# Proceedings of the 13th International Conference on Private Higher Education in Africa

**Organized by:**

**The Research and Knowledge Management Office (RaKMO) of**

**St. Mary's University (SMU)**

**24 August 2015**

**UNECA Conference Center**

**Addis Ababa, Ethiopia**

# Revenue Generation Strategies in Sub-Saharan African Universities

**Dr Fisseha Mamo**

## Abstract

This paper explores revenue generation strategies in Sub Saharan African (SSA) Universities. It argues that almost all higher education systems in SSA countries are increasingly under pressure due to rising student populations and mounting costs of teaching and research activities. The study attempts to analyze the enablers for and barriers to revenue generation within SSA universities. A resource dependence theory complemented by a stakeholder theory was used as a theoretical lens of the research. These theories promote that any action of the focal organization is aimed at acquiring resources from its environment. Universities, as active actors in the environment, may implement various strategies either to comply with the environmental demands in ways close to their individual mission, to avoid and/or alter these demands. A case study method grounded in a qualitative research approach was employed in this study. Four universities in three African countries; viz., Haromaya University and Adama Science and Technology University from Ethiopia, Jomo Kenyatta University of Agriculture and Technology from Kenya, and Nelson Mandela Metropolitan University from South Africa were selected using purposive sampling technique. The case studies were based on interview checklist with open-ended questions and desk review. A content analysis, an analysis at the individual case study university, and a comparative analysis across the case study universities were employed as techniques for data analysis on the basis of the research model derived from the theories. A rich set of data was obtained from almost 70 interviews held with university staff (from senior university leadership to frontline actors) and documentary evidences. The study has shown that with varying levels of success, the case study universities have all diversified their revenue structure by formulating adaptation and altering strategies. The proportion of external revenues in the Kenyan and South African universities even exceeds the recurrent budget from their respective national governments. The case study universities acquired resources from a variety of sources, of which tuition fees obtained from students were prominent one. In particular, one can observe a diversification in the courses offered; particularly in social sciences, business, and management, because these had relatively limited investment requirements and were also greatly in demand from students. In order to link up with outside organizations and groups, a number of academic and administrative units were set up. The case study universities have also implemented incentives and professional approaches towards revenue generation in order to deal flexibly with the demands from (potential) stakeholders. This study identified a number of enablers for and barriers to revenue generation within and outside the universities. Externally, the types and nature of stakeholders, the regulatory framework, and funding and incentive schemes influence the capacity of universities to generate revenue. In particular, the limited degrees of financial and staffing autonomy granted to the universities negatively affect revenue generation efforts. Another barrier is lack of a research capacity at the Ethiopian and Kenyan case universities due to the limited or almost full absence of research funding. In the case of South Africa, however, we see a range of targeted support funds for research, including funds for graduate students and rewards for research publications. Internally, leadership commitment to revenue generation, internal governance and management processes, absence of sufficiently qualified and motivated academic staff and professional managers, and inadequate non-human resources of the universities influence revenue generation. Big obstacles are the lack of sufficiently qualified personnel and research infrastructure. With the exception of the South African case study university, I must conclude that the case study universities have not yet diversified their revenue base to a level of ensuring financial sustainability. Finally, this study provides some policy and legal recommendations that will help universities in Sub-Sahara Africa improve their revenue generation abilities and increase their financial sustainability.

**Key words**: Sub-Saharan Africa, revenue, universities, resources, strategies

## 1. Background of the Study

Financial sustainability is one of the key challenges for public universities in both developed and developing countries. The rapid changes in the higher education context across the globe, driven by economic, social, political, and technological forces, have created an unprecedented set of challenges for financing universities (Gumport & Sporn, 1999; Jongbloed, 2004; Massy, 2003). Universities are required to operate within increasingly tight financial frameworks caused by decreased government financial support. Several researchers have studied the financial challenges indifferent socio-economic, political and technological environments (See Clark, 1998, 2004; Massy, 2003; Johnstone, 1998; Jongbloed, 2004; World Bank, 2010; Rizzo, 2004; Beliakov et al., 1998; Kitaev et al., 2003; Li &Shen 2003; Ziderman, 2003; Sanyal, 1998; Saint, 1992; Varghese, 2009; Fisseha Mamo, 2015). The insights in these studies how national governments' capacity for financing higher education systems has fallen significantly, and there are poor prospects for public funding catching up with ever-increasing higher education expenditures.

Nowadays, financing higher education in Africa is increasingly becoming an important topic in higher education policy debates (Fisseha Mamo, 2015). It is also often a subject of heated policy debate when rapidly rising social demands for higher education have to be met in the context of constrained resources. Many researchers have conveyed an encouraging message on alternative funding options amid this decline in government support for higher education organisations (see Clark, 1998; Massy, 2009). One of the organisational adaptation strategies for universities is to raise more and more of their own revenues to ensure their financial sustainability. African governments have encouraged their public higher education organisations to develop their capacity for revenue generation and use their resources economically (Mingat, Ledoux, & Rakotomalala 2008 cited in World Bank, 2009). According to the World Bank (2010:74), on average African universities' self-generated resources account for approximately 28% of their recurrent budgets.

There is now a consensus in several higher education systems that public budget cuts can be mitigated by private funding sources. Revenue generation has consequently been given greater attention as a strategy for financial sustainability. Although the financial challenges for public universities have many similarities between countries, it is not clear how these issues should be addressed in different socio-economic and political contexts. Strategies for overcoming the financial challenge and the implications of the chosen strategies in the African socio-economic and political context are also understudied. The existing understanding of revenue generation and the forces that erect barriers to it is still very limited. The relevance and usefulness of revenue generation strategies undertaken by universities in developed countries for use by universities in developing countries is still an area for further investigation. I argue that financial sustainability is a multifaceted phenomenon that is worthy of conceptual and empirical attention. Revenue generation is an area of serious debate, both scholarly and by the public, where various issues of concern have been raised repeatedly (Altbach, 2002; Nafukho, 2004; Sawyerr, 2002a; Scott, 2003;

Leslie & Slaughter, 1997; Williams, 1992, 2003). This suggests that the analysis of revenue generation practices and strategies in the context of Sub-Saharan African countries is an area of much interest for empirical research.

## 2. Research Problem and Research Questions

As indicated in the previous paragraphs, in most African countries the current rates of expansion in enrolments in higher education will not be financially sustainable in the future. Under such financial challenges, public universities are forced to engage in revenue generation to improve their financial sustainability and ensure their survival. The issue of whether and how these universities manage to implement effective revenue generation strategies that lead to financial sustainability in rapidly changing environments is particularly interesting. Thus, the central research question of this dissertation may be stated as:

*How can Sub-Saharan African public universities improve their financial sustainability by diversifying their resources while continuing to accommodate the growth in higher education enrolment?*

This fundamental research problem is further broken down into four basic research questions:

1. What theory can assist us in understanding the enablers for and barriers to revenue generation in Sub-Saharan African universities?
2. What is the actual practice of revenue generation in Sub-Saharan African public universities?
3. What are the enablers for and barriers to revenue generation in Sub-Saharan African public universities?
4. Given what we know from theory and international practice, how can barriers be overcome and enablers be introduced for revenue generation in Sub-Saharan African universities?

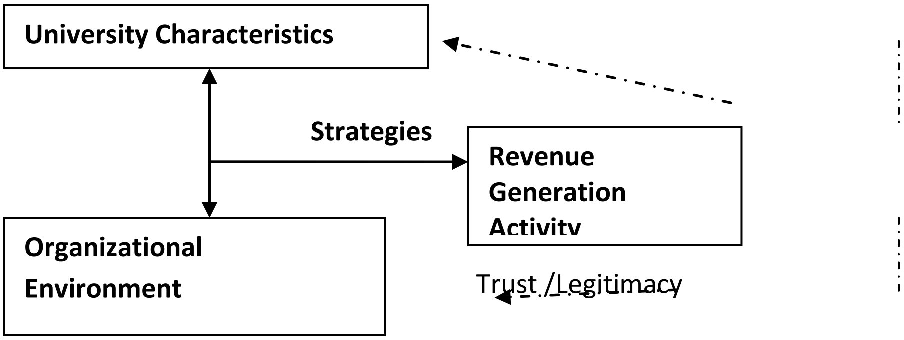
## 3. Theories and Research Model

This research argues that to survive, universities as organisations must engage in exchanges with other environmental actors (i.e. stakeholders) for acquiring resources. In return for resources, universities produce acceptable products and services for the environment. This interaction between the universities and their external stakeholders creates dependencies. It is argued that universities can respond to environmental demands by either formulating strategies which aim to comply with environmental demands, or strategies which attempt to avoid these demands and/or to (re-)shape the conditions that they are confronted with.

A theoretical framework derived from resource dependence theory (RDT) complimented by a stakeholder theory (ST) guides our research. This theory provides useful conceptual tools for understanding organisational responses to financial challenges (Pfeffer & Salancik, 1978; Aldrich & Pfeffer, 1976; Davis & Cobb, 2009). It also helps to explain how the organisational environment influences revenue generation strategies and activities in universities. The theory assumes an active role for individual universities in their struggle for survival (Aldrich, 1979; Pfeffer & Salancik, 1978; Scott, 1992b). This implies that universities may actively influence their environment. From the resource dependence perspective, universities can address resource dependence difficulties related to state funding issues by competing for resources from alternative (including private) sources (Clark, 1998; Sporn, 1999; Leslie & Slaughter, 1997; Wangenge-Ouma, 2011). Resource dependence theory may contribute to the detailed analysis of such adaptation or altering strategies. The stakeholder theory helps prioritize stakeholders' claims in terms of their degree of salience for a given university. Using the theories as a lens, we attempt to identify enablers for and barrier to revenue generation at four universities in three countries.

**Research Model**

Learning/Adapta
tion




### 3.1. Methodology and Operationalization

This section presents the methodological considerations of the study. It begins with the operationalization of variables contained in the research model. The second section presents the methods, the case selection, data collection instruments, and techniques for analysis.

### Dependent Variables: Strategy

Strategies that universities employ to implement their revenue generation make up the first dependent variable. The concept of strategy has been adopted from the military, and later adapted for use in business and public organisations including universities. There is very little agreement as to the meaning of strategy (Steiner, 1979) as the term is generally a broad and ambiguous topic (Fisseha Mamo, 2015). What, then, is strategy in this research? Strategy is understood as the direction and scope of universities' efforts to achieve advantages in an environment through their configuration of resources and competences. It is concerned with how the university will achieve its revenue generation agenda from educational services by making choices with regard to direction, allocation of people, and allocation of means and money. We Operationalise the strategy as indicated in Table 1 below.

**Table 1: Operationalisation of University Strategies for Revenue Generation**

| Variables | Indicators |
|---|---|

| Variables | Indicators |
|---|---|
| Strategy | Initiating differentiation of academic (education and research) services, and non-academic services and products. |
| | Setting up dedicated academic units such as departments, education and research centres, continuing education, etc. |
| | Setting up dedicated organisational support units such as a Technology Transfer Office, a unit for fundraising & donations, etc. |
| | Introducing financial and non-financial incentives that include:<br>**(i) University's Internal Resource Allocation Mechanism:**<br>- The degree of lump sum versus itemized funding;<br>- The degree of centralisation/decentralisation;<br>- The use of premiums/incentives for encouraging particular behaviour/performances).<br>**(ii) University's Human Resource policies:**<br>- Selection & evaluation criteria for staff;<br>- Promotion of staff;<br>- Shaping of working conditions for staff. |
| | Creating alliances & consortia with other organisations (universities, companies, etc.) in the environment. |
| | Selecting external representatives to sit on or play role in university's decision-making bodies. |
| | Lobbying for deregulation or reregulation. |

### 3.2. Revenue Generation Activities (RGA)

The second dependent variable is concerned with the actual revenue generation activities. A revenue generation activity is a specific task that the university does as a response to its resource providers for revenue generation. Table 2 presents the operationalisation of revenue generation activities in a university.

**Table 2: Operationalization of Revenue Generation Activity**

| Variables | Indicators |
|---|---|

| Variables | Indicators |
|---|---|
| Activity | Actual education activity aiming at revenue generation (e.g. teaching students in degree programmes and non-degree pre-and post-baccalaureate certification, short courses for industry and vocational Master's programmes). |
| | Actual research conducted for various external stakeholders to acquire nongovernmental resources (e.g. research contract, and consultancy activities; the commercialisation of intellectual property such as patents and licenses). |
| | Actual non-academic services rendered and products sold with the aim of revenue generation (e.g. the exploitation of university facilities through renting residences, catering revenue, libraries, training centres or resource centres, printing and binderies, sport facilities, language centres, scientific test equipment/facilities, museums, etc. for commercial purposes, sales of goods and services including retail businesses such as bookshops, sale of agricultural and industry products, etc.). |

## Independent Variables

There are two independent variables: **university characteristics and organizational environment**. The first set of independent variables deals with the characteristics of a university. As universities are complex organisations, their success in attaining certain goals (e.g. revenue generation) is contingent upon their unique characteristics (See Fisseha Mamo, 2015). In this paper, four variables measure the variation between universities: mission, disciplinary configurations/specialisations, internal governance and leadership, and human and non-human resources. I am interested in the mission of a university since the mission statement of a university can show the degree of attention paid towards revenue generation. The disciplinary configuration or specialisations of a university, which consist of the academic programmes and research areas in which the university is active, may affect the propensity of the university to mobilise resources from certain stakeholders in its environment. The internal policies, regulations, and structures related to revenue generation are indications of the willingness of a university to support its revenue generation strategies and activities. The university leadership's commitment to revenue generation is of crucial importance, since the leadership plays a major role in how a university meets external demands and expectations (Gornitzka & Maassen, 1998). The task of the leadership is mainly to influence and persuade others in a desired direction (Nadler & Tushman, 1997), usually towards the accomplishment of specific tasks (e.g. revenue generation).

*Human and nonhuman resources*: A university needs to acquire adequate human and nonhuman resources to achieve its chosen strategies for revenue generation (Dill, 2003; Mahoney, 1995; Spaapenet al., 2007; Marginson, 2007). Human resources consist of both academic and administrative support staff. The most important element for creating and disseminating good quality useful knowledge in a university may be the knowledge embedded in academic staff. The presence of a skilled workforce is one of the critical factors of production in any organisations. Specifically, academics holding higher scientific degrees (e.g. PhD), well committed, and adequately compensated may be considered as the heart of the university without whom the university cannot function properly (Altbach, 1991). Other inputs like financial resources and physical resources such as technologies, books and networks, also shape the decisions and choices of a university (Dill, 2003). Each of these variables is operationalised in Table 3 below.

**Table 3: Operationalisation of University Characteristics**

| Variables | Indicators |
|---|---|
| Mission Statement | Degree of attention paid to revenue generation in the university's mission statement. |
| Disciplinary configuration or Specialisations | Main units (e.g. departments, research centres, support units) for education, research and community services. |
| | Degree programmes offered. |
| | Disciplinary areas and specialisations in research. |
| Internal Governance and Leadership | Main decision-making bodies (e.g. board, senate, council). |
| | The degree of centralised or decentralised decision-making procedures in the university. |
| | Positions in charge of revenue generation in the university. |
| | Degree of attention paid to revenue generation in the university's strategic and operational plans. |
| Human and Non-Human Resources | Total budget (for recurrent and capital items) and its composition. |
| | Academic staff volume and composition (incl. share who are holders of Master's and PhD degrees; distribution across disciplinary areas). |
| | Support staff volume and level of training. |
| | Education and research equipment and facilities owned by the university. |

The organizational environment of a university is operationalised by three major variables: societal environment, stakeholder salience, and organisational autonomy. The general or societal environment impacting on a university includes social, political, and economic events that the university faces (see Sporn, 2001; Duczmal, 2006; Gumport & Sporn, 1999). Social trends mainly relate to demographic patterns that may determine the number and types of student body in universities (OECD, 2008). Economic trends can affect the financial stability of universities as universities have to obtain a certain share of budget from their national government. The overall growth of the national economy generally enables universities to generate additional revenue from the environment (Court, 1999). Economic trends also include the national economic structure (Dill, 2003) that influences the range and complexity job skills (Ramirez, Riddle, 1991). Political trends are described in terms of the system of authority that governs the country in which the case study university is located. Political parties and public decision-making bodies can influence the role of universities in national development (CHET, 2011). The societal environment is operationalised in Table 4 below.

Different types of external stakeholders such as regulators, suppliers, customers, and competitors may be distinguished (Freeman, 1984:16; see also Enders, Jongbloed, & Salerno, 2008). Each type of stakeholder holds a different set of resources and may place different demands on the university. This suggests that there is a need for identifying the main stakeholder groups. We operationalise the external stakeholder and their salience to a university in Table 4 below.

**Table 4: Operationalisation of the Societal Environment and stakeholders**

| Variables | Indicators |
|---|---|
| Overall Economic Conditions | - Amount of funding made available to higher education system from the state budget.<br>- Changes in the structure of the national economy (in terms of the relative size of the service sector, the manufacturing sector and the agricultural sector). |
| Political Commitment to Higher Education | - Role of higher education in national development strategies.<br>- Share of higher education budget in overall education budget. |
| Nature of external stakeholders | Types and stakeholder salience |

Regulation may be defined as a restriction affecting organisations' freedom to exercise their rights and liberties (Jongbloed, 2004). More specifically, it stipulates the extent to which a regulatory body seeks to control a university (Jongbloed, 2004; Becher & Kogan, 1992). The law, among other things, defines the autonomy or the degree of freedom the university has to steer itself (see OECD, 2008; Berdahl 1990). Four basic dimensions of autonomy are operationalised in Table 5 below.

**Table 5: Operationalisation of Organisational Autonomy**

| Variables | Indicators |
|---|---|
| Financial Autonomy | Acquiring and allocating funding, accumulating surplus, lump-sum or block grant funding, setting prices for educational services, own buildings, borrowing money from banks |
| Staffing Autonomy | Responsibility for recruitment, promotions, dismissal, and salaries |
| Organisational Autonomy | Setting university internal governance and decision-making structures/bodies, and introducing academic structures (faculties, departments, research centres). |
| Academic Autonomy | Deciding on student admission and numbers |

## 3.3. Methods of Data Collection

As the nature of revenue generation in higher education organisations is complex, dynamic and multidimensional, involving a large number of actors inside and outside of the university organisation, a case-study method is well-suited to investigating the issue in its real-life context (see Yin, 1994:1-13). This case study method is particularly helpful when the context of the organisation and the organisational environment is important (Hartley, 1994. My intention in choosing the case study method is that every case may serve a specific purpose within the research (Yin, 2003; Stake, 2003).More specifically, a multiple case study design is used in this study as it offers opportunities for exploring the issues for different sets of socio-economic and legal circumstances as well as for a diverse set of university characteristics.

### 3.3.1. Selection of the Case Study Universities

Four Sub-Saharan African public universities in three countries (Ethiopia, Kenya, and South Africa) were selected for investigating their revenue generation strategies. The selection of the countries is based on the idea of "purposive sampling" in order to acquire rich information (see Patton, 1987). The main criterion for selecting the countries was their different levels of development in higher education. According to the World Economic Forum (2011/12), the South African Higher Education and Training was ranked 73 out of 142 countries whereas Kenya and Ethiopia ranked 94 and 132 respectively. Secondly, these countries differ significantly in their economic development: South Africa is a relatively advanced or efficiency-driven economy, while Kenya and Ethiopia are factor-driven economies.

The sampling procedure used for the selection of case study universities was a purposive sampling technique (see Silverman, 2000:104), which is one of the most widely used methods in qualitative studies. The selection of case study universities in this research is for 'theoretical representativeness', not based on statistical representativeness (Billiet, 1996:139-140). Two public universities, Adama Science and Technology University (ASTU) and Haramaya University (HU), were selected from Ethiopia. Jomo Kenyatta University of Agriculture and Technology (JKUAT) from Kenya and Nelson Mandela Metropolitan University (NMMU) from South Africa were chosen for the case study

### 3.3.2. Empirical Data Collection

Multiple sources of evidence under the rationale of triangulation (Yin, 2003:97) guided the logic behind data collection. Data collection included:

- Literature survey: desk research/exploratory study of research in Sub-Saharan Africa and beyond is undertaken to map the status of revenue generation from educational services in Sub-Saharan African universities.
- Analysis of data in the four case studies: this includes interviews with key figures from the universities, documentary evidence from the

universities and other stakeholders in the environments, and on-looker observation on the campuses of case study universities.

This study relies heavily on evidence collected from the case study universities through interviews. A semi-structured interview guide that was prepared based on the variables identified for this research was used for data collection. Sixty-seven respondents (ranging from senior university leadership to academic and administrative staff) who were directly or indirectly involved in revenue generation agenda of the case study universities were included in the interviews. Moreover, a documentary analysis was made on the multitude of national development strategies[1], national and organizational regulatory frameworks, strategic and annual plans, organizational physical and financial reports, website text, internal policies and regulations, organisational structures, statistical information, reports by the World Economic Forum, and other research documents from the World Bank, CHET, and the African Association of Universities.

### 3.4. Data Analysis

Three types of analysis: (i) content analysis, (ii) analysis at the level of the individual case study university, and (iii) comparative analysis across the four case study universities were applied. The within case analyses provide inputs for the comparative analysis. The major findings from the comparative analysis of the four case study universities as per the theoretical framework and the operationalization of key variables were presented as follows.

## 4. Findings And Discussions

### 4.1.Revenue Diversification In a Time of Expanding Student Numbers

The purpose of this study is to contribute to our understanding of how Sub-Saharan African public universities can achieve financial sustainability by diversifying their resources to continue to accommodate the growth in higher education enrolment. The findings of a study carried out by the

[1]The Growth and Transformation Plan of Ethiopia, Vision 2030 of Kenya, and Medium Term Strategic Framework (MTSF) of South Africa and its Vision 2030

World Bank (2010) indicate that the capacity for public investment in higher education at national level meets only 33% to 40% of the total financial requirements of Sub-Saharan African universities. Most African countries are struggling with the policy challenge of balancing the need to raise educational participation while managing the costs of their higher education systems. Systems created on an elite basis for highly restricted participation are unable to deal adequately with expansions in student numbers, yet such an expansion of students is necessary to promote GDP growth and improve economic performance.

As shown in this study, revenue generation is to some extent dependent on the research strengths of the university and yet all the universities have adopted a similar set of strategies (including strategic alliances with other organisations) to create internal revenue generation capacity. All four universities have experienced profound structural pressures from revenue generation, with the majority of the universities developing new structural arrangements to deal with those pressures, including the creation of revenue generation-related committees. There has been a degree of diversification in the courses offered by the universities, as that is less dependent on the research base. The most popular new courses established were in social sciences, business and management, because these had relatively limited investment requirements, and were also greatly in demand from students due to their contribution to graduate employability. This research shows that Sub-Saharan African universities have evolved in response to the pressure to generate revenue.

### 4.2. Universities' Revenue Generation Practices in Sub-Saharan Africa

The review of the existing empirical studies showed that there has been limited research on revenue generation in the context of public universities in Sub-Saharan Africa. A synthesis of the scholarly literature on higher education financing around the world shows that most higher education systems face the challenge of designing sustainable funding models (EUA, 2011; Clark, 1998; Massy, 2003; Johnstone, 1998; Beliakov et al., 1998; Jongbloed, 2004; Clark, 2004; Rizzo, 2004; OECD, 2008; World Bank, 2010; Bermalet al., 2003; Shen& Li, 2003; Ziderman, 2003; Varghese, 2009). The capacity for public investment in higher education at the national level in

Africa meets only 33 to 40% of their total financial requirements (see World Bank, 2010). Revenue generation is now widely recognised as one strategy for achieving financial sustainability in universities (Jongbloed, 2003; Clark, 1998; Massy, 2009; Liu, 2007; Riechi, 2003; Ouma, 2007).

Universities in Africa manage to generate around 28% of their recurrent budgetfrom sources other than their recurrent government allocation (World Bank, 2010). Universities undertake both academic and non-academic activities to generate such external resources (Clark, 1998; Shattock, 2003; Jongbloed, 2003; Johnstone, 1998; Leslie & Slaughter, 1997; Williams, 1992; Liu, 2007; CHET, 2011; EUA, 2011; Hearn, 2003) from a diverse array of stakeholders. The most prominent source of external revenue across the globe is tuition fees paid by students (EUA, 2011; OECD, 2008; Williams, 1992). Revenue from applied research and consultancy are other examples of income sources for universities, particularly in technologically advanced regions (Leslie & Slaughter, 1997). Obviously, variations in revenue generation exist from one university to another in the same or different countries, and among departments and programmes within the same university (Clark, 2004). Studies show that although revenue generation is one mechanism to achieve financial sustainability, it cannot replace public funding (see EUA, 2011).

Similarly, the four case study universitiesface financial constraints, making financial sustainability a key concern for them (Fisseha Mamo, 2015). Revenue generation has thus been driven by the desire to mitigate the risk of dependence on a single resource provider. The findings of the study revealed that, with different degrees of emphasis and success, all the case study universities exchanged their academic (i.e. education and research) and non-academic products and services to acquire resources from diverse stakeholders. Revenue from student fees is the most prominent. A key finding is that the universities themselves had changed their internal operations and structures to generate revenue, using both adapting and altering strategies to acquire resources through education, research and consultancy, and non-academic services (Fisseha Mamo, 2015).

## 4.3.Revenue Generation Strategies in Sub-Saharan African Universities

The research revealed that the four case study universities have formulated various revenue generation strategies, which can be broadly categorised into adaption and altering strategies.

### 4.3.1. Adapting Strategies

As part of their adaptation strategies, the case study universities adapted and changed their services to fit environmental requirements, for example by creating many kinds of higher education provision to meet a much wider range of target audiences than the single traditional learner route. They assessed the needs of their salient stakeholders, defined their market segments, and then adapted their services and products to meet some of these needs. The findings in this study demonstrated that the key strategies used for revenue generation from education and short-term training services included differentiation of educational services (horizontally, in terms of the spectrum of programmes, and vertically, in terms of the level of programmes), opening (satellite) campuses in strategic locations, devising diverse modes of delivery (face to face teaching, or distance education), and differentiation of the student population in terms of their study period (weekdays, weekends, summer, or evening). Similarly, all the case study universities identified their research priority areas, established research entities alongside their traditional academic departments, and created research management offices as part of their adapting strategies to acquire resources from research and consultancy services. Establishing research entities such as institutes, centres and units without having adequate research capacity illustrated how organisational decision makers imitated the behaviour of other actors in their environment, as observed at the Ethiopian and Kenyan case study universities.

At the corporate level, all the case study universities have taken practical measures to improve communication, create stable and clear organisational structures for 'relationship management' or 'stakeholder management', and increased staff commitment by setting up incentive schemes as part of their revenue generation strategies. Structurally, they have established outreach administrative units that promote contract education, contract research, short-term training, consultancy and other non-academic products and services. In managing their revenue generation, all but Adama Science and Technology University formed a decision-making body constituted of representatives from senior leaders, middle managers, and academic staff, which created an opportunity for fusing managerial values with traditional academic values. The four universities have also followed similar patterns in aligning internal actors to their revenue generation agenda by providing financial and nonfinancial incentives. While the financial rewards target individuals in the Ethiopian case study universities, they focuses on all internal actors, be it individuals or subunits, who directly or indirectly participate in revenue generation in the Kenyan and South African case study universities. All the case study universities allocate some seed money for expanding existing revenue generation activities or starting new initiatives.

Other organisational responses targeted stakeholder and relationship management, setting up outreach units to create new kinds of services (training, consultancy and other non-academic services). Introducing this plethora of new units introduced new organisational complexity and thus worked against improving institutional efficiency.

### 4.3.2. Altering Strategies

In terms of altering strategies, the four universities attempted to alter the system of constraints and dependencies confronting them in their respective environments through forming alliances, co-opting, and/or lobbying for deregulation or reregulation. The study revealed that the four case study universities formed strategic alliances with other educational organisations to create additional capabilities that pragmatically increased their range of viable responses to diverse types of students who wished to use their educational services. Similarly, all the universities tried to form alliances with other higher education organisations and research institutes to foster their research capacity as part of their altering strategies. In other words, alliances with other research organisations (universities and research institutes) formed a key strategy for improving their own in house capacity. However, such alliance arrangements are only practical and fruitful when universities ensure their own critical in–house capacity in terms of human and non-human resources, as observed in the South African case study university. It was clear that where these initiatives were failures, this was primarily because of internal problems with insufficient qualified personnel and inadequate infrastructure, rather than a lack of policy incentives and funding.

The presence of regional or provisional authorities on the boards or councils of the case study universities, as well as the formation of strong alumni associations, were employed as altering strategies to gain preferential access to resources by offering educational services and short courses to regional or provincial stakeholders. In some cases, the senior university leaders lobbied for additional autonomy in terms of staffing (i.e. freedom to set salaries for administrative staff) (see Table 5.19).

## 4.4. Enablers For and Barriers to Revenue Generation

The research identified factors, both specific to universities and in their wider environmental contexts that influenced revenue generation strategies and activities. The main environmental contexts were (rising) demand for higher education, the legal framework surrounding the core funds for universities, as well as the universities' academic and organisational autonomy. The main internal factors affecting revenue generation were subject mix (business studies being popular), research strengths, and commercialisation infrastructure.

### 4.4.1. Enablers and Barriers External to the Universities

The findings of this study revealed that in the university's environment, the types and nature of stakeholders, the regulatory framework (including dimensions of organisational autonomy), funding and incentive schemes influence the capacity of universities to generate additional revenue. The study indicated that while the regulatory frameworks in which the case study universities operate allow them to generate revenue, the limited degree of financial and staffing autonomy granted to the universities (notably the Ethiopian case study universities) hinder their revenue generation efforts. In this respect, inability to reallocate funds as the universities see fit, inability to borrow money on the capital market, and inability to decide on the volume and salary levels of their staff are the key barriers to engaging in large-scale revenue generation efforts.

This study identified inadequate funding and incentive schemes as possibly being the main obstacle to revenue diversification in universities. Funding incentives set by public authorities should reflect the diverse missions and profiles of universities not focus exclusively on rewarding education activities as in the cases of Ethiopian and Kenyan universities. The limited or absent upfront investment in university research infrastructures hinder revenue generation at these universities. South Africa has a range of targeted support funds for research, including research funds for graduate students and rewards for research publications, which provide opportunities for universities to generate additional research funding. Moreover, student support schemes such as the National Student Financial Aid Scheme in South Africa and the Higher Education Loan Board in Kenya facilitate poor and disadvantaged but academically able students gaining access to higher education. These funding schemes provide the university with opportunities to generate revenue from students.

The study also showed that inadequate resource allocation mechanisms and funding modalities have a negative effect and create powerful disincentives for universities to seek additional funding sources. An excessive administrative burden, including complex rules and reporting obligations associated with public or private and donor sources, is one hurdle which deters universities from diversifying their funding streams. The funding modalities that are particularly unfavourable to universities include line item budgeting, which tends to create conditions that stand in the way of the universities' income generation potential. Similarly, a diversity of instruments and associated rules, heavy administrative processes and accountability requirements deter our case study universities from participating in some donor funding schemes.

### 4.4.2. Enablers and Barriers Internal to the Universities

The findings of this study demonstrated that leadership commitment to revenue generation, internal governance and management processes, absence of sufficiently qualified and motivated academic staff and professional managers, and inadequate non-human resources influence revenue generation across the case study universities. Senior university leadership's huge commitment to revenue generation, which we witnessed in this study, is of paramount importance for seeking additional revenue streams. The adequacy of structures and decision-making processes facilitates universities' revenue diversification efforts. In particular, a deliberative structure of committees along with strong organisational leadership is a key enabler.

The study revealed that lack of properly qualified academic staff - as measured by the number of PhD holders - is an important barrier to revenue generation in the Ethiopian case study universities. The proportion of academic staff with doctorates is an indication of the research capability of academic staff and their potential to engage in revenue generation beyond the teaching of self-funded (fee-paying) students, as shown in the case of the South African case study university. The findings of this study also indicated that the potential for revenue generation depends on the ability of universities to offer good quality services to their internal and external stakeholders. The inadequate administrative support capacity at the Ethiopian case study universities is an obstacle to revenue generation. At operational level, properly qualified/experienced staff are needed particularly in the areas of procurement management, fundraising, human resources, communication, and financial management.

With regard to non-human resources, universities suffering from a lack of research facilities and proper laboratories and equipment are often unable to initiate research-based revenue generation activities, as observed in the Ethiopian and Kenyan case study universities. Their capacity in terms of physical facilities and infrastructure affects their potential to engage in postgraduate education and research, particularly in those academic programmes that require considerable investment in laboratories, machinery and other physical facilities. The example of Nelson Mandela

Metropolitan University shows that heavy upfront investment in research facilities and infrastructure enables the university to earn revenue from research and postgraduate educational services.

## 5. Conclusions

This paper attempted to compare and contrast revenue generation at the four case study universities situated in three Sub-Saharan African countries using the resource dependence complimented by stakeholder theory as its theoretical lens. With variations in the distribution of resource dependence at the four universities and varying levels of success, all the case study universities have been able to win revenue from multiple sources. While the Kenyan and South African case study universities obtain the majority of their financial resources from the nongovernmental sources (around 57%-60% in 2010), the Ethiopian case study universities are still largely dependent on government funding (around 80% of their recurrent budget in 2010). Student tuition fees were uniformly the largest source of revenue across all case study universities. Overall, revenue generation in the context of Sub-Saharan African universities is constrained by a multitude of interrelated factors in both the internal and external environments. This variation in acquiring resources is attributed internally to their human and nonhuman resources, and externally to environmental opportunities including organizational autonomy. Particularlyorganizational autonomy in terms of finance and staffing highly matters revenue generation strategies in universities. With various levels of success and achievements, the four case study universities devised both adapting and altering strategies for acquiring resources. The primary focus of adapting strategies was on using existing resources as efficiently as possible, through a range of diversifications in the offer of existing services and activities. The universities adapted and changed their services to fit environmental requirements. As part of their altering strategies, the four universities also formed strategic alliances with other organisations in their environments to create additional capabilities that pragmatically increased their range of viable responses to diverse types of stakeholders who wish to use their services and products. The presence of regional or provisional authorities on the boards or councils of the case study universities, as well as the formation of a strong alumni association by JKUAT, also enabled the case studies to have preferential access to resources. Generally, despite policy aspirations to improve university revenue generation and engage more effectively with the economy, the level of resources generated has not significantly shifted the basis for the sustainability of the sector (except in the case of South African university).Revenue generation can complement, but cannot replace government funds.

## 6. Recommendations for Enhancing Revenue Generation

- Effective revenue generation needs to ensure that some of the resources that flow into the university provide not only administrative funding, but also 'pump prime' new research activities, creating and expanding the university's knowledge base. There is also a need to ensure that the link between teaching and research is maintained when this happens so that students benefit from the improving knowledge levels of academic staff.

- The need for a strong, integrative investment growth model requires that there is a single strategic centre that can balance out internal interests (and conflicts) and take decisive action to maximise the ways in which the universities meet these stakeholders' needs. Whilst this idea is not novel, what is clear empirically is that existing university management could well be improved; therefore, in our ideal type, there is a continuous improvement of leadership and management capacity through training.

- Designing and implementing effective resource allocation models that provide incentives for revenue generation at faculty and departmental levels. This needs to give academic and administrative staff the opportunity to receive monetary rewards for their efforts. At the same time, it needs to ensure that there is a central revenue stream that serves to create seed money and capital for new ideas that cannot be funded out of recurrent revenue.

- Academics and administrative staff should be able to share in the non-monetary benefits of revenue generation. These may include flexible work hours, training, a pleasant working environment, and sabbaticals. Although none of the case study universities used revenue generation as a measure for staff recruitment or promotion, effective revenue generation sees revenue generation being well-aligned with recruitment and promotion criteria, in areas such as strengthening research activities (which indirectly supports revenue generation activity in research and technology transfer).

- Those public authorities who are best supporting university revenue generation activity are those which have delivered reforms which give universities autonomy to take decisions, and at the same time hold the universities more strictly accountable for the exercise of those freedoms in meeting overall public policy goals. Alongside shifting the regulatory burden on universities in ways that give universities new freedoms to generate revenue, public authorities can also directly stimulate revenue generation by encouraging it via the resources (e.g., funding formulas, competitive funding and/or earmarked funding) they provide to universities.

- Universities should be encouraged to work with those partners that are most proximate to them. One form of proximity here would be geographical, working with regional and local communities, businesses and authorities. These kinds of local co-operation on the one hand help directly to contribute to the diversification of offer which is central to the adapting strategies and on the other hand help the universities to build up management and shared infrastructure for supporting co-operation around revenue generation.

- In order to set desirable incentive mechanisms to foster revenue diversification from international donors, we recommend simplification of funding schemes by streamlining eligibility conditions and accountability requirements to reduce the administrative burden on universities. There is a need to create mechanisms to support universities applying to funding programmes. Learning from the experiences of Europe, simplification of rules and procedures as well as moving towards funding on a full cost basis appears to be a sustainable solution in the long-run.

## References

Aldrich, H. (1979). *Organizations and Environments*. Englewood Cliffs, NJ: Prentice-Hall.

Altbach, P.G. (1991). The Academic Profession. In Altbach, P.G. (ed.), *International Higher Education. An Encyclopedia* (pp. 23-47). New York, London: Garland Publishing, Inc.

Becher, T., & Kogan, M. (1992). *Process and Structure in Higher Education* (2nd ed.). London: Routledge.

Berdahl, R. (1990). Academic freedom, autonomy and accountability in British universities. *Studies on Higher Education.* 15. (2): 169 – 180.

Billiet, J. (1996): *Theoretical Dimensions and Measurement Models of Attitudes towards Ethnic Minorities*. Leuven: ISPO-bulletin 1996/23.

Clark, B.R. (1998). *Creating Entrepreneurial Universities; Organizational Pathways of Transformation*. Oxford: Pergamon.

Clark, B.R. (2004). *Sustaining Change in Universities: Continuities in case studies and concepts*. London: SRHE/OUP.

Court, D. (1999). *Financing Higher Education in Africa, Makerere: The Quiet Revolution.* New York and Washington: Rockefeller Foundation and the World Bank.

Dill, D.D. (2003). Allowing the Market to Rule: The Case of the United States. *Higher Education Quarterly, 57*(2), 136-158.

DiMaggio, P.J., & Powell, W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review, 48*(2), 147-60.

Duczmal (2006).

Enders, J., Jongbloed, B., & Salerno, C. (2008). Higher education and its communities: Interconnections, interdependencies and a research agenda. *Higher Education, 56*, 303-324

Fisseha Mamo (2015). *Revenue generation strategies in Sub-Saharan Universities*.

Freeman, R.E. (1984). *Strategic management: A stakeholder approach*. Boston: Pitman

Gornitzka, A. & Maassen, P. A. M. (1998). *University Autonomy in Europe:* Changing Paradigms in Higher Education Policy. Vienna: University of Vienna.

Gumport, P. & Sporn, B. (1999). University restructuring: The role of economic and political forces. In Smart, J. (ed.), *Higher Education: Handbook of Theory and Research* (Vol. XIV). New York: Agathon.

Hartley, J.F. (1994). Case Studies in Organizational Research. In Cassell, C., & Symon, G. (ed.), *Qualitative Methods in Organizational Research*. London/Thousand Oaks/New Delhi: Sage Publications.

Hearn, J.C. (2003). *Diversifying Campus Revenue Streams. Opportunities and Risks.* American Council of Education, Center for Policy Analysis.

IMF (2011). *World Economic Outlook database, April*. Available at http://www.imf.org/external/pubs/ft/weo/2011/01/weodata/index.aspx.

Jonhstone D.B. (1998). *Worldwide Reforms in the Financing and Management of Higher Education.* Center for Comparative and Global Studies in Education, State University of New York, Buffalo, available at www.gse.buffalo.edu/org/IntHigherEdFinance/publReformsFinMan.html

Jongbloed, B.W.A. (2003). Marketisation in Higher Education, Clark's Triangle and the Essential Ingredients of Markets. *Higher Education Quarterly, 57*(2), 110-135.

Jongbloed, B.W.A. (2004). *Mapping University-Business Interactions. A research proposal to identify indicators of interaction.* Unpublished paper.

Leslie, L.L., & Slaughter, S. (1997). *Academic Capitalism: Politics, Policies, and the Entrepreneurial University.* Baltimore: Johns Hopkins Press.Levine, A. (2000a). *Restructuring higher education to meet the demands of a new century.* Twenty-second annual Pullias Address. Los Angeles: University of Southern California.

Massy, W.F. (2003). *Honoring the Trust: Quality and Cost Containment in Higher Education.* Bolton, MA: Anker Publishers.

Massy, W.F. (2009). *Academic Values in the Marketplace*. Presented at the V. Conference for University Management, Pontifica Universidad Católica de Chile, January 8, 2009.

MoE (2010). *Education Sector Development Program ESDP IV (2010/11-2014/15).* Addis Ababa, Ethiopia

MoFED (2010). *Growth and Transformation Plan (GTP) 2010/11-2014/15.* Addis Ababa: Federal Democratic Republic of Ethiopia.

Munyoki, J., Kibera, F., & Ogutu, M. (2011). Extent to which university-industry linkage exists in Kenya: A study of medium and large manufacturing firms in selected industries in Kenya. *Business Administration and Management, 1*(4), 163-169.

NMMU (2008). *Vision 2020 Directional Statements, Strategic Priorities, Goals and Objectives*. Port Elizabeth: Nelson Mandela Metropolitan University.

OECD (2008). *Tertiary Education for the Knowledge Society*. Paris: Organisation for Economic Cooperation and Development

Oliver, C. (1991). Strategic Responses to Institutional Processes. *Academy of Management Review, 16*, 145–179.

Ouma, G. W. (2007). *Reducing resource dependence on government funding: The case of public universities in Kenya and South Africa.* Unpublished doctoral dissertation. University of Cape Town.

Patton, M.Q. (1987). *How to Use Qualitative Methods in Evaluation*. Newbury Park London/New Delhi: Sage Publications.

Pfeffer, G., & Salancik, G.R. (1978). *The External Control of Organisations: A Resource Dependence Perspective.* New York: Harper and Row.

Ramirez, F.O., Riddle, P. (1991). The Expansion of Higher Education. In: Altbach, P.G. (ed.), *International Higher Education: An Encyclopedia* (pp. 91-106). New York: Garland.

Shattock, M. (2003). Managing Successful Universities, Society for Research into Higher Education. Berkshire, England: Open University Press.

Silverman, D. (2000). *Doing Qualitative Research. A Practical Handbook*. Thousand Oaks, CA: Sage

Sporn, B. (2001). Building Adaptive Universities: Emerging Organizational Forms Based on Experiences of European and US Universities. *Tertiary Education and Management, 7*(2), 121-134.

Stake, R.E (2000). Case Studies. In Denzin, N.K., & Lincoln, Y.S. (eds.), *Handbook of Qualitative Research* (2nd ed.). Thousand Oaks, CA: Sage.

Steiner, G. (1979). *Strategic Planning*. Free Press.

UNPF (2010). *The State of World Population 2010*. United Nations Population Fund (UNFPA).

WEF (2011-12) *The Global Competitiveness Report 2009-2010*. Geneva: World Economic Forum.

World Bank (2010). *Financing Higher Education in Africa*. Washington, DC: World Bank.

Yin, R.H (1994). *Case Study Research: Design and Methods* (2nd ed.). Beverly Hills, CA: Sage Publishing.

Yin, R.K. (2003). *Case study research: Design and methods*. Thousand Oaks: Sage Publications Inc.