away from the 'Ivory Tower' concept where the university was closed and looked upon as separate from the society. This breaking away from the ivory tower brings in the notion of an entrepreneurial university which engages the community and is concerned with community service and meeting the needs of the immediate society.

Decree No 93/034 of 19 January 1993 created the University of Buea as the only English medium university and defined the roles and provisions of the university. It clearly situates the university in a more national and international context, ignoring any regional dimension or expectation from the institution. Subsection 4-6 of Article 2 which stipulates the objectives of the UB states that part of the objectives will be to:

- contribute to national development and promote social and cultural values;
- establish co-operative links with other national and international institutions of a similar nature; and
- undertake any other activities appropriate for a university of the highest standard.

The three objectives emphasise the fact that the UB was created with a more national and international environment, with a very limited regional and municipal mandate. This has been the same situation in all six state universities in Cameroon where national mandates have dominated the university agenda.

The above policies lay a stronger emphasis for universities in national development needs than on regional development. As noted with the various models of HEIs in regional development in the literature review (Section 2.4), most of these institutions were established with regional missions. Regional universities in the Nordic regions, Land Grant universities in the USA, and public research institutions in the south-east Asian countries were mainly created and established with regional mandates. This therefore argues that in as much as the universities are being called to contribute to regional development, higher education policies in Cameroon still significantly view

higher education's contribution to development from a national perspective. With regard to their contribution to development, therefore, the institutions tend to view themselves more on a national than a regional scale.

4.3.2 UB response to policy expectation in regional development: the 'missing link'

It could be concluded from the review above that there have been a number of national and regional policies which in one way or another placed some demands on Cameroon HEIs as agents in regional development. However, a closer look at the development policies as well as the environment in which higher education and universities in Cameroon were created and established, present what has been referred to in this study as a 'missing link'. Analysis of the data presents a breach in communication between the actual or empirical contribution of UB in the development of the region and the stated mission of the UB – both at national and institutional levels. Looking at Section 2.6 which presented a detailed review of the different models of HEIs in regional development, there exist key aspects of policy in the identified models which in all the different models identified present a direct link between institutional policy and the actual contribution of the institutions to regional development. In these models it was clearly seen (as will be highlighted in the discussion below) that the various institutions made significant contributions to regional development in response to the various policies which guided them at their inception as well as in their area of activities.

Starting with the Land Grant universities in the USA, these institutions according to the Morrill Act of 1862 and 1890, were established as agricultural colleges with the main aim of assisting their regions to improve agricultural production through scientific research, geared towards meeting the needs of the post World War II era. There was thus a clearly stated policy which placed particular restrictions on the type of scholarship produced as well as the attitudes of the academics in the Land Grant colleges. Key aspects, which were tied to the Morrill Act, in the establishment of Land Grant colleges were the notions of relevance of scholarship and regional engagement of academics. This demanded that all levels of research and scholarship at the colleges

were to be relevant to the local contemporary needs of the society at the time and there must be a significant level of engagement with the immediate community for purposes of applying the research outcomes. The Land Grant colleges, therefore, followed this clear cut policy towards regional engagement for development; an aspect which has not been witnessed in the creation of universities in Cameroon and the University of Buea in particular and hence has not resulted in active regional engagement for development.

A recap of the history of universities in Africa, as seen in Chapter Two, explains that HEIs in most parts of sub-Saharan Africa (with the exception of South Africa) were generally created with more of a national than regional mission. As stated by Sawyerr (2004:4–5)

The new universities were expected to help the new nations build up their capacity to develop and manage their resources, alleviate the poverty of the majority of their people, and close the gap between them and the developed world. In this sense the establishment of the new universities was one element in the various efforts at nation-building...

This further provides arguments for the fact that while universities such as the Land Grant colleges in the USA and other regional colleges in Europe (as will be seen later) were created with clearly stated regional missions, most HEIs in Africa were created and operated with national missions, aiming for international challenges. This, from the policies reviewed in the previous section, is a similar situation with HEIs in Cameroon in general and the UB in particular which was created with a more of a national than a regional mission.

The second tier of HEIs as reviewed in Chapter Two are the research universities in the USA, which have contributed significantly towards regional development as observed in the MIT and Boston regions. The introduction of the Bayh-Dole Act of 1980 with a new set of policies, laid significant emphasis on commercialising intellectual property. This resulted in the creation of spin-off industries which were crucial in the application of the scholarship from the research institutions. Regions such as the Boston region with MIT and Route 128 all experienced significant transformation and economic development through the creation of commercial centres

for the application of university generated research. These spin-off industries created regional economic hubs, which generated poles of growth. What also becomes clear is that these institutions were guided by particular and clearly stated policies which enhanced their regional impact; an aspect which has been significantly absent in the policy review of UB policy in regional development.

Other cases of HEIs, which have been established and operated on a strong regional policy framework, are the regional universities in the Nordic countries with Norway being a typical example. According to the Act relating to Universities and University colleges 1-3, the university sector in Norway has, since its origin as university colleges in 1970, had a special regional mission (OECD, 2006). This has been witnessed with the creation of universities and university colleges in regions which experienced slow development. This was done with the aim that these colleges bring in innovation and research collaboration with local government that will enhance regional development. According to the 2005-2006 Norwegian National Budget for the Ministry of Education and Research, differentiation of HEIs has been established with the mission that

The universities are “to participate in social and business development by means of research cooperation, technology transfer and innovation” (page 142) while...

The university colleges are to “cooperate with regional working life to develop an educational provision that matches the competence that is required in the region” and “cooperate with regional actors in innovation, R&D and development work” (page 152).

The above extract clearly describes the practical implications for higher education policy in terms of regional development for regional colleges, which is different from universities and other HEIs. From the review of the policy documents in Section 4.3.1, all universities in Cameroon were created as national universities with no regional expectations from them. This can be argued as a major reason that has hampered the level of conscious contribution of UB to the development of the region as will be seen in Section 4.4 below.

It can therefore be argued that in most cases where HEIs in general and universities in particular have successfully contributed to regional development, it has been a strong practical response to already established policy at either the national or regional level

at the time of the creation of the institutions, or after. This has, however, been a significant disjoint in the UB case study where policy and practice have so far existed in a ‘disconnect’.

While from the UB strategic plan it can be read that, “the University is dedicated to the continuous quest for excellence, the promotion of moral and human values and service to the community....” (UB Strategic Plan, 1998–2003), there is little evidence as to the practical implementation of its community service mission. This is seen from the low levels of cooperation with the regional development stakeholders as seen from respondents on Table 4.2 below. Little or no practical steps or structures have been established to motivate academics into regional engagement for development.

4.3.3 Summary of policy aspects of UB in regional development

In conclusion to the policy aspects of the UB in regional development, a number of key points have been observed which are summarised below:

- The UB was established with a more national than regional mandate in terms of contributing to regional development. This significantly differentiates it from the models of HEIs in Chapter Two where the universities and HEIs were established with clear regional or local expectations for regional and local development respectively.
- Secondly, in as much as the UB was established with a national mandate, its 1998-2003 strategic plan reveals significant efforts to accommodate some regional needs in its mission statement. However, most of these aims and missions have remained at the level of paper work as very limited conscious efforts have been done at the institutional leadership level. Main contributions have been at the discretions of departments and individuals.
- A number of national and regional policy documents (PRSPs, the Cameroon Higher Education Reform: Decree No. 92/074 of April 1992, the ministerial Decree No. 93/034 of January 1993 organising the UB and the Buea 2004-2008 municipal council strategic plan) have, in different ways, recognised the potential of higher education in regional development and have expressed varied expectations from HEIs and universities in contributing to poverty

reduction and development. However, there has been limited policy towards the implementation of these identified potential avenues for regional contribution, thus limiting the role of UB in economic and social development of the region.

- For HEIs to assume their roles in contributing to regional development, policy must be well stated and academics must see themselves as regional actors with specific expectations at the regional level and not as national or international role players.

After looking at the policy expectations around which the UB has operated alongside the policy environment which surrounded other HEIs in their regional development efforts, it should not be concluded that the UB has not contributed to regional development. The next section presents analysis of data which reveals that UB, although created with a more national agenda, has provided significant economic and social contributions to regional development. Key social and economic indicators have been used to analyse the data in order to understand the university's contribution to the development of the municipality. For better analysis and understanding, the indicators have been separated into social and economic, and will be discussed separately.

4.4 The University of Buea in economic development

The analysis of the contribution of the University of Buea (UB) to the economic development of the municipality has been divided into sub-groups for better understanding of the different indicators used. These indicators as mentioned in the conceptual framework in Figure 2.3 include university cooperation and partnerships for regional economic development, business attraction into the region, job creation, students and visitors expenses and human capital development through graduate retention in the region. The next section presents the analysis of the collected data against the above mentioned indicators.

4.4.1 UB in business attraction into the region – the counterfactual

The counterfactual method of analysis was used to measure the amount of business activities in the region that have been developed and whose establishment can be strongly tied to the presence of the university in the region. The main aim of this

indicator was to measure how much “better-off” the region has become with the presence of the institution than it would have been without the institution. Siegfried et al. (2007) argue that for this to be measured effectively there is need to measure the portion of an institution’s economic activity that would remain in the local area even if the university was not there.

The counterfactual method used in university impact studies as applied by Siegfried et al. (2007) argues that in any similar impact study, the question to be asked is “how much better off are area residents with the institution there than they would be in its absence” (Siegfried et al., 2007:548). They further opine that for a proper regional economic analysis to be conducted, common economic indicators on the presence of the institution with predictions of those same indicators “but for” the university must be compared. This was done by comparing the actual to the ‘counterfactual’ outcomes. From such an analytical perspective, they propose that the portion of the institution’s economic activity which would remain in the local area even in the absence of the university, is not a net contribution of the university to the local economy and should therefore not be included in the final analysis. Hence, there is need of a capacity to determine what the economic situation of the area was prior to the university and hence how much development has since taken place owing to the institution.

WESTERN CAPE

For this prediction to be possible, the researcher decided to include two neighbouring areas in the collection of data on economic activities. This was done with the assumption that all three areas (both neighbouring areas and the case study region) were at the same level of economic growth prior to the creation of the university. Key business activities considered vital for the sustenance of students, staff and visitors in the region were identified and counted in the university area and in the other two selected regions, which could be referred to as controls.

Table 4.2 below presents the views of some of the business respondents on their perception of UB’s influence on their business activities

Table 4.2 Business respondents perception of UB in regional development

SN	Issues	Response	
1	Was UB a significant factor in the choice of Buea for your business site?	No	25
		Yes	75
2	Do the UB students, staff and visitors form a significant part of your clientele?	No	16
		Yes	84
3	Do you employ more locals or people from other regions?	Locals	60
		Others	40
4	Is your business affected by UB holidays and semester breaks?	No	5
		Yes	95

Source: Field Interviews

From the table above, it can be strongly argued that the UB was a significant contributor to more than 75% of business respondents who are located in the municipality. The remaining respondents could be attributed to locals or indigenes who have taken advantage of the presence of the university to establish local businesses. Almost all of the business respondents attest to the fact that their economic turn-outs are strongly and negatively affected when the university is on holiday, a break, or in the few periods when students have been on strike. According to some respondents, they have most often used the long holiday periods as well as the December break period to do their own personal visits and travelling out of the region. This as they argue is

‘because during these vacation periods almost all the students are away and business becomes very very slow’.

One of the few business sectors which do not experience this drop in activity are those involved in building construction who on the contrary work more during holiday periods when major repairs are done on residences as well as more construction taking place.

An interview with one of the business owners in the region agreed strongly with this as he stated that

“We actually exist because of the presence of university students”.

Another entrepreneur when asked about the factors which affected the establishing of his business in the region attested that

“I have been operating here since 1996 and it was only after I saw the growth in student numbers and population in Buea that I decided to establish in Molyko”.

These statements from two different business operators agree with Table 4.2, reasoning that the UB is a key factor (75%) in determining the destination of most businesses into the region as well as providing a ready market for the business. Though not within the scope of this study, a multiplier-effect study will be interesting to determine how many people depend on these businesses for survival. This would provide a more holistic appreciation of the social and economic contribution of the UB in regional development of the municipality in particular and the Fako region in general. The UB is therefore seen to be a strategic element in the establishment and success of majority of businesses in the region.

Table 4.3 below presents us with what Siegfried et al. (2007) refer to as the ‘counterfactual’ of the different businesses in the region. The counterfactual, they argue, is the number of economic activities whose presence in the region can be directly attributed to be a result of the presence of the university. This argument is made on the assumption that prior to the establishment of the UB in the area, all the neighbouring small towns were at relatively the same economic level and thus would have evolved in a more uniform manner. Hence the reason for the difference in the number of economic activities in the university town can most reasonably be attributed to the presence of the university which has further served as an economic core, pulling in students, staff, visitors as well as other businesses into the region.

A major limitation that has been encountered using the counterfactual method in this study is the fact that there was practically no data on the economic and social situation

of the area, including the three townships involved, prior to the creation of the university in the region. This may limit the validity of the argument of the impact or contribution of the UB in the region's development. This could also result in an over-estimation of the economic impacts and indicators being studied.

As argued by Siegfried et al. (2007), the counterfactual method of analysis in most impact studies requires a delineation of the geographic borders around which the impact will be estimated or measured. This presents the challenge to determine with certainty the extent of the impact of the university and the need for consistency in the analysis. This limitation has been overcome by limiting the counterfactual analysis to the Molyko township instead of the whole Buea Municipality. This has been done with the argument that the impact of the UB in the region is significantly felt in the Molyko township where there are obvious changes and where the 'reverse' impact of the university can be felt during university vacations when economic activities almost come to a halt. The analysis has been done along side two neighbouring townships which according to interview sources were almost parallel in development levels prior to the creation of the UB in the municipality.

In the counterfactual table below (Table 4.3) three different counts for the same business activities were carried out in each township by the researcher and the two trained assistants. This was done in order to ensure reliability of the data as the accuracy of a single count could not be verified. The researcher therefore decided to conduct three independent counts with the assumption that the average of these three counts would provide a better representation of the actual situation in the study area. Data from the Regional Department of Trade and Commerce was not used for two main reasons. First, the data was not up to date and secondly because most of the business activities had not obtained full registration or business permits, though they were actively contributing to the economy of the region and could not be ignored.

As indicated in Table 4.3 below, the Molyko township has a significantly high number of financial institutions as compared to other townships. During interview sessions with some of the bank managers, they attested that more than 80% of their clients were university students who either collected money sent by their parents locally or from relatives abroad. They also admitted that the presence of the university and the

students as seen in Table 4.2 was a significant factor for the location of most of the business representatives interviewed. The presence of microfinance institutions in the municipality has also been a big boost to many small business enterprises and entrepreneurship through the accessibility of loans for small and medium-sized enterprises which have witnessed a rapid growth in the region.



ECONOMIC IMPACT ANALYSIS FOR BUSINESS ACTIVITIES.

Table 4.3 Count for economic activities in the Molyko Township

Indicators	Restaurants	Bars	Hair Saloon	Financial Institutions.	Cyber Cafés	Provision Stores	Local Publishers	Call boxes	Bookshops	Tailors
count 1	80	83	130	14	21	130	96	315	8	50
count 2	73	97	126	16	25	119	88	330	7	54
count 3	89	80	134	13	24	146	113	322	7	47
Average	81	87	130	14	23	132	99	322	7	50
Avg. No. of Jobs Created each	6	3	3	5	5	5	4	2	3	5
Total jobs	484	260	390	72	117	658	396	645	22	252

Counter count for economic Impact -Muea (Neighbouring Area 1)

Indicators	Restaurants	Bars	Hair Saloon	Financial Institutions.	Cyber Cafés	Provision. Stores	Local Publishers	Call boxes	Bookshops	Tailors
count 1	26	23	30	0	1	40	6	44	1	24
count 2	42	30	42	3	1	37	9	55	1	30
Average	34	27	36	2	1	39	8	50	1	27
Avg. Jobs Created each	3	2	2	4	2	2	2	1	1	3
Total jobs	102	53	72	6	2	77	15	50	1	81

Counter count for – Bomaka (Neighbouring Area 2)

Indicators	Restaurants	Bars	Hair Saloon	Financial Institutions.	Cyber Cafés	Provision. Stores	Local Publishers	Call boxes	Bookshops	Tailors
count 1	19	10	23	2	1	29	1	45	0	5
count 2	14	14	17	2	1	26	2	47	0	6
Average	17	12	20	2	1	28	2	46	0	6
Avg. Jobs Created each	4	2	3	5	3	3	2	1	2	5
Total jobs	66	24	60	10	3	83	3	46	0	28

Difference in Number of Businesses in University area and the Control area.

The Counterfactual.

Indicators	Restaurants	Bars	Hair Saloon	Financial Institutions.	Cyber Cafes	Provision Stores	Local Publishers	Call boxes	Bookshops	Tailors	TOTAL
Molyko Township	81	87	130	14	23	128	99	322	7	50	941
Neighbouring region 2 (Bomaka)	17	12	20	2	1	28	2	46	0	6	134
Difference in Averages.	64	75	110	12	22	100	97	276	7	46	807

Source: Field Data

Analysis of the data presented in the table above reveals that there is a total counterfactual of about 807 additional business activities strongly tied to the presence of the university in the region.

The second township (Bomaka) with lesser economic activities is used based on the argument that due to the growth pole effects, the first township has already started benefiting from the presence of the university hence a better counterfactual will be obtained by using the second township which has not significantly began to feel the influence of the economic growth in the university township.

This counterfactual figure is obtained by subtracting the total number of business activities in the neighbouring township 2 (Bomaka) from the total business activities in the university township (Molyko).

A closer look at the table above reveals that call boxes and hair saloons form the two most prominent business activities in the municipality. Looking at the presence of the UB as a source of poverty reduction, it can be seen that these two business activities do not need significant capital to start operating, and they tend to provide quick returns as students are constantly having their hair cut, plaited or styled. As stated by Siegfried et al. (2007), “universities are engines for economic development...”. From the above evidence, this statement can be applied to the Buea Municipality because of the many economic activities that are operating there and which could be directly and indirectly tied to the presence of the UB in the region.

Comparing the data with that collected from neighbouring regions indicate significantly that the presence of the UB in the Molyko area has had a major bearing on the levels of development, transformation and poverty reduction in the region.

The counterfactual method has been strongly argued for in methodological designs to prevent over-estimations of university impacts. However, an isolated rural college or university is likely to be the sole attraction to its students, and thus could reasonably be credited with virtually all of the economic impact stimulated by the presence of the students and staff (Siegfried et al., 2007). This could be a very valid argument for the UB in the Buea Municipality which has undergone a very steep social and economic transformation in the last decade and which arguably can be as a result of the presence of the university as seen from the analysed data observed in Figures 4.3 and 4.4.

4.4.2 The University of Buea in local job creation – counterfactual II

As in most impact studies involving the impact of HEIs, their role in local job creation has always been very significant. While the majority of studies have combined all university employees as well as local or indirect employments to represent the contribution of the local university, some researchers have argued that in impact studies, only jobs which would not have been created without the university, and for which credit should be attributed to the university, should be considered for analysis. This is highlighted by Siegfried et al. (2007:549) as they argue that “hardly any economic impact studies separate the effect of the institution on residents attracted to the area by the institution from the effect on those who would have resided there anyways”.

The data collected for analysis in this study, was thus collected against the background of an assumption that all local jobs which do not have a direct bearing on the local inhabitants will not be considered. This includes all the administrative staff at the university as well as the teaching staff. Though some of these are locals, for the purpose of consistency and analysis, they were not included in the sample size. The researcher divided the impact into direct and indirect jobs created by the university. Direct employment included support or contract staff at the university (such as the cleaning staff), those employed by the university in its building projects as well as the number of on-campus business ventures which recruit local residents. Indirect employment included the employment of local residents by business enterprises most of which were university suppliers or doing business with the university. Those who were indirectly employed included those who were employed by other business activities in the region. Most of these were not actively involved with the university but made use of the ready market – students, lecturers, and visitors to the university. For purposes of a consistent set of indicators of measurement, the enterprises used in the previous section were considered as employers creating indirect employment for the local residents.

From the analysis of the 2008 university statistical book, about 30% of all the administrative support staff (which includes departmental secretaries, administrative assistants, faculty assistants), are local inhabitants of the community. More than 50% of the cleaners and drivers on campus are local inhabitants of the community, and it can be strongly argued that a significant number of them would have been unemployed or underemployed without the university in the region.

When asked about the benefit of the university in the region, one of the university workers observed that

“the university has provided us with an opportunity to earn a regular salary through which we can increase our monthly benefit since we also do some small business around”

This is a response from one of the cleaners on campus who attested that with his basic education level and low formal academic qualification the need to go to other towns in search for work has been minimised by the presence of the university. Hence, the university is assisting locals with basic skills in getting menial jobs which provides them with daily subsistence.

What according to one of the respondents is more interesting, is that as a worker in the university, she has gained access to a university degree while employed as a contract worker. This has granted her access to university qualification, thus increasing her personal value and hence her monthly earnings.

“I have been working in the university for eight years now, and during this time, I have been able to get an advanced level certificate and also just completed my degree programme in Sociology and Anthropology”

Hence while creating direct jobs for the locals, the university has also provided them with the opportunity to improve on their social and academic levels.

Looking at the indirect jobs created by the university, the ten major businesses were interviewed to establish how many people are employed by each of the different businesses. An average of the number collected was calculated and later multiplied by the average counterfactual of such businesses in the university area to provide a broad estimate of the number of counterfactual indirect jobs created by the presence of the university which would otherwise not have been there.

Table 4.4 below provides us with an estimated number of indirect jobs created by the University of Buea in the Molyko township. From the data collected by the researcher and assistant trainees in the field, as well as from interviews with business owners, calculations of the number of indirect counterfactual jobs created by the university related activities reach close to 3000 on an annual base. Indirect calculations of multiplier effects of the impact of these jobs on the families could produce most interesting impacts. However, such calculations go beyond the scope of this study.

Table 4.4: Estimate of indirect counterfactual jobs created by the UB

Indicators	Restaurants	Bars	Hair Saloon	Financial Institutions	Cyber cafes	Provision. Stores	Local Publishers	Call boxes	Bookshops	Tailors	TOTAL
Molyko Township	81	87	130	14	23	128	99	322	7	50	941
Neighbouring region 2 (Bomaka)	17	12	20	2	1	28	2	46	0	6	124
Difference in Averages.	64	75	110	12	22	100	97	276	7	46	817
Average Number of Jobs Created each	6	3	3	5	5	5	4	2	3	5	41
Total Jobs created	384	225	330	60	110	500	388	552	21	230	2880

Source: Field Data

The sum of all the various categories results to above 2800 indirect jobs created and added by the University of Buea in the Molyko township hence, a significant contribution to the local economy.

It should be noted that this was just a count of the major business and economic activities in the region whose presence are strongly linked to the presence of the university and related activities in the region. However, there are many more minor activities which could not be included in the present study.

This does not also take into consideration direct jobs created by university employment, and also does not take into account multiplier effects.

4.4.3 University spending in the region

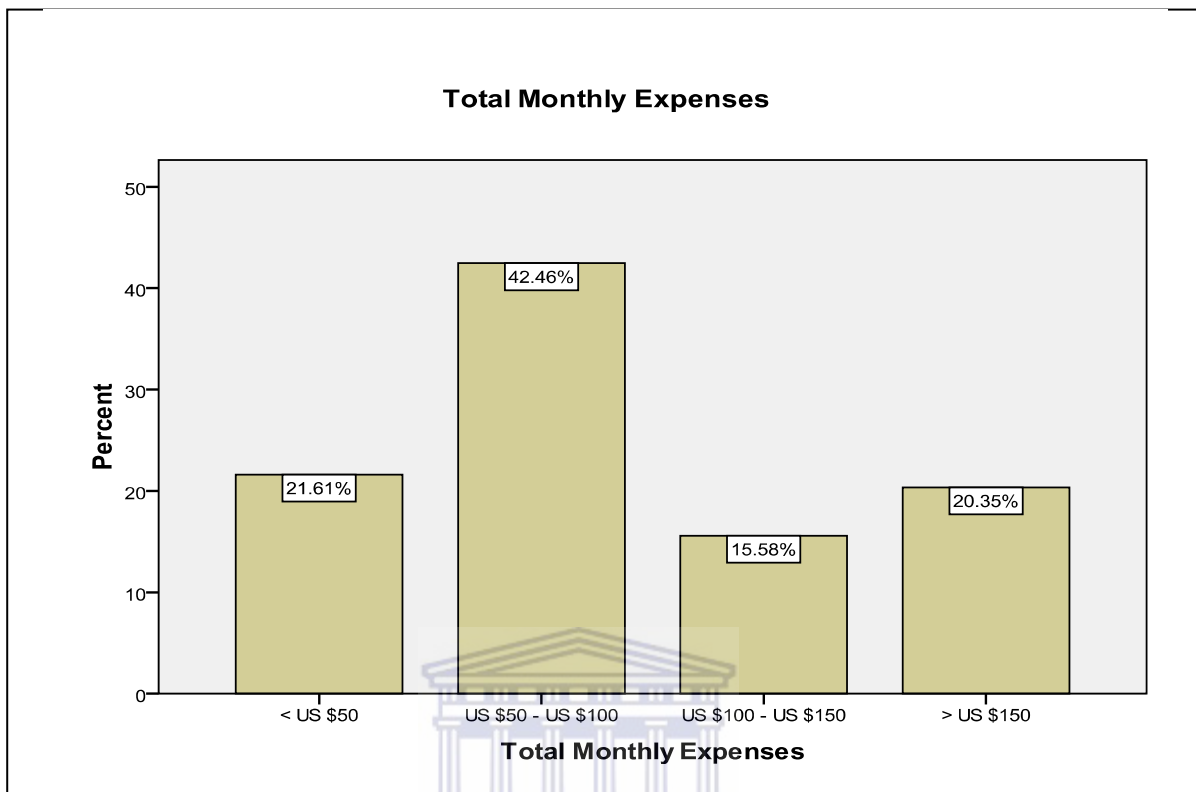
As stated by Carroll and Smith (2006), the economic impact of a university can be attributed to five main spending types. These include capital improvements, operating expenditures, employee spending, student spending and visitor spending. While Carroll and Smith attempt a brief estimation of these indicators, other studies such as Brown and Heaney (1997), and Rois et al. (2002) have limited their studies to student and staff expenditures due to the difficult nature of estimating visitor spending, arguing against the use of capital improvements as well as operating expenses which are seen to over-estimate the economic impacts. In this study, the researcher limited the indicators to student spending and attempted to establish an approximate estimate of the amount of visitors' expenses. Aspects of capital improvement and operating expenses have not been considered in the study because of reasons of unavailability of data from the institution. This data was considered classified by the university administration and thus was not made available for the study.

4.4.3.1 Student and visitor expenses in the region - *'export and import substitution'*

Analysis of the student questionnaire, which provides data on the average estimated amount of how much students spend per month, revealed that the majority of students (that is about 42% of the total respondents) spent between US \$50 to US \$100 per month. The data also revealed that about 21.61% of the student respondents spent less than US \$50 a month, while slightly above 20% of the students spent above US \$150 on monthly expenses as observed in Figure 4.1 below.

Ranges rather than discrete amounts were used because most students were uncomfortable to state the exact amounts they spent per month which they considered to be private information.

Figure 4.1: Average students' expenses per month in US dollars



Source: Student questionnaire data

While some impact studies (Carroll & Smith, 2006) have used average amounts of students' expenditure from sampled questionnaires to calculate the total expenditure of all university students in the municipality, others have tried to go further by trying to estimate the impact of 'out-of-town students' by calculating the amount of capital brought in by students coming from other regions. Therefore, the total economic impact from students' expenditure is not the total expenses of all the students, but the net amount from students coming from other regions. But for the university, these students would not have been in the region. Siegfried et al. (2007) refer to this approach as the 'export and import substitution' in the region.

The notion of 'export and import substitution' as used by Siegfried et al. (2007) presents an argument that a region with a university or HEIs benefits double-fold, which is not the case for a region without a university. The first economic impact which is referred to as the 'export' is the fact that students from other regions coming to acquire higher education in the region, bring money and resources into the university region. Hence, the

region is seen as exporting higher education to other regions from where the students come.

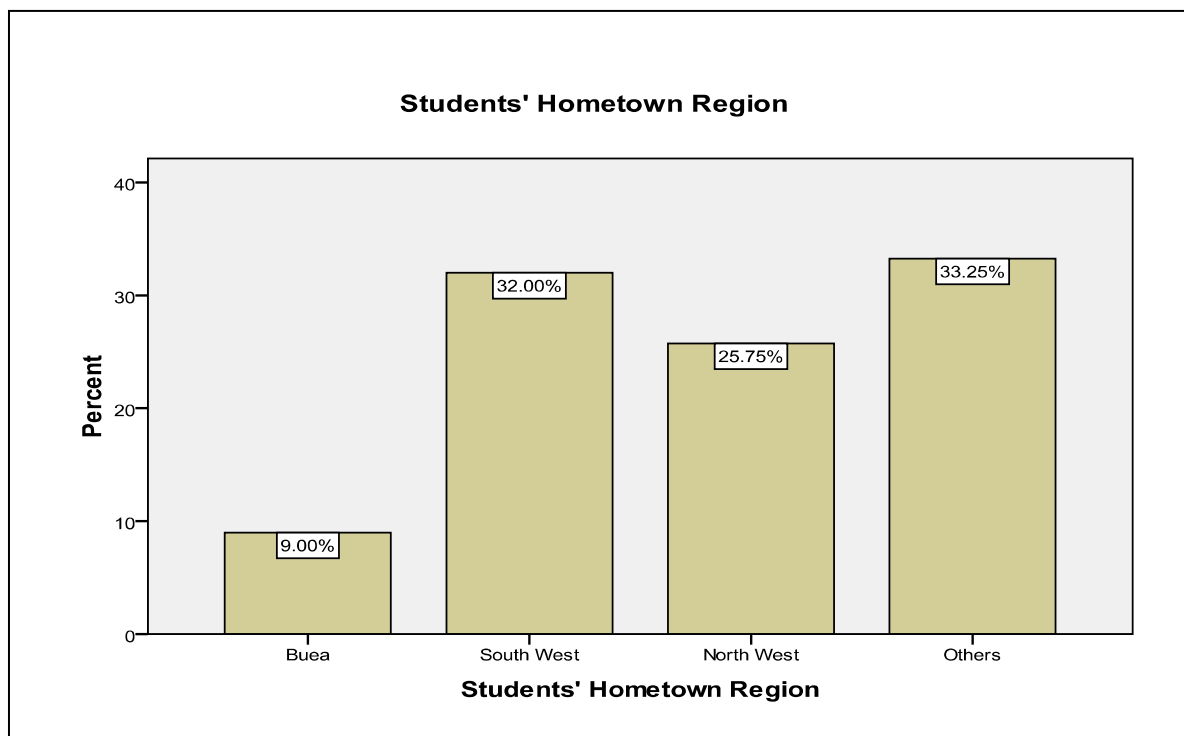
The second notion which is the ‘import substitution’ sees a positive benefit in the fact that a significant number of local students in the university region do not have to go to other regions to acquire higher education. Hence, the resources which would have been spent while studying in another region are ploughed back into the local economy. Thus, the ‘importation’ of higher education from another region has been substituted by the presence of a university in their region. So the region exports higher education while avoiding the importation of the same by its students.

The approach thus argues that,

“the extent to which colleges and universities attract outside money to an area, (i.e. ‘exports’) or prevent local students from going abroad for higher studies (induce ‘import substitution’) depends on both the origin of their students and what the students would have done if the college had not been there” (Siegfried et al., 2007:548).

To gain an understanding of the origin of the students at the UB, data was collected from the field. As shown in Figure 4.2, the data revealed that more than 97% of the students originated from outside the Buea Municipality. Therefore the municipality, through the presence of the UB, is not only a huge exporter of higher education to other regions, but also brings revenue into the region.

Figure 4.2: UB students’ hometown regions



Source: Student questionnaire data

The diagram distinguishes between students from the Buea Municipality and from the larger south-west region in order to appreciate in finer detail how much money in the municipality comes from outside Buea. From Figure 4.2 it can thus be generalised that more than 90% of the student expenditure in the region originates from out-of-town students, which implies that in the absence of the UB, a significant proportion of the present economic activities would collapse. It should be mentioned here that the calculation of the actual economic impact in terms of quantifiable figures as well as multiplier effects of these out-of-town students has not been done in this study; but the data could be used in another study to do such estimates.

Table 4.5 below presents a cross tabulation of the data collected from UB students using structured questionnaires. The data attempted to establish the average number of over-night visitors who come into the region per student and how much a visitor spends on average.

Table 4.5: Yearly over-night visitors per student against average expenditures per visit

			Average expenditures per visit				Total
			<US \$30	US \$50	US \$100	>US \$100	
Number of over-night visitors per year.	<3	Count	68	19	2	1	90
		% of Total	40.7%	11.4%	1.2%	.6%	53.9%
	3-5	Count	34	7	2	1	44
		% of Total	20.4%	4.2%	1.2%	.6%	26.3%
	6-10	Count	12	4	1	1	18
		% of Total	7.2%	2.4%	.6%	.6%	10.8%
	>10	Count	7	5	2	1	15
		% of Total	4.2%	3.0%	1.2%	.6%	9.0%
	Total	Count	121	35	7	4	167
		% of Total	72.5%	21.0%	4.2%	2.4%	100.0%

Source: Student questionnaire data

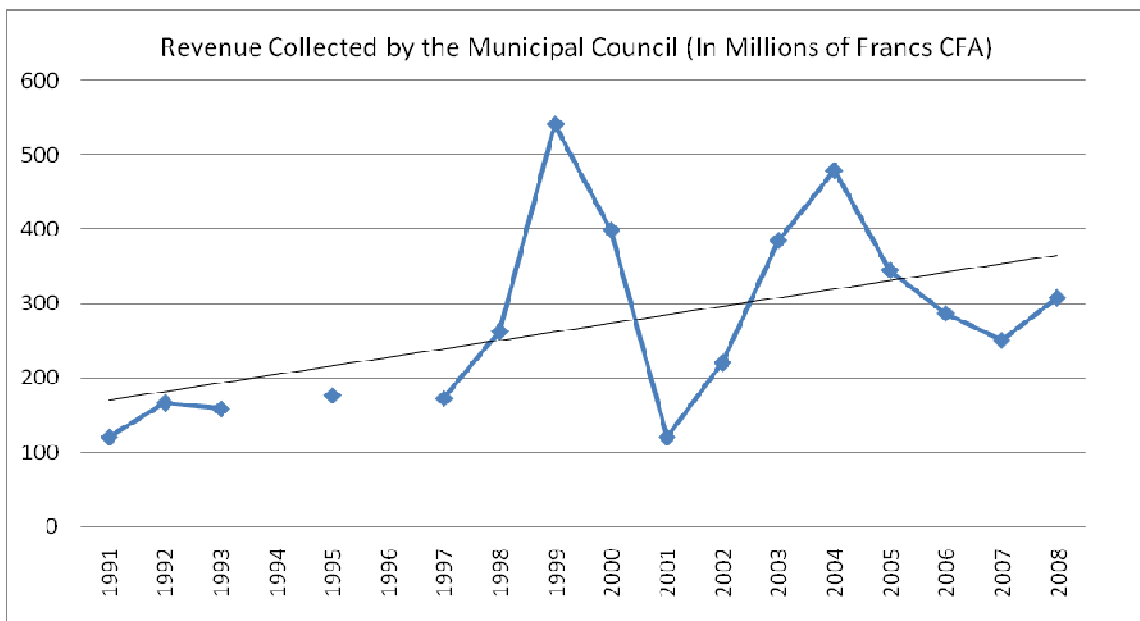
Analysis of the data reveals that though students from other regions account for more than 90% of the total student population (as observed in Figure 4.2), only about 41% of the students sampled received out-of-town visitors. This figure has a significant effect on the amount of capital entering the region as visitors' expenses increase the economic activities in the region. The data reveals that the majority of the visitors (40.7%) spend up to US \$30 a day thus boosting the economic capacity of the region. The effect of these visitors' expenses has resulted in an increased demand for goods and services and an increase in the level of tourism around the Fako mountain region. This export of the picture of the university and the region both nationally and internationally has resulted in an increase in the number of jobs created in hotels and restaurants as well as in the transport sector, as these out of town visitors need to be accommodated and use the local facilities and services.

Figure 4.3 reveals a significant contribution by the UB to economic development in the region. From data obtained from the Buea municipal treasurer, it can be observed that there has been a steady growth in the total revenue collection from the year 1994. Though it cannot be definitely demonstrated that this has been caused by the creation of the UB in 1993, the suggestion is that, with everything being equal, the presence of the university has been a significant factor in the increase in the Buea municipal revenue.

This view was also supported by the municipal treasurer himself who attested that

“the presence of the University has significantly increased business and economic activity in the municipality and especially in Molyko where the students are concentrated and where business is more and more active. This can be observed in the increased businesses in Molyko which have contributed to increase revenue collected by the municipality”.

Figure 4.3: Revenue collection by the Buea municipal council (1991-2008)



Source: Data from the Buea municipal treasury

Although there are two missing points on the curve, two aspects provide a good argument for the UB's contribution to regional economic development. The first aspect is the fact that the curve shows that the effect of the presence of the university started being witnessed in 1995 with an increase in revenue collection. This increase was sustained for almost five years before a decline in 1999 when the region was under threat from an active volcanic eruption of the mountain in mid 1999. Being the only major activity at the time, it could be strongly attributed to the decline in economic activities as some people left the town. Secondly, the linear trend provides a steady overall increase in revenue collection with a steeper gradient post 1996 which also suggests that the presence of the UB had been making a contribution towards this increase. Hence while data on economic activities, students' expenses and visitors' expenditures suggest an increasing economic boost in the municipality, data from revenue collected attest to the fact that there has been a significant increase in the local economic base with the UB being a major contributor.

4.4.4 Human capital formation and graduate retention in the region

Responses from the municipality respondents (the secretary general and works department) agree that the university has been a major agent for the training of their workers. From the interview sessions with the banks' representatives, more than 60% of

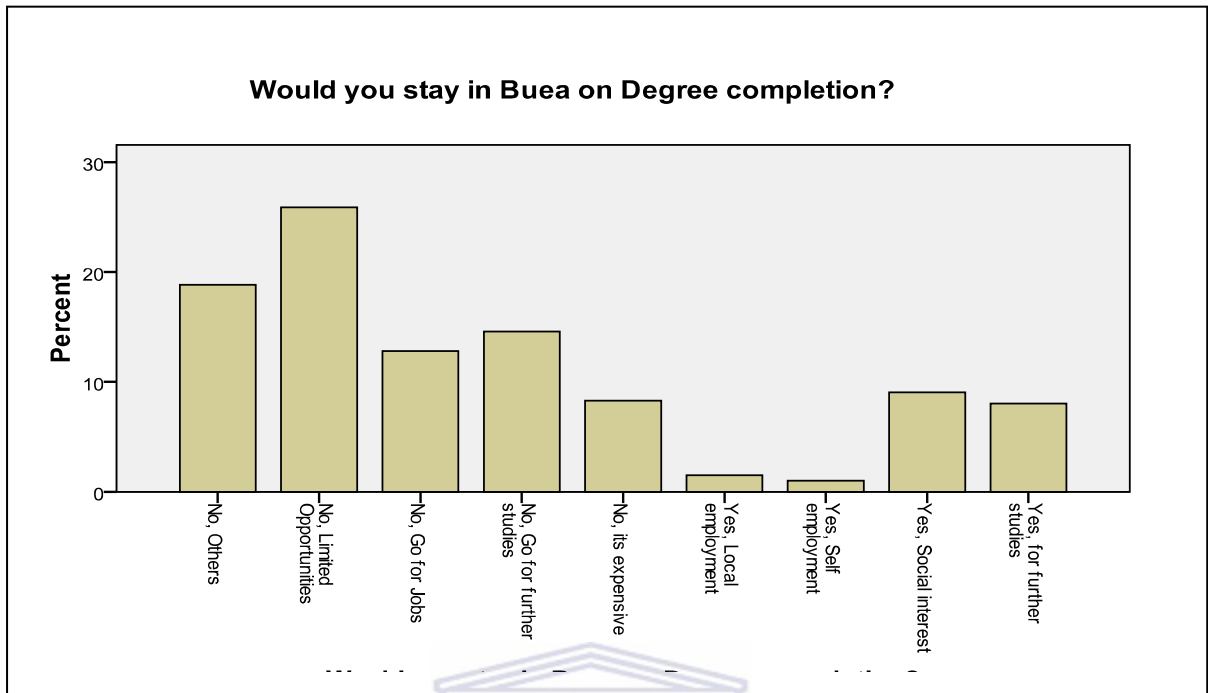
the local banks and financial institutions in the municipality have at least an average of one of their accountants or tellers who is a graduate from the UB. Graduates from the UB also form the majority of the workers in academic related businesses such as those involved in typing and editing students assignments, theses and project reports.

Respondents at the municipal council state that most of their staff had been to the UB for refresher courses and other short courses. The council respondent also attests that students from the UB have been important when they come for academic internships as they add more value to the council while gaining skills in the process. Being the only English medium university in the country, the UB has contributed significantly to the production of the majority of English speaking graduates who currently work in different sectors of the local, regional and national economy of the country.

In recent years, certain authors (Berger & Black, 1993; Bluestone, 1993) have emphasised the need to complement economic impact studies of higher education institutions with studies on the effects of the institutions on the stock of human capital and technological base in the region. There is thus a need to understand how higher education institutions expand the skills, knowledge and capabilities and also the productivity and income of local workers.

Looking at Figure 4.4 which provides an understanding of the potential graduate retention ability of the municipality, one may interpret it to imply that a significant majority of students do not intend to remain in the municipality upon degree completion. Slightly fewer than 20% intend remaining in the municipality, half of those as post-grad students and not as workers. However, looking at the level of economic development of such a small town, it is argued that the percentage of students who intend to remain upon graduation indicates that there is a significant growth in the economy when we look at the numerical impact of this percentage in the number of jobs created, as well as multiplier economic and social benefits.

Figure 4.4: Graduate retention of students in the Buea Municipality



Source: Student questionnaire data.

An interview with one of the students who has graduated and is presently operating a telephone booth business, reveals that after starting with one telephone booth, he has already opened three more booths in about 18 months and they are all run by girls who are indigenes of the region (*Bakwerians*). A look at the number of people who depend on the income of these jobs for survival could reveal interesting multiplier effects. This however is beyond the scope of this research work.

The above data and analysis agrees with previous research carried out in Cameroon by Fonkeng and Ntembe (2009) which attests that higher education has been crucial in training human capital needed for national economic development. This human capital has provided person-power in public and private enterprises not only in the local municipality. Graduates have been injected into the national human capital stock, helping national development.

In summary, Section 4.4 presents empirical evidence that the UB has made a significant contribution to the development of the municipality as well as the region. This has been witnessed in the increase in the number of counterfactual jobs in the university township, the number of indirect jobs created by university related activities, the

increased attraction of capital into the region by out-of-town students via the export and import substitution mechanism, visitors expenses, and also the increase in human capital created and retained in the region.

4.5 The University of Buea in social development

Key indicators of social development in the municipality were identified in Section 2.4. These include human development through social services, socio-cultural development, infrastructural development, and national integration. These indicators will be discussed in this analysis section.

4.5.1 The contribution of UB to social services provision

Analysis of the data collected reveals that UB is a significant factor in increasing levels of human development in the region through the services it provides and attracts into the region and municipality.

A quick comparison of the social facilities available in three different townships in the municipality as seen in Table 4.6 reveals that the Molyko township, in which the UB is situated, has a significantly higher number of social amenities when compared to the neighbouring townships. As mentioned earlier in Section 4.4.1, these three townships are believed to have been quite similar in their development status prior to the establishment of the UB in the Molyko township.

Table 4.6: Social facilities in three townships in the Buea Municipality

Township Area	Molyko	Muea	Bomaka
Social Facility			
Health Centres / Clinics	8	1	2
Banking / Financial Facilities	14	2	2
Hair / Barbing Saloons	130	36	20
Churches	21	7	5
Restaurants	81	34	17

Source: Researcher's field data

Among the major townships in the Buea Municipality, the Molyko township where the UB is situated currently hosts more of the social amenities and facilities than neighbouring townships. The Molyko township has about eight health facilities which range from the University Health Centre, equipped with facilities and medical personnel and open to the community on much subsidised rates, to several privately owned clinics which, due to the presence of the university population, have found a very ready market. They also offer jobs to locally trained nurses, laboratory assistants and nursing assistants, thus assisting in poverty reduction while providing access to standard health services which members of neighbouring communities do not readily have.

As stated in the Buea Municipality newsletter (2008:1), “Buea has undergone tremendous changes in the last quarter of the century. Today modern structures have sprouted in almost every corner of the town, the streets are paved and sanitation has improved...”

The UB theatre troop is also active in providing regular theatre nights in which drama and theatre arts are performed for the general public at very little cost, sometimes even free. This provides entertainment for workers in the community who may want to relax after a busy day in the office. Besides being areas for sport, the UB soccer fields and lawn-tennis courts are also used by the community for entertainment activities. The UB is thus contributing both directly and indirectly to the social welfare of the community members.

4.5.2 Socio-cultural development and national integration

Interviews with key informants in the municipality attest that the university has assisted in the transformation of intangible aspects of the municipality as well – aspects that some authors (Agelis, 1990) have referred to as the basic or specific image of the region. The UB has been a key actor in the process of teaching in local schools. This has been done through university engagement with the locals, cultural activities like the University Festivals for Arts and Culture (UNIFAC) organised by university students and departments every end of year, national integration of French and English speaking Cameroonians and breaking the resentment feelings between Anglophones and their French speaking counterparts.

Students of the Faculty of Education have been active in assisting local schools through participation in their teaching practice sessions, thus improving the quality of primary and secondary education in the region.

This social role of the UB reflects Chatterton and Goddard (2000:490) as they opine that

“many regional cultural facilities are offered through students. They often play a central role in entertainment provisions in the region by providing comedy, live-music, dance events and late-night drinking hence increasing the overall popular cultural reputation of the city or region”

The UB has been a key agent in the level of cultural integration, in the region in particular and the nation at large. Interviews with some of the heads of department and the university administration reveal that in recent years there has been a huge influx of French-speaking students into the university and thus into the community. This, in the view of most key informants interviewed, is helping to break the ‘cold feeling’ or reservation that has to varying extents existed between the English and French speaking Cameroonians. As stated by one respondent,

“the University of Buea has enabled us to learn about the French culture as many French students now rent apartments in our building; this has also helped our children to learn the language”.

The Buea Municipality has become more of a multi-cultural region with people coming from many regions for academic, business, tourism and other related reasons. Most of the French speaking students have never been to an English speaking town or city and thus Buea is the first town where they meet most of the cultural shocks and language challenges. One of these challenges has been the need for both the French and English speaking Cameroonians to learn to trust each other.

The intensive English language courses organised by the University during summer holidays facilitate their integration process and allow interaction with the local community, helping them to understand the cultural setting. The university is thus an active agent in the bringing together of Cameroonians who otherwise would have lived as strangers in their own country.

Another social impact of the UB in the region is its undergraduate admission policy. The UB has instituted an admission waiver system aimed at facilitating admission for local indigenes who would hardly have gained access to university studies. This has

been done in the form of a university policy which enables local students who did not attain the normal or standard cut-off mark in the entrance exam to be granted university admission. Local students slightly below the normal university admission requirement were considered and granted university admission in a policy to increase the human capital stock of the region. This has significantly benefited the immediate community as these individuals have in turn gained access to higher paying jobs and better standards of living hence contributing to the economic and social development of the region.

4.5.3 Role of UB in infrastructural development

The UB has also been an agent in the social as well as cultural development of the Buea Municipality. Data collected from the field revealed that more than 60% of the local community respondents and municipal officers acknowledged the UB as the main force behind the rapid infrastructural transformation of the Buea Municipality in general and the Molyko township in particular. The building of new roads and business sites, and the provision of financial and hospitality services have increased avenues for more jobs and better standards of living in the region. A key informant, a local resident who has been in the municipality for more than 13 years, observed that:

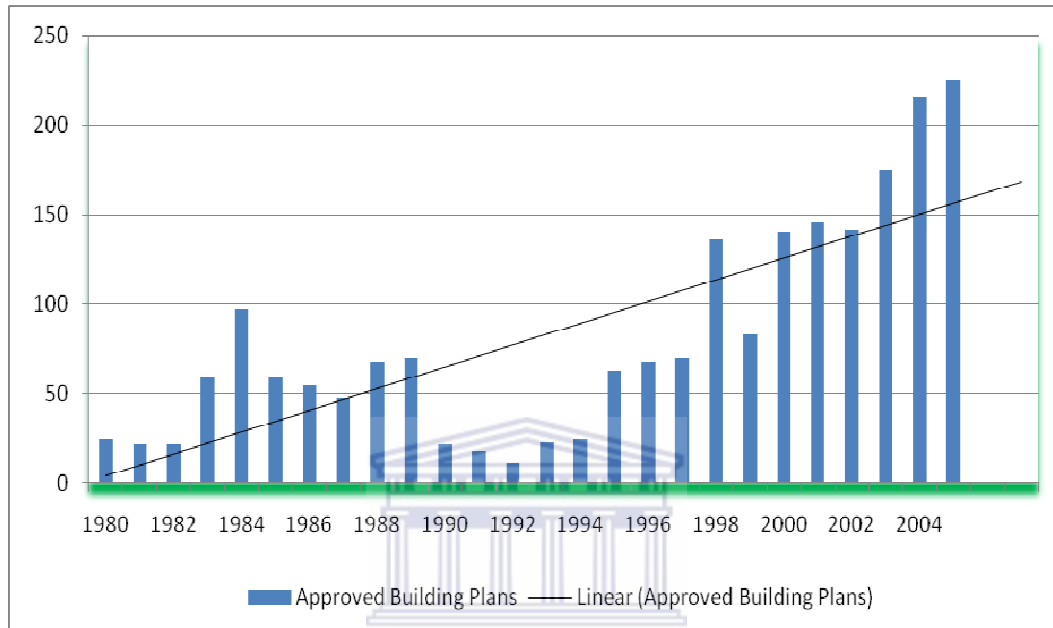
“the presence of the University of Buea has been very instrumental in the rapid transformation in the building and road infrastructure in the municipality, we not only have good roads now, but street lights have been installed in Molyko (the university area). We hope it will also be installed in the other areas”.

This statement suggests that most of the development has originated from the vicinity of the university before moving to other areas in the municipality. The UB can thus be seen as a focal point in the development of the region. This claim has been echoed by the respondent at the Franco-Cameroon Alliance who has recently been active in the creation of a map of the Molyko township where the university is located. He attests that major changes in the municipality have been significantly linked to the presence of the university. This rapid development in terms of buildings and roads in the university area has given rise to a need for a map for quick and easy access to the student residences.

Data obtained from the Regional Delegation of Town Planning and Housing covering the period from 1980 to 2005 indicate that there has been a fluctuation in the number of approved building plans in the municipality. Until 1992 only 10 construction plans in a

year are recorded. However, the next year sees a sharp increase which happens to be the same year in which the UB is established, after the upgrading of the then Buea University Centre into a fully-fledged university. This resulted in a steady and rapid increase in the number of approved building plans rising up to the present date.

Figure 4.5: Bar Chart showing the number of approved building plans in the Buea Municipality

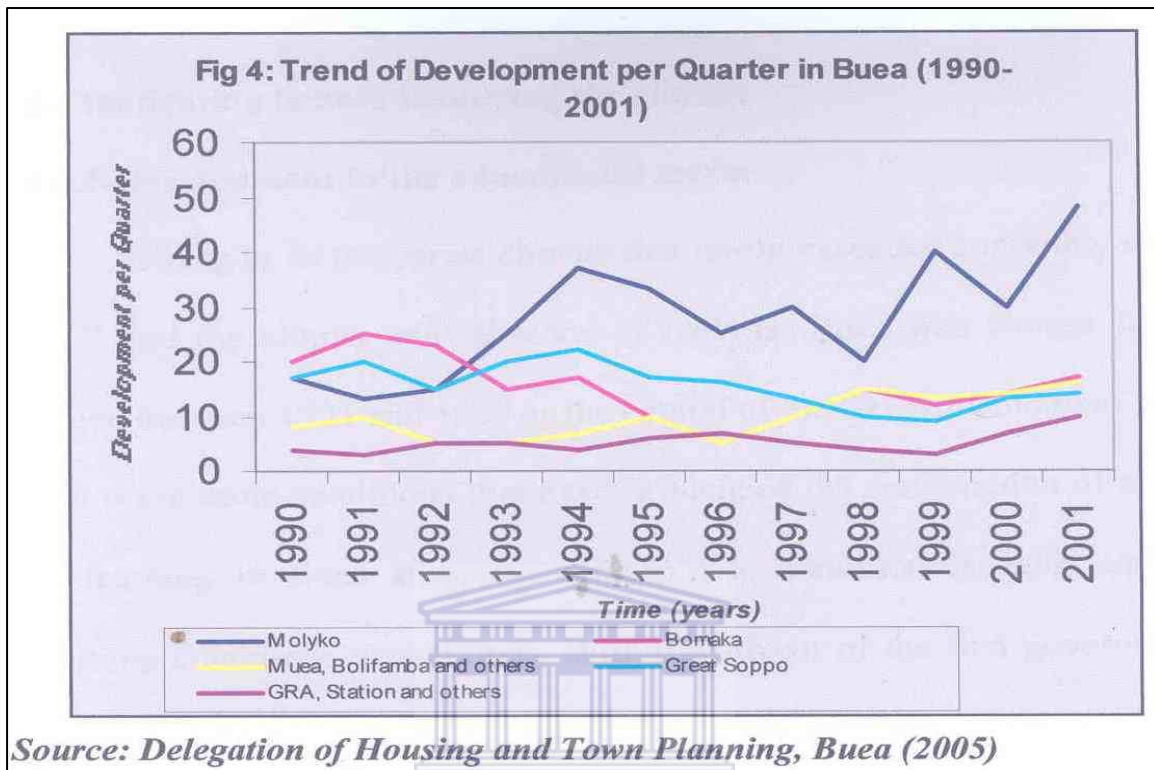


Source: Data obtained from Delegation of Housing and Town Planning, Buea.

In a more detailed analysis, the researcher investigates the increase in the number of approved building plans with a focus on small towns in the municipality. For this analysis, data was limited to the period from 1990 to 2001. Trends from Figure 4.6 show a rather interesting sequence. It reveals that for most of the building plans which were approved in the municipality, more than half of those plans were for Molyko, the student residential neighbourhood where the UB is located.

The analysis of Figure 4.5 and Figure 4.6 suggests that the increase in infrastructural development in the Fako region, and Buea Municipality in particular, can be closely related to the presence of the UB. Figure 4.5 shows a constant increase in the number of approved building plans in the municipality after the creation of the University in 1993 while Figure 4.6 shows that most of these building plans were approved in the university township indicating a close link between the rapid infrastructural development and the creation and establishment of the university.

Figure 4.6: Infrastructural development per township in the Buea Municipality



It can thus be concluded from the graphs that there is a definite increase in the number of approved building plans in the Molyko township where the university is situated after 1993 which is the year the UB was established, indicating a positive correlation between the level of infrastructure development in the region and the presence of the UB. Relating this to Figure 4.6 which shows trends in the whole municipality, it is clear that the rapid increase in the number of building plans after 1994 is a result of what was actually happening more in the university township rather than in the whole municipality as most of the other townships maintained a uniform pattern while some other areas even experienced a drop. This also could be as a result of some construction being diverted towards the students' residential area in order to provide accommodation for the rapidly increasing population in the university township.

This data has been strongly validated by the present study which looks at the student perception of the contribution made by the UB in the development of the region. Looking at the main development indicators which were identified by respondents as

contributing areas by the university in the development of the region, infrastructural development stands out as the single most obvious area in which the UB has aided the development of the region.

Interviews with another key informant, (a quarter head in the Molyko township) also indicate that the rapid increase in the demand and value for land in the region can be strongly linked to the need for infrastructural development around the university. Because of the very high demand of land for construction as well as for business sites, land which was originally used for agriculture and which normally cost less has witnessed competing demands. This has also been a boost to the level of infrastructural development as most of the contractors have opted for multistorey buildings which have increasingly beautified the township. As argued by Tabi-Kris (2005), there is presently an increase in the number of vertical buildings gradually transforming the entire view of the agglomeration of Buea which can be strongly linked to the presence of the UB.

There is however a feeling of resentment on the part of some respondents regarding the pattern in which the infrastructural development of the municipality has evolved. According to a respondent at the Pan African Institute for Development – West Africa (PAID-WA),

“...there is a need for infrastructural rethinking in the municipality”.

This was his reply when asked about some of the major development challenges facing the municipality in contemporary times. This feeling is also shared even among some UB administrative respondents.

An interview with the Buea rural council officer at the Public Works Department also indicated that there has been a huge abuse of infrastructure development where houses have been built without building permits, thus causing a very poor infrastructural and road network in the municipality. This has however been due to a hastened bid to meet up with the huge student and staff demand for accommodation which has resulted in structures being built without the official consent of the authorities. These structures according to the works department will be demolished to meet with the blue-print for the town.

A respondent from the Geography department of the UB also attested that

“if there had been an active cooperation between the department and other development stakeholders in the council in establishing a town plan, Buea in general and Molyko in particular could have been a very beautiful place with the nice buildings it now has”.

This statement agrees with the opinion from PIAD-WA which advocates an infrastructural rethinking in the municipality.

4.6 Summary of UB in regional socio-economic development

In summary, the above section has examined the contribution of the UB to the economic development of the municipality. Five main facets of UB's role were identified and these are:

- The UB has been a key factor in the establishment of more than 75% of the business activities in the Buea Municipality in general and the Molyko township in particular. The presence of students and staff has been an economic pull factor in the number of business and economic activities in the region and in providing a ready market. The counterfactual method of analysis attests that the presence of the UB has been significant in boosting the economic levels that the Buea Municipality now experiences.
- These businesses have resulted in the creation of employment opportunities for the unskilled and semi-skilled local inhabitants. Analysis of the data reveal that close to 3000 indirect jobs are being created and maintained in the region yearly due to student and university related activities. Access to data on direct university employment was restricted and has thus not been included in the analysis.
- Thirdly, the research found that students and subsequent visitors have contributed significantly to the economic growth of the municipality. The capacity of students of the UB to purchase provides a ready market for the business activities in region. Using the export and import method of analysis, it was observed that the majority of UB students come from other regions, bring capital into the region.
- The UB has also been seen to be a good source of human capital provision in the region. Most of the business centres, the banks, and even sole proprietor businesses interviewed, had at least one or two workers who were

graduates from the UB. This stock of human capital trained in the region also provide assistance to local schools and do internship in local institutions such as the municipal council and other offices in the region. This has and is greatly contributing to the development of the region.

- Figure 4.5 shows that there has been a steady and significant increase in the number of building plans being approved by the municipal council since 1994. A closer look at the building plans per quarter in the Buea Municipality as observed in Figure 4.6 show that the majority of these buildings have been constructed in the Molyko area where the UB is situated. Considering the fact that the UB was established in 1993 and that buildings started increasing after 1994, an argument has been put forward that the UB has been critical in the growth in these building projects.

In Section 4.3 it has been argued from the review of policy that the UB was established with more of a national than a regional policy framework. Consequently, there was a significant absence of a regional dimension in its contribution to regional development. Though at the institutional level there has not been a regional policy towards community engagement, some departments and academics have nonetheless been significant in contributing to the betterment of the lives of the local population. These contributions have been classified in this study as community and/or extension services rendered to the community as by-products of individual or departmental research activities.

4.7 The University of Buea in community and extension service

The UB has been seen to make significant contributions to regional development in the form of extension and community services offered by some academics as well as departments. The researcher however first tried to get an understanding as to how the concept of community services has been understood and applied by the different academics.

Some UB academics when asked about their understanding of the community service mission as stated in the mission statement, gave the following interesting responses:

A community service is

“...any activity by the university be it research project or educational outreaches for the benefit of the community” (Coordinator Environmental Science, 27/01/2009)

“...the execution of projects or activities that have a direct impact on the surrounding communities of the university” (Dean Faculty of Social and Management Science)

“... service intended to improve the social welfare and economic conditions of citizens within a defined community” (HOD, Geology and Environmental Science)

These responses have been followed up by various community and extension services carried out by most departments and units on the UB campus. Some of these services include medical facilities through the UB Health Centre, geo-hazard monitoring programme, enhancement of local agricultural products and farming methods and environmental awareness and conservation projects.

4.7.1 Medical services: the UB Health Centre

One major community oriented activity being run by the university is the University Health Centre. This health centre, first created as a health unit, was available only to university students and served the students emergency medical needs before they could be transferred to other clinics or hospitals in the town. However in 2003, the university expanded the health centre with a bigger and more equipped building which is now open to the community on lower fees for consultations and treatment. This new building has facilities for hospitalisation and has regularly carried out HIV/Aids sensitisation and free HIV screening for students and the community.

4.7.2 Geo-hazard monitoring programme

The Department of Geology and Environmental Science is also involved in a project dedicated to the monitoring of the potential geo-hazards on the Fako Mountain. The Fako mountain or Cameroon mountain is the second highest peak on the continent after Kilimanjaro and has experienced successive periods of geological activity in recent years. This has ranged from the emission of volcanic lava, to land slides and tephra (volcanic ash) fallouts and the extension of crater lakes in the region.

The geo-hazard monitoring programme is sponsored by the Belgian government, and is being carried out in two phases – remote sensing, using satellite images, and actual field work. There is an active partnership between the project based on the university campus and the community. The project monitors the activity of the mountain and thus uses a slot on the local radio to make the regional community aware of any potential threats or

to broadcast any relevant information. The project has created graduate retention opportunities for most of those presently employed and has provided opportunities for acquiring expertise – two students from the department are currently undertaking a doctoral programme through the project.

The programme has created some local jobs for both the local community and graduates from the department. The locals employed in the project go up the mountain regularly to collect readings of magmatic activity from different activity detecting devices, while graduates (some who are doctorate students) run most of the analyses of the data. This project has not only made the local community aware of the situation but has reassured business leaders and local residents who, because of fear and uncertainty, were contemplating leaving the municipality for a safer area. The current monitoring programme ensures that the local inhabitants cannot be surprised by any sudden geological disturbance.

4.7.3 Agriculture improvement in the region.

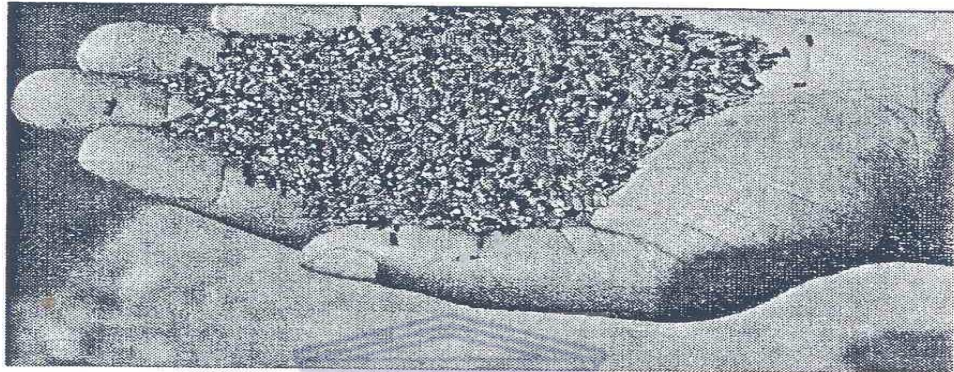
Figure 4.6 shows a good level of cooperative partnership between the University of Buea, the South West Development Authority (SOWEDA), the Cameroon Development Cooperation (CDC), and the Palm Oil Producing Company (PAMOL). Interview sessions with the head of the Department of Plant and Animal Science, reveal that the department has been working with farmers in the municipality to alleviate seed shortage, using collaborative applied research. The project, which works in collaboration with other development organisations such as SOWEDA, has brought together university based researchers, as well as researchers from other research institutes to identify seed strains which will increase yields and improve the quality of the ‘Bayangi bitter leaf’ which is a very healthy vegetable locally consumed and exported from the region.

Figure 4.7: UB in community-oriented research

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The Department contributes to the sustenance of the community through collaborative applied research with development agencies and companies like SOWEDA, CDC, PAMOL, etc. The Department also affords training opportunities for staff of these agencies.

Research activities in vector biology and parasitology are often done in collaboration with healthcare delivery institutions, thus beefing up their manpower and offering free screening exercises.



Solving the problem of inadequate quality seeds in indigenous vegetable production, an appropriate technology is available for the production of seeds of *Vernonia hymenolepis* ("Bayangi bitter leaf")

Source: Faculty of Science reports reviewed by researcher.

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Through research and the application of appropriate technology necessary for the production of these hybrid seeds, the UB has thus extended its influence to farmers in peripheral areas of the region who depend on agriculture for their sustenance.

The university has also been actively involved in a research project with PAMOL, a branch of CDC. This research is aimed at the identification of palm trees producing higher grade oil, and processing the chaffs from the crushed palm to produce compost manure to improve the growth of new plants. Huge industrial quantities of this are being produced for the cooperation. The research process has improved the level of oil production from the region while also improving the standard of living of the locals who depend on palm oil production as a source of living.

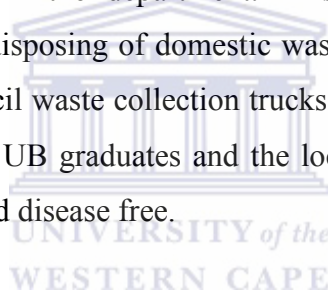
One of the university staff has commented on the contribution of the UB to regional development.

“...Local demands and needs represent the regional needs as well as global demands...alleviating poverty meets Millennium Development Goals”.

From this declaration, it can be argued that there is a significant level of consciousness among the research and academic staff on the contribution the UB in not only meeting local needs but also global demands through local efforts. What has not been seen so far is that these contributions have been done in an ad hoc manner with little policy directing the level of contribution from the university administration.

4.7.4 Environmental health and conservation projects

The Environmental Science department, under the umbrella of the Environmental Science Students Association (ESSA)¹⁰ has been actively working with local secondary schools in environmental education, conservation and sensitisation projects for the betterment of the town. The department has also been active in a domestic-waste management project which was conceived by a partnering action between the department, the local government and a community based organisation. The project is coordinated by graduates from the department. This partnership serves the local population by collecting and disposing of domestic waste from enclave quarters which are not accessible by the council waste collection trucks. The project has also generated employment opportunities for UB graduates and the local population while helping to keep the municipality clean and disease free.



¹⁰ ESSA-UB is a departmental organisation for students in the department of Geology and Environmental Science

Figure 4.8 UB in environmental conservation research.



Source: Faculty of Science reports

Figure 4.8 shows that the UB is identifying itself with the global community in the fight against environmental degradation. This is seen in the tree planting and labelling project which was initiated by the vice-chancellor. According to a respondent from the Department of Environmental Science trees were planted across the the whole municipality and their scientific and common names were inscribed near the trees. This activity helped in the sensitisation process against deforestation which is a major challenge in Cameroon, particularly in the south-west region where the university is situated.

The Environmental Science Student Association (ESSA-UB) has also been active in the process of environmental sensitisation in the region. According to the programme coordinator, the association has organised field visits to local and regional secondary schools and has initiated similar 'daughter associations' in these secondary schools. All the associations are committed to environmental awareness projects on their different campuses in the municipality. During national and international days of environmental

issues, they come together for diverse environmentally friendly activities. This has had a significant impact in the regional community.

The above section has dealt with the contribution of UB to regional development through extension and community service. In conclusion it is worth noting that there has not been any clearly stated practical university policy towards community service. Although the strategic plan declares that the university is committed to community services, much of the community related services have been carried out by individual academics or departments and not by an institutionalised action from the university administration. Hence the levels and types of cooperation between the university and the community have been less significant and hardly sustained.

The following departments have contributed through departmental research activities to the provision of better services, opportunities and facilities to the local population: health services through the Faculty of Health Science; agricultural and extension services through the Life Science department; geo-hazard monitoring through the department of Geology and Environmental Science. These have been some of the major community related activities coordinated by university departments.

The following section provides a conclusion to this chapter on data presentation and analysis. This has been done using a table which captures the main objectives, the empirical indicators for each objective and the findings for the indicators. This is followed by a brief description of the table.

4.8 Summary of findings

Table 4.7: Summary of findings for UB in regional development:

SN	Conceptual Aspects	Empirical Indicators	Findings from Analysis of Collected Data
1.	Perceptions of the University of Buea in regional development.	<ul style="list-style-type: none"> - Policy Expectations on UB from national Higher Education Policy documents 	<ul style="list-style-type: none"> - Though established in a regional locality, the University of Buea was created as, and perceived to be, a national university with national and international expectations rather than regional expectations as exemplified in the models reviewed.
2.	Engagement with the regional stakeholders. (conscious development efforts)	<ul style="list-style-type: none"> - Municipal council (local government) - Local development organisations - Local community 	<ul style="list-style-type: none"> - More informal and weak engagement ties exist between the university and major development stakeholders in the region. Hence weak intended efforts towards regional development.
3	Actual contribution to economic and social development of the region. (unintended impact of UB on region).	<ul style="list-style-type: none"> - Local job creation - Income attraction into and generation in the region - Business attraction into region 	<ul style="list-style-type: none"> - Using the counterfactual and 'export and import substitution' techniques for analysis, the University of Buea has made a significant though unintended contribution towards the economic development of the region through job creation, business attractions, income attraction and human capital retention in the region. - UB has contributed to regional development through the formation of a growth pole in the region.
		<ul style="list-style-type: none"> - Social services and extension services in the region. 	<ul style="list-style-type: none"> - Some departments and individual academics provide social and extension services to the regional community through: <ul style="list-style-type: none"> i. Health services to the public through the University Health Centre, ii. Entertainment through the UB drama and theatre club, and UNIFAC. iii. Agricultural extension services to local farmers through the Natural science and Community Health Science departments. - However most of these services are neither coordinated nor institutionalised.

Table 4.7 captures some of the findings from the study and the data analysed in the chapter. Though it presents a wide range of aspects as revealed from the analysis of the data collected, a few key findings have been highlighted below.

First and more crucial is the fact that the UB, though created in a regional area and being a single player university in a peripheral region, has not operated as a regional institution in terms of regional development. In trying to conform to the policy which was adopted at its creation, the UB has placed itself more as a national institution with national and international aspirations rather than with the identification of regional needs and contributing to regional welfare. Despite the fact that more general policy documents such as the national poverty reduction strategic paper and the municipal council strategic plan make clear references to, and demands on, universities to contribute to development, very little has been done to ensure that these demands are made operational at the institutional level. This has resulted in a lack of communication between UB and its regional actors regarding local development.

However, this apparent lack of connection between the university and regional development stakeholder has not hindered the development and transformation of the region since the establishment of the UB – a transformation for which much credit is being given to the university. From analysis of the collected data, it has been seen that the presence of the UB in the Fako region has given a major boost to the development of the Buea Municipality. This has been seen in the counterfactual number of jobs created, economic activities attracted, population increase, infrastructural development, and the increase in social services and amenities in the university region.

The university has also been seen to provide community and extension services to different groups of the local community. This has been seen in environmental awareness programmes, agricultural seed production, and community health service provision.

The UB has thus, from the analysis and discussions above, been a significant contributor to regional development by virtue of its presence in the region.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study was initiated with the desire to understand how higher education is contributing to regional social and economic development. The study focused more on African higher education, and the University of Buea in Cameroon was chosen as a case study. The researcher set out to understand the national, regional and institutional policy demands and expectations from the University of Buea in regional development, and further, to quantify any contribution the University of Buea is making to the social and economic development of the Buea Municipality. A modest impact study was also carried out to evaluate the economic impact of the university in the region.

The study employed mainly a qualitative research design with the use of some quantitative data. Intensive review of literature on higher education and development, primary and secondary data collection and analysis, and the use of descriptive statistics were all applied in the research process. The main findings highlight the fact that higher education in Cameroon has been significantly situated in the policy context of national development. Expectations have been placed on universities to contribute to national development in human capital creation, poverty reduction, cultural development and national integration. The University of Buea, though limited at the level of cooperation and engagement with its immediate community, has however been a significant agent in the social and economic development and transformation of the Buea Municipality.

It can thus be concluded in this study, through the literature reviewed as well as from the empirical study carried out, that higher education institutions in general do contribute to the development of their regions. Though different regions experience this contribution in different ways, what has also been observed in this study is that for universities to make a sustained contribution to regional development there is need for clearly formulated regional development policies. Universities which have made long-lasting regional impacts have done so around

clearly established regional policies for the institutions (McDowell, 2003; OECD, 2007).

While most higher education institutions, as observed in the literature and discussion section, have implemented their regional development campaign from a strategically policy-driven setting, the UB has contributed to regional development rather by virtue of its presence in the region. As mentioned earlier, a significant number of universities in the West though not created with specific regional missions have assumed and institutionalised the concept of community engagement. This level of institutionalisation which could be a way forward even for the University of Buea has been lacking with the university being looked upon more as a national university with more national and even international expectations rather than to focus on meeting regional needs.

5.2 Conclusion

5.2.1 Policy Perspective

From a policy perspective, it has been observed from the extensive literature that was reviewed as well as from the models used in the theoretical analysis, that for higher education institutions to have a major and sustained impact or contribution to the development of their regions, there is need for a policy framework which brings together the university and the national and regional policy into development planning. While the University of Buea can be closely related to the Land Grant colleges as they were both created in typical rural settings, analysis of the data shows that at the policy level, the Land Grant colleges were created with specific regional development policies - the Morrill Act - which significantly shaped the level and orientation of scholarship at the colleges. Where these policies have been lacking, the contribution, as observed in the University of Buea case study, has been indirect and, though significant, can be considered as not sustainable. This can strongly be attributed to the fact that the university was created with more of a national and international vision ignoring its regional mission. The difference in the regional development impact of the Land Grant colleges and the University of Buea therefore highlights the fact that for universities to have a sustained and significant contribution to the development of

their regions, they must be steered by specific and clearly defined regional policies.

Secondly, the Land Grant colleges, established in rural areas, focused on agricultural training and research to improve the agricultural levels of their regions, while the University of Buea, though established in an agricultural region, has not actively taken the challenge of engaging with major agricultural corporations in development initiatives but has concentrated on teaching, and has only to a limited degree been involved in relevant regional research. Finally, another major difference between the Land Grant colleges and the University of Buea is that while Land Grant colleges provided significant access to poor rural students, the University of Buea has continuously seen itself as a national university opening its doors to all students with very little consideration of the requirements of local students as well as the disadvantaged. These differences provide a great departure from the pioneer universities which contributed greatly to regional development. This therefore leads to a conclusion that while universities could seek to engage in new and ground breaking dimensions of research, there must be steered and facilitated by both policy and resources. They need to take advantage of the local strengths and opportunities of the locals while trying to bring in innovative alternatives. As argued by McDowell, (2003) for the Land Grant colleges that unless universities become relevant to their immediate regions, they risked being consigned to some sort of academic Jurassic Parks.

5.2.1 The University of Buea as a growth pole.

While UB has not been seen to conform to any of the models as observed in the literature, it has nevertheless made a significant contribution to the development of the region.. In a bid to locate this contribution in an economic model, this study argues that the presence of the University of Buea in itself has become a growth pole in the region.

As seen in Section 2.8, the Growth Pole concept argues that development does not take place at different places at the same time but rather in points of growth or growth centres, and then spreads to other places. The Buea area in general and the Molyko township in particular have witnessed a significant economic and social transformation which has been moving gradually over the last couple of years to

neighbouring townships and regions. From the analysis of the data, the focus of this transformation in the region has been observed to be the University of Buea. It is argued in this study that this process conforms to the Growth Pole concept.

However in the absence of a regional development policy for the University of Buea, the institution has provided a new model for regional development where, due to the presence of the university in the region and the rapid transformation which the region has witnessed in the last two decades, it can be argued that higher education institutions could be seen as growth poles to attract and enhance development in less developed or more rural areas where they act as single player universities in peripheral regions.

From the analysis on the Growth Pole theory in Section 2.7 of Chapter Two, it can be seen that the University of Buea has served as a tool for regional transformation. The University of Buea, through its presence in the Buea Municipality, has in less than two decades triggered the transformation of a former village to what is now arguably a semi-urban area, with an active economic lifestyle, improved information and communication services, improved infrastructure as well as other social services, almost equal to those found in the political and economic capitals of the country.

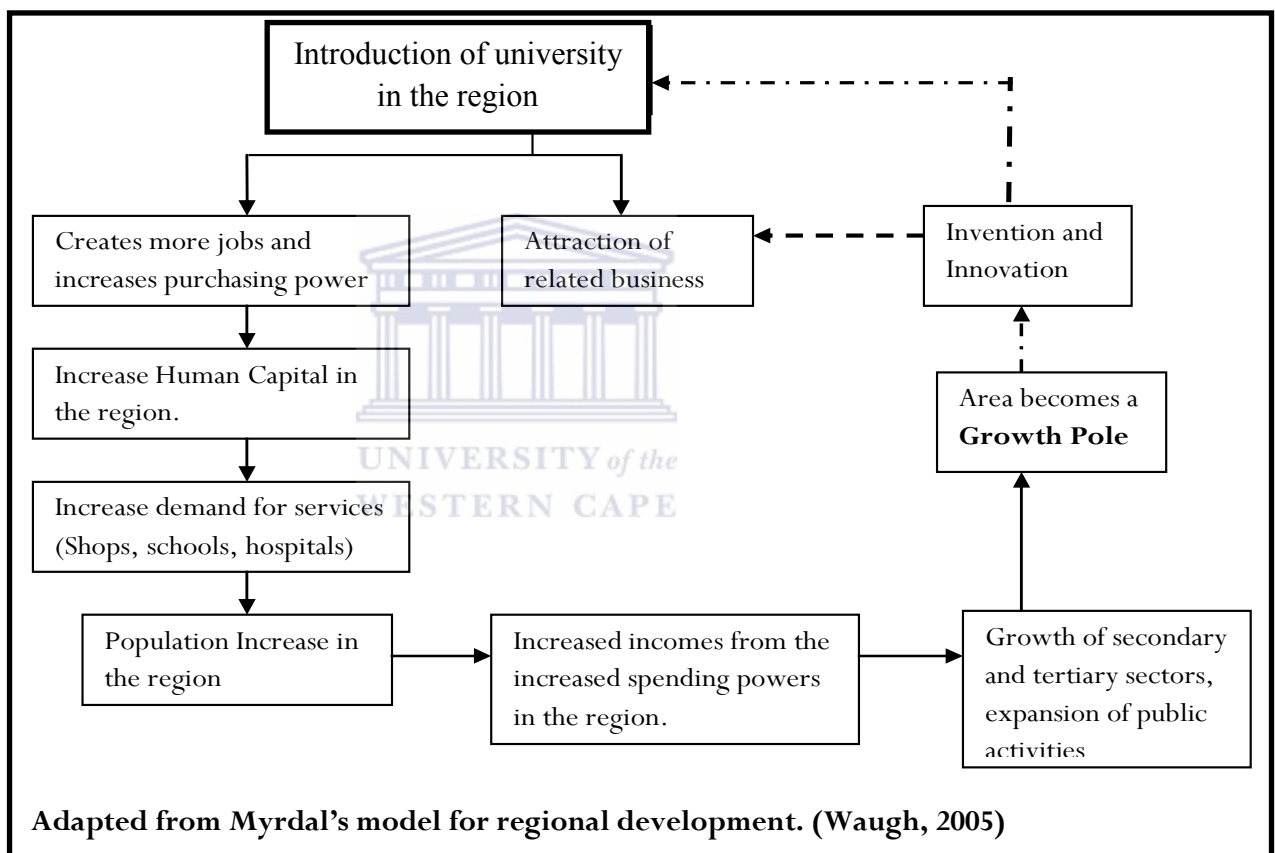
Hitherto this study, the Growth Pole theory which has mainly been observed to apply to industrial regions and clusters in regional development, has now been operationalised and used to understand the contribution and impact of 'single player universities in peripheral regions' (Boucher et al., 2003) as is the case of the University of Buea in the Buea Municipality in the Fako region.

The application of this concept in the present study presents an argument for a new model for higher education institutions in regional development where, though not guided by any expressed steering policy, universities are contributing significantly to the betterment of their immediate communities through the creation of jobs, attraction of businesses as well as foreign capital through students and staff members, increase in the human capital stock of the region, enhancement in the level and amount of social services and recreational facilities in their regions. As has been observed in this study, there has not been any clearly

stated regional policy framework in terms of which the institution has guided its regional effort. Hence it can be concluded that since universities whether consciously or not actually contribute to regional development, the creation of universities in typical regional settings could be a tool in the hands of government in developing peripheral regions.

A diagrammatic presentation of the University of Buea as a growth pole is seen in Figure 5.1 below.

Figure 5.1: The University of Buea as a growth pole



Looking at the UB as a growth pole, it is thus argued from observations in the field as well as from the data that the University of Buea has served as a point of economic growth. Established with an initial economic capital of about 281 million francs CFA (about US\$ 562,000) in 1993 (UB Strategic Plan, 1998-2003) the University of Buea has grown to be the centre of the economic and structural transformation witnessed in the region for more than a decade.

In summary, the economic impact analysis in Section 4.4 clearly revealed that University of Buea has been significant in attracting economic activities to the region, and that these have created numerous jobs and provided opportunities for increased incomes. The presence of university graduates retained in the region each year and the number of students who do part-time jobs around the municipality during and after university sessions, has increased the population and boosted the human capital base in the municipality.

There has also been a considerable and rapid increase in the population of the region, increasing the demand on available goods and services. This demand in most areas has resulted in a corresponding increase in supply, creating more jobs and services in the region. The counterfactual analysis in Section 4.4.1 and the increased infrastructural development dealt with in Section 4.4.5 reveal an increase in services and the consequent creation of more jobs and business activities in the region. Students coming from other regions brought in their spending power which resulted in a significant economic boost to the region.

However the use of the Growth pole concept in this study has been done through a careful application. A similar caution should be advised for similar or subsequent studies to understand the impact or contribution of single universities in peripheral regions. The growth pole concept should be limited to areas where the recent change in the development trend being observed can clearly be attributed to the introduction of only one institution or activity (industry, university, stadium, etc). In cases where there is more than one of such activities in the region, both the growth pole and the counterfactual analysis methods used in this study could lead to very misguided conclusions. However it cannot be concluded from this single case study that all single player universities in peripheral regions will serve as growth poles. What could be very important for further research will be to use a number of case studies establish what key aspects of are necessary for a university to be considered a growth pole in a region.

5.2.2 The University in regional Partnerships.

As observed from the analysis in Section 4.4, the University of Buea has provided a more unintended contribution than a conscious and policy driven effort towards the development of the region. This low level of policy-steered engagement

results principally from a lack of communication and partnership between the university, the municipality or local government and other major development stakeholders in the region. Garlick and Langworthy (2004:21) note that “the community and the organisation (university) are divergent and potential incongruous forces” and that to work together, they must first understand each other.” There is thus need for a common platform where the university and development stakeholders can come together to forge sustained partnerships for community development. Scholfield et al., (2005) further suggest that characteristics of successful engagement between universities and regional communities place emphasis on the quality and content of relationships between universities and communities, highlighting issues of trust, mutual respect and flexibility. From the study, these aspects of trust, mutual respect and flexibility at the institutional levels have been major absentees in the cooperation level between the University of Buea and its regional community. These aspects need to be initiated and established if the University of Buea is to make a significant and sustained contribution to the development of the region.

The study also reveals that in the current leadership and management structure at the University of Buea, no particular office has been assigned with the task of regional cooperation for development. Almost all of the community engagement projects observed are being coordinated and run by individuals or departments. For the university to make a successful contribution to regional development in the Buea Municipality there is need for a major institutional restructuring at the regional level involving all the important development stakeholders, including the local government, the South West Development Authority (SOWEDA) and government departments. For this to be achieved there is need for institutions to implement restructured and redefined expectations. Allison and Eversole (2008:99) strongly argue that “the lack of institutional flexibility is clearly a challenge to developing the relationship between university units and regions”. This therefore highlights the need for an office aimed at flexibly reconciling regional needs with university’s ‘loosely-coupled’ faculties and departments, each of which seem to have individual agendas somewhat different from the main university agenda.

Hence for universities to be able to make the maximum and needed contribution to the development of their regions there is need for a sustained and well established partnership between the university and the local stakeholders in the development process.

Watson (2003:25) observes that

“in terms of community development, engagement presents a challenge to universities not just to be in the community; or simply to engage in ‘knowledge-transfer’ but to establish a dialogue across the boundary between university and its community which is open-ended, fluid and experimental”.

There is therefore a need for the university, more than just acknowledging its regional role in policy documents and strategic plans, to be more proactive, less rigid, and to deduce newer ways of doing things such as facilitating the uptake of opportunities both from within and beyond the institution towards the prosperity of both the institution and its immediate and extended community. Watson (2003) further suggests that there is need for an established dialogue and an obvious forum for an experimental relationship between the university boundary and the regional community. This will bring about more conscious efforts through the experimental process rather than the indirect and hence less sustained contribution witnessed so far.

At the policy level, if African HEIs in general and the University of Buea in the case study, have to contribute sustainably to regional development, then policy must address development needs. Batterbury and Hill (2004:50) in an OECD report suggest that “current higher education policies fail to address the diversity of contexts within which higher education institutions operate, failing to adequately acknowledge or respond to their role as a net contributor to regional economies”. Chatterton and Goddard (2000:481) attest that universities have enormous benefits to gain in adapting to these evolving realities of higher education institutions in the face of regional needs. They advocate regional networking between universities and their regional stakeholders as an institutional survival or strengthening strategy for universities in regional development. Thus

lack of networking and partnership as observed has greatly hampered the maximum contribution of the University of Buea in contributing to the development of the municipality, though possessing much potential towards such a contribution.

Findings also reveal that while there are generally conceived and expected forms and outcomes of engagement observed in other regions in the literature, studies of this nature should be done using a more inductive and flexible design, as aspects peculiar to particular periods and settings – which previous research studies have not encountered – could arise. Typical was the case of the saloons, hairdressers and pubs which could provide a better economic and social return though not a conscious effort; a feature which has not been a major issue in most previous research particular in the developed economies.

The study can be seen to have in a new way contributed to scholarship in the field of higher education and development. First, through this study the researcher has been able to from a review of the existing literature; establish a sort of classification (models) which facilitates the understanding of the contribution provided by different higher education institutions in regional development. This could provide a platform for other studies which will refine this classification with innovative and changing models. The application of the Growth Pole theory, which hitherto had been limited mostly to regional geography, has found a possible niche in higher education and its role in regional development and could be further investigated and theorised.

Concluding this work, while it is increasingly being accepted that higher education contributes to regional development, what emerges clearly from this study is that this contribution is not the same with different institutions and in different regions. Contextual aspects, regional opportunities and challenges, history, resources and policies, have a major role to play regarding the level of contribution made by higher education institutions, especially in those developing regions and countries where studies, on a large scale and scope, have not yet been conducted.

5.3 Recommendations for further research.

This section highlights potential research areas which have emerged in the course of the analysis and discussions and other areas which were initially considered to be beyond the scope of the present study.

Firstly, the researcher thinks that there is a need for further and more detailed research on the role of higher education institutions in regional development at the national level, which will enable the institutions to fully understand their role in regional development. Batterbury and Hill (2004:50) proposed that

“current higher education policies fail to adequately address the diversity of contexts within which higher education institutions operate, failing to adequately acknowledge or respond to their role as a net contributor to regional economies and to do the public good”.

This therefore implies that for institutional and regional policies to effectively and sustainably address regional development issues these policies must be informed by scientific and empirical research – evidence based policy.

This study has been limited to a basic understanding of the facets and avenues through which the University of Buea contributes to regional development in the Buea Municipality. As mentioned earlier in the analysis section, a more detailed impact study with first and second level multiplier-effect analysis on the economic and social contribution of the University of Buea in the region, could be an interesting study for a better understanding of the university’s contribution to economic development. It is also recommended that a similar impact study could be carried out using graduation figures from the university to assess what contribution the University of Buea is making to human resource development in the region as well as at the national level.

Secondly, a recommendation for the university could be that it adopts a policy of carrying out cycles of more rigorous impact studies in the municipality and beyond to be able to understand the changing dynamics of the contribution it is making in regional development. This could inform policy formulation for university – community engagement, and to meet contemporary community needs. If this is not done, they may be relegated, as argued by the Kellogg

Presidents' Commission (McDowell, 2003:32), to an “academic Jurassic park ... of great historic interest, fascinating places to visit, but increasingly irrelevant in a world that has passed them by”.

However, a crucial aspect to be considered in university contribution to regional growth is what Lambert presents in the question “do businesses want the services that universities can offer? And if not, what can government or other agencies do to generate this demand?” (in Bridges, 2007). According to the Lambert Report, “The biggest challenge when it comes to encouraging the growth of business – university collaboration lies in boosting the demand from business (and communities), rather than in increasing the supply of products and services from universities” (Lambert, 2003:12). This therefore highlights the fact that while universities are being encouraged by a new set of demands to respond to regional needs, an interesting study will be to inquire how much university expertise is being solicited by the community both individually and at the corporate level. This could also help the university to shape its services towards specific regional needs.

5.4 *Limitations of the study.*

Through this research, a number of important aspects have been understood on the contribution of higher education institutions to regional development in general and the University of Buea in the Buea Municipality in particular. There have, however, been numerous methodological, theoretical and conceptual limitations.

The majority of similar research case studies in the literature have been sponsored and carried out by the university concerned. Sometimes this has been done by a member of the academic staff or at the request of the university administration. This research deviates from this as it is being done as part of a thesis for submission to a different university. This resulted in the fact that access to some university and faculty reports which could have been very relevant to the study was limited. These include agreement and partnership documents from the office of Collaboration with the Business World. Faculty reports from some of the faculties (Social and Management Science, and Health Science) interviewed were not accessible and hence could not contribute to a better understanding of the stated objectives.

Another methodological limitation was encountered in the use of the counterfactual method. While more jobs are being created there is also the tendency that more people in search of jobs will migrate to the area as well. This creates more competition for jobs between the locals and the new immigrants into the region. While the study credits the university and its related activities for the new jobs created, it has not been possible for the researcher to account for the new immigrants into the region who increased the demand for jobs and in some cases were employed at the cost of locals.

The field of study which looks at higher education and development is a multi-disciplinary area, and is still at an on-going stage in the process of theory building; hence theoretical arguments and concepts have not been firmly established. This was therefore also a limiting factor in the conceptualisation of the study. The absence of established theories which could have been used to test their application in the case study remains a challenge for researchers in the field of higher education and development.

The deviation of the findings by the University of Buea from the models identified in the theoretical framework presented a major challenge in the interpretation of the data. There was therefore a need to situate the present study in what can be described as a new model in the field of higher education in regional development. This was the application of the Growth Pole concept, previously limited to regional studies in geography, this concept provided for a better understanding of the contribution of the University of Buea in the development of its community.

Another major challenge in the interpretation of the data was the huge data collected. Both the quantitative and qualitative data as well as the policy document reviewed provided a huge array of themes which could lead to many different findings. However, guided by the conceptual framework, the various themes were filtered in such a way that those not directly applicable to the study were shelved for another study while some are being developed as publishable journal articles.

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APPENDIX 1


SR1

UNIVERSITY of the WESTERN CAPE

UWC RESEARCH PROJECT REGISTRATION AND ETHICS CLEARANCE

This application will be considered by UWC Faculty Board Research and Ethics Committees, then by the UWC Senate Research Committee, which may also consult outsiders on ethics questions, or consult the UWC ethics subcommittees, before registration of the project and clearance of the ethics. No project should proceed before project registration and ethical clearance has been granted.

A. PARTICULARS OF INDIVIDUAL APPLICANT	
NAME: Neba Samuel Fongwa	TITLE: Mr.
DEPARTMENT: Education Studies	FACULTY: Education
FIELD OF STUDY: Higher Education and Development.	
ARE YOU:	
A member of UWC academic staff?	Yes <input type="checkbox"/> No <input type="checkbox"/>
A member of UWC support staff?	Yes <input type="checkbox"/> No <input type="checkbox"/>
A registered UWC student?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
From outside UWC, wishing to research at or with UWC?	Yes <input type="checkbox"/> No <input type="checkbox"/>

B. PARTICULARS OF PROJECT		
PROJECT NUMBER: TO BE ALLOCATED BY SENATE RESEARCH COMMITTEE:		
EXPECTED COMPLETION DATE: December 2009		
PROJECT TITLE: The Contribution of Higher Education to Regional Socio-economic Development: The University of Buea, Cameroon, as a Growth Pole.		
THREE KEY WORDS DESCRIBING PROJECT: Higher Education Regional development University of Buea		
PURPOSE OF THE PROJECT:		
M-DEGREE: √		
	D-DEGREE:	
POST GRADUATE RESEARCH:	UNIVERSITY of the WESTERN CAPE	
C. PARTICULARS REGARDING PARTICULAR RESEARCHERS		
FAMILY NAME:	INITIALS:	TITLE:
PRINCIPAL RESEARCHER:		
OTHER PROJECT LEADERS: Not Applicable		
OTHER CO-RESEARCHERS: Not Applicable		
THESIS : STUDENT RESEARCHER: Neba Samuel Fongwa		
THESIS SUPERVISOR: Prof. Nico Cloete and Dr Gerald Ouma		

D. GENERAL INFORMATION

STUDY LEAVE TO BE TAKEN DURING PROECT (days): N/A

COMMENTS: DEPARTMENTAL CHAIRPERSON: N/A

IS IT INTENDED THAT THE OUTCOME WILL BE SUBMITTED FOR PEER REVIEWED PUBLICATION?

YES NO ✓

SIGNATURE OF THESIS STUDENT RESEARCHER – WHERE APPROPRIATE:

SIGNATURE OF THESIS SUPERVISOR – WHERE APPROPRIATE:

SIGNATURE OF PRINCIPAL RESEARCHER – WHERE APROPRIATE: N/A

DATE:

SIGNATURE OF DEPARTMENTAL CHAIRPERSON:

DATE:

NOTE: THESE SIGNATURES IMPLY AN UNDERTAKING *BY THE RESEARCHERS*, TO CONDUCT THE RESEARCH ETHICALLY, AND AN UNDERTAKING BY THE THESIS SUPERVISOR (WHERE APPROPRIATE), DEPARTMENTAL CHAIRPERSON TO MAINTAIN A RESPONSIBLE OVERSIGHT OVER THE ETHICAL CONDUCT OF THE RESEARCH.

E. DESCRIPTION OF PROJECT AND RESEARCH ETHICS STATEMENT

Description of Research Project.

Key words:

Regional, Contribution / Role, Development, University Engagement, University of Buea, Buea, Cameroon.

Introduction:

The process of development has witnessed a major paradigm shift with Higher Education and its institutions taking an increasing role in the process (Pillay, 2008). Typical models of the role of higher education in regional and local development in the literature include the Land Grant universities in the US, another US model is witnessed in the Boston region, then also some Nordic models and other models as the Green Revolution witnessed in the East Asian and Latin American regions. However it should be noted that the role of higher education institutions in the development process has not observed a similar pattern across the continents. It remains rather unfortunate that very little or no research has been conducted in the Sub-Saharan region to understand the role of the university in regional or local economic and social development. This research thus aims to bring in a contribution to the available literature on Higher education and regional development, by exploring how this relationship has evolved in the Fako region of Cameroon.

Aim of Study: The main aim of the study is therefore to investigate the contribution of the University of Buea (UB) to the economic and social development of the Buea Region. The researcher proposes to achieve this aim through the following objectives:

- Investigate into the national and regional development policies to understand the expected role of the UB in regional development; and how the UB is responding to these expectations in its strategic plan.
- Do an assessment of the university / community engagement for development using defined social and economic indicators.
- Demonstrate using a modest impact study the economic benefits of the university on the local economy by its very presence using specific economic indicators.

Literature review: The concept of development has and can be defined in very different contexts depending on the author's normative view or field of study. This study however intends to limit its definition of development to a post-modernism definition proposed by Coetze (2001:120) who defines the concept as "...the connotation of favourable change moving from worse to better; evolving from simple to complex; advancing away from the inferior...a form of social change that will lead to progress...the process of enlarging people's choices, acquiring knowledge, and having access to resources for a decent standard of living". Based

on this definition, the study will look at relevant literature which highlights these changes at regional levels. These will include the case of the University of North Carolina in the US, as well as the universities in the Boston region (Simha, 2005); another example will be the Land Grant universities of the US (McDowell, 2003) and other examples relevant to the study.

The literature on the contribution of universities on regional development will also be critical to the development of a theoretical framework for the study. Major authors include Chatterton and Goddard (2000), Bloom et al. (2005), Farrant (2001), Bridges (2007), Comim (2007) OECD (2001, 2007a, 2007) reports. These authors and more will provide the basis for the argument for universities in regional development and community engagement.

Theoretical / Conceptual Framework:

For higher education institutions to assume its role in the process of regional development, successful cases (as listed above) have highlighted a close linkage between national and regional development policies. There need to be a mutual understanding between the national objective of regional universities and how these universities respond to these expectations for development. This study is thus conceptualised first on what the national development policy expects from Higher education institutions in regional development and how the University of Buea has contributed to regional development both in their strategic plans as a response to the national demands as well as by its very presence in the region. It is important here to highlight that development policies are established under other external pressures on the government; this research however will be limited to the role of higher education in development.

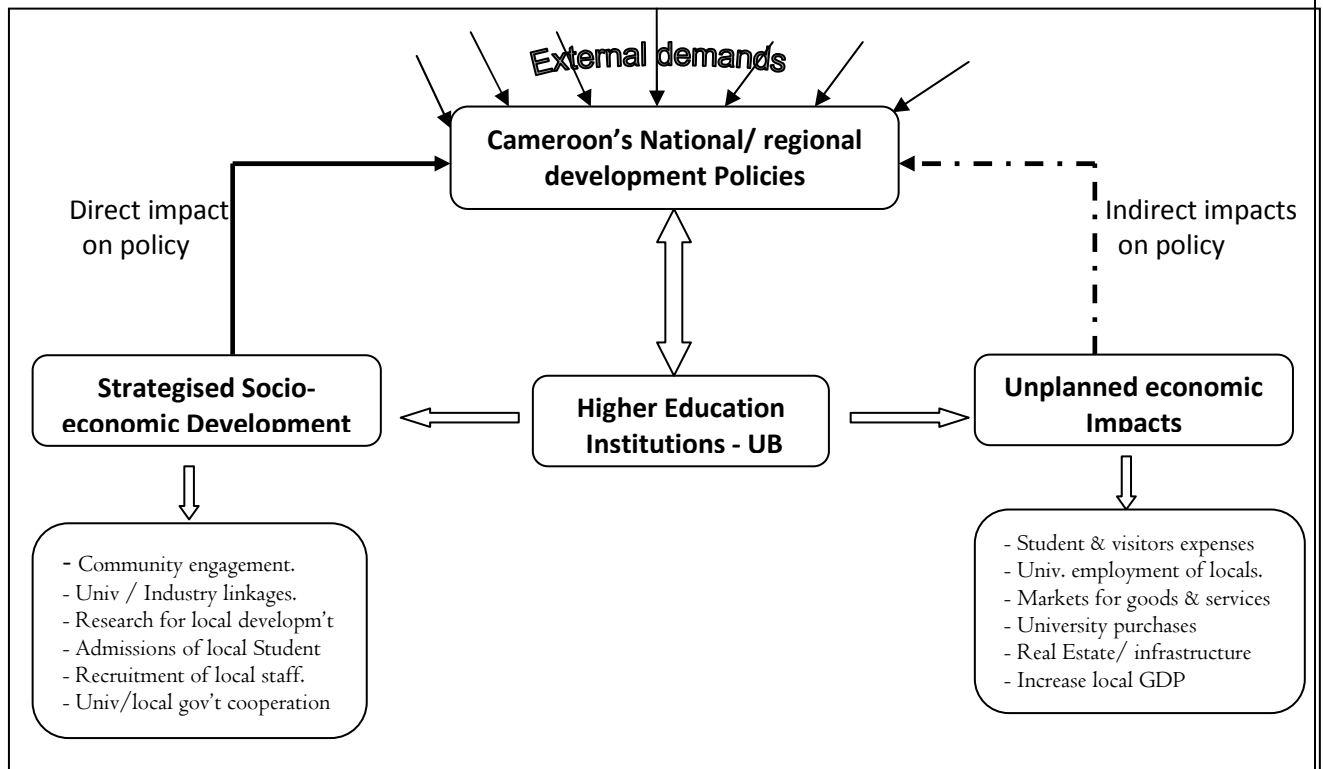


Figure 1. Analytical framework of UB in regional Development.

Methodology

The research will make use of the Case study design with the University of Buea in Cameroon as the chosen case study.

Quantitative and qualitative research methods will be applied for data collection and analysis.

Purposive and random sampling techniques will be used during the data collection process which will make use of both structured and semi-structured questionnaires.

Four different groups of respondents will be contacted using different set of questionnaires which will seek to answer the different research objectives. These will include University administrative staff, students, some Municipal council administrative staff as well as some major development stakeholders in the municipality.

A thorough description of the methodology will be made available in the attached proposal document.

Ethics Statement

This study will be conducted once the University has approved this proposal and the researcher will adhere to following ethical rules;

- Participation in the research study will be voluntary, with no form of coercion used against participants. Confidentiality will be guaranteed, and the participants reserve the right to withdraw from the research at any stage and for whatever reason.
- The researcher will take responsibility in ensuring that all the information gathered is treated sensitively and confidentially as well as protecting the identities and interests of all participants.
- The researcher pledges to meet all the other legal and ethical requirements of the University of the Western Cape as well as other bodies concern throughout the course of the study.

Form issued by: Professor Renfrew Christie, Dean of Research, February 2002.

APPENDIX 2

UNIVERSITY of the WESTERN CAPE
Private Bag X17, Bellville, 7535
South Africa
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FACULTY OF EDUCATION

Participant Information Sheet.

I am very grateful for your acceptance to cooperate in this research project.

This project is being carried out by Mr. Neba Samuel Fongwa for the requirements of a Master degree in Education by full thesis at the University of the Western Cape in South Africa.

Please do feel free at any point of this process to ask questions of clarification through my contact details and those of my supervisors available at the end of this sheet.

Title of Research:

“The Contribution of higher education to regional Socio-economic development: The University of Buea, Cameroon, as a Growth Pole”

Rationale of the study:

The research has been motivated by a number of key reasons. Primary is the need to demonstrate using a detailed literature review a detailed understanding of the complex relationship that exists between Higher Education (HE) and regional development at a global scale. This was followed by a desire to understand how African HEIs have responded to the strong call by development agents to take a major role in regional development.

A further *raison d'être* for the research is to highlight the fact that an increase investment in HE as well as integrating HEIs in national and regional development plans by African states could very much see African economies ‘leapfrog’ the development process (Cloete, 2000).

Description of study.

The study will make use of a single case study which will be the University of Buea in the Fako region of Cameroon. Four target groups of respondents have been identified and will be provided with questionnaires during the data collection process. Being the main

researcher, I will be in charge of providing respondents with the relevant questionnaires in order to understand the role of UB in the development of the Buea Municipality. This information will be analysed based on a number of identified indicators.

Confidentiality:

The confidentiality of every respondent in this project will be highly respected all through the project and after. A consent form will be attached to every questionnaire which will be signed before participation and which will not be made available to public upon thesis completion.

Voluntary Participation and Withdrawal

At any point in time, the respondent is free to withdraw from the participation process without any need for explanation whatsoever. In case of any questions considered sensitive, the respondent reserves the right not to answer.

Risks and benefits of Participation;

There will be no direct benefits derived from the project through your participation, but the cumulative social benefit will result from the knowledge and understanding which will be derived from the final report. Apart from your time spent in answering the questionnaires, there will be no other cost inherent in the process.

Informed Consent:

Before continuing to answer the questionnaire, your consent to participate in this study will be appreciated through the signing of the attached consent form. This will help to ensure and enforce issues of validity and reliability of the data collected.

In case of need for clarification, Please do contact

The researcher: Mr Samuel N. Fongwa

Tel: +237 77760869

Email: 2767089@uwc.ac.za

Program Coordinator: Dr. Gerald Ouma

Email: gouma@uwc.ac.za

Tel: +27 728382117

Project Director and Supervisor: Prof. Nico Cloete

Email: ncloete@chet.org.za

APPENDIX 3

UNIVERSITY of the WESTERN CAPE
Private Bag X17, Bellville, 7535
South Africa
Tel: +27 (0) 21 959 2649 / 3888
Fax: +27 (0) 21 959 2647
Email: gouma@uwc.ac.za
Website: www.uwc.ac.za

FACULTY OF EDUCATION

INFORMED CONSENT

Please if you agree to participate in this research project, your signature on this consent form is required in order for us to proceed with the interview/ questionnaire filling session.

I have fully read and clearly understood the purpose of this research project on the Participant Information Sheet and hereby give my consent to participate in the study.

All issues of ambiguity have been satisfactorily cleared and I therefore have no reservations towards the research project and the use of the collected data.

.....
Participant Name

.....
Participant signature

.....
Name and signature of Researcher

.....
Date

APPENDIX 4

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Website: www.uwc.ac.za

FACULTY OF EDUCATION

To Whom It may Concern.

Dear Sir

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

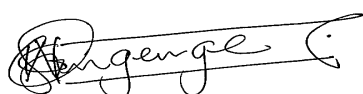
Mr. NEBA SAMUEL FONGWA Student number **2767089** is a fully registered student of the University of the Western Cape – South Africa. He is enrolled in the NORAD-sponsored Master of Education (Higher Education Studies) programme, which is a collaborative programme involving the University of the Western Cape, University of Oslo (Norway), Makerere University (Uganda) and the Centre for Higher Education Transformation (CHET).

Mr. Neba's research proposal was recently approved by the Faculty of Education's Higher Degrees Committee, and I am therefore writing to kindly request that you grant him permission and support to collect data for his/her dissertation research. I wish to assure you that the data to be collected shall be utilised strictly for the study and utmost confidentiality and other ethical considerations shall be adhered to as well.

Should you have any questions please do not hesitate to contact me at the following email address: gouma@uwc.ac.za or telephone no. +27(0)21 763-7100

Thank you.

Yours sincerely



Dr Gerald W. Ouma

Co-ordinator, Master of Education (Higher Education Studies) programme

APPENDIX 5

REPUBLIC OF CAMEROON
PEACE - WORK - FATHERLAND

P.O. Box 63
Buea, CAMEROON
Tel: (237) 33 32 21 34/33 32 26 90/3332 27 06
Fax: (237) 332 22 72



PRO-CHANCELLOR: Professor Maurice Nchuente
VICE-CHANCELLOR: Professor Vincent P.K. Titanji
DVC/Teaching, Professionalisation and Development of
Information and Communication Technologies: Dr. Nalova Lyonga
DVC/Research, Cooperation and Relations
with the Business World: Professor Victor Julius Ngoh
DVC/Internal Control and Evaluation: Professor Nzumbe-Mesape Ntoko
REGISTRAR: Professor Samson N. Abangma

Your Ref: _____

Our Ref: 2009/234/UB/DVC/RCB/RPD

Date: _____


Mr. Neba Samuel Fongwe
Faculty of Education
University of Western Cape – South Africa

Authorisation to Conduct Research at the University of Buea

We write in response to a request by Dr. Gerald W. Ouma, Coordinator of the Master of Education Programme in your institution dated January 2, 2009, for an authorisation to be issued to you to enable you conduct research at the University of Buea on the topic "The contribution of Higher Education Institutions to Regional Socio-economic Development: A case study of the University of Buea in the Buea Region of Cameroon".

We understand that the study will focus on the role the University of Buea has played in the development of knowledge, and meeting local, regional and national development needs in the Buea Region. In view of the importance of the topic and the fact that such a study will not only expose the potentials of the University of Buea, and her contribution to the development of the Buea Region, but will also sell the image of the University, we are pleased to inform you that you have been granted permission to collect data for your research in the University of Buea.

This authorisation also takes into account the assurances of your Coordinator that "the data to be collected shall be utilised strictly for the study and utmost confidentiality, and other ethical considerations shall be adhered to as well".


Professor Victor Julius Ngoh
Deputy Vice-Chancellor in charge
of Research, Cooperation and Relations
with the Business World

APPENDIX 6 (QUESTIONNAIRES)

Interview guides:

University of Buea (DVCs / Deans / HODs / Program Coordinators)

This questionnaire is part of a study being carried out by Mr. Neba Samuel Fongwa on the socio-economic impact of the University of Buea (UB) on the Buea Municipality as part of his thesis for a Masters degree at the university of the Western Cape in South Africa.

Your sincere response will be highly appreciated. Please tick the applicable box or use blanks.

1. The UB has as one of its missions 'Community Service'. What do you understand by Community Service? _____
2. Has there been any formal enabling environment created by the UB towards the attainment of this mission? Yes No Please explain. _____
3. Has there been an active response from the academic staff towards the realisation of this mission? Yes No Please Explain how _____
4. In your opinion what has been the role of the UB in the social development of the municipality? Positive Negative Both Please explain. _____
5. In your opinion what has been the role of the UB in the economic development of the municipality? Positive Negative Both Please explain. _____
6. In your capacity what can be an assessment of the 1998-2003 UB strategic framework in terms of community service? _____
7. How has the department/Faculty contributed to the UB achieving Community Service? _____
8. In your opinion what has been the three key developmental problems facing the municipality? _____
9. What has been the response of the department/Faculty/UB to some of these problems? _____
10. Is there any formal forum in which local development stakeholders come together for regional planning? _____
11. Besides teaching, what has been the core activity in community engagement? Community-related Research Community Service. Others Please list? _____

12. In your opinion what would you propose could enhance the UB's contribution to the economic development of the municipality in the next 5-10 years?

13. In your opinion what would you propose could enhance the UB's contribution to the social development of the municipality in the next 5-10 years?

Thanks very much for your time and response.



Local Development Stakeholders¹¹ Questionnaire

This questionnaire is part of a study being carried out by Mr. Neba Samuel Fongwa on the socio-economic impact of the University of Buea on the Buea Municipality as part of a thesis for a Masters degree at the university of the Western Cape in South Africa.

Your sincere response will be greatly appreciated.

1. For how long have you lived or operated in the Buea/Fako region / municipality.

2. Are you an indigene or have you moved here from another town or province?

3. What were the circumstances that influenced your relocation to Buea?

4. How can you compare present-day Buea to what it was 10 years ago?

5. Can you attribute any of these changes to the presence of the University of Buea? If Yes How? _____
6. According to you what has been the contribution of the University of Buea to the development or transformation of the Buea Municipality. _____

7. Have you worked in partnership or with any other organisation or individual towards the development of the region? If Yes, How? _____

8. What has been the major development challenges in the municipality? _____

9. How could this challenges be overcome to ensure the rapid development of the Buea Municipality in particular and the region in general? _____

¹¹ These include target individuals, local development agencies, National development bodies, other HEIs,

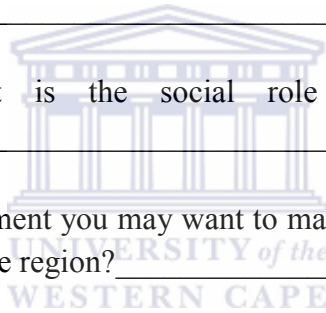
10. Has there been any significant partnership between you as an individual / organisation and the University of Buea towards the development of this municipality? How? _____

11. Are there any potential areas of partnership you think you could engage in with the university towards the development of the municipality? If yes, which and how _____

12. Do you consider the University of Buea a significant agent for economic and social development of the Municipality? Why? _____

13. How in your view should the UB be mobilised to achieve optimal contribution to the development of the municipality? _____

14. In your opinion what is the social role of the UB to the Buea Municipality? _____
15. Any other remark or comment you may want to make to the researcher in relation to UB and development of the region? _____



Thanks very much for your time and response.

Interview Guide (Questionnaire)

Buea Rural Council (Lord Mayor, Deputy, S.G)

This questionnaire is part of a study being carried out by Mr. Neba Samuel Fongwa on the socio-economic impact of University of Buea (UB) on the Buea Municipality as part of a thesis for a Masters degree at the university of the Western Cape, South Africa.

Your sincere response will be greatly appreciated.

Regional Dynamics

1. What is the geographic spread of the Municipality in terms of development?

2. What are the key development challenges peculiar to the Buea Municipality.

3. Can the UB be referred to as the engine of the Development of the Municipality? No
Yes Why? _____
4. Challenges of the municipality as a result of the presence of the University of Buea.

5. Does the current Strategic framework for the development of the Buea Municipality recognise the role of the University of Buea in achieving this framework? How?

6. How do the main strategic departments of the council: (e.g. 1) Central Administration
2) Works 3) Finance, 4) Public Relation and communication) cooperate with the UB
for the benefit of the municipality? _____

Council-University Cooperation.

7. Is there any cooperation with other Higher Education Institutions (HEIs) in the region
in local development? How _____

8. What (if any) is considered the key role of HEIs as a stakeholder in local
government's strategy for Buea's development? _____

9. How does the Buea Municipal council particularly benefits from the presence of the
UB ? _____
10. What has been the level of engagement between local government and HEIs/UB
(past and present) towards economic and social development. _____

11. Is there any other benefit generated by the council in its cooperation with the UB
towards the development of the municipality? _____

12. In your opinion what has been the impacts of UB on the region/municipality: 1) socio-economic, 2) cultural, 3) political? Positive, Negative, Neutral
How? _____
13. What in your opinion should the university be doing which is not doing to enhance its contribution to the development of the municipality?

14. What could be your advice to other municipalities without universities but who aspire or wish to have one in the near future? _____
15. Other remarks _____



Questionnaire for UB Students.

This questionnaire is part of a study being carried out by Mr. Neba Samuel Fongwa on the socio-economic impact of UB on the Buea Municipality as part of his thesis for a Masters degree at the university of the Western Cape, in South Africa.

Your sincere response will be highly appreciated. Tick applicable box or use blanks.

1. Level of study and Faculty? Undergraduate. Post-graduate. Faculty
2. Sex: Male Female
3. Place of residence in Buea? UB Hostel Molyko MiniCité Other
4. Hometown Region? Buea South West Other
5. Why chose UB over the other state Universities?
6. Would you have moved to UB if you had a university in your locality? No Yes
Why?
7. How much can you estimate as your total monthly expenses as a student in UB (including rents)? <25,000 25,000 – 50,000 50,000 – 75,000 >75,000
8. What are your 2 major sources of finance? Parents Families abroad
Visitors Scholarships & Bursaries Local employment Friends
9. As a student are you involved in any income generating activity in Buea? No Yes
If Yes, what kind of activity.
10. What is your reason of engaging into business activity? Financial Need Market
Others
11. Net monthly profit from activity? <15,000 25,000 50,000 >50,000
12. Are there other benefits you derive from the town apart from your studies? No Yes
If Yes, what are they? 1..... 2..... 3..... 4
13. Average number of overnight visitors you get per year coming out of Buea? None
<3 3 - 5 5 – 10 > 10
14. How much does each of these visitors spend on average per visit (in FCFA)?
< 15,000 25,000 50,000 >50,000
15. Would you like to remain in Buea upon degree completion? No Yes
Why?
- As a student what is your perception of the role of the UB as an agent for Buea’s development?
Positive Negative Neutral How?
16. What would you propose to the UB authorities to enhance their contribution to the social and economic development of Buea?.....
17. Do you know any organisation active in local economic development in Buea ? No Yes
If yes, which and How?.....



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