

What is wrong with University Research in Africa? A Reflection on Selected Issues

Dr. Pius Peter Mgeni

Educational Secretary Catholic Diocese of Iringa, Tanzania

*Corresponding Author:

Dr. Pius Peter Mgeni

Email: mgenipio@yahoo.com

Abstract: University research as key to socio-economic transformation has provoked and dominated debate in post independent Africa for more than five decades. Historically, most of the universities in the African continent were established soon after independence as symbol of national prestige as well as instruments for national development. Universities were considered to be fruits of independence just like other symbols of self-determining African states namely national flags, national anthems, national dress, and national currencies with the head of a black president. At the independence, newly born African states had critical demands of skilled labour force in all sectors of their nascent economies; hence, university education, being a stronghold of research was expected to provide solutions by giving indigenous people with relevant knowledge and skills, capable of eradicating social, political and economic setbacks. Now it is more than five decades after independence, but majority of African countries are still victims of rampant poverty. A popular mantra is that university education in Africa is failing its people. University research in Africa seems to be impotent as it is unable to produce local entrepreneurs, inventors, scientists, good leaders to mention but a few examples. Therefore, it is legitimate to put this question, what is wrong with African university education in general and research in particular? This study deployed documentary analysis to examine key challenges faced by Sub-Saharan African universities in building research capacities capable of bringing socio-economic development. The analysis is based on synthesising various literature sources namely; online electronic journals, online books, print books and websites. There is a myriad of factors for poor research base in Africa but the author presents some selected issues and suggests some measures that can rectify the situation. Sub Saharan Africa is presented in general but in some cases specific examples of countries are given.

Keywords: Sub-Sahara Africa, Educational Research, Higher Education, Socio- Economic Change.

INTRODUCTION

The historical birth of higher education in Africa is still a matter of grand debate among scholars. When did Africa started to have its own higher education? Some Afro -centric academics trace the existence of certain forms of higher education in Africa even before the onset of colonialism. They maintain that centres of higher education existed in Egypt, Ethiopia, Mali and Tunisia to mention but a few examples [1]. However, it is argued that the pre-colonial historical beginning of the university in Africa has limited or no relevance at all to the development of the modern university [2]. It follows that university education in Africa is mainly an offshoot of the colonial legacy. Similarly, Mamdani [6] argues that the pre- colonial historical facts are of marginal significance for contemporary African universities as the knowledge production is based on disciplinary modes developed in Western universities during the 19th and 20th centuries. Akin [3] argues that it is possible to give a historical overview for the development of modern universities in Africa in three distinctive periods namely, the colonial

period, the nationalist period and the present neo-liberal period.

University Education During Colonial Era

Akin [3] lists some key features of higher education in Africa during the colonial era. He observes that higher education during the colonial times was inadequate in terms of quantity, purpose, format and legacy. Colonial universities were created with a major mission of preparing low-cadre administrators for the government as well as teachers for missionary schools. This explains why at the time of independence the main setback of newly independent nations was a critical shortage of professionals like medical doctors, lawyers, teachers and engineers. It is clear that colonial university education was not for socio-economic liberation of Africans. It aimed at creating educated “yes men and women” obedient like robot to the colonial masters. Paradoxically, colonial education provided also the impetus for growth of nationalism and ultimately decolonisation of Africa leading to ascending to power of native male black politicians.

Mamdani [6] observes that colonial universities were few and far between: Makerere in East Africa, Ibadan and Legon in West Africa and so on. Few colonial universities were deliberately established in order to restrict number of Africans who could access higher education. As far as British colonies were concerned a limited number of African university students was a planned mechanism to avoid what the British called Indian *disease* that is the development of African middle class who could likely carry the deadly virus of nationalism. Paradoxically, colonial universities planted the seeds of their own destruction as they provided impetus for nationalist struggles for formal decolonisation [3].

The first colonial universities established in Africa such as Fourah Bay University in Sierra Leone (18th century), the University of Ibadan Nigeria, 1948, The University of Ghana, 1948, Makerere University-Uganda, 1949, the University of Dakar-Senegal, 1954, Lovanium university in Kinshasa-Zaire, 1954 were followed by other universities in Abijan-Ivory Coast and Younde-Cameroon to mention but few of them. These universities trained few Africans who served the colonial system and later fought against colonialism [4]. Most African leaders in newly independent African states were side effects of colonial education. Thus, leaders like Mwalimu Julius Nyerere of Tanzania, Jomo Kenyatta of Kenya, Hasting Kamuzu Banda of Malawi, Kwame Nkrumah of Ghana, Milton Obote of Uganda, Keneth Kaunda of Zambia obtained colonial education which enabled them to fight the evils of colonialism.

The Nationalist Era

Historically, the majority of African countries obtained independence in the early 1960s. Filled with euphoria of just-gained independence, the creation of a national university for each country in Africa became a major concern for politicians. It was the period when country after country founded national universities by either building new institutions or transforming the existing colonial training centres [1]. The great desire to establish universities by any means in this particular period came out of nationalist and patriotic ambitious. A national university became a symbol of prestige and self-rule just like other symbols of independence namely, the national flag, the national anthem, the international airport, the national bank and the national currency [1]. The universities became means for attaining national political, economical and social goals. The state controlled model of universities was predominant in this era [3]. The newly independent African states behaved like a big daddy by being solely provider of subsidy to students who qualified to join university education. The entire students' costs for education were covered by the government for better control of education [5]. The universities ceased to be academic centres and became instruments to implement

a state determined nationalist agenda. University professors looked like presidents and ministers in waiting. Universities became incubators for both critical thoughts and anti-the so called political heretics [6].

Akin [3] argues that African national universities created soon after independence were expected to produce skilled indigenous human resource necessary to replace positions held by colonial masters in exodus, generate relevant research for socio-economic development of Africa, provide community service, take active roles in socio-economical transformation and be centres for formulating research agendas. Given the importance to university education for the national development, from independence in 1960s to the early 1970s most African countries heavily invested in university education. Investment in quality university education was inevitable for the national development. In his speech at the university college of Dar es Salaam (Tanzania) Nyerere the first president of Tanzania observed:

The cost of keeping a student at this college will be about £ 1000 a year. That is to say it takes the annual per capita income of more than 50 people to maintain a student at this college for one year. It's obvious that disparity can only be justified morally or politically if it can be looked upon as an investment by the poor in their own future [7].

The shortage of educated men and women at the time of independence was sufficient cause for expenditures in university education despite poor economies of newly independent nations. The investment in university education was the sacrifice of the poor for their nations. In return, universities were expected to equip the new African generation with quality education that would be relevant to the problems of Africa [7].

The Period of Crises to the Present

The period from the 1970s to the early 1990s constitutes the period of university crises. Like other places in the world, Africa was hit by global economic downturn. In the early 1960s, the World Bank policies gave full support to African nascent universities' efforts to achieve the objective of labour force development [8]. As time passed, exactly from the 1970s to the early 1980s African countries were mandated by key donors in education to divert resources from university education to basic education as condition for obtaining the World Bank financial assistance [3]. This marked the beginning of crises of university education in Africa. The World Bank decided not to support higher education in Africa without any strong research evidence from the grassroots. Investment in university education was considered to be a misuse of resources

because the costs benefits analysis revealed that investments in university education provided more individual benefits rather than social returns [8]. Most of African countries such as Tanzania, translated basic education as solely primary education. The weakening of university education started in this period since it is difficult to locate any country in the world which has acquired socio-economic development by massive investment in primary education at the expense of university education. I would argue that this was planned move of the Western nations to sabotage education in Africa for easy domestication of African people. The donors had adequate knowledge and experiences on benefits of university education for national development; still they advised African countries to put more resources in primary and basic education. Being economically poor and having no other option, African countries accepted the conditions given by the Bretton-Woods financial institutions namely the World Bank and the International Monetary Fund as necessary evils for the survival. It can be argued that the World Bank and International Monetary Fund policies have played a key role for the African crises of universities. This period was marked by a "brain drain" whereby African countries lost many of the talented scholars who opted to look for green pastures. The consequence was devastating as far as research is concerned. The overdependence on the World Bank and the International Monetary Fund have weakened university education as well as university research in Africa for decades. The international donor organizations considered higher education in Africa as luxury and one of a key condition for qualifying for World Bank assistance in education sector was for African countries to divert resources from higher education to primary and basic education [8-10].

The World Bank started to reverse its policies on university education in Africa in the late 1980s. It declared that for Africa to achieve its economic goals it required more than basic education. Africa needed to have highly qualified and trained people capable of performing top quality research, formulating policies and implementing programs essential for economic growth and development [11]. Furthermore, it was stated that the survival of Africa in the competitive world of the 21st century depended much on human capital to harness the universal explosion of knowledge for the benefits of Africa. Failure to produce quality manpower meant Africa would fall farther and farther behind the industrial nations. It was argued that it was imperative for Sub-Saharan Africa to move faster to acquire higher order skills and expertise which would allow African countries to add value to existing economic activities [12]. Moral and material support instilled Sub-Saharan countries with vitality leading to the increase in the number of universities as well as expanded students' enrollment in universities.

UNIVERSITY RESEARCH FOR NATIONAL DEVELOPMENT

The role of research for national development does not need to be overemphasized. Research is the key component that distinguishes universities and other lower institutions of learning. The short history of university education in Africa reveals that African leaders and the general population had and still has high expectations from the institutions of higher learning in general and university education in particular. The inception of universities was expected to contribute to transforming African societies politically, economically and socially. This was the dream of African nations as they were investing in university education. Despite the noble dream, the African continent south of the Sahara with the exception of the Republic of South Africa is still lagging behind world indicators of development.

The university education is failing to accomplish its main objective of liberating Africans from rampant poverty. If countries like China, India, Indonesia, and Singapore to mention but a few are making economic revolution through relevant education, Africa south of Sahara seems to be changing by evolution. The common denominator of all African countries south of the Sahara is economical, political and social stagnation. The question is what is wrong in sub Saharan African universities? Most of Sub-Saharan African countries have celebrated golden jubilees, fifty years of independence in the midst of poverty and political turmoil. Strangely, enough the golden jubilee celebrations in most countries were marked by military parades, demonstration of military tanks, war planes acrobatics as well as African traditional dances. To be sincere very little time was reserved to reflect on socio-economic development, that is what is the significance of fifty years of independence to the ordinary African who struggles to eat a single meal each day? I argue that golden jubilees were the best time to reflect socio-economical status of Africa not military might which more often are causes of unnecessary wars in Africa. The poverty in Africa becomes poorer year after year, where Africa has gone wrong? Does Africa justify blaming colonialism, neo colonialism and globalization as scapegoat for African widespread poverty? This would be giving simple and readymade answers to complicated issues. It is no wonder, African political leaders opt to externalize every problem happening in Africa as having colonial connection and slave trade. Some political leaders in Africa are still hiding behind external factors such as slave trade, colonialism, neo-colonialism, globalization, unequal international trade as only sources of African socio- economic stagnation. This tactic has a tendency of diverting the general populace to overlook corrupted African leadership. I agree that external factors have a role to play in

explaining African underdevelopment but internal factors such as corrupted African leaders, bad governance, poor education systems to mention but a few of them cannot not be overlooked. For the purpose of this paper the question is why university research, the backbone of institutions of higher learning, is impotent, incapable of generating knowledge that can make measurable and observable impacts in African development.

The data from the World Bank presents Africa south of the Sahara as having the lowest Gross National Income per Capita in the world. The gap of incomes between developed nations and Sub-Saharan Africa is too immense to reduce in the few years to come. A Strong base in university education could be the only fast track of minimizing the difference. It is overstated to maintain that a good education leads to development, socially, economically and politically. It is only through effective learning, the human person becomes master of his/her environment. With education, the humankind is not afraid of natural calamities such as floods, earthquakes, epidemics and scarcity of rainfall. As a matter of fact an earthquake in Japan is likely to produce less damage compared to that of Haiti, Algeria, and Iran. Actually, some countries, especially those found in Asia, China, India and Malaysia have made economic revolution through quality learning.

The major challenge for African higher education is finding ways of addressing and investigating the 'kind' of education that is required in the development context. If sustainable development is to be achieved through the provision of higher education, then higher education itself must undergo a radical epistemological and structural change by placing

emphasis on scientific and technological knowledge, research-based knowledge, and the need to raise the awareness on development issues in order to counteract the overwhelming death of a critical questioning culture. As far as the African educational system is concerned, the impact of education on development seems to come by evolution rather than revolution. Africa educational systems seem to be unable to create relevant knowledge, appropriate to African environment. Despite the proliferation of African universities, still the continent is incapable of cutting off the umbilical cord with the western world that is to say overdependence on western intellectual ideas is still very strong.

It is a challenge to educated men and women. Sometimes the major causes for African socio economic stagnation are well known and memorised by both educators and students; however, it is not only enough to list the problems but also important to know how to fix them. It is high time to strive for knowledge that can bring real changes on the ground. Academic excellence should not only be measured by the number of articles scholars publish in various journals and books, or whether scholars literally follow step by step the format of scientific research but also by looking at socio-economic impact of scientific writings. The real impact or the change the scientific paper brings on ground is of great importance as far as development of the nation is concerned. As far as African scientific research is concerned, researchers are more attracted to conduct studies in those areas which are highly funded by external donor countries. Table 1 compares the Gross National Income of selected countries in Africa and developed world. Table 2 compares production of scientific publications in selected countries.

Table 1: Gross National Income in US \$ Selected Countries

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Burundi	90	100	110	120	140	150	170	220	240	280
Cameroon	830	930	990	1060	1160	1210	1200	1,150	1,190	1,270
Chad	340	430	460	500	550	610	620	900	970	1,020
Democratic Republic of Congo	110	120	130	150	160	170	180	330	370	400
Ivory Coast	770	870	900	950	1070	1160	1160	1,140	1,220	1,380
Ethiopia	140	160	190	230	290	350	390	390	410	470
Nigeria	540	630	830	960	1170	1190	1230	1,710	2,490	2,760
Tanzania	360	390	390	410	460	500	540	540	570	630
Uganda	270	300	340	380	420	470	500	460	480	510
Central Africa Republic	300	340	360	380	420	450	470	490	490	320
Belgium	32,040	36,600	38,840	41,420	45,140	44,660	45,840	45,800	44,810	45,210
Canada	28530	33,110	36,910	40,320	43,460	41,890	43,250	46,860	50,650	52,200
China	1,500	1,740	2,040	2,480	3,040	3,620	4,270	4,900	5,720	6,560
Denmark	41,560	48,590	52,250	54,700	59,040	58,330	59,400	60,260	59,860	61,110
Germany	30,750	34,780	37,210	39,440	42,520	42,400	43,070	44,670	45,170	46,100
India	610	720	810	950	1,040	1,160	1,270	1,450	1,550	1,570
Japan	36,690	38,950	38,590	37,760	38,000	37,520	41,850	45,190	47,690	46,140
Norway	53,200	62,490	68,900	76,990	85,560	85,760	87,350	89,000	98,880	102,610
Singapore	24,730	27,180	30,580	33,680	34,810	35,810	40,070	48,630	51,090	54,040
Sweden	37,190	42,920	45,680	48,900	52,390	48,640	50,100	52,980	56,120	59,130

Source: World Bank Development Indicators . Available online at [www. Worldbank.org/indicator](http://www.Worldbank.org/indicator), accessed on 29th October, 2014.

Table 2: Scientific Papers and Publications in Selected Countries

Country	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Angola	5	1	3	4	3	3	2	6	7	6
Benin	29	28	31	28	30	43	44	48	47	51
Burkinafaso	28	41	42	32	49	43	43	50	54	53
Burundi	1	5	3	3	1	3	2	3	6	3
Cameroon	107	120	127	131	151	154	161	145	150	159
Chad	4	6	7	9	6	3	3	2	2	2
Democratic Republic Of Congo	5	7	5	6	4	7	11	19	15	21
Kenya	242	239	225	226	237	262	685	291	276	290
Tanzania	93	76	89	107	128	123	130	152	132	121
Malawi	49	43	42	41	47	63	54	53	55	57
Zimbabwe	97	87	64	62	63	80	66	56	70	63
Nigeria	363	358	381	364	406	428	463	462	494	439
Australia	4,460	4,692	4,716	4568	46614	4827	4816	4832	19,517	20,603
Belgium	6037	6302	6625	6847	6736	7078	7298	7,218	7,389	7,484
China	23269	28768	34846	41604	49575	58311	65,301	74,019	79,991	89,894
Germany	42436	42230	43014	44194	44544	44428	44913	45,003	45,338	46,259
France	30531	30304	29892	30340	31219	30752	31982	31,748	31,368	31,686
Brazil	3178	2920	2982	3058	3264	3,364	3,567	3,655	12,530	13,148
Argentina	3178	2920	2982	3058	3264	3,364	3,567	3,655	3,768	3,863
Japan	56347	57228	56535	55527	54,467	52909	51842	49627	47,043	47,106
USA	190496	196445	202097	205565	209272	209898	212883	208601		
Italy	22483	23765	24759	24663	25803	26501	28854	26755	26,348	26,503
United Kingdom	44643	45232	45492	45658	46747	47138	46333	45649	45,978	46,035

Source: World Bank Scientific Publications, available online at [www. Worldbank.org/data](http://www.Worldbank.org/data), accessed on 20th October 2014. (Scientific and Technical Journal articles refer to the number of scientific and engineering articles published in the following fields: Physics, Biology, Chemistry, Mathematics, Clinical medicine, biomedical research, engineering technology and earth and space sciences)

As Table 1 shows, Sub-Saharan Africa is the least developed zone in the world. Relevant knowledge creation through university research is a necessary condition for African development as Mohamedbai [13] observes:

For Africa to meet the challenges of poverty reduction and achieving sustainable human development, it needs not only to have an even greater output of highly qualified professionals but also produce and adapt knowledge and technologies relevant to its development

The message is clear: Africa requires intellectuals capable of applying their knowledge for the welfare of the people. Africa nations should be proud of not only producing a high number of academicians in various fields but above all intellectuals who competent enough to employ knowledge for socio-economic transformation. In order to fulfill this core mission of university education, research and innovations must be the main agenda of universities [13]. In comparison with other continents sub Sahara scientific output as measured by number of researchers per million inhabitants and production of scientific publications is insignificant. Mohammedbai [13] writes:

Global research indicators clearly show that sub Saharan Africa shares very poorly in research when ompared to other regions. It has

the least number of researchers per million inhabitants, produces the lowest number of scholarly scientific publications and makes the least investment in research and development

The data in Table 2 speak for themselves; the trend of scientific output is comparatively low. The promotion of research and innovations, especially in science and technology, is vital for the development of African countries. Therefore, they must be given priority in university education [13]. Research is vital component of any institution of higher learning. When the research component is ignored or written in the university mission statement as pure slogan, it is betraying the very essence of the existence of a university. Nyerere [7] defines a university as follows:

A university is an institution of higher learning; a place where people's minds are trained for clear thinking, for independent thinking, for analysis, and for problem solving at the highest level. This is the meaning of university everywhere in the world

Similarly, the former Secretary General of United Nations Kofi Annan [14] points out that:

The University must become a primary tool for African's development in the new century. Universities can help develop African

expertise; they can enhance the analysis of African problems.

Both Nyerere and Kofi Anan give good definitions of the principal mission of a university in Africa. It can be argued that contrary to what a university is supposed to be, some universities in Africa are in reality diploma and degree mills. Pursue for paper qualifications precedes the desire of being centers for research, problem solving and knowledge production. In the developed nations private and public research laboratories are well equipped by the governments and act as centers for knowledge production in collaboration with universities. This is not true in Africa where there is a limited number of poorly furnished private as well as public centers for research. Therefore, universities in Africa are supposed to be the core institutions for both basic and applied researches, problem solving research and production of highly skilled workers [15]. It follows that as the pinnacle of the whole system of education, universities are crucial for training professionals in the health sciences, law, administration, and engineering and teaching. They are also regarded as generators of knowledge and novel ideas addressing the particular philosophical, ethical and practical issues beset any society [16]. Soon after independence, universities were created as symbols of hope. They were expected to produce intellectuals competent enough to solve practical problems facing Africa. The enthusiasm of African peoples about the first universities was largely due to high hopes placed on these institutions. Vansina [16] observes:

That is also the reason why Africans, especially in urban areas were so enthusiastic about the first universities on Sub-Saharan Africa created after the Second World War. To them the university was the highway to intellectual independence as well as practical self rule such was the faith in the power of university training

In spite of rosy expectations about the power of university education to bring development in Africa, it can arguably be stated that universities in Africa are yet to realize their objectives. It is a painful delusion to the policy makers and to all peoples of Africa. The optimism people had about universities has become hallucination. There is a myriad of causes for the inability of university research to contribute to socio economic development in Africa. A number of scholars have identified some of the key causes for the crises of research in Sub-Saharan universities namely; poor funding of research, lack of experienced faculty, heavy teaching load, enrollment, inadequate library facilities, consultancy culture and colonial legacy.

Poor Funding of Research

According to the World Bank data Sub-Saharan African countries allocate very small percentages of their Gross Domestic Products for research and development. Table 3 shows expenditures for research and development in some selected countries.

Table 3: Research and Development Expenditure (% of GDP) in Selected Countries

country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Zambia	0.01	0.03	0.03	-	-	0.34	-	-	-	-
Uganda	0.26	0.26	0.22	0.30	0.39	0.33	0.41	0.56	-	-
Burkinafaso	-	-	-	-	0.11	0.19	0.21	-	-	-
Kenya	-	-	-	-	0.42	-	-	0.98	-	-
Mali	-	-	-	-	0.25	-	-	0.66	-	-
Nigeria	-	-	-	-	0.22	-	-	-	-	-
Senegal	-	-	-	-	-	0.37	-	0.54	-	-
Tanzania	-	-	-	-	0.43	-	-	0.52	-	-
Sudan	0.34	0.29	0.29	-	-	-	-	-	-	-
Austria	2.26	2.26	2.45	2.46	2.52	2.67	2.75	2.80	2.77	2.84
Canada	2.04	2.07	2.07	1.97	1.97	1.84	1.95	1.86	1.79	1.73
Finland	3.44	3.43	3.48	3.48	3.47	3.72	3.96	3.90	3.80	3.55
France	2.18	2.16	2.11	2.11	2.08	2.12	2.23	2.24	2.25	2.26
Japan	3.20	3.17	3.32	3.40	3.44	3.45	-	3.25	3.39	-
United Kingdom	1.75	1.68	1.73	1.75	1.78	1.77	1.87	1.77	1.78	1.72
USA	2.61	2.54	2.57	2.67	2.61	2.67	2.79	2.74	2.76	2.79
Italy	1.11	1.10	1.09	1.13	1.18	1.23	1.27	1.26	1.25	1.27
China	1.13	1.23	1.32	1.39	1.40	1.47	1.70	1.76	1.84	1.98
Singapore	2.05	2.13	2.19	2.16	2.36	2.64	2.20	2.05	2.23	2.10

Source: World Bank Development Indicators, available at www.worldbank.org/indicator, accessed on 20th October 2014.

It is clear from Table 3 that African states allocate a very small percentage of their Gross Domestic Product for research and development compared to advanced nations. Poor economies of sub

Saharan countries' countries do not adequately favor funding of university research. It is a kind of vicious circle; underfunding of research is due to poor economies and vice versa is also true. Africa is still

surviving under the mercy of developed countries. It is a complex issue to explain why economic takeoff in Africa is taking long. Mouton [15] argues that:

Various international forces associated with globalization and internationalization of trade in 1980s and 1990s have had a devastating effect in the economies of many African countries. The decline in export volumes and relative decline in the price of primary products in world trade in the 1980sincreased dependence of the typical sub-Saharan African country on aid from developed countries

It goes without saying that even the areas of research are fabricated by external donors as condition for receiving aid. The areas and topics to be researched are more of western fabrication rather than of local origin. Consequently, research conducted may not be of direct relevance to the development of African nations [13]. The area of research to most researchers in Africa is always associated with revenue sources. For most African researchers to the question what is the area of your specialisation in research, they would not hesitate to respond “My area of research is where there is money” Since the research is not focused towards achieving certain national goals it is unlikely that they can be used as engines of national development.

Inadequate Research Infrastructure

Inadequate basic infrastructure for smoothly conducting of research handicaps African universities in attaining excellence in research. In most cases, university libraries are inadequately and poorly equipped; they suffer a limited supply of computers and internet services. It is obvious that serious research cannot be conducted in such a pitiable environment. Nakanyike *et al* [17] write about the deterioration of Makerere university in Uganda:

The most obvious consequence of the fall in financial resources in 1970s and 1980s was sharp deterioration in the quality of teaching. Makerere became a place of bare laboratories, empty library shelves, chronic shortages of scholastic materials and overcrowded halls of residents

A poor research environment does not favour scholars to conduct relevant studies and hence universities are reduced to pure advanced teaching centres. The financial difficulties have led African countries to reduce their expenditures in establishing good university infrastructure that can support research. Vansina [16] notes:

As one country after another ran into financial difficulties during the 1970s university budgets were cut more and more. The first sector to suffer was support for the libraries and laboratories without which no original research was possible.

Hence, I argue that reluctance of African countries to finance university research is academic suicide. University education which is not rooted in relevant research can easily mislay its meaning.

The Dominance of Consultancy Culture

Consultancy culture has become dominant feature in most Sub-Saharan universities. The culture is fuelled by a desire of African researchers to attract externally-funded projects. As a result specialisation becomes less important. A good number of researchers in Africa are becoming consultants for any project which offers personal pecuniary benefits. A non-systematic consultancy culture has negative impact in the capacity of formulating realistic African problems. Mamdani [6] argues:

Today, intellectual life in universities has been reduced to bare-bones classrooms activities, extracurricular seminars and workshops have migrated to hotels. Workshop attendance goes with transport allowance and per diem. All this is part of a larger process, the NGO-ization of the university. Academic papers have turned into corporate –style power point presentation.

Generally, externally-funded workshops and seminars are conducted in luxurious five stars hotels. Often the attendance is motivated by *per diems* and the shocking concept of ‘sitting allowance’ implying that participants are paid by simply sitting as opposed to working. It is a bizarre terminology, but scholars are content with using it, though, they know that in the workshop no one is supposed to sit but to work. Workshops and seminars reduced to sitting allowances and *per diems* can hardly be avenues for development.

The dissemination of research through the use of technology such as power point is applauded; however, the exaggeration in its use leads to passivity as it lacks active debate as some power- point presentations are actually power notes! Furthermore a consultancy culture can hardly be used to solve African problems as it reduces university research as solely an instrument of finding answers to problems defined by clients [6]. It is evident that there is no time left for brainstorming the real problems facing the African continent. The top-down identification of problems as opposed to grassroots’ awareness of the real problems is short of focus and sometimes the issues identified are not significant in the African context. If colonialism

reduced Africa to a source of raw materials for the hungry industries in Europe, it is true to state that consultancy culture reduces African scholars as native informers, providers of raw materials (data) to outside academics who finance research, process it and then re-export their theories in Africa [6].

The research proposal writing style in Africa emphasises systematic description of data collection, methods of data collection and data analysis focusing on giving answers to problems created outside the continent. The mushrooming of short courses on methodologies is common in African universities in order to teach students and academic staff quantitative methods for gathering empirical data [6]. What is argued is that research is not only a systematic way of writing but it is above all its impact on the real ground. A Well written research without real impact on socio economic development is useless and not worthy to be called research. Consultation oriented culture prefers the use of quantitative approach as it is considered to be scientific per excellence and since what is important is getting figures and statistics. For university research to be productive in African soils, researchers in Africa must take an active part in formulating relevant research issues. *Bill Gates* with all his money and humanity can hardly solve African problems.

Colonial Legacy

Donato [4] observes that Sub-Saharan African universities, as they exist today, were conceptualised from the paradigms of colonial training centres whose major object was to serve colonial interests. The imposed educational curriculum was irrelevant to the needs of Africa. Purposefully, colonial government did not set up workable structure for technological transfer from the developed world to colonised institutions. A small part of individuals who were privileged to access a university education were alienated from the society. University cities became ivory towers in the midst of poverty-stricken populations. It is difficult to refute the fact that even today universities in Africa have made an insignificant contribution to knowledgeable generation. The universities in Africa still suffer a hangover from colonial legacy. The false departure right from the colonial times and few cosmetic modifications in the post-independence impede African universities in realizing the dreams of bringing relevant knowledge to a globalised world in general and Africa in particular. Siphon [18] observes:

The university in Africa was conceived primarily as transmission belt for western high culture, rather than a workshop for the transfer of western high skills. African universities became nurseries for westernized black intellectuals' aristocracy. Graduates of Ibadan, Dakar and Makerere acquired western

social tastes more readily than western organizational skills...we became wordsmiths and often despised black smiths.

I argue that African academics have not yet freed themselves from the colonial mentality. In many cases scholars are more attracted to conduct research, not because they want to contribute to development but for academic promotion. It is high time now for African universities to promote their academics not according to the number of publications but to the real impact of those publications on the real ground. Unless African academics break away from colonial mentality, sub Saharan universities will continue to maintain the status of impotency as far as knowledge production and dissemination is concerned.

Archaic University Curricula

Insensitivity to the changing situation of the real world makes the universities in sub Sahara Africa adamant to review their curricula according to the needs of society. There is a risk in African university system of teaching students irrelevant courses and contents. In the changing global world it is imperative to review the curricula to fit the 21st century. The reason of existence of any institution of higher education is to promote effective learning. It is unlikely that learners will be equipped with necessary ammunition to compete in the global world using outdated curricula. I compare university curricula and resistant to change in Africa with *Saber-Tooth Curriculum* a classic of educational criticism written in form of fiction to describe a Stone Age Educational System developed around 8000 years before Christ. The curriculum consisted of three subjects to be taught to the youths in preparation for the future namely; Fish grabbing with the bare hands-fishing or catching fish by hands, Wild horse clubbing-hunting little wild horses by clubbing and *Saber Tooth Tiger* scaring with fire for the security of the community. In a nutshell, the *Saber-Tooth* educational system developed according to the needs of the society. People in the society were happy as they could eat fish, meat, use animal skins for clothing and there was no fear for wild dangerous animals.

As it can be observed the *Stone-Age Curriculum* consisted of learning those skills which were necessary for someone to survive in the society. The learning outcomes were not simply well stated in a piece of paper as it is done now, rather, the survival of the individuals was a good indicator that learning was taking place in other words learning was effective. It was education for socio-economic development. However, the honey moon of this educational system did not last long. As a result of climate change during the period of the new *Ice-Age* things turned upside-down. Water in streams became muddy –fish became more intelligent by hiding themselves in the mud water.

It became impossible to catch fish with bare hands. The advanced students in fish grabbing returned home empty handed. The melting snow made the valleys too wet to the survival of wild horses and many of them disappeared. The best trained horse clubbers returned home empty handed. The Saber-Tooth Tiger scaring with fire ceased to be effective as new type of animals that were not afraid of fire appeared. The advanced methods taught in tiger scaring courses did not function any more.

As the nature of the society changed there was a big division among people in the community. The radicals called for the change in the curriculum, change in the content as well as strategies of learning in order to meet the new needs of the society while the conservatives resisted the change arguing that training to catch non-existent fish with bare hands was the best way to develop muscular coordination, training to club horses that did not exist was a true education since education is timeless and static, practicing to frighten tigers that did not exist gave courage to the students. For the radicals the change was by any means necessary since educating the students to catch non existing fish, clubbing horses that did not exist and practicing to frighten tigers that did not exist was a pure mental activity of no use a meaningless ritual [19].

If in a Saber-Tooth curriculum the changes were imaginary what we face today in the world in general and Africa in particular are real and tangible changes. The key question is how university education can promote effective learning? How can we promote productive learning suitable for the world of today and future? I argue that university research is vital as it is the basis for curriculum review or change. Most of curricula used in African universities were inherited from colonialism and little attention was paid to include local contexts and values. Vansina [16] argues:

Universities were introduced as foreign entities, which embodied the most concentrated body of all western values and world viewslittle or no attention was given to the most pressing problems of the real world around it

He continues:

...to the people in that world university research seemed arcane and waste of resources, most curricula were not adapted to local conditions, and much of what the students learned seemed wholly irrelevant [16].

Political Invasion in the University Life

From the independence period to date, African universities have been victims of political interference and manipulations. The strong presence of state politics

has undermined and still undermines the very essence of university that is academic freedom and autonomy. In some extreme cases the government control of universities is too strong and hence minimizing the efficacy of the institutions to work according to their objectives. Mamdani [6] gives his own experience:

I spent six years teaching at the University of Dar es Salaam in the 1970s. The downside of Dar es Salaam experience was that government tended to treat universities as parastatals undermining academic freedom.

Military and dictatorial regimes in Africa regarded universities as haven of scholars with radical anti-government views. Often scholars who questioned government malpractices like corruption were arrested and incarcerated in order to silence their voices [20]. The period of dictatorial regimes in Africa was characterised by academic terrorism. Censorship of academic writing and publications became a commonplace.

Due to governments intimidation through academic inquisitions most of talented African scholars were forced to either run away from the continent or cultivate the culture of silence-sacrificing truth for the fear of regimes repressions. Currently, Africa is living under the imported western democracy but the situation has not changed to the extent of leaving scholars exercise their intellectual creativity without fear. Some academics are used as instruments of the state becoming therefore praise singers of state policies at the expense of truth. The radical intellectuals who sometimes make critiques to the governments' policies are regarded to be political heretics and hence if they are employed to government state universities are silenced by a non renewal of their teaching contracts. The point is that too much control of university academic matters kills creativity and consequently research activities.

Limited Local Utilisation of African Research

Limited local utilisation of studies made by African scholars is cited by Sawyer [21] as one of factors limiting research capacity building in Africa. Imbedded with colonial mentality, a good number of African leaders are more attracted to use research signed by western researchers rather than making use of studies conducted by African scholars. The general mistrust of local researchers works against the eagerness of Africans to generate knowledge. The colonial hangover of white superiority complex and black inferiority complex is still in the mind of black decision makers who still think that nothing good can come from black people.

The overdependence on foreign experts kills local initiatives of finding out the real problems of

Africa. The dictum goes; it is the wearer of a shoe who knows where it pinches. African socio-economic developments can hardly takeoff by ignoring local initiatives. In other words development in Africa cannot arrive in a packet sent from Europe. The success stories of India and China strengthen the argument that local people initiatives and commitment to do away with economic stagnation through education is possible. It is embarrassing to wait for the Americans and Europeans to conduct researches about Malaria in Africa and come to tell us to use mosquito nets as prevention measures. The overdependence on research imported from America and Europe is clear nowadays in Tanzanian television advertisement mosquitoes speak with American accent! Therefore, non utilisation of local researchers' studies is clear message that they are *persona non grata* for the development of the nation.

Poor Structures for Research Publications and Dissemination

Inadequate and poor structures for research publications and dissemination of research reports create a challenge to research building capacity in African universities. There is general lack of sound system allowing smoothly publications of researches. The few published works remain for show in university shelves as there is poor communication of research reports to the general public and decision makers. Mohamedbhai observes:

Research publications comprise another challenge. Most of research results end up on university library shelves-in thesis and dissertations or advanced research journals. They are thus not accessible to or understood by policy makers or communities

Academic studies are not published to be put in shelves, rather, serve in generating knowledge for the growth of that particular nation. It is against common sense to produce knowledge without exposing it to the decision makers so that they can use for the development of the nation. As far as relationship between dissemination of research report and development of the nation is concerned Teferra [22] points out that: *For African science and research to make significant contributions to national development, a sound understanding of scientific communication is imperative*

Well established scientific communication system is key to development as it enables researchers to have habitual and reliable access to current knowledge and information sources generated both nationally and internationally [22]. What is argued here is clear, research reports are not made to be a show to visitors but to be applied to change to the better the concrete situation.

Poor Quality of Education in Primary and Secondary Schools

Research culture is a function of the entire educational system of a given country. The cultivation of the spirit of inquisitiveness of one's surroundings begins right from kindergartens, primary and secondary education. In Aristotle's word "We are what we repeatedly do..... so excellence is not an act, but a habit" . The key to success is provision of meaningful education in all levels. The provision of sound knowledge entails that the process of teaching and learning is organized in a way learners can develop analytical thinking as opposed to passive reproducers of lecturers' handouts. What is learned must be durable and retained in long term memory enabling the learner to apply it to new situation. This type of learning is different from artificial surface learning in which learners are forced to memorise isolated facts from the teacher's notes or handouts.

The application of student centred approach is likely to produce individuals of high calibre capable of enhancing research capacity in higher levels of education. As far as education system in Africa is concerned it can be said that it is dominated by examination-oriented culture. Students learn in order to reproduce what is crammed in the examination papers. Dore argues that such type of education is meaningless ritual where knowledge is valued only for its power to provide answers in examinations. Therefore, strengthening education system is important step of promoting learners' curiosity. Sawyer [21] argues:

Research interests and individual capacity are rooted in the quality of education in the society. An educational system that encourages and equips people to be curious about nature and society and to develop an interest in the pursuit of knowledge and ideas is an indispensable condition for the development of research culture.

Therefore, educational system must strive to implement the main goals of learning that is development of knowledge and skills, attitudes, values and other cognitive and motor qualities that are needed to deal effectively with real life. In order to ensure that student learning is broad and deep, available for transfer; students must be actively involved in the learning process. Learning is supposed to turn learners into experts that is the possession of significant knowledge in various areas. In order to promote active learning the prior knowledge and experiences of the learner should be considered. Inductive teaching strategy is highly recommended – starting from what is known by the learner to unknown – new concept. The

learner should be able to link the new knowledge with prior experiences.

Heavy Teaching Load

Given the current trend of expansion in enrolment of university education in Africa, the faculty faces the challenge of heavy teaching load. The increase in number of students enrolled in university education is not proportional to the number of lecturers. The challenge could be minimized with employment of modern techniques of teaching like the use of power point projectors or traditional method of assistant lecturers. However, budget constraints hinder the utilisation of either modern techniques or traditional support of assistant lecturers [21].

Lack of Effective Research Management

Camara and Toure [23] point out that *University research suffers from a deficit of effective organisation and management*. The point is that without effective management it is difficult to use scarce resources available at the institution for promoting research activities. There is a need for good established research management capable of organising, seminars, workshops and other useful programs in order to develop skills and competencies of the neophyte researchers. The presence of well structured incentive system makes research career more attractive [21]. Poor management and lack of vision in research contributes to the downturn of research culture in African universities. The saying goes; *if you don't have any goal, any road will take you where you are going*. A clear description of intended outcomes of institutional research undertaking is of great importance. University research vision is the North Star for researcher as it provides guidance and direction. What is happening in most of African universities is research ad hoc. A clear road map about what researchers are supposed to do in order to fulfil the research vision of an institution or nation needs to be in place. Lack and poor coordination of research activities work against the efforts of African universities to build research capacity. Research needs to be focused and guided by vision if it has to contribute for the nation development. Academic members of staff must be informed on policies regarding research, where to get money for research, which is responsible and so on. When information regarding research is top secret, research activities are likely to be weakened.

CONCLUSION AND RECOMMENDATIONS

Thus, it is beyond doubt that research in African university is poorly developed. This can explain why most of African countries are still lagging behind in terms of socio-economic development. African politicians need to formulate clear vision capable of guiding productive research. In order to overcome some bottlenecks of research in Africa, the author recommends the following strategies; African

governments must strengthen post graduate programs, there should be fair payment for university faculty, African governments ought to appreciate local researchers, there must be major reforms on curriculum from lower to higher educational level, there should be clear vision of what a nation wants to achieve in research, adequate management of research, good system of research dissemination and more emphasis should be on multidisciplinary research as opposed to individual research

REFERENCES

1. Lulat YGM. A History of Africa Higher Education from Antiquity to the Present: A Critical Synthesis, Connecticut, Praeger Publishers, 2008.
2. Munene II. Transforming the Academia: Exploring African Universities in a Comparative Context, Nova Science Publishers, Inc, 2009.
3. Aina TA. " Beyond Reforms: The Politics of Higher education Transformation in Africa". African Study Review. 2010; 53(1).
4. Donato JK. "Issues in Africa Higher Education". A Journal of Opinion. 1996; 24(1): 7-18.
5. Assie- Lumumba NT. Higher Education in Africa: crises, Reforms and Transformation, Working Paper Series, Dakar: CODESRIA. 2006; Retrieved on 12th May 2014 from www.codesria.org/IMG/pdf/Ndrilumumba.pdf.
6. Mamdani M. The Importance of Research in a University, Pambazuka News: Pan African Voices for Freedom and Justice. 2012; 526. Accessed on 25 April 2014 at <http://pambazuka.org/category/featured/72782>.
7. Lema E, Mbilinyi M, Rajan R. Nyerere on Education Selected Essays and Speeches (1954-1998). Dares Salaam: Haki Elimu, 2004.
8. Samoff J, Carrol B. From manpower planning to the knowledge era: World Bank policies on higher education in Africa. Paper commissioned by the UNESCO Forum Secretariat, Stanford University, 2003; Paper no. 2 (ED-2004/WS/8), Paris: UNESCO
9. Sall E. Academic Freedom and the African Community of Scholars: The Challenges, News from the Nordic Africa Institute, 2001; Retrived on 15 October 2014 from www.nai.uu.se/newsfromnai/arkiv/2001/sall.html.
10. Ndong-Jatta AT. Secretary of State for Education of the Republic of The Gambia (Statement made at the Economic and Social Council High-Level Segment: The contribution of Human Resources to Development cited in, 2002.
11. World Bank. Report on Sub-Sahara Africa Universities and Development ,Washington DC, the World Bank, 1989.
12. World Bank. Accelerating Catch-up, Tertiary Education for Growth in Sub Saharan Africa, Washington DC, 2009.

13. Mohamedbhai G. Strengthening the Research Component of the Space of Higher Education in Africa, AAU-Conference of Rectors, Vice Chancellors and Presidents, Stellenbosch, South Africa, 30 May-03 June 2011.
14. Kofi A. Kofi Annan Says- Press Release No. UNIS/SG/2625; 2000. Retrieved on 25th May 2014 from www.Unis.univiennea.org.
15. Mouton J. African's Science Decline: The Challenge of Building Scientific Institutions" *Havard International Review*, 2008; Accessed on 26 May 2014 at findarticles.com/p/articles/mi_hb137/is_3_30/a_i_n31315206/.
16. Vansina J. *Forward in Afolayan Higher Education in Postcolonial Africa; Paradigms of Development, Decline and Dilemmas*, Inc, Eritrea, Africa World Press, 2007.
17. Nakanyike BM, Muwanga NS. *Makerere University in Transition 1993-2000: Opportunities and Challenges*, Kampala, Fountain Publishers, 2003.
18. Siphos S. *Towards an Africa Identity of Higher Education*, Vista University and Skotanville Media, Pretoria, 2004.
19. Peddiwell AJ. *The Saber-Tooth Curriculum: Classical Edition*, McGraw-Hill Professional, London, 2004.
20. Lawar AA. Adding a Historical Dimension to the Dilemmas of Higher Education in Post Colonial Nigeria" in Afolayan, M. O, *Higher Education in Postcolonial Africa; Paradigms of Development, Decline and Dilemmas*, Eritrea: Africa World Press, Inc, 2007.
21. Sawyer A. Challenges Facing African Universities ; selected Issues", *African Studies Reviews*. 2004; 47(1):1-59.
22. Teferra D. *Higher Education in Africa Post-WCHE: Liberation, Affirmation, and Consolidation* (August 2009). INHEA Editorial Series. Boston: Center for International Higher Education. National Needs, Newyork and London, Routledge Falmer, 2009.
23. Camara A, Toure C. *African Universities Strategize and Struggle to Research and Make Research Matter*, 2010. Retrieved on 21st May 2014 from www.Globalrmn.org/publication.asp