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Effectiveness and Viability of Revenue Diversification in Sub-Saharan Africa's Higher Education: Examining Zambia's Public Universities

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Abstract

Universities world over especially in Sub-Saharan Africa are pressed by the severity of inadequate government funding. In Zambia, the government has attempted to respond to this austerity by putting different policies to improve the outlook of public universities based on decentralization and democratic principles of efficiency, equity, accountability and cost effectiveness. Since the 1996 Policy of Education, the financing of higher education is based on cost sharing, revenue diversification and student loan scheme. This paper examines the effectiveness and viability of the current revenue diversification policy in making Zambia's public universities sustainable. A self administered questionnaire based on convenient sampling was used to collect data from 200 faculty respondents in three public universities. Data was subjected to descriptive statistics and Exploratory Factor Analyses. The findings revealed that the current policy of revenue diversification was less effective and viable in that universities were still experiencing a plethora of challenges because of lack of adequate funds. Revenue diversification only had a modest impact, as its percentage proportion contribution of recurrent expenditure budgets was still low. The study highly recommends that decision-making be decentralised and universities be allowed to charge economic fees and exploit other revenue generating activities. The study also recommends the adjustment of the current university act which is a hindrance to effective entrepreneurship.

Keywords: Effectiveness; Viability; Revenue Diversification; Public Universities; Zambia

INTRODUCTION AND BACKGROUND

Almost all countries in Sub-Saharan Africa during the period after independence followed a 'Full Government Funding and Support' in financing primary, secondary and higher education (Mwanakatwe, 1968). They felt there was a general need to train the human resource who were expected to take over the responsibilities and functions performed by expatriates and staff from the colonial governments (Ibid, 1968). At independence, the models of financing higher education in most African countries were largely adopted from the colonial governments. However, in the recent past, countries have adopted different models while others have since modified the original models as practiced during the period prior to and immediately after independence (Cheboi, 2008).

After the creation of the first public university in 1966, Zambia followed 'a full government support model' in both management of the institution as well as providing bursaries for student tuition and stipends (Coburn, 1993; Masaiti & Chita, 2014). Thus the role of the students was merely to make themselves available for school and everything else followed suit (Coburn, 1993). This situation continued until the end of the 1980s, when the education budget increased to the extent that government could not afford to remain the sole financier of education in the country (Nooijer & Siakanomba, 2006). Public universities in Zambia from the 1980s to 90s were confronted with rapidly increasing enrolment, poor infrastructure, and inadequate government financing (Masaiti, 2013). As a way of responding to this austerity, the government attempted to put different policies to improve the outlook of public universities based on decentralization and democratic principles of efficiency, equity, accountability and cost effectiveness (Ministry of Education, MOE, 1996). Through the education policy crafted in 1996, financing of public universities in Zambia is premised on cost sharing, revenue diversification and student loan system (MOE, 1996). It is against this background that this paper assesses the impact of the revenue diversification policy on Zambia's public universities 16 years after the policy came into effect.

THEORY AND SELECTED LITERATURE

The study of effectiveness and viability of revenue diversification was guided by understanding the principles of neo-liberal ideologies. By definition, Neoliberalism is a term that is used to encompass a variety of economic, social, and political ideas, policies, and practices, functioning on both individual and institutional levels (Plehwe, Walpen, & Neunhoffer, 2006). Others look at neoliberalism as a varied collection of ideas, practices, policies, and discursive representations (Saunders, 2009; McCarthy & Prudham, 2004). This collection is united by three broad beliefs: the benevolence of the free market, minimal state intervention and regulation of the economy, and the individual as a rational economic actor (Harvey, 2005; Turner, 2008)

Saunders (2009) argues, privatization and commercialization of previously publicly funded institutions extended to higher education, and as a result, these institutions are becoming increasingly reliant on private funds. In this underpinning, there is greater emphasis on generating revenues; economic efficiency becomes a high priority for universities and colleges (Alexander, 2001; Aronowitz, 2000; Levin, 2006). To some extent higher education is increasingly seen as a private good to be purchased by a student, who is redefined as a customer (Chaffee, 1998; Swagler, 1978; Wellen, 2005). The result for this is that individuals and institutions start using neoliberal policies and as an economic rationality to make educational decisions, including attempts to treat and govern the university just like any traditional business, its faculty as traditional workers, and its students as customers (Saunders, 2009; Masaiti & Mulenga, 2014). With the liberalization of Zambian's economy in 1991, in the third republic, market forces were introduced in different sectors of the economy including education. Private players including institutions were encouraged to supplement government effort in the provision of education (MOE, 1992; 1996). Private universities in Zambia especially through the 1996 education policy document were expected to start growing with minimum state intervention and operating mostly on the market model (Masaiti & Shen, 2013). Cost sharing initiatives and revenue diversification were now highly encouraged and promoted in public universities which traditionally were heavily reliant on tax funding.

Atuahene (2006) in his policy analysis study of financing tertiary education in Ghana found that revenue diversification through GETFund brought about much needed stability in higher education. Blair and Robert (1998) investigated the strategies and policies needed to achieve effective financing of higher education in Africa, they proposed reform targeted at diversifying sources of revenue. Other scholars who have put emphasis on revenue diversification as a crucial way of boosting the precarious funding situations in universities in Sub-Saharan Africa include; Bollag and Burton (2004), who discussed strategies of implementing revenue diversification policies. Chuta (1998) suggested the introduction of a special Bank specifically for financing different activities in higher education to be paid at market rate in Nigeria.

Zambian public universities can learn from the Kenyan experience, in a study by Riechi (2012), he argues that despite reduced government funding to public universities, total revenues for Kenyan national universities has not declined, meaning that it is possible for these public universities to survive in the face of scarce and declining resources from government. He also contend that the availability of funds from non-governmental sources has enabled Kenyan universities to move from a situation of what he called 'hand-to-mouth' dependency to one where autonomous initiative, planning and allocation has become a reality. It is safe then to argue that diversification of revenue sources appear to stabilize universities by reducing their vulnerability to fluctuations in government funding and also shocks that are associated with change of government due to multi-party politics especially in Zambia. This will naturally broaden the range of stakeholders in higher education finance. If carefully implemented, revenue diversification initiatives have great potential to increase efficiency in the management systems of also Zambian universities, thereby enhancing greater autonomy, responsibility, accountability and self-reliance (Riechi, 2012). Ultimately, revenue diversification is now a worldwide phenomenon; it is therefore almost certainly an imperative for Zambian public universities to take this route. Clearly, without seeking alternative sources of revenue, public universities will not be able to effectively conduct their core functions hence further diminish both quality and capacity for higher education in Zambia.

Revenue diversification is one of the mechanisms that can be used to improve sustainability of higher education institutions (World Bank, 2010). The diversification of financing requires that higher education institutions generate their own resources. These resources could be derived from services pertaining to specific vocational training, continuing training programs (degree and non-degree), or expert or research services (World Bank, 2008; 2010). Numerous examples exist in Africa. To develop income-generating activities, higher education institutions must enjoy sufficient autonomy in order to be able to manage their budget in accordance with their developmental objectives (World Bank, 2010). They must also ensure genuine transparency in the redistribution of generated resources. If these measures are coordinated and adapted to national conditions, they may guide government policies in identifying viable solutions to the challenges posed by higher education financing. The measures for revenue diversification and financially sustainable policies in question include:

> (a) optimal mobilization and improved use of public resources, which in many countries still constitute the main source of financing; (b) reorientation of student flows over the entire education system and within higher education to better manage the number of students and ensure that the education received matches the needs of the labor market of the local economies; (c) diversification of financing sources, particularly by sharing the costs of education with the beneficiaries; (d) promotion of the private sector; (e) development of income-generating activities by higher education institutions; and (f) the organization of distance education programs (World Bank, 2010, p. 119)

Revenue diversification activities include many types of non-traditional relationships between university lecturers, students and the institution with outside private and public interests (McNernery, 2009). Some examples that might be more applicable to the Zambian context include industry related research and development undertaken by the faculty but funded by the private sector, consultancy opportunities for faculty members, technology transfer through patenting and licensing fees, educational activities outside of the traditional undergraduate classroom, such as continuing education and lifelong learning in various forms, introduction of parallel programs and the commercialization of physical university assets including agricultural land, halls of residence, cafeterias or even the limited sports facilities (Masaiti, 2013).

McNernery (2009) acknowledges that most of these entrepreneurship and commercial opportunities are available to most institutions with desirable assets and too many faculties, although mostly in the sciences and less in the humanities and social sciences. Clark (1998) studied five entrepreneurial European universities, claimed evidence that the entrepreneurial spirit extended even to the so-called "heartland" departments of humanities. He indicated that the main benefits from endorsing an entrepreneurial spirit in an institution is the very practical result of increased compensation for especially low-paid faculty. Court (1999) also explored the case of Makerere University in Uganda observed that entrepreneurship enhanced faculty salaries. Most revenue diversification activities have been questioned and have led to conflicting views. Therefore, one initial question concerns the mission statement and whether or not these types of entrepreneurial activities are consistent with the faculty's ideas about the purpose of the university and their role (Court, 1999).

There is really a conflict between the interest of the university and that of the private firm. Davies (2001) pointed out that the biggest problem in entrepreneur activity is how to institutionalize the relationship with the university. Clearly, it appears there is a significant challenge and clash of cultures between the private business and the university, especially if the public university is bound into a national bureaucracy with policy constraints (Ibid, 2001). Private firms want to make quick decisions and possibly maximize profits where as universities are typically not organized in ways that promote quick decisions. Teferra and Altbach (2002) also alluded to the importance of careful formulation and implementation of revenue diversification initiatives in African higher education. Altbach (2005) argued how private higher education was growing especially based on privates sources of revenue.

Johnstone (2002) discussed challenges of financial austerity limitations of revenue diversification in higher Education, he brought out the challenges higher education institutions were going through. He was concerned about varieties of activities institutions can be involved in to generate much needed revenue since their core business is not entrepreneur. In 2006, he made the same argument though expanded the earlier horizons by further examining the limitation of revenue diversification (Marcucci and Johnstone, 2006). Johnstone (2009) argues that higher education institutions needed to be extremely innovative to cope with the changing trends of financing the ever growing sector.

Hendrekson and Rosenburg (2002) showed a comparison between the US and Swedish revenue diversification activities by universities. The study argued that the U.S. uses institutional incentives to encourage faculty to become entrepreneurs rather than salaried employees. There are more incentives for faculty to expand their "business" with outside private sector firms. Further argued there are specific incentives and special administrative encouragement to adjust research to the interest of the private sector to facilitate the transfer from academia to the business sector. The study concluded that faculties need incentives in ways that they find beneficial and the work they produce must be of interest to the private sector (Ibid, 2001). One of the weaknesses of universities in Zambia and most of Africa is the poor linkage between the industry and higher education institutions.

The financial policies of institutions must also change from minimal state support to a more diversified finding model (McNernery, 2009). To be more entrepreneurial, institutions must have more autonomy to make individual choices which they must own. The 'mixed funding model' which supports the development of an entrepreneurial institution should be given prominence. Clark (2001) emphasizes that diversification of income seems essential for entrepreneurial. The creation of the public university which substantially diversifies its revenues poses a biggest challenge in Zambia especially in the environment where universities are still having the heavy hand of government and also generally still have difficulties in finding a good balance between the normal academic activities and enhanced entrepreneurship.

Clearly from the literature above, public universities in Zambia must begin to rely heavily on the mixed funding model (not only government), with growing levels of funding coming from students, parents, entrepreneurial activities and donors for them to be sustainable. Cost sharing and revenue diversification scheme should take a centre stage with government providing an enabling environment. This paradigm shift from government support to other alternatives conforms with and in line with the overall market-orientation ideology, which bounds most policy decisions today in developed countries and extends to the developing world as they become linked to the global economy. I now highlight the problem and methodology that was employed in this investigation.

PROBLEM AND METHODOLOGY

Zambia's higher education sector especially public university is faced with a multitude of problems and challenges, ranging from access and affordability, quality and relevance of programs, participation and enrollment, finance, deteriorating of physical facilities and retention of faculty and staff among others. Since tax funding increasingly became inadequate, government introduced cost sharing and revenue diversification in university education as a way of realizing the much desired efficiency and viable higher education sector. The use of tax funding in sponsoring students in Zambia's higher education is no longer a viable and sustainable means, especially in an environment of competing needs by different sectors, accompanied by ever expanding student population seeking higher education. Currently, public universities have been implementing both the cost sharing and revenue diversification policy since 1996. This paper uses perceptions of lecturers to ascertain the effectiveness and viability of the revenue diversification policy on public universities in Zambia'. The main aim and objective of this paper is to assess the impact of the current policy and practice of revenue diversification. Two research questions guided the study;

i) Has the current policy of revenue diversification made public universities effective, viable and sustainable?

ii) What underlying factors have influenced the current revenue diversification policy?

All lecturer respondents were conveniently sampled from Zambia's big three public universities, University of Zambia (UNZA), Mulungushi University (MU) and Copperbelt University (CBU). A sample of 200 was deemed fit from the total population of 1, 124 lecturers in these three public universities. In the analysis, descriptive statistics were carried out on items related to the sustainability of the current policy. Frequency analyses were conducted to identify valid percent for responses to the specific questions related to viability, effectiveness and sustainability of the financing policy. All items related were carefully selected and summarized in the comparative bar charts and each scenario was examined. To assess underlying factors, Exploratory Factor Analysis (EFA) was used to analyze the components of the policy based on views collected using the likert scales. It is always important to remember that factor analyses are performed by examining the pattern of correlations (or covariances) between the observed measures from the analysis. Measures that are highly correlated (either positively or negatively) are likely to be influenced by the same factors, while those that are relatively uncorrelated are likely influenced by different factors in the analysis. The analysis was complemented by document analysis especially related to impact of revenue diversification and entrepreneurship activities by these universities.

RESULTS

Demographics

Demographic characteristics of respondents showed that 158 (79%) respondents were male and 42 (21%) were female. Most of the respondents 140 (70%) were from the UNZA, 34 (17%) from MU and 26 (13%) from CBU. Most of the lecturers surveyed were on contract 164 (82%), 30 (15%) were on permanent condition, 2 (1%) were part time and 4 (2%) were on other. All the respondents were between 27 to 71 ages of age. Further result indicate that 168 (84%) of lecturers were married and only 32 (16%) were unmarried or single.

Perception to the viability, effectiveness and sustainability of Revenue Diversification

Specific items were used to comprehensively give a clear picture as whether revenue diversification (RD) policy was perceived to be effective, viable and sustainable. For all items identified on the questionnaire, were further classified and quantified in three categories for data presentation, namely: disagree (included strongly disagree), moderate and agree (included strongly agree). 78% of respondents overwhelmingly showed that revenue diversification policy option was a good policy option in university education; all respondents showed that the current revenue diversification policy was not effective, viable and sustainable (60%, 55% and 64% respectively) as shown in Figure 1 (**See Appendix 1**).

Underlying Factors

Questionnaire Results: Factor Analysis on Revenue diversification Items

Initially, the factorability of the 14 revenue diversification items was examined. Several well-recognized criteria for the factorability of a correlation were used. Revenue diversification items correlated at least .3 with at least one other item, suggesting reasonable factorability. Secondly, the Kaiser-Meyer-Olkin measure of sampling adequacy was .75, above the recommended value of .5, and Bartlett's Test of Sphericity was significant ($\chi^2 = 1017.168$, $p < .05$ in fact, p was significant at <0.001). The diagonals of the anti-image correlation matrix were all over .5, supporting the inclusion of each item in the factor analysis. Finally, the communalities were all above .3, further confirming that each item shared some common variance with other items. Given all these overall indicators, factor analysis was conducted with all 14 items.

Principle components analysis was used because the primary purpose was to identify and compute composite coping scores for the factors underlying the revenue diversification as it appears in the current Zambia policy documents. The initial eigenvalues showed that the first factor explained 19.9% of the variance, the second factor 10.4% of the variance, and a third factor 8.4% of the variance respectively. Then the fourth 7.5% and fifth was 7.4%. From the table of 'initial solution', the 'eigenvalue' is the variance explained by each factor. Any factor that has eigenvalue of less than one does not have enough variance explained to represent a unique factor, and therefore disregarded. In this analysis, we have to note that component 6 going down have eigenvalues less than 1.0, so they have been eliminated from the analysis (6 to 14 eliminated) though together represent a variance of above 40%.

Varimax (orthogonal) rotation of 14 of the Likert scale questions from this attitude survey questionnaire was conducted on data gathered. The pattern matrix for varimax rotation reports the factor loadings for each variable on the components of factors after rotation. The path analysis, showed 5 topic factors as shown in Table 1 (**See Appendix 2**)

Of the 14 items on revenue diversifications, 5 factors were deduced:

Three items were loaded onto factor 1; this explored how best staff and universities could raise more needed alternative revenues for the universities through research and consultancy. The factor was labeled "**Positive perception to alternative revenue through research and consultancy**" (Q. 3, 4 & 5).

For the factor 2, three items loaded based on respondents perception on what institution must do in order for them to operate effectively like other universities globally. The factor was labeled "**Positive perception to universities operating like corporations**" (Q. 11, 12 & 13).

Three items loaded onto factor 3 based on the autonomy of universities, current budgeting and envisaged challenges of the policy of revenue diversification. The factor was labeled as "**Revenue diversification policy has not been effective and viable**" (Q. 8, 9 & 10).

Factor 4 had three items loaded onto were related to universities being self sustaining by raising their own money and resources and also enrolling more private sponsored students. This factor was labeled as "**Private sources of revenue are crucial for universities**" (Q. 1, 2 & 7) and

Two items were loaded in factor 5; these were related to examination the viability of current revenue diversification policy. Respondents gave their views on whether it was good and needed possible adjustment. The factor was labeled "**Positive perception to need for re-engineering current policy of revenue diversification**" (Q. 6 & 14).

For this analysis, Cronbach's alpha for the five factors was 0.856, 0.683, 0.711, 0.936 and 0.748, respectively. This Cronbach's alpha suggests a good internal consistency, though factor 2 needed strengthening to improve its loading.

DISCUSSION

Revenue diversification just like it has been argued in this study is one of the mechanisms that can be used to improve sustainability of higher education institutions (World Bank, 2010). Currently, the two big public universities have huge debts and financing gaps, which increase each year. The University of Zambia for instance is running a huge debt related to Statutory Contributions and Personnel Emolument. It is clear from the findings that the current policy of revenue diversification has not been operating sustainably especially for the two traditional (UNZA & CBU) public universities. The proportion of revenue from non-governmental sources has modestly increased from the time the policy of revenue diversification initiatives was introduced in 1996. For both the Universities of Zambia and Copperbelt Universities revenue diversification contributes between 10 percent and 20 percent of the recurrent expenditure budgets. Revenue diversification initiatives that include tuition fees and revenue income generating activities have in a small way increased the amount of disposable incomes of the two public universities thus enabling them to meet part of the ever escalating budgetary deficits in these institutions (Masaiti, 2012). For Mulungushi University, revenue diversification has been relatively successful; this public university opened in 2008 and now has been in operational for 5 years on an economic tuition model (SARAU, 2012). Revenues in this institution from tuition and other entrepreneur activities contribute between 60 percent and 70 percent of recurrent expenditure making it the most successful public university in revenue diversification initiatives (Masaiti, 2012).

It is also clear that about 50 percent of the total nongovernmental revenues for Zambian's public universities accrue from academic related income generating initiatives. External sources of revenue for these institutions, which include donor grants and university linkage programs account for far less (Masaiti, 2012). There are many problems affecting revenue diversification in Zambia, among the notable ones include; existing management structure of public universities, mostly which are managed as quasi-government or simply put as government parastatals. More specifically, the constraints which affect revenue diversification in these public institutions include among others; inadequate operational capital, the usage of unskilled management and lack of skilled manpower, lack of clear internal autonomy, lack of direct access to the revenue generated and in some cases low staff morale especially in the two oldest universities (SARAU, 2012).

Factor loadings and communalities based on a principle components analysis with Varimax rotation for 14 items from the revenue diversification policy showed five underlying factors to the current revenue diversification policy. After loading, the following factors were deduced: "positive perception to alternative revenue through research and consultancy", "Positive perception to universities to operating like corporations", "revenue diversification model difficult under current conditions", "private sources of revenue are crucial for universities" and "need for re-engineering current policy of revenue diversification". Most respondents perceived the current policy of revenue diversification as challenging especially that the main business of public universities is basically to teach and generate research and not to be entrepreneur. In other words, some respondents were of the view that universities should not be treated like businesses since they provide much needed social services of training, generating knowledge and research. However, public universities were busy operating parallel sessions under the dual tuition operational model and at the same time looking for strategic partnership to invest in universities especially creating facilities such as student apartment and recreation rooms on the university land among others. The current university act was also a big hindrance (restrictive) to universities in diversifying and investing since they were still subjected to long processes of government procedures especially in tendering and accounting.

From the original financing plan in the 1996 education policy document government and other stakeholders had hoped Zambian public universities, like other non-profit organizations, were going to restructure their management practices accordingly in order to adopt innovative strategies in their activities and programs. These were expected mostly to involve measures to separate the management of the income-generating activities from their conventional educational and research function, and to a large extent encourage the spirit of entrepreneurship to thrive (MOE, 1996). In the case of the University of Zambia and Copperbelt University which have vast land demarcations, prospective investors were supposed to be invited for joint investment ventures using available institutional resources such as land and skilled manpower. In this model, universities were expected to be more responsive and sensitive to the changes in the labor market. This required revision of curriculum and introduction of more courses, programs and developing new modes of delivery to increase access (MOE, 2009). Government and other stakeholders needed to build consensus and support the revenue diversification process. Efforts in this regard has been made but not fully exploited and hence universities are not generating enough resources, even though have a comparative advantages in almost all aspects when compared to private universities. The continued sponsorship of majority of students through bursaries has also made revenue diversification less effective.

Another challenge of revenue diversification is that the majority of students are still sponsored by government despite the 1996 policy document emphasizing cost sharing and student loan schemes. From 1996 to date, the majority of the students at these two public universities about 80% are still sponsored by government which pays full accommodation and up to 90% of tuition fee, and gives each student a living allowance to cover for food and personal educational items (SARUA, 2012). In addition there are allowances for research courses and vacation training. Usually sponsorship of students at University of Zambia and Copperbelt University are selected on the merit system (those with high scores) and not means tested (the needy). The most brilliant are sponsored by government, depending on space; those who score the sum of below 10 points in 5 subjects are given priority and preference. The University of Zambia had a total enrolment of 16,000 students and Copperbelt has about 8, 000 by 2011. This implies that approximately about 20,000 students were on government bursaries scheme. These numbers keep escalating year after year because of rising admissions. Correspondingly, government allocation and expenditures to Bursaries committee keep growing at exponential levels to a point where bursaries have become unsustainable (MOE, 2010). For instance in 2007, about US$ 15 million were committed to student sponsorship and this figure has kept on increasing approximately by 12% annually.

The remainder of the students, about 20% at the universities are sponsored by other public and private bodies or are self-sponsored (MOE, 2010; SARUA, 2012). In this compromised approach the public universities in Zambia offer additional seats to fee-paying students as a way of retaining a certain percentage of this revenue. Clearly, the dual track system developed out of necessity because government could not keep pace with the exponentially rising costs of providing higher education, and leaders could not undertake the political expense of attempting real meaningful reform to the policies of financing higher education. locally. The students who pay fees in the two large and old public universities are still very small and hence increasing austerity in these institutions. On average tuition fees ranges between US$ 1,000 and US$ 2,500 annually in these two public who have majority of students supported by government. The universities are also increasingly relying on parallel sessions especially as a way of supplementing faculty pay.

Zambia's newest public university, Mulungushi University (opened in 2008), operates on the 'unit cost tuition model' even though government supports it only for capital projects. It is autonomous in decision making and operates like a business. All services provided by the institutions are provided for at cost and are borne by the consumer. All students enrolled pay economic fees in this university. This is the only public university which has been relatively successful though it is operating on the trial model. It charges relatively market fees of between US$ 4,000 to US$ 6,000 annually.

In summary, the study has established that revenue diversification policy has not yet been fully exploited by all stakeholders in higher education finance; the respondents highly support this policy because they think private sources of revenue can help in sustaining public universities. The revenue diversification can only be effective, viable and sustainable if government gives true autonomy to universities to determine tuition and fees compounded by government sponsoring students at a truly economic per student costs. Alternatively, government should introduce the student loan scheme in which only needy students access the facility and while the rest pay. The respondents have clearly indicated that the current policy is not effective, sustainable and viable especially at UNZA and CBU and relatively successful at MU.

Recommendations

1) There is need to avoid political meddling in policy of financing public universities by government especially after policies are formulated. These public institutions need to be made independent in daily operations. Independence here does not mean that the administration and management of the universities should be privatized. What it means is that the government of Zambia should avoid unbridle interferences in terms of the determination of cost sharing, determining tuition fees and engineering the election of university administration and council. It is therefore highly recommended that decision-making be decentralised and universities be allowed to charge economic fees, among other actions. Government could consider granting university-level institutions autonomy to charge cost recovery fees, while ensuring measures to allow access to university education for needy and deserving students.

2) The current debt in public universities should be liquidated to allow the institutions to implement new reforms so that they relatively remain stable and effective. The government should take deliberate steps to liquidate the debt and give more autonomy to these institutions. Zambia's government through the ministry of education should substantially increase financial allocations to the higher education sector. This should also be coupled with the review of the current education act which is a big hindrance to the current effort of revenue diversification and entrepreneurship since university are constrained with government procedures and guidelines especially when making investment decisions and utilization of funds in university accounts.

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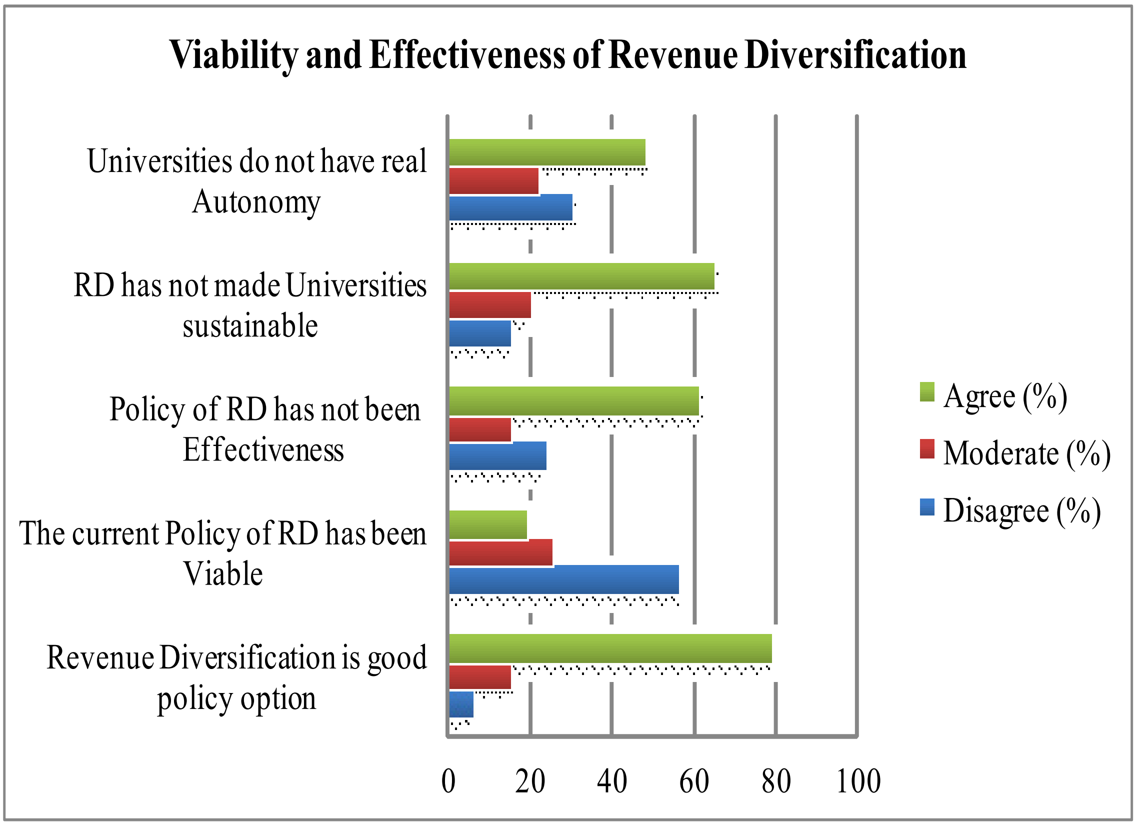
Appendix 1



Appendix 2:

Table 1: Factor Loadings and Communalities Based on a Principle Components Analysis with Varimax Rotation for 14 Items from the Revenue Diversification Policy
Note. Factor loadings < .1 are suppressed

Rotated Component Matrix[a]					
	Component				
	1	2	3	4	5
Q4. More faculty members should be involved in contract research	.770			.187	
Q5. Public Universities should attract more high profile research and consultancy	.725	.252	.122		.138
Q3. Alternative sources of revenue is crucial for survival of Public universities (Diversification)	.426	.146		.352	
Q12. Public University should sale patents as a way of diversifying their revenues (exclusive rights to sell inventions)	.168	.723			
Q11. Universities need to operate like Corporation for them to effectively diversify their revenues (act like persons who are non persons)		.696	.223	.188	
Q13. Public Universities should attract private sector and collaborate to boost their revenues	.290	.628	.214	-.112	-.128
Q9. In the current model, revenue diversification is difficult for public universities (Wholly dependent on Government)			.730		
Q10. Public universities do not have real autonomy in their operation (are not autonomous)		.135	.621	.124	
Q8. Public universities should change the current budgeting system (Historic, making changes based on previous budget)	.185		.610		
Q2. Public Universities should enroll more of private sponsored students				.695	-.114
Q1. Public universities should be self sustaining (Raise their own money and resources)		.210	-.101	.680	
Q7. Public universities should charge education levy to boost its finances (special fee)	.244	-.180	.151	.574	.238
Q6. The current policy on revenue diversification is good					.876
Q14. There is need to cultivate and adjust the current policy of diversification in universities (re-engineer)	.349	.166	.347		-.487
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 6 iterations.					

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Gift Masaiti is a Lecturer in the School of Education at the 'University of Zambia' in Zambia. He holds a PhD degree in Economics of Education and Management from Huazhong University of Science and Technology in China. He has authored articles and chapters in: 'Economics of Education' 'Education Finance', 'link between higher education and economic growth', and 'Religious Studies'. He has been a visiting scholar at Hiroshima University, Japan.

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