

PalArch's Journal of Archaeology of Egypt / Egyptology

An Assessment of Resource Generation in Public Universities of Ethiopia –in the Case of Wollaita Soddo, Bahirdar and Gondar Universities

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Dr. Chala Wata dereso, Dr. Pujari Krishnaiah, Dr. Shashi Kant: An Assessment of Resource Generation in Public Universities of Ethiopia –in the Case of Wollaita Soddo, Bahirdar and Gondar Universities -- PalArch's Journal Of Archaeology Of Egypt/Egyptology 17(9). ISSN 1567-214x

Keywords: Resource Generation, Public Universities of Ethiopia

ABSTRACT

Data was collected through one to one interview, focus group discussion, documents analysis and site visit. A total of 60 participants with distinct characteristic (i.e., vice presidents; Directors, deans, department heads, administrative and academic staff) took part in the study. The data was analyzed thematically using directed content analysis. Findings of the study showed that the university has a weak self-steering capacity (as its autonomy and managerial capacity are compromised); moderately stimulated academic heartland; weak development periphery; strong diversified funding base and infant income generating culture. Moreover, the resource generation elements were found to be loosely coupled with each other. Additionally, the study uncovered a number of impediments (excessive procedures; low compensation; lack of real' space for bottom up initiatives; lack of innovative ideas; poor financial recording and management system) inhibiting resource generation practices within the institution. Lastly, a suggestion was made towards the barriers

1. Introduction

Universities and colleges are considered as Institution of Higher education in the country. These universities are playing a vital role in supplementing the higher education and research and community service. And also the universities act like a knowledge centers and enable the students to build up an appropriate academic and professional career. It is therefore necessary to design and develop the infrastructure facilities effectively in order to provide an effective teaching and learning environment. To improve the teaching and learning, research and community service in the universities we must build up the physical, human, infrastructural, intellectual and financial resources. A perineal source of finance is great support for the development of the other resources in the universities.

In the external environment of higher education institutions in Ethiopia, it has been observed several important changes in the last decades (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; and 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, we mainly focus on trends on enrollments and financing of higher education in some selected Ethiopian public universities. We argue that financial sustainability is one of the key challenges for Ethiopia's public universities today. Despite Ethiopia, all the 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 Ethiopian universities tripled. As forecasted by the Bank, if current trends continue apace, the total number of students for the entire African continent could increase by five folds in the coming decade. However, public resources allocated to current expenditure in the higher education sector only doubled over the said period. This financial crisis for most Ethiopian higher education systems has been recognized by several scholars since the 1980s (Teferra & Altbach, 2004).

There is a financial gap indicates that the proportion of governmental funding in the overall budgets of various Ethiopian public Higher Education Institutions to drop at a time when higher education is experiencing rising enrolments (World Bank, 2010; 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, federal government of Ethiopia have faced the same challenge of designing sustainable funding models. In the

last two decades, an attempt was made searching for ways of financial sustainability for higher education systems. The national government has 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 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 Ethiopia. The pressure to generate non-governmental resources to achieve financial sustainability has been immense across Ethiopian public universities. Based on the existing research undertakings on resource generation at public universities in Ethiopia, we argue that our knowledge and understanding about enablers for and barriers to resource generation and diversification at public universities in Ethiopia seems to have been limited.

Compared to the second, third and fourth generation universities, the first-generation universities are far better in terms of resources generation. And, it has a long history in the country and established strong foundations in terms of all resources such as physical, human, infrastructural and financial resources. Our university is third generation in the country. It's in infantile stage in terms of resources and developmental wise. So that the institution is facing lot of problems with the resource crisis. It leads to big constraints to meet the developmental activities and services as we are expected to be. Therefore, resource generation is a greater interest of the students, teachers, research scholars and for the university as well. The resources that need to be generated include physical resources, Human resources, intellectual resources and financial resources.

Working definition of important terms

Physical Resources: It includes land, buildings, and including furniture such as labs, libraries, and sports centers, ICT centers, student accommodation blocks, administrative blocks etc., stadiums, and all kind of visible things in the university. Canteens, etc.

Human Resources: It includes teaching and non- teaching faculty and skilled and un skilled manpower who are all working in the university.

Intellectual Resources: It includes Books, journals report, thesis, abstracts, bibliographies, patents, publications, scholarly articles etc. these are also known as information and knowledge.

Financial Resources: Financial resources may include the variety of sources of finance: government budget federal government and regional governments, grants from other development agencies like UNDP and other funding agencies, fees, fines, donations, gifts, sales product, fund raising resource etc.

2. Objectives of the study

The overall objective of the study was:

To assess the resource generation in public universities of Ethiopia such as in Gondar University, Bahirdar University and Wollaita soda university.

The specific objectives of the study were:

To identify the different types of resources existing in the study universities
 To assess the major sources of these resources' generations and key lessons
 that could be

taken away for Bule Hora University.

3. Theoretical And Empirical Frameworks Of The Study

As proposed by Odundo and Rambo (2013) in Kenya, Resource Dependency Theory (RDT) is applied to describe the behavior of education institutions to start up business enterprises for complementary income to ensure their survival. The characteristics of the theory as resource dependency is the need of obtaining resources, in terms of financial, physical or information, from the environment caused the institutions to be depended on the external sources of resources. The RDT is suggesting the institution is able to minimize the reliance towards the external resources by merger or diversification, boards of directors, joint venture and other inter organizational relationship, political conduct and executive succession (Hillman et al., 2009; Thompson, 1996). It same applies to the higher education institutions.

Meanwhile, the Agency Theory is used to describe the contractual relationship between two party, which one party (the principal) deputy the work to another (the agent), who to perform that work (Jensen & Meckling, 1976). Yet, two problems may arise in the relationship, which is conflict occurs on targets of the principal and agent and the difficulty performance. According to Ahmad et al. (2012), the university on behalf of the principal position

prescribed to provide information about the Key Performance Indicators (KPIs) to the MoE as to evaluate the university performances by the academic staffs. As defined by Wächter et al. (2012, p. 26), higher education is the of borderless generation, dissemination and look for/

Here, it has been controlled by government and primarily funded by the state or other public authorities since it is acknowledge as the national key assets. Other than government funding, a university can acquired different sources of funding to the extent of how the sources could impact on their financial structure. Furthermore, the other sources of funding for a university will be the students and household fees, and also from other private institutions (Jongbloed, 2004).

Meanwhile, Herlitschka (2008, p. 24) defined sustainability institutional to uphold an activity without quality lost and by using appropriate resource into the future". However, universities all undergo the reduction public in financial allocation due to the reduction of government expenditure in 2010 onwards as a long-term effect of financial crisis (Asia, 2012). So, sustainability in terms of financial for a university plays an important role in order to maintain the ordinary operation in the future. The higher education institutions have to strive to lower their vulnerability to uncer effects. They have to shift from single revenue resources to prevent the planned activities from getting restricted due to the control from the main funding sources, through the aspect of revenue inconstancy, changes in structure and process and also target displacement (Froelich, 1999).

According to Jongbloed (2004), the governments and university leadership make use of funding as a component of governance instruments adopted. Therefore, funding is more than what it meant by resources distribution to the institutions. The funding allocation is perceived as the most effective and the only science policy equipment available (Nieminen, 2005). However, not much attention and explores are paid on the relationship between what the universities had done in terms of teaching and research quality together with the way they are being funded (Beath et al., 2007). A university can acquire different sources of funding to the extent of how the sources could impact on their financial structure.

The main source of funding for a university will be the government, students and household fees, and other private institutions. The government funding comprises of operational grants, research grants and capital investment, whereas the students fees including tuition fees and other ancillary charges. Lastly, the private institutions resources included private donations, gift and charges for consultancy, patents and any other services (Jongbloed, 2004).

In developing countries, the state government is employing different approaches in allocating the fund to their universities, which it can be the negotiation-based approach, performance-based approach or formula-based approach (Jongbloed, 2001). The performance-based approach is the mechanism of funding to the extent of which grants to universities are based on their performance. This is to ensure competition and quality among the HEIs within a country (Jongbloed & Vossensteyn, 2001). The performance-based type of funding indicated that HEIs receive the fund based on the 'taximete amount of students passing their examinations, number of degrees awarded, issued of patents and licenses or volume of research publications (Frølich et al., 2010; Jongbloed, 2001).

Every university is an output of different process of economic and intellectual up growth, they have to find out equilibrium between teaching, research and extensive range of income-generating activities. And now, the government is pushing the universities to be in an entrepreneurial paradigm due to many external over whelming forces (Gibb & Hannon, 2006). Hence, the university is responsible to raise the income from non-funding institution as to prevent the compound administrative terms and conditions along with the public funding by government (Wächter et al., 2012). A review of empirical studies concerning the impact of economic crisis on higher education by Asia (2012) shows different cost-saving methods carried out by most of the universities in Malaysia including all the reduction in travelling expenditure, research grants, students; activities fund, wastage and delay in infrastructure development. Some universities are even developing innovative and entrepreneurial activities to generate extra income.

There is also US foundation sectors offer large philanthropic in the form of grants to the education sector in Malaysia (Nahan, 2003). According to Siswanto et al. (2013), the academic-oriented income generation is merely generated through ways of teaching and education services. So, they are able to fully utilize their knowledge and experience by immersing into the income

generation activities. Likewise, the academics are now transformed to be researchers rather than lecturers (Kasim, 2011). They are anticipated to publish articles and books to keep assuring the external sources in the forms of research grants. Furthermore, Beath et al. (2000) mentioned that incentives may be offered to the academics who had conducted income-generating activities by applying optimal learning income, "tax" whereas Mankiwon the et al. (2009) argued that optimal tax rate should be implemented with respect to the distribution of ability. The university has another objective, it is to initiative and engaged in the business boundary to improve skill levels amongst the employees and facilitate knowledge transfer. In order to reduce the reliance towards grant funding, the university is responsible to raise the income from non-funding organization (Estermann & Pruvot, 2011). However, the impression and position of a university will be judge by public by glance through the quality and nature of the teaching and research done by the academicians (The Guardian, 2010). From this perspective, it causes a critical issue to certain universities when the scarcity of experienced academic staffs becomes an encumbrance towards a university to generate income from the researches and consultations as well as commercialization activities (Gebreyes, 2010).

Activities constitute of different means, which can be technology commercialization, Entrepreneurial activities, advisory work and contracts, and facilities commercialization. Income generating activities is meaning a set of small-scale projects which able to create source of income to the individual beneficiaries or groups, on the other hand promote the rights to self-determination, repatriation and integration (UNESCO, 1993). Based on the information that collected from previous studies, most of the HEIs academic staffs are more likely to involve in the research and development (R&D), consultation and commercialization activities in order to generate income for the universities. Furthermore, the academic staffs in HEIs also provide variety of courses purposely to attract more students to further their studies in distinct field; meanwhile expand the income streams for the university.

From the research done by Ahmad and Farley (2013), the international contributing to the funding of a public university other than from the sources of funding. With the increase in international stu universities form another income generation sources when other countries' student that the education fees in Malaysia is not high compared with their own country. Hence, public universities should modify and further improves the contents of their courses to fancy those international students who originally conceive good image towards Malaysia.

The academic staff are advisable to fully utilize their slack capacity to generate additional income the slacks capacity may refer to the staff hours which not in use and is paid in the salary (Nielsen, 2009). As proposed by Yusof and Jain (2009), there should be some academic staff which act as leaders that behaved entrepreneurially to others. This is because the entrepreneurial leadership behavior can indicate an obvious enabler when they are able to exert their entrepreneurial mind set, cogitation, channel and potential. Apart from that, the entrepreneurial mind set can be instilled towards the academics via the

innovative teaching and advisory activities. They should also comprehend and identify the marked demand before a research is assured to generate research output as part of generating income for the universities. Academic staff perceived that the third stream income – generating activities are separated from mainstream academic activities and have financial as well as business values (Wedgwood- 2006). Those third stream activities are comparatively liable to be quantified and controlled in terms of financial flows as in indicator (kasim,2011, Molas- Grallart et., al., 2002). Hence, it is very usual for academic staff to conduct extra-academic activities based on individual preferences at the universities. As proposed by (Beath et al. 2000). Universities may offer incentives to the academics who had conducted income – generating activities by applying optimal tax earning income despite of determining the four conditions. Among the four conditions, the most influential will be the applied researchers and also the academic intrinsic (Mankiwetal 2009), tax rate should be implemented with respect to the distribution of ability.

4. Methodology and Description of the study area:

Description of the Study area:

Study area : University of Gondar is situated between 13. 09 and 13 12' N 38 12'North East Gondar Zone, North western Ethiopia. It's almost 740kms. Form Addis Ababa. The altitude is 2133 msl. Gondar was the capital of Ethiopia from 1632 to 1855, and it has remains of castles and palaces constructed by a series of emperors from Fasiledes (1632-67) to Iyasu II (1730-55). It has an undulating plateau topography, whereby the highest precipitation is between June and September. The average rainfall is between 1,350 to 1550mm and varies with altitude. The average Temperature is 23 degree Celsius.

University of Gondar is one of the oldest and most distinguished higher education institutions in the country.it was established in 1954 as a public health college and training center (PHC and TC) to train middle level health professionals who can run a network of health centers to address the pressing health issue. This was the birth of the philosophy of team approach and community-based teaching which now has grown to Team Training Program (TTP) undertaken by the medical college.

Run by the Ministry of Health until the 1960, the training center joined Haile Silassie I University which now knows as Addis Ababa University. In 1961 by the act of internal decree known as "Charter of Haile Silassie I University". In 1978, by bilateral agreement between Karl Marx University in Germany and Addis Ababa University, a medical faculty was established with in the training center a major milestone in the establishment of medical education in our Country. In 1980-1981 the training center was renamed Gondar College of Medical Science (GCMS). GCMS gained autonomy from Addis Ababa University in 1992. In 2001 the first new faculty, Faculty of Management Sciences and Economics was created. The spring of 2003 saw the next phase of development, changing the name of GCMs to Gondar University College and creating three more faculties. In 2004, the institution is converted to University

of Gondar.

Bahir Dar University was established by merging two former higher education institutions; namely the Bahir Dar Polytechnic and Bahir Dar Institute, which has transformed itself into Technology and Textile institutes, was established in 1963 under the technical cooperation between the Government of USSR and the Imperial Government of Ethiopia. The institute was a premier institute in producing technicians for the nation. The Bahir Dar Teachers' College, by th established in 1972 by the tripartite agreement of the Imperial Government of Ethiopia,

UNESCO and UNDP and started actual work in the following year under the auspices of the Ministry of Education and Fine Arts. Its general objective was to train multipurpose primary education professionals capable of adopting primary education to rural life and rural development. Its specific objectives were to train primary school teacher trainers, supervisors, educational leaders, adult education organizers and community development agents.

The two institutions of higher learning were integrated to form the Bahir Dar University following the Council of Ministers regulation no. 60/1999 GC. The University was inaugurated on May 6, 2000. Bahir Dar University is now among the largest universities in the Federal Democratic Republic of Ethiopia, with more than 52,830 students in its 219 academic programs; 69 undergraduate, 118 masters, and 32 PhD programs; Bahir Dar University has Five colleges, four institutes, two faculties and one school. The academic units of the University include College of Science, College of Agriculture and Environmental Sciences, College of Medical and Health Sciences, College of Business and Economics, College of Education and Behavioral Sciences, Bahir Dar Institute of Technology, Ethiopia Institute of Textile and Fashion Technology, Institute of Land Administration, Institute of Disaster Risk Management and Food Security Studies, Faculty of Humanities, Faculty of Social Sciences, School of Law, Sport academy and Maritime academy. The research centers of the university are Blue Nile water Institute, Biotechnology research Institute, Pedagogy and Education research Institute, Energy research Institute, Textile, garment and fashion design, Abay culture and development research center, Geospatial data and technology center, Institute of Economics research and Demographic surveillance

Wolaita Sodo University (WSU) is one of the second-generation public higher institutions in Ethiopia, located in Wolaita Sodo town, 315 km away from Addis Ababa. The university was inaugurated on March 24th, 2007. Although a relatively new University, WSU has grown exponentially over that last decade. It currently hosts more than 28000 students and over 3000 staff members on its three sprawling campuses- Gandaba Campus, Otona Campus & Tercha Campus. Since its inception, WSU has been committed to providing quality undergraduate, graduate and other specialty programs that support its students to attain their fullest potential intellectually, ethically and morally. The University comprises of six colleges and four schools that host more than 52 undergraduate and 34 graduate programs including PhD program. Along with high-quality education, WSU's core mission al community services.

Over the last decade, it has established six multi-disciplinary research centres and successfully hosted several high-level research projects. Laying claim to the global mindset, the University also actively partners with other leading higher institutions and industry stakeholders globally to provide international opportunities to its students and faculty ([Brief History of Wolaita Sodo University, Damota, 2010](#))

Methods and data

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 provides useful conceptual tools for understanding organizational responses to financial challenges or austerity ([Davis & 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 Resource dependence theory, when resources are in a state of short supply, organizational stability is threatened. Organizational vulnerability occurs. Under such circumstances organizational efforts are directed at regaining stability, at removing the source of the threat to the organization.

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 Resource dependence theoretical framework as a lens, this paper will come up with the various ways in which my case study universities have managed to generate resources by identifying enablers for and barrier to resource generation at our case study universities.

As revenue generation in a university is a complex, dynamic and multidimensional phenomenon involving different actors from inside and outside of the organisation, this study follows a case study design. In this study, I will focus on both the phenomena of resource generation and the context in which it exists. A case study can be defined as ([Yin, 1994](#)), “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident and in which multiple sources ([Hartley of \(1994\)](#)) recommended evidence the case are study used. method for situations where the context of organisational environment is important. The case study method enables researchers to collect practical and context-dependent knowledge for an in-depth understanding of the cases ([Yin, 2003](#)). I will employ a multiple case study design. The multiple case study design is a logical choice for exploring the research problem relating to diverse socio-economic and legal bases as well as unique university characteristics. Multiple cases allow us to study revenue generation strategies across different cases, where explanatory variables and context may differ across the cases. This will provide evidence

that is often convincing and make the study more robust (Yin, 2003), and will increase the credibility of the findings (Miles & Huberman, 1994).

Selection of the Case Study Universities

Three universities will be selected for investigating resource generation strategies in Ethiopian public universities. The selection sampling" in order to acquire rich information (Patton, 1987). The main criterion for selecting the universities was their different levels of development in higher education. As Patton put it (1987), studying such dissimilar Universities can give a complete picture of the problem under investigation and provide lessons that might be helpful in improving the existing conditions for resource generation in universities. Secondly, these universities differ significantly in the opportunities they provide for universities to generate revenue. These universities are factor-driven economies, which might have relatively limited conditions for universities to mobilise resources from diversified sources. The sampling procedure used for the selection of case study universities is a purposive sampling technique (Silverman, 2000:104; Patton, 2002:45-48), which is one of the most widely used methods in qualitative studies. The literature survey has guided the selection of cases and the construction of the research model on resource generation. The selection of case study universities in this research is for 'theoretical representativeness', not based on statistical representativeness. The three universities are selected based on three criteria. The first is that they had engaged in revenue generation by the time that data were collected for this study. Secondly, all the selected universities are comprehensive universities in their national definition. Thirdly, the case study universities are not legally prohibited from generating nongovernmental revenues. The Case study universities were University of Gondar, Bahirdar University, and Welayta-Sodo University. Taking three public universities would allow us to put the findings in a comparative perspective for universities operating in different (i.e., regulatory, financial, and institutional) settings.

Empirical Data Collection

Multiple sources of evidence under the rationale of triangulation (Yin, 2003:97) guided the logic behind data collection. Data collection tools employed include: Literature survey focusing on identifying suitable theory to assist us in understanding the enablers for and barriers to revenue generation for Ethiopian public universities; desk research / exploratory study of revenue generation in Ethiopia and beyond. The review of literature was carried out to map the status of resource generation in Ethiopian universities in particular and in sub-Saharan Africa in general.

Analysis of data in the three 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, though far from exclusively, on evidence collected from the case study universities. Based on the research problem and research questions set and the epistemological assumptions of the current research, we planned to collect data through

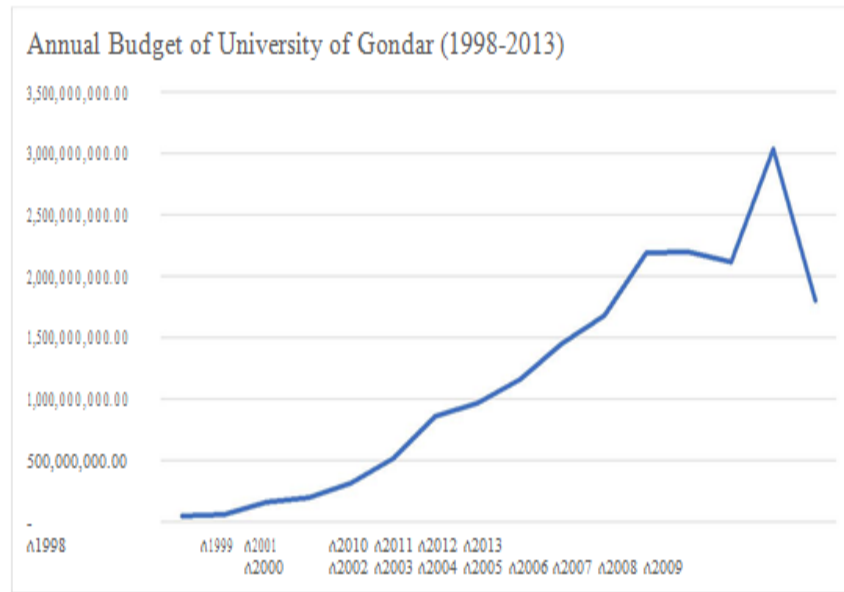
interviews (Yin 2003; Hartley, 1994). In the data collection process, we relayed on a semi-structured interview guide (Yin, 2003) based on the variables identified for this research. This semi-structured interview guide enables us to gain a better understanding of the significance of the views and experiences of the informants.

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). In this research, we conducted 'within case' analysis as edwellthreetypesasof 'cros analysis:

- (i) content analysis,
- (ii) analysis at the level of the individual case study university, and
- (iii) comparative analysis across the three case study universities. First, content analysis involves identifying coherent and important examples, themes, and patterns in the data. The interview transcripts will be checked several times, concentrating on content analysis (Patton, 1987) to identify those ideas, issues, or concepts that go together. These activities were carried out based on informants' responses guided prepared the individual case study reports on the basis of the content analysis. Case data consists of all the interview data, the observation data, and the documentary evidence. Interview data were analyzed and categorized using the concepts and operationalization's of the research model. A peer review and structured analysis were considered to enhance the validity of the data categorization by coding and interpretation (Corbin & Strauss, 1990; Richards, 2005). For the sake of parsimony, citations that best represented a category or opinion presented by the majority of the interviewees were used. The category headings were the basis for the data analysis.

Key findings of the study

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' acti generation. The existing institutional autonomy and environmental opportunities in term of regulation have become incentives for the case study universities to engage in revenue generation.



Our case study universities have responded to enormous demands in their respective environments for acquiring vital resources/finance. 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, University of Gondar is heavily engaged in generating revenue from research, followed by Bahirdar University. The academic staff (mainly the level of qualification of academic staff) and research facilities of University of Gondar 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 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. 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 to gain more flexibility in their internal financial management, as public funding (also some donor's funding) often com 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 (University of Gondar). The sampled universities have also demonstrated greater systematic capacities to steer themselves. That ability has not taken any one form across the universities. While Bahirdar University has shown mainly managerial values, the other two 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.

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).

Most of our case universities have lobbied for re-regulation and revised policies. A case in point is University of Gondar 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. Bahirdar University is developing 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. 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.

With respect to diversification of funding, it was found that the university is

implementing a wide range of revenue generating activities. The most significant portion of the external fund comes from what the university frames as *collaborative research projects*. These are grants secured from national and (mainly) international partners. For instance, we have found that currently, there are a total of 78 active collaborative research projects, with an estimated total grant value of 650 million ETB at University of Gondar. In addition, the university has established a business enterprise which is engaged in a wide range of revenue generation activities including Printing House, Book Center, Wood and Metal Workshop, Restaurants, and Agro Industry (i.e., Meat, Dairy, poultry). Although insignificant compared to the external fund, the university collects tuition fee from some of its students (i.e., postgraduate, doctoral, extension, distance and continuing education, summer in service and international students). Additionally, the university uses its test center, workshop, training center and teaching hospitals to diversify its income. That said however, a number of weaknesses were identified. Firstly, the university does not have a well consolidated financial management system. As such the amount of money raised from these various sources is not precisely known. Similarly, how the diversified money is utilized is not clearly known. Moreover, despite some of the interviewees (leaders, academic staff and students) mentioning lack of finance as a major challenge, the university returns a significant proportion of its annual budget as excess money at the end of every fiscal year. Lastly, as mentioned earlier, the money raised from the industry and city administration is very low.

Another important income generation strategy utilized by the university is offering training and consultancy service to various stakeholders. To this end the university has established training and consultancy center under the V/P for institutional development. The purpose of the center is to help resolve the capacity deficits the country is facing at various levels and sectors. In line with that University of Gondar and Bahirdar University have identified broad areas of training and consultancy, which are being customized to the specific needs of customers. Accordingly, the universities have been offering training and consultancy services to a wide group of external stakeholders and generating income.

5. Conclusion and policy implication

This paper has examined some of the ways in which Ethiopian 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.

Similarly, managerial capacity was found to be low as appointments to various positions in central administration are made partly based on political affiliation and personal ties. The weak nature of the steering capacity is also manifested, in the long and excessive procedures, overlapping duties, lack of proper financial management systems, lack of policy and guidelines (for some activities) that prevail in the university.

The way forward

In order to successfully institutionalize their strategies and diversify their income base, universities should develop appropriate administrative structures. In addition, revenues generated from various streams should be primarily used to support core university missions. To do so, universities should be given sufficient autonomy to keep additional revenues generated: there has been external interference on individual universities. Universities should also stimulate staff to engage in income-producing activities, through various incentive mechanisms. Overall, the increasing share of nongovernmental revenue helps to supplement public budget. Hence, revenue diversification should be seen as an essential source of supplementary income and complementary activity. While pursuing new income streams, however, universities must maintain their core values

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