Center for Higher Education Policy Studies (CHEPS)

School of Management and Governance
Universiteit Twente

REVENUE GENERATION STRATEGIES IN SUBSAHARAN AFRICAN UNIVERSITIES

Fisseha Mamo Gebreyes
(PhD Candidate)

Emails: f.m.gebreyes@utwente.nl
fissehamamo@yahoo.com

Revenue Generation Strategies in Sub-Saharan African Universities

By Fisseha Mamo Gebreyes[1]

Abstract

This paper, first of all, argues that almost all higher education systems in Sub-Saharan African (SSA) countries are increasingly under pressure due to rising student populations and mounting costs of teaching and research activities (World Bank, 2010). It then seeks to gather the actual practice of revenue generation in SSA public universities as a means to mitigate financial austerity. It attempts to analyze the enablers for and barriers to revenue generation within SSA universities. As a theoretical framework for this research we employ Resource Dependency Theory (RDT) that conceptualizes an organization and its environment as inextricably linked. This theory promotes that any action of the focal organization is aimed at acquiring resources from its environment (Pfeffer and Salancik, 1978). The key to organizational survival is the ability to acquire and maintain vital resources. In the organizational environment one can detect the key external resource providers. These resource providers or simply stakeholders are capable of influencing the behavior of a resource recipient university. University may implement various strategies either to comply with the environmental demands in ways close to their individual mission, or to avoid these demands (Pfeffer and Salancik, 1978:83).

Our empirical observations are based on case studies of four SSA public universities: two from Ethiopia (Adama Science and Technology University and Haramaya University) and one each from Kenya (Jomo Kenyatta University of Agriculture and Technology) and South Africa (Nelson Mandela Metropolitan university). This allows us to place the findings in a comparative perspective and to learn which enablers and barriers are particularly relevant for universities operating in different institutional framework. The case studies are based on interview checklist with open-ended questions and desk research including institutional documents (annual reports, planning documents, evaluation reports). The interviewees are university administrators, deans, department heads, and academics. The RDT-driven research model that guides the field work is augmented by the academic literature on income generation strategies undertaken by universities in developing countries.

The results from our analysis of the case studies show that our sample universities have indeed widened their institutional resource base and engaged in revenue diversification strategies. They have managed to tap into additional financial revenue sources such as student fees, campus services, project funds from (bilateral and multilateral) donors, and regional and local authorities. Only in the case of the Kenyan and the South African universities do we see revenues from industrial firms, endowment and philanthropy. In order to link up with outside organizations and groups, a number of academic units (e.g. research centers, continuing education offices) and reach out/administrative units (e.g. technology transfer, promotion and marketing, consultancy and short-term training, etc.) are set up. Moreover, the case study universities to a varying degree have implemented procedures, incentives and professional approaches towards revenue generation in order to deal flexibly with the demands from (potential) resource providers. Some case universities in this respect have been facing barriers in terms of regulatory constraints, a lack of autonomy and an absence of sufficiently trained staff. In terms of enablers, the universities that are more active in revenue generation have introduced dedicated rewards and incentive structures, and have devolved responsibilities more towards the shop-floor level in their organization or strengthened their administrative capability. This has led academics to reach out more actively to external stakeholders by means of new degree programs and research themes. Although the analysis is still in progress, we have been able to detect evidence of the resource-dependency nature of such initiatives. The findings of the study will enable policy makers (lawmakers) to revise laws, award better institutional autonomy and improve resource allocation mechanisms. At the university level, it will have implications on the overall operations of the university in order to better manage resource dependencies.

[1] PhD Candidate at Center for Higher Education Policy Studies (**CHEPS**), School of Management and Governance, University of Twente. Staff at Ministry of Education, Ethiopia. Email address: **f.m.gebreyes@utwente.nl; fissehamamo@yahoo.com**

1. Introduction

In the external environment of higher education institutions in Sub-Saharan African countries, we have observed a number important changes in the last decades (see World Bank, 2010; Teferra and Altbach, 2004). These changes include:

- Enrollment growth
- Declining state funding for higher education
- Devolution or decentralization of responsibility to the institutional level
- Governmental regulations to improve quality in teaching and learning
- Globalization and internationalization of higher education
- International competition for funds, faculty, and students
- New technologies such as ICT, etc.

The above mentioned changes are often caused by changes in the wider societal environment like economic, political, demographic and social and technological forces (Varghese, 2009:27-28; UNESCO, 2007; Sawyerr, 2004). The overall changes are translated into demands to solve problems of cost, quality, effectiveness, and access. In this research, I mainly focus on trends on enrollments and financing of higher education in Sub-Saharan African universities. I argue that financial sustainability is one of the key challenges for Africa's public universities today. Despite the tremendous diversity that exists in Sub-Saharan African countries, all higher education systems are increasingly under pressure due to rising student populations and mounting costs of teaching and research activities (World Bank, 2010).

According to the World Bank (2010), the total number of students pursuing higher education in Sub-Saharan African universities tripled, climbing from 2.7 million in 1991 to 9.3 million in 2006. As forecasted by the Bank, if current trends continue apace, the total number of students for the entire African continent could reach between 18 million and 20 million by 2015. However, public resources allocated to current expenditure in the higher education sector only doubled over the said period. This financial crisis for most African higher education systems has

been recognized by several scholars since the 1980s (Teferra and Altbach, 2004). For instance, public expenditure per student declined from US$ 2,800 in 1991 to US$ 2,000 in 2006 (see World Bank, 2010). Such a reduction occurred when the rate of annual public expenditure per student to GDP per capita is 3 for sub-Saharan African countries. The said figure is by far greater than budget allocations to higher education by OCED countries which is 0.3 (see Santiago et al. 2008; World Bank, 2010). Governments of sub-Saharan African countries allocate close to 0.78% of GDP to HE (20% of education budget) while it is around 1.2% in OECD, however.

By 2015, for instance, the level of expenditure could be 75% higher than the volume of public resources that may be mobilized by sub Saharan African countries (Ibid). This financial gap indicates that the proportion of governmental funding in the overall budgets of various Sub-Saharan African public HEIs continues to drop at a time when higher education is experiencing rising enrolments (World Bank, 2010; see also Johnstone & Marcucci, 2010; Bundy, 2004; Musisi & Muwanga, 2003; Ziderman & Albrecht, 1995). This implies that the rapid growth in the number of students is a challenge to the sustainable financing of higher education (World Bank, 2010:1). Thus, almost all sub-Saharan African countries have faced the same challenge of designing sustainable funding models.

In the last two decades, several African countries including Ethiopia has been searching for ways of financial sustainability for higher education systems. Many national governments have made it clear that it will no longer be possible for public universities to rely solely on the state for funding. Consequently, universities have been challenged (directed) to generate their own funds. On average, as reported by World Bank (2010:74), universities' generated own resources account for approximately 28% of the revenue of higher education. The share of own resources is lowest (5% or less) in Madagascar and Zimbabwe and highest in Guinea-Bissau (75%). Generally speaking, the pressure to generate nongovernmental resources (other than the mainline) to achieve financial sustainability has been immense across sub-Saharan African universities. On the basis of the existing research undertakings on revenue generation at public universities in SSA, I argue that our knowledge and understanding about enablers for and

barriers to revenue generation and diversification at public universities in sub-Saharan African countries seems to have been limited.

2. Study Objective

How can Sub Saharan African public universities improve their financial sustainability by diversifying their sources of resources and at the same time continue to accommodate the growth in student enrolment? I will try to address the following two issues: (i) identifying theory that provides useful conceptual tools for understanding organizational responses to resource scarcity/financial austerity and (ii) identifying enablers for and barriers to revenue generation from the case study universities in Ethiopia, Kenya and South Africa.

3. Theoretical Framework

As we have briefly discussed above, the financial resource (mostly in terms expenditure per student) from principal benefactors (governments) has been declining across Sub-Saharan African countries (Johnstone, 1998; World Bank, 2010). In order to understand how public universities as organizations obtain resource for their survival, theories that explain organisational responses to resource challenges are necessary and appropriate. Resource dependence theory (RDT) provides useful conceptual tools for understanding organizational responses to financial challenges or austerity (Pfeffer and Salancik, 1978; Aldrich and Pfeffer, 1976; Davis and Cobb,2009). This theory argues that no organization is completely self-contained. Organizations survival is thus dependent on the extent that they are able to acquire and maintain resources. The need to acquire resources creates dependencies between organizations and their external units and the scarcity of resources determines the degree of dependency. According to RDT, when resources are in a state of short supply, organizational stability is threatened. Organizational venerability occurs. Under such circumstances organizational efforts are directed at regaining stability, at removing the source of the threat to the organization.

RDT conceptualizes environment and organizations as inextricably linked. The environment is understood in terms of other organizations with which the focal organization interacts for acquiring resources (Levine and White, 1961; Thompson, 1967). For its survival, an organization must engage in an exchange with its environment. Pfeffer and Salancik (1978) indicate that organisations depend on environment for acquiring vital resources for their survival. Organizational environment include a variety of actors or stakeholders or resource providers that have various demands and expectations (see Freeman, 1984). These stakeholders have effects on the activities or outcomes of the resource recipient organization. The environment, along with resources, encompasses regulations, opportunities, competitors, and threats. These environmental aspects can enable for and erect barriers to the ability of the focal organization to obtain resources. The resource recipient organization will have to identify key stakeholders; and thus manage stakeholder relationships to ensure survival in that environment. This theory states that we cannot understand organizational structure or behavior without understanding the context within which it operates (Aldrich, 1979; Pfeffer and Salancik, 1978; Scott, 1992b). As in strategic choice approaches, resource dependence theory assumes an active role of individual organizations in their struggle for survival. Organizations also try to actively influence their environment.

Thus, from the resource dependence perspective, universities can manage resource dependence difficulties arising from state funding by competing for resources from a market. As universities can operate in multiple markets (see Jongbloed, 2004), they may be able to establish multiple exchange relationships for mitigating disruptive resource instabilities through developing multiple revenue streams (Clark, 1998; Sporn, 1999; Slaughter & Leslie 1997; Wangenge-Ouma, 2011). RDT suggests two adaptive responses for the development of multiple revenue streams. On the one hand, universities can adapt and change to fit environmental requirements. On the other hand, they (universities) can attempt to alter the environment so that it fits their capabilities. The main contribution of resource dependence theory is the detailed analysis of adaptation strategies. These include merging with other organizations, diversifying products and services, co-opting/interlocking directorates, and/or engaging in political activities to influence matters such as regulations (Pfeffer and Salancik, 1978). Administrators of a university become

more important because they are mainly responsible for the development and implementation of strategies that help to reduce dependency relationships with the environment. Using RDT as a lens, the following section discusses the various ways in which our case study universities have managed to generate resources. We also identify enablers for and barrier to revenue generation at our case study universities.

4. Cases and Data Collection

a. **Case study universities**

- Ethiopia: Adama Science and Technology University & Haramaya University,
- Kenya (Jomo Kenyatta University of Agriculture and Technology), and
- South Africa (Nelson Mandela Metropolitan University)].

Taking four public universities from three countries will allow us to put the findings in a comparative perspective for universities operating in different (i.e., regulatory, financial, and institutional) settings.

b. **Data collection** were collected through interviews, observations, and desk research (institutional documents, legal documents, national policies and strategies, research literature, etc.).

c. **Information Sources**: Interviewees were conducted with university administrators & academics (university presidents, deans, registrars, heads of Continuing Education, Heads of Technology Transfer Offices, Heads of university companies, Heads of External Relation Offices).

5. Major Findings

The organizational environments of the four sampled case study universities offer several opportunities for revenue generation. Firstly, more students, and more different types of students,

seek to obtain access to university education due to the expansion of lower level educational provisions (e.g. secondary education). Secondly, more segments of the labour force demand university graduates trained for highly specialized occupations. Thirdly, the expansion of knowledge itself globally. Fourthly, the national governments directly or indirectly indicate that they are unable to support 'mass' higher education at the same unit-cost level as they did for prior small or elite arrangements. In some national context (e.g. Ethiopia), public universities are legally encouraged or allowed to engage in revenue generation activities (see Higher Education Proclamation 650/2009 Article 66 &67). We also came to learn that the sampled universities are given substantial autonomy in dimensions of education and research which enable them to engage in income generation strategies and activities. For examples, they are legally allowed to select and admit their fee-paying students, introduce and eliminate degree programmes; determine prices for their products and services, and set the standards & curricula for such programmes and other diploma courses and contract education services. They can also decide on the modes of instruction and delivery. Concerning research, they can set priorities for research and non-education services. Overall, institutional autonomy in dimensions of education and research have enabled the universities to respond to the streams of endless demands rain up on them from diverse stakeholders who seek educational and research services. But we have learned that inadequate autonomy in terms of human resource (e.g. unable to set pay scale for employees) and financial autonomy (e.g. unable to borrow money from capital markets, funding modality (line-item budgeting) in case of Ethiopia, etc.) become barriers for aggressively engaging in revenue generation. While the existing public funding allocation modalities allow the Kenyan and South African universities with the responsibility of internal allocation of resources, the case is not so the same with Ethiopian universities due to inflexibility of the funding model.

The finding of this paper indicated that one of the central points to engage to revenue generation in the sampled universities is the reduction in budgets from the main patrons/governments. It is equally argued that a need for managing risks that are caused by a sudden drop in income or to fuel further growth of the universities' activities constitutes one of the major divers for revenue generation. The existing institutional autonomy and environmental opportunities (in term of

regulation in case of Ethiopia and funding modality in case of Kenya and South Africa) have become incentives for the case study universities to engage in revenue generation.

As expected in RDT, our case study universities have responded to enormous demands in their respective environments for acquiring vital resources/finance[2] (see Table below). But direct public funding continues to be the most important revenue for the sampled universities. They have widened their resource base from the diversity of entities/organizations such as fee-paying students, regional and local authorities, ministries, donors, industrial firms, etc. by providing educational and research services (degree awarding programs, contract research, consultancy and short-term trainings, bridging courses) and other non-academic services (rental of facilities, residences, selling industrial and agricultural products, cafeteria services, laboratory test, etc). Student financial contributions or fees have the potential to constitute a large revenue sources in all cases. Among the sampled universities, NMMU heavily engaged in generating revenue from research, followed by JKUAT and HU. The academic staff (mainly the level of qualification of academic staff) and research facilities of NMMU have encouraged its staff to engage in revenue generation from research. It is so because of incentives linked to research outputs. However, for instance, other conditionality and stringent reporting/accountability attached to donor funding (from bilateral and multilateral) become barriers for generating resources. In some cases, according to senior university leaders, 'small income sources' cause a disproportionate amount of paperwork and administration, raising the operational costs for universities. As universities seek to respond to environmental demands, we see attempts not only for organizational survival but also for organizational legitimacy.

Table 1: Percentage of government and own generated (nongovernmental) resources

Source	**ASTU**		**HU**		**JKUAT**		**NMMU**	
	2007/08	2010/11	2007/08	2010/11	2007/08	2010/11	2007/08	2010/11
Government	86	93	78	83	44.5	38.2	53	50

[2] In Ethiopian universities, revenues from university income generation activities are difficult to document due to a fear of reducing university budget allocations by the amounts of income generated. As disclosing data on generated income is expressed as "punishment for good deeds", information on such revenues is very sensitive, and is often as much as possible undisclosed; and when disclosed, the figures are underestimated and unreliable.

Source	ASTU		HU		JKUAT		NMMU	
	2007/08	2010/11	2007/08	2010/11	2007/08	2010/11	2007/08	2010/11
Nongovernmental	14	7	22	17	54.5	61.8	47	50

Administrators of the four sampled universities become more important actors in responding to environmental opportunities because they are mainly responsible for the development and implementation of strategies that help to reduce dependency relationships with the environment. We have noticed that all senior university leaders are highly committed for revenue generation which have, as we shall see below, been manifested through setting regulations, funding, structures, and installing rewarding systems. This is because the university leaders positively see revenue generation as a means to gain more flexibility in their internal financial management, as public funding (also some donor's funding) often comes with complex administrative requirements. In other words, revenue generated from nongovernmental sources is perceived as being comparatively easier to manage and has the advantage that it can be allocated internally without restrictions. Concerning internal structures, we observed relatively centralized or decentralized, or more favorable unique combination of the two. While education and research activities are devolved to lower subunits mostly at departmental levels, financial, procurement, and human resource management are often centralized, sometimes highly centralized (e.g. JKUAT, HU, and ASTU). The sampled universities have also demonstrated greater systematic capacities to steer themselves. That ability has not taken any one form across the universities. While ASTU has shown mainly managerial values, the other three universities have fused managerial values with traditional academic ones. The latter approach seemed to have enabled revenue generation since the underlying traditional academic culture is not fully ignored or pushed aside.

In trying to bring more revenues, universities have devised several strategies to manage the demands made by those environmental stakeholders who provide resources critical to their survival and success. These include improving differentiation of their services (in terms of educational programmes and research areas) and products (e.g. agricultural and industrial products) for meeting stakeholder demands. They have established satellite campuses in several

areas (cities/towns in their respective countries and Tanzania in case of Kenyan universities) including co-ventures (franchises) with non-degree awarding organizations. Students are often segmented according to academic level and/or as on-campus or distance studies, part-time or fulltime, etc. Students attend class during evening, weekends, etc. to combine work and study. These strategies enable them to take their services closer to their customers. Several other strategies are also devised to cater for heterogeneous environmental demands. One of the strategies is to establish a varied array of new academic units (research centers or institutes and Distance & Continuing Education offices) that undertake educational offerings and contract research. In such a strategy, departments are supplemented by centers or institutes to link to the outside world. These subunits are sometimes but not always multi-or transdisciplinary. However, shortage of qualified academic staff at the sampled public universities in Ethiopia is found to be key barriers to generate revenue from research undertakings. This implies that lack of adequate capacity in terms of experiences and expertise have played an important role not to engage in revenue generation in case of Ethiopian universities. They have tried to overcome the problem by mobilizing academic staff from other universities (local and overseas).

Developing or planning to develop new funding streams often leads to more management issues partly due to very diverse accountability regimes. The case study universities are forced to invest a lot both in time and resources in order to obtain additional revenue. We have learnt that our sampled universities have established outreach administrative units that reach across old university boundaries to link up more readily with external stakeholders/ resource providers. Again, there are no similar structures and names. The case study universities in Ethiopia and Kenya have established offices that coordinate and provide strategic leadership for revenue generation at their strategic apex (senior university management). Other support units include Technology Transfer Office, KTI in the case of ASTU, Project coordination offices, Marketing Units, Fund Raising specialist, Strategic planning unit, Finance Units for Income Generation, etc. These office can enable the universities to manage their resource dependencies with resource providers. But these offices are staffed by senior academic staff (who can engage in research) rather than by professional managers.

Most of our case universities have lobbied for re-regulation and revised policies. A case in point is ASTU which managed to determine the pay scales for its senior support staff. All also create alliances/consortia with other universities for offering courses and undertaking research where they lack inputs in terms of human and non-human resources. Ethiopian universities have also used their legal rights to select board members to enhance linkages with their stakeholders (industry, regional and local community) in order to acquire vital resources for their survival.

Additionally, our case study universities have installed rewards and incentive structures for their staff and subunits. JKUAT has a comprehensive policy for revenue generation that the two Ethiopian universities are yet to formulate. All universities set reward for income generation at staff level. All but the Ethiopian universities formulated a formula for sharing profits at different levels (center, faculties/schools, departments, and non-academic units). Lack of incentives at subunits particularly in the case of sampled universities from Ethiopia is found to a barrier for revenue generation from educational services. No university have so far considered revenue generation as a promotion criterion. Although revenue generation has got such positive impacts as increased revenues, enhanced autonomy, quality of facilities, staff rewards (reduced turnover), increased quality/volume of research, it is suffering from moonlighting, inferior services, and the likes where finance is the only driving force.

6. Conclusions

This paper has examined some of the ways in which Ethiopia, Kenya and South Africa's public universities have employed their agency in response to environmental demands in terms of revenue generation. There is generally an attempt by the universities to shift the locus of their resource dependence by engaging non-government sources of revenue. The new income earning regime entails the universities to devise both adaption and altering strategies for revenue generation. It is reasonable to conclude that as a result of survival imperatives, the universities no more treat their financial challenges as the responsibilities of the governments but rather their own affairs. As shown in the findings, key implications for policy dialogue have been noted at regulations (or preferably policy) and funding (resource allocation mechanisms) levels within the university and governmental levels.

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