



## Funding of Academic Staff's Research in Public Universities in Uganda: Challenges and Opportunities

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**Abstract.** This article discusses the funding of academic staff's research in public universities in Uganda, with specific reference to challenges and opportunities. The specific objectives of the study were to: 1) investigate the sources of funding for academic staff research; 2) evaluate the extent of funding available; and 3) explore alternative sources of funding for academic staff research. The study revealed that research is grossly underfunded. There is little support from the industrial sector for research, and universities give little attention to research in their budgetary allocations. It is recommended that government injects more funds into the research function of its universities. It is also recommended that the universities consider *third stream* sources of funds with the view to increase allocations to research.

**Keywords:** Funding; Academic Research; Public Universities.

### 1 Introduction

The achievements of each university mission largely depend on the funding mechanism in place. Sawyerr (2004) and Ahemba (2006) contend that the critical factor for production and dissemination of quality research is the financial capacity of universities. This is attested by Sanyal & Varghese (2006). If other capacity correlates such as human resource and educational facilities are available without financial support, research cannot take off. In a world driven by competition in all spheres of life, and in more recent times by competition in advancement in technology, inadequate funding of research has development implications for every nation.

The financing of research in universities worldwide especially in Sub-Saharan Africa has become a major problem for both government-aided and private universities because of severely constrained financial budgets coupled with other competing demands. In the past decade a number of reports dealing

with this issue have been presented. The World Bank (2000) drew attention to the need for restructuring educational financing and it stated that public ownership and control of Higher education in Africa has meant for all practical purposes that tertiary education is very expensive and that nations must encourage self-sponsorship and cost-sharing by students. This view is also expounded by Donwa (2006).

According to scholars such as Mayanja (2007) and Mamdani (2011), a host of factors militate against academic research by the teaching staff in Ugandan Public Universities. The reasons are many and varied and among others the following are outstanding: Government underfunding of Public Universities in general and research in particular, annual university budgeting which gives little attention to research, lack of committed researchers who are well trained to produce credible proposals which can attract foreign funding, the heavy teaching work-load because of large class sizes, the materialistic culture which emphasizes material wealth than intellectual property, the defective remuneration where academic staff are paid chicken-feed salaries, lack of university-industrial linkages and intermittent strikes by students and lecturers which disrupt university calendar. Kasozi (2005) agrees that all these challenges are linked to inadequate funding.

## **1.1 Literature Review**

Many scholars such as Sutherland (2003), Ssempebwa (2004) and Sicherman (2005) attribute the decline of research funding for academics in Higher education institutions in Uganda to Amin's regime that took power in 1971 and plunged the country into dictatorship, economic ruin and depredation. The period of military rule and general mismanagement of the economy from 1971 to 1979 and the post-Amin civil wars and instability of the early 1980s represent the sad phase in the country's educational development during which Higher Educational Institutions (HEIs) lost integrity, credibility and professionalism (Musisi & Muwanga 2003). The Academic Staff were isolated from international scholarship and access to up-to-date books. Subscription to scholarly journals was drastically reduced because of lack of foreign exchange and university lecturers lost morale and self-esteem. Makerere University which was a prime institution in East and Central Africa renowned for basic and applied research was degraded to a teaching centre in most respects (Magara, 2009). During this time the university research and infrastructure suffered greatly. The East African Institute of Social Research which became Makerere Institute of Social Research (MISR), Makerere University Agricultural Institute Kabanyolo (MUARIK), and the Medical research at Mulago Hospital nearly collapsed as many foreign researchers left the country or were expelled.

Many researchers in Africa such as Nyagotti-Chacha (2004), Sawyerr (2006) and Vogel (2012) blame the lack of funds for research on underdevelopment and wholesale adoption of the conditions of the International Monetary Fund (IMF) and the World Bank's (WB) Structural Adjustment Programmes (SAPs) adopted in 1980s by most African governments, Uganda inclusive. The policies of these two lending institutions undermined funding for Higher education and research in favour of Universal Primary Education (UPE) and Universal Secondary Education (USE). The conditions by these organisations were accepted by the government of Uganda (Kasozi, 2005). Mamdani (2011) avers that the two western lending institutions are neo-colonial and insensitive to the development goals of poor countries and that Uganda gained little from the arrangement.

In this paper, funding is conceptualized as the total portion of the income of the university from government, grants, foreign and local donations, endowments, and Internally Generated Funds (IGFs). Funding is very important for research because researchers must be remunerated and motivated. Funds are needed for acquiring research equipment and educational facilities such as computers, internet facilities, libraries and laboratories and accessing modern relevant current information from books and journals. Adequate funding enables academics to publish their research findings in journals, refereed books, research papers on websites, to subscribe to scholarly academic journals, have access to professional bodies and that there is lack of university-industry linkages as most research done in Public Universities is characteristically basic and ignored by government.

According to Banya (2001), Donwa (2006) and Ondari-Okemwa (2007), the inadequate budget provision in the national and university budgets, inevitably makes the university remuneration system and funding for research defective. This leads to poor reward for researchers. Because of poor remuneration, the brain drain phenomenon depletes the lean cream of the crop of capable research fellows. A number of scholars move to countries where their worth is better remunerated and acknowledged (Tetty, 2010). This further compounds the problem of work load for those on the ground. The view is acknowledged by the National Council for Higher Education (NCHE 2013), which avers that Ugandan Public Universities are apparently teaching centres with little research going on.

University fiscal policies are skewed to staff salaries, maintenance of buildings and purchasing of teaching consumables. Banya (2001) and Businge (2008) contend that government financial subvention is grossly inadequate and that money generated from tuition fees by students and from Internally Generated Funds (IGFs) is hardly enough to supplement funds from government and that, Public Universities perennially face financial constraints. In the Public university budgets, funding for research is hardly mentioned,

which implies the insignificant position of research in these Public Universities (*Report of the Visitation Committee to Public Universities, 2007*).

The average annual allocation to the Public Universities for recurrent expenditure is very little as NCHE (2013) reports that for the last two years modest funds have been channelled through the NCHE for research and staff training in Public Universities. Of this allocation 0.82% was to be used for research (NCHE, 2013)

In a world driven by competition particularly in science and technology, Uganda has remained a consuming society. There is little Research and Development (R&D) because of lack of innovation research. If adequate research is carried out, the nation would be able to develop products and methods of production which would reduce dependence on importation of manufactured goods. The dependence on other nations for finished products has grave consequences for Uganda. Carrol (2007) contends that in spite of abundant human and material resources in Uganda, there is notable poverty. The abundant natural resources could be translated into prosperity through research aimed at combating poverty in the country. There's unemployment, poor roads, erratic electricity supply, lack of clean water, poor educational facilities, prevalent dependence on used/obsolete items such as motor vehicles, clothes and aircraft. Sutherland (2003) argues that manufacturing as a means of deriving man-made wealth, which is sustainable cannot be achieved unless there is serious university academic staff research as it is in developed countries (Bradley, 2008).

Mugimu, Nakabugo and Katunguka-Rwakishaya (2007) contend that Uganda is not acclaimed for world-class research because the universities which should be centres of research and knowledge creation are handicapped financially to motivate researchers and therefore have not been able to tap into potential areas of veritable research. In this case, Traore (2002), Williams (2003), Bako (2005), and Donwa (2006) affirm that the achievement of any university mission like research largely depends on the funding mechanism in place. This is in agreement with the findings from the research conducted by Payne & Siow (2003) on 68 universities in the United States of America. The importance of funding for the university research mandate is also confirmed by Sawyerr (2004) and Ahemba (2006), who argue that government interference in governance and financial matters of Public Universities, resource mismanagement and corruption complicate the problem of funding research in Public Universities in Uganda. This is complemented by Magara (2009) who asserts that Higher education in Uganda is characterized by high unit costs, paltry funding for Academic staff research, low capacity utilization and high teacher- student ratio and negative government attitude to university research.

Financial resources are crucial mainly in the payment of academics and non-teaching staff; setting up laboratories, purchasing equipment, books, journals

and consumable materials and offering scholarships and fellowships. World Bank (2002), Banya (2001) and World Bank (2002) bring out the fact that the budget share of higher education in Africa dropped from 19.1 % in 1980 to 17.6% in 1988. During this period, real wages fell by 30% which could have negatively affected research. This is because the World Bank and International Monetary Fund, had imposed harsh austerity measures and recommended the prioritization of free Universal Primary and Secondary education at the expense of Higher education and research.

Scholars such as Bok (2003), Sabo (2005) and Bako (2005) explored the theoretical link of the small financial allocations to research in universities with lack of funds extended to staff to do research, poor facilities, limited access to publishing facilities, poorly paid staff, poor database, low research output which is basic and absence of the research culture. The argument is supported by research and findings of Teferra & Altbach (2004) and Tetey (2006) and Zeleza (2012) who agree that money is one of the most important motivating correlates in research productivity and dissemination. They postulate that the continuing crisis in African universities in general and Uganda in particular regarding their capacities to create and sustain the levels and quality of research by Academic Staff members is lack of enough funds. Similarly the results of the case study about Makerere University by Carrol (2007) point out that Public Universities in Uganda inevitably allocate a very small percentage of their budgets to the research mandate. The Makerere University recurrent budget of 2012/2013 did not even mention research as shown in Table 1. Research was sandwiched in the budgetary vote for academics and tuition. This definitely shows that research by academic staff in Public Universities in Uganda is at its lowest because the university administrators themselves are incapacitated by poor funding and hence by omission neglect the research function which is a core mandate of universities worldwide.

The *Report of the Visitation Committee to Public Universities* (2007) recommends that universities must generate their own funds and manage institutional finances frugally. This involves minimizing wastage, curbing mismanagement of funds, encouraging Senior Lecturers and Professors to source funds for research through consultancies and selling of patents and the government to allow Public Universities to charge realistic fees according to the market forces and inflation. It is imperative therefore that there is inefficiency, mismanagement or even corruption in the management of university funds. *The Report of the Visitation Committee to Public Universities* (2007) also revealed that Makerere University failed to account for funds from private students and equally Mbarara University of Science and Technology (MUST) had no clear internal controls and auditing procedures.

Whereas it is true that universities give little priority to research in their annual budgets, it is important to note that Public Universities in Uganda are

grossly underfunded by the state which owns them. The critical study of Makerere University budget of 2005/2006 had a total budget of 98.5 billion shillings of which 38.5 billion shillings (39%) came from government, 56.2 billion shillings (57%) came from Internally Generated Funds by private students and 3.9 billion shillings (4%) came from donors. The University could hardly realize half of the money (Mayanja 2007). The gap that seems to exist is that the inadequate funding extends to the research function and subsequently the scanty research output published in books, book- chapters, articles in scholarly journals and research papers. The study however, does not disclose the quantified impact of financial resources on academic staff research. This paper therefore set out to establish the extent to which financing explains the nature of staff research output in Public Universities in Uganda.

However all is not lost as college based research projects have improved the profile of Makerere University and research done at Mbarara University of Science and Technology has added a lot to fighting tropical diseases. According to Makerere University Annual Report 2014, the university has been able to produce a two-seater electric vehicle and a bus through innovation and research. The report adds that the Presidential Initiative has boosted research in the two universities to the extent that Makerere University is one of the ten best universities in Africa (Webmail Ranking, 2014).

## **1.2 Statement of the Problem**

There is a lot of criticism about the funding of Academic research in Public Universities in Uganda as intimated by Businge (2008) and the National Council for Higher Education, NCHE (2013). The funding of academic research in Ugandan Public universities seems to have not been given enough consideration at national and institutional level as manifested in national university annual budgets. The problem of academic research funding is again highlighted by the *Report of the Visitation Committee to Public universities* (2007). Funding as a significant factor contributing to the poor academic research had not been explored or investigated and therefore this investigation is necessary and timely.

## **1.3 Objectives**

1. To determine the sources of funding for Academic staff research in Ugandan Public universities?
2. To find out the extent of funding available for Academic staff research in Ugandan Public Universities?
3. To recommend the best ways of improving academic research in Public Universities in Uganda.

## **2 Methodology**

The study was qualitative and utilized secondary data from relevant university publications: annual reports, abstracts and yearbooks. The tools to collect data were Interview Guide and Documentary Analysis guide. The study population comprised all the **seven** Public Universities in the country namely; Makerere, Kyambogo, Mbarara, Busitema, Gulu, Muni, Soroti, and Kabale. The research was done at two oldest Public Universities namely: Makerere University (MAK) and Mbarara University of Science and Technology (MUST). The universities were chosen for this study because of their research history. The subjects of study were 26 and consisted of two Vice-Chancellors, Two Deputy Vice-Chancellors in Charge of Finance and Administration and two Directors of Research and Post-Graduate Training and five Lecturers from each university. One official each from Ministry of Education, Science, Technology and Sports, National Council for Higher Education (NCHE), the Ministry of Finance and Economic Planning and Uganda National Council for Science and Technology (UNCST). The subjects were interviewed and data was generated according to study objectives and content analysis was done according to study objectives.

## **3 Findings**

### **3.1 Source of funding for Academic Staff Research**

According to Makerere University Annual Report (2014) and Mbarara University of Science and Technology Annual Report (2014), the sources of funding for academic staff research are from three main sources, Government subvention, Internally Generated Funds (IGFs) which constitute fees paid by students as tuition and functional fees and funds generated from commercial units. Funds from donors are mostly channelled to science-oriented programmes. A number of external donors among others include: Norway Aid for Development (NORAD), Carnegie Foundation, Rockefeller Foundation, Swedish International Development Association (SIDA), Walter Reed Project, Bill and Melinda Gates and Pfizer have been funding research in Public universities in Uganda. There are at present few local donors supporting Public Universities at a level comparable to external ones. The situation at Mbarara University of Science and Technology and Makerere University show that the universities cannot achieve their research strategies when almost 80% of research funding come from donors who invest funds in research on the basis of their goals and ideologies (Musiige & Maassen, 2015).

This paper reveals that due to inadequate funding for research, most lecturers in Public universities do research for academic interest in order to be awarded higher degrees or to merit a promotion. This trend however is not unique to Uganda because according to Musisi and Muwanga (2003) and Carrol (2007), governments in Africa by 1960s provided all funds that were needed for research, but today post-graduate education is no longer free. The fact that universities have now been neglected reveals that there is a substantial gap in the relationship between universities and governments and that there is no adequate commitment on the side of government to make university research funding a priority. Funding university research in Uganda is mostly an affair of individual faculty members, and those who are lucky to benefit from foreign Agencies. Government does not fund post-graduate education.

### 3.2 Funding of Academic Research

**Table 1: Operating Expenses (2011/ 2012 and 2012/2013, in Billions)**

|  | 2011/2012 |         | 2012/2013 |         |
|--|-----------|---------|-----------|---------|
|  | Budgeted  | Actual  | Budgeted  | Actual  |
| Employee Costs                               | 82,137    | 81,524  | 101,277   | 103,146 |
| Goods and Services Consumed                  | 31,907    | 36,891  | 35,456    | 42,032  |
| Consumption of Property, plant and Equipment | 17,985    | 12,279  | 30,282    | 17,066  |
| Transfers to other organisations             | 67        | 7       | 2,032     | 1,634   |
| Social benefits                              | -         | -       | -         | -       |
| Other expenses                               | 12,722    | 17,399  | 15,439    | 18,293  |
| Foreign Exchange (Losses/ Gains)             | -         | (28)    | -         | 3       |
| Total Operating Expenses                     | 144,817   | 148,072 | 184,486   | 182,174 |
| Surplus/ Deficit after extraordinary items   | -         | 4,107   | -         | 149     |

*Source:* Makerere University final accounts FY 2012/13

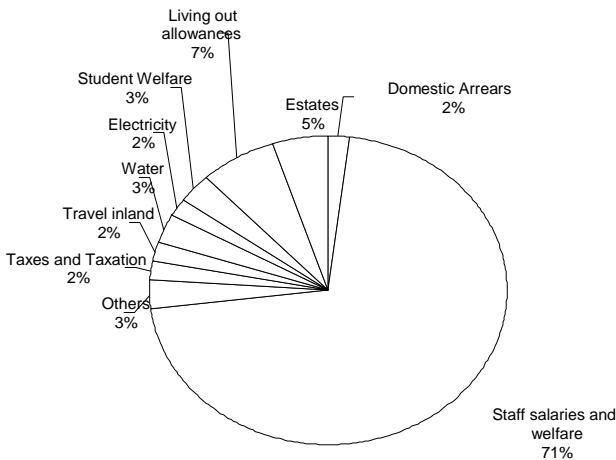
Table 1 shows that among the items budgeted for expenditure, research is conspicuously absent and yet it is one of the three cardinal mandates of the university: Teaching, Research and Community service. Money from government is inadequate and not regular and there is very little research funding for the academic staff in Humanities and Social Sciences unless they access foreign funding. Businge (2008) reports that there is corruption and misplaced priorities in Public Universities.



**Table 2: Public University Expenditure Pattern**

| Items                  | Expenditure | % input |
|------------------------|-------------|---------|
| Books                  | 22969800    | 0.03%   |
| Equipment              | 19047000    | 0.03%   |
| Furniture              | 350898599   | 0.50%   |
| Infrastructure         | 1297816579  | 1.85%   |
| Material supplies      | 8388105947  | 11.96%  |
| Research               | 573353500   | 0.82%   |
| Staff development      | 958094668   | 1.37%   |
| Staff emoluments       | 39263786294 | 55.97%  |
| Students accommodation | 8025125824  | 11.44%  |
| Students welfare       | 7799853595  | 11.12%  |
| Utilities              | 3067284665  | 4.37%   |
| Vehicles               | 389943348   | 0.56%   |
| Total                  | 70156279817 |         |

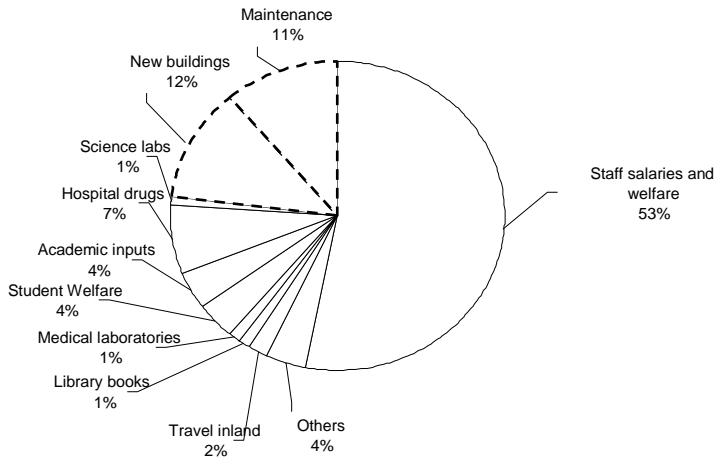
Source: National Council for Higher Education (2013)



**Figure 1: Makerere University's Expenditure (2011/ 2012)**

Source: Bursar's Office, Makerere University

It is very clear from Figure1 that in the financial year 2011/2012, Makerere University spent over 70% of its revenue on salaries and allowances for staff. Therefore, it is difficult to fund research activities adequately.



**Figure 2: Mbarara University Expenditure (2011/2012)**

Source: Bursar's Office, Mbarara University of Science and Technology

As shown in Figure 1 and Figure 2, both cases of Mbarara University and Makerere University, expenditure on research is absent yet teaching and research constitute the cardinal reasons for setting up universities. In both cases of Makerere University and Mbarara University, it remains a matter of concern recognized by all stakeholders that the failure to realize the full development of research in these universities, to a certain extent lies with university policy makers who deliberately give very little allocation of funds to the research function in their annual budgets.

This assertion is confirmed by the Mbarara University Deputy Vice-Chancellor when he argued in an interview that: Research does not seem a priority for us in Public Universities because government neglects us when it comes to funds and the university administration does not care. If one waits for funds from government, no research can ever be done. The research done by graduate students is totally self-sponsored, apart from few staff members who are sponsored by the university and donors. The culture of research has been undermined by lack of focus and sensitivity by ministry and government leaders.

The conclusion drawn here is that research is given very little attention by university policy makers who happen to be highly educated or former members of the academic staff who are supposed to know the crucial significance of scientific research for the universities and the nation. The views raised by this study hence concur with the findings of Harle (2011) on the factors responsible

for financial crises in the African universities. Like the findings of the current study, he expresses the fact that the increase in the number of lecturers pursuing Masters and PhD degrees could have made it costly for the universities to fully support their research as it used to be in the past. At Makerere and Mbarara University, it was revealed by the Director of the School of Graduate Studies that since the year 2010, there has been generally a 30% increase every year of the lecturers enrolling for Masters Degrees. He noted however, that the low rate of completion was due to lack of supervisors and that some students were failing to pay fees in time.

According to Magara (2009), it was revealed in the study, that the government of Uganda does not take graduate funding as a priority. When the researcher interviewed the officials of the National Council of Higher Education, they revealed that the government of Uganda finds it impractical to fund faculty graduate education when there are many people who do not access undergraduate education and those who do not have access to education at all. This had forced the government to concentrate on some few undergraduate sponsorships and sponsorship of lower levels of education such as UPE and USE leaving graduate education not being attended to. This study reveals that comparing Uganda with other countries in terms of support for scientific research undertakings, the government of Uganda has very little consideration for university research. Unlike European and American experiences where the governments have ideological commitment to fund research activities in universities as expressed by Mouton (2010), Uganda government has no such similar ideological commitment. According to Harle (2011), the American, European and some Asian governments ensure that research funds are selectively and adequately distributed to institutions that have demonstrated their research capacity to produce quality research output.

Considering the results of this study, among the issues undermining research and production of quality research output in Public universities in Uganda is the frequent closures of universities due to riots by students and industrial action by teaching staff especially in Makerere University. Frequent closures mean that longer periods are used to complete programmes or that the course content is reduced because courses are not completed or are rushed over and that university resources are underutilized. In an interview with a high ranking official of the Ministry of Education, Sports and Technology, it was revealed that government is flabbergasted by staff and student strikes in Public Universities especially at Makerere University. The official suggested that the errant university academic staff must be employed on contract and that all those in service must sign contracts for a specified period of time.

Funding for research must be a critical priority by government. The government must inject in adequate funds into the research function of its universities and universities must adopt policies where they generate money to

run their research activities. The best option here is to allow the universities fix their own realistic fees according to market forces and inflation. Research in university budgets must be allocated the same funds like other university activities such as teaching, estates, outreach and community service.

The way forward is to let universities raise realistic fees without government interference, diversify their resource base by engaging in profitable commercial activities, seeking more financial aid from donors, encouraging the alumni to financially contribute generously to their alma-maters, seeking endowments and involving local industrialists to utilize research findings so that they can tap support.

#### **4 Recommendations**

In this research study, it was observed that there is serious need for an integrative approach in research development with the business community coming on board. There is great need for Ugandan leaders to develop goodwill and vision to put down policies which can rejuvenate research in institutes, universities and other tertiary institutions. As it was revealed by the current study, there is dire need for the government to interlink with the business community with the intention of addressing business needs through university social research. Despite the poor funding however, this study does not rule out the fact that some lecturers remained shrewd enough and carried out a number of research activities.

More funds should be allocated to universities by the Government in order to enhance the aspect of research. This is important since the Government of the Republic of Uganda is a proprietor of the seven Public Universities in the country and therefore should devote substantial amount of the national budget to research with hope of producing better researchers and quality research output that will add value to the national economy.

University management should streamline funding of lecturers' research activities. Management needs to be fully informed that the University exists to transmit knowledge from generation to generation through research and hence neglecting the research mandate would mean compromising future needs of the future generations. There is need to make research funding a priority other than leaving it to speculation, likelihood or donor intervention, yet it is what builds the university and the country.

The government should totally phase out its sponsorship of pedagogical and non- pedagogical components of university education at undergraduate level. All undergraduate and graduate students should meet the full cost of their education, based on realistic assessment of unit costs. Those who cannot meet

their fees requirements could access loans from the state and a strategy be put in place to enable them pay back.

Public Universities in Uganda should begin to seek for endowment funds to earn themselves the scarce funds. Makerere University has a lot of real estate around Kampala at Katanga, Kololo, Makindye and Katalamwa and Mbarara University has a big chunk of land at Kihumuro and Ishanyu which can be used for real estate development to generate funds. Public Universities with good planning can build a strong base that could greatly increase its wealth. The government could help its Public Universities as Saudi Arabia did to Islamic University in Uganda (IUIU), by assisting it to put up a ten storey building endowment on Kampala Road from which it earns millions of shillings monthly from renters.

Public Universities should adopt more proactive resource mobilization approaches. They should sell their programmes and projects to would-be sponsors at home and abroad to earn funds for more research. They should work out strategies to build confidence in their institutions by demonstrating that they can manage university funds frugally and effectively. Public Universities should strive to build performance records in research that will attract a sustainable inflow of funds. The onus of devising and implementing alternative sustainable approaches rests more with the universities than with the government. Therefore Public Universities in Uganda must operate as private firms by becoming commercial, profit-oriented and responding to needs of their communities. Public Universities must be open 24 hours and during vacations to promote full utilization of university resources such as halls and lecture theatres by outsiders to generate income. Universities must encourage Professors and Lecturers to apply for research funding from local and international sources. It should be a condition for all university academic staff to raise their own funds for research.

There is need for diversification of the financial resource base of Public Universities in Uganda. This involves tapping all possible avenues for funds and among others; money can be tapped from foreign aid, endowments and investments. The universities can sell technical expertise and skills and can monopolize commercial ventures at campuses. The commercial ventures among others include, transport of students, construction and running of hostels, hotel and catering services, running bookshops, bakeries, and petrol stations and utilization of excess land for farming and lease it to those who can hire it. Public Universities must tap funds from university convocations and alumni. Many old students would generously contribute to their alma-maters. However, there is little communication and guidance. There should be serious sensitization to make the alumni understand that they are obliged to support their former universities.

## References

- Ahemba, T. (2006). Decay dims Africa's once proud universities. Reuters 15<sup>th</sup> November 2006.
- Bako, S. (2005). Universities research and development in Nigeria: time for paradigmatic Shift. University of Zaria Department of Political Science
- Banya, K. (2001). The World Bank and financing higher education in Sub Saharan Africa. *Higher Education* (42), 1-34.
- Bok, D (2003). *Universities in the marketplace: The commercialisation of higher education*. Princeton: Princeton University Press.
- Bradley, M. (2008). On the agenda: North–South research partnerships and agenda-setting processes, *Development in Practice*, 18(6), pp. 673–685.
- Businge, C., Natukunda, C. (2008). Uganda's Limping Universities. *The New Vision*. Vol 23 No 047. Available online at: [http://www.newvision.co.ug/new\\_vision/news/1195030/uganda-eur-limping-universities](http://www.newvision.co.ug/new_vision/news/1195030/uganda-eur-limping-universities).
- Carrol, B. (2007) Harnessing private monies to fuel university growth – a case study of Makerere University. *Southern African Review of Education*. 13, 2 (2007).
- Donwa, P. A. (2006). Funding of academic research in Nigerian universities. Benin City. University of Benin.
- Harle, J (2011) *Foundations for the Future: Supporting the early careers of African researchers*, London: British Academy and Association of Commonwealth Universities, available: <https://www.acu.ac.uk/publication/download?id=429> (accessed 27 November 2012).
- Kasozi, A. B. K. (2005). State of higher education: executive summary. Kampala: NCHE.
- Mamdani, M (2011) 'The Importance of Research in a University', *Pambazuka News*, available: <http://www.pambazuka.org/en/category/features/72782> (accessed 6 December 2012).
- Kasozi, A. B. K. (2003) *University education in Uganda: challenges and opportunities for reform*. Kampala: Fountain Publishers.
- Magara, E. (2009). Financing a public university: Strategic Directions for Makerere University in Uganda. *Journal of Higher Education in Africa*. 7(3), 61-86.
- Mayanja, M. K. (2007). Improving Income from internally generated funds without provoking students or staff strikes at Makerere University. Cape Town: AHERO.
- Mouton, J. (2010) 'The state of social science in sub-Saharan Africa' in *UNESCO/ISSC World Social Science Report 2010: Knowledge divides*, Paris: UNESCO/International Social Science Council.

- Mugimu, C. B., Nakabugo, M.G., & Katunguka-Rwakishaya, E. (2007). Exploring the factors affecting staff research output and completion rates of graduate students in Makerere University. Kampala: Makerere
- Musiige, G. & Maassen, P (2015). "Faculty Perceptions of the factors that influence research productivity at Makerere University" in N Cloete, P Maassen and T Bailey (eds), *Knowledge Production and Contradictory Functions in African Higher Education*. Cape Town: African minds.
- Musisi, B. & Muwanga, N.K. (2003). *Makerere University in Transition 1993-2000*. Oxford: James Currey.
- Nyagotti- Chacha, C (2004). *Reforming higher education in Kenya: Challenges, Lessons and Opportunities*. Naivasha Inter-university Council for East Africa.
- Ondari-Okemwa, E. (2007). *Scholarly publishing in Sub-Saharan Africa in the twenty-first century: Challenges and opportunities*. Presented at the PKP Scholarly Publishing Conference, 11-13 July, 2007
- Payne, A.A & Siow (2003). *Does federal research funding increase university research funding output?* Barclay. *Advances in economic analysis and policy* Vol 3: ISS.
- Sabo, (2005). *Universities, research and development in Nigeria: time for paradigmatic shift*. A paper prepared for 11<sup>th</sup> Generally Assembly of CODESRIA, on Rethinking African Development. Dakar: CODESRIA. Also available on: <http://www.codesria.org>.
- Sanyal, B.C & Varghese, N.V (2006). *Research capacity of the higher education sector in developing countries*. Paris: UNESCO
- Sawyerr, A. (2004). *African Universities and the challenge of research capacity development*. Dakar: CODESRIA.
- Sawyerr, A. (2006). *Renewal of the African University*. A discussion on African Universities. 20<sup>th</sup> May 2006. Accra: AAU.
- Ssempebwa, J (2004). *Funding higher education in Uganda. A case for the Liberalization of fees*. Kampala International University Research Digest. 1(1): 44–59.
- Sicherman, C. (2005). *Becoming an African university: Makerere 1922-2000*. Kampala: Fountain Publishers.
- Sutherland, C. (2003). "Securing the future: student financing at Makerere University, Uganda. *Journal of international Development* 12:549-58.
- The National Council of Higher Education (2013). *The state of higher education and training in Uganda*. Kampala: NCHE.
- The New Vision*, (February 2008 Vol 23, No 28): Makerere University on strike.
- Teferra, D & Altbach, P.G (2004) *African higher education: challenges for the 21st century*. Boston: Centre for international higher Education.

- Tettey, W (2006). Academic staff attrition at African Universities. Calgary: University of Calgary
- Tettey, W.J (2010) 'Challenges of Developing and Retaining the Next Generation of Academics: Deficits in Academic Staff Capacity at African Universities', unpublished paper, Partnership for Higher Education in Africa, available: [www.foundation-partnership.org/pubs/pdf/tettey\\_deficits.pdf](http://www.foundation-partnership.org/pubs/pdf/tettey_deficits.pdf) (accessed 27 November 2012).
- Traore, A. (2002). The difficulties of building up and funding research in Africa. Ouagadougou: University of Ouagadougou.
- Vogel, I (2012) *Research capacity strengthening: Learning from experience*, London: UK Collaborative on Development Sciences.
- Williams, H. A. (2003). Factors related to research productivity. Louisiana State University.
- World Bank (2002). Constructing knowledge societies: New challenges for tertiary education. Washington D.C: World Bank.
- World Bank (2000). Higher education in developing countries: peril and promise. Washington, DC: World Bank. Available at: [http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079956815/peril\\_promise\\_en.pdf](http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079956815/peril_promise_en.pdf) (accessed 5 December 2014).
- World Bank (2002) *Constructing Knowledge Societies: New Challenges for Tertiary Education*, Washington DC: World Bank.
- Zezeza, P. T. (2012) 'Internationalisation in higher education: Opportunities and challenges for the knowledge project in the global South' in Kotecha, P (ed.) *Internationalisation in Higher Education: Perspectives from the Global South*, Johannesburg: Southern African Regional Universities Association.