

## **GRADUATE EMPLOYMENT: INVESTING IN THE SERVICE MANDATE OF THE AFRICAN UNIVERSITY.**

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### **1. Background**

Like most universities in Africa, Makerere University was established along the oxbridge model during the colonial rule with the aim of nurturing an indigenous elite that would maintain colonial patronage. The limited opening at Makerere University created stiff competition for entry and this meant that only children from relatively higher income families would get the required high score from the best schools to join Makerere University. A study on the social background of Makerere University students revealed that the student from relatively high-income group and relatively more educated families dominated the intake, (Mayanja 1998) .

Following the financial crisis in 1970s and 1980s the University was adversely affected resulting in deterioration of buildings, constant breakdown of water and power supply and departure of a considerable number of staff to look for green pastures abroad. The University had to search for ways of regenerating itself and it ventured into opening up its doors to private students. To convince the reluctant Government to endorse the scheme, the University started with an insignificant percentage of 5% private students targeting parents who used to send their children abroad for higher education. The University admitted the best 2000 students on Government sponsorship and went in for a second round of admission for private students who had scored the minimum entry requirement of two principals. The Fees charged were also low to make them affordable for more students.

As of now the scheme has registered tremendous success and it can be appropriately described as the proverbial one stone that killed two birds for improving access and pulling the University out of the financial nightmares.

Further more, even what the students are taught and the mode of delivery is gradually changing , which is the realm of curriculum. It brought in the new system of Governance and new structure of financial incentives. However the expansion was not uniform across the board and the science based disciplines could not cope with the liberalisation of higher education. It is therefore worthy to look at the effect of this transformation on student's employment prospects in the job market.

### **2. Graduate Employment**

An informative insight on the placement of Makerere University in the world of work has been given in the report of a recent tracer studies carried out under the auspices of the Association of African Universities (AAU) on Makerere University graduate under the title 'A comparative study of BA and BSc. Graduates of Makerere University'(Mayanja et al 2001)

The most relevant findings to our discussion were those dealing with employment prospects for graduates, the match between the university qualification and the job requirement and the destinations of graduates.

According to this study, the employment opportunities are dwindling, the periods of search for jobs are getting longer and graduates are contacting an increasing number of employees before they secure jobs. At the same time, self-employment doesn't seem to provide a viable alternative, as there are very few graduates who venture to initiate their own enterprises.

An examination of the match between the university qualification and the job requirement revealed very contentious findings. The graduates were asked to state the extent to which they used knowledge acquired during their time at Makerere University. Each category of graduates ranked their disciplines very high. For the BA graduates, subjects such as economics, law, and languages were given a high approval while BSc graduates gave similar assessments for subjects such as mathematics and biological sciences. There were however striking exception. For example, BA graduates ranked physical sciences, higher than BSc graduates while BSc graduates gave a higher approval of Economics and finance than their BA counterpart. This was taken to be an indicator that there were a number of graduates who took up employment outside their disciplines. This would imply that the field of study was not so significant as the achievement of the level of a university degree. This would tend to undermine the main line argument in this paper. It should however be pointed out that the respondents were the graduates themselves and it must carry a reasonable degree of bias to their disciplines.

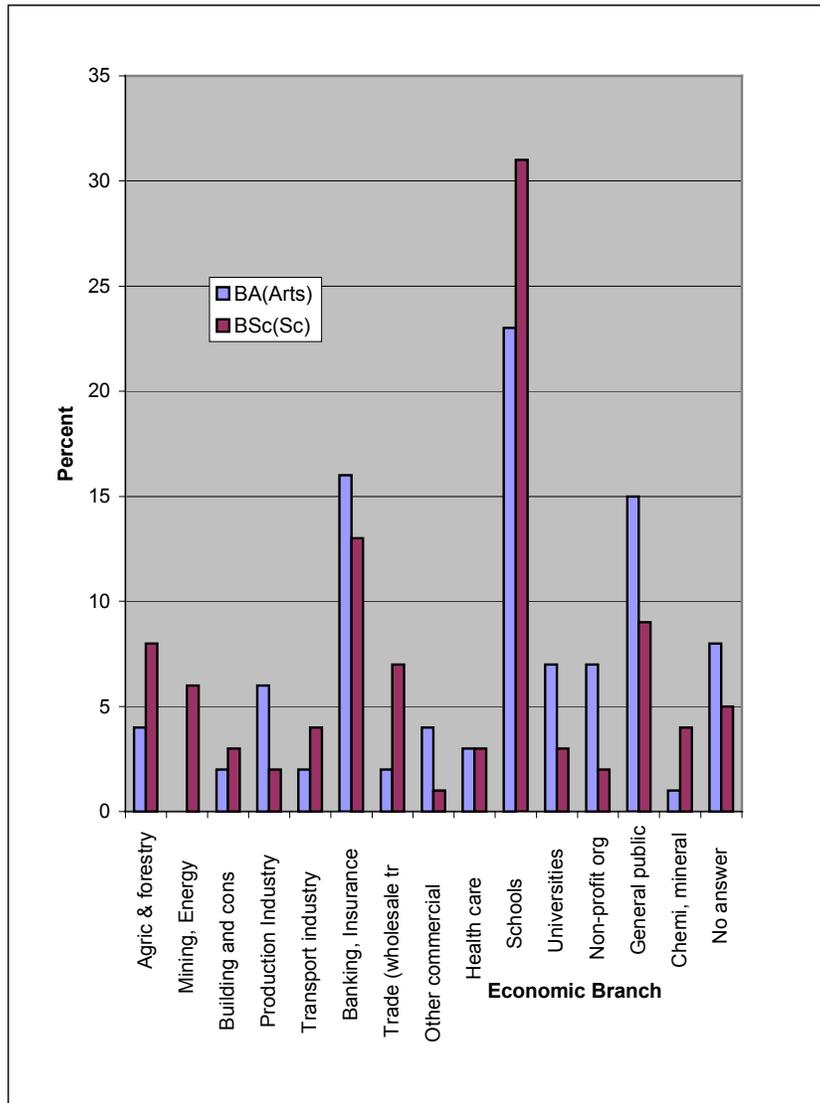
With regard to placement, the most important destination for both BA and BSc graduates were education, commerce and public administration (see chart 1) The agriculture and manufacturing sectors absorbed less than 6% and 5% respectively. Notably, the science graduates who were still limited in supply did not have any clear competitive advantage over the humanities graduates who had dramatically increased as a result of the liberalisation of higher education.

### **Higher Education and Work**

The match between the qualifications and the job requirement is at the heart of the debate on higher education and work. The critical issue is whether or not the training at first-degree level should be professionalized to impart skills or should provide general education to prepare graduates to train themselves or should they be equipped with specific vocational skills as demanded in the labour market of the day. Are the demands of the labour market precisely known? Will the economy remain static so that the same demands of today continue tomorrow?

To put the relationship between higher education and the economy into its proper perspective it is necessary to examine the basic characteristics of the economy. The structure of Uganda's monetary GDP for 1996 is shown in Chart 2. The economy consists of a big peasantry agricultural and informal sector that produced 45% of GDP according to the Chart. It has a small manufacturing (8%) and Hotel (2%), which are

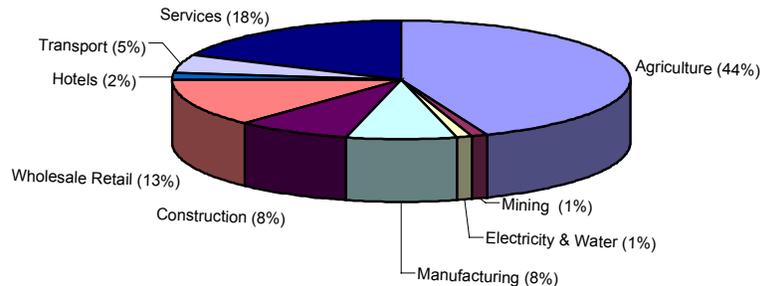
**Chart 1: Economic Branch by Course of Study**



Question : In which economic sector are you currently employed or otherwise professionally active? Please tick one item only. The answer should only concern your main occupation

under the control of foreign investors. The public services sector, which includes education, central and local government administration activities constitute 18%. A retreating central Government is in the process of off loading the service delivery to an under funded local council authority under the decentralisation programme. What is not revealed in the Chart, is that the economy is still predominantly based on traditional technology of production carried out in owner manager cottage industry.

## Structure of Uganda's Monetary GDP 1996



The immediate effect of the Structural Adjustment (SAP) was to create a consumer economy in which virtually all consumer goods with the exception of foods are imported. Foreign donations /loans and remittance by migrant Ugandan's in the Diaspora popularly known as Nkuba Kyeyo' largely explain the country's economic growth.

The university and the economy can be diagrammatically presented as shown diagram 1. 80 % of the Universities graduands are in the field of liberal arts, administration and commerce while 20% are scientists. This pattern of students is being prepared to take up jobs in an economy which is composed of 20% public sector, 30% private industry and business and a 45% informal peasantry and agriculture sectors.

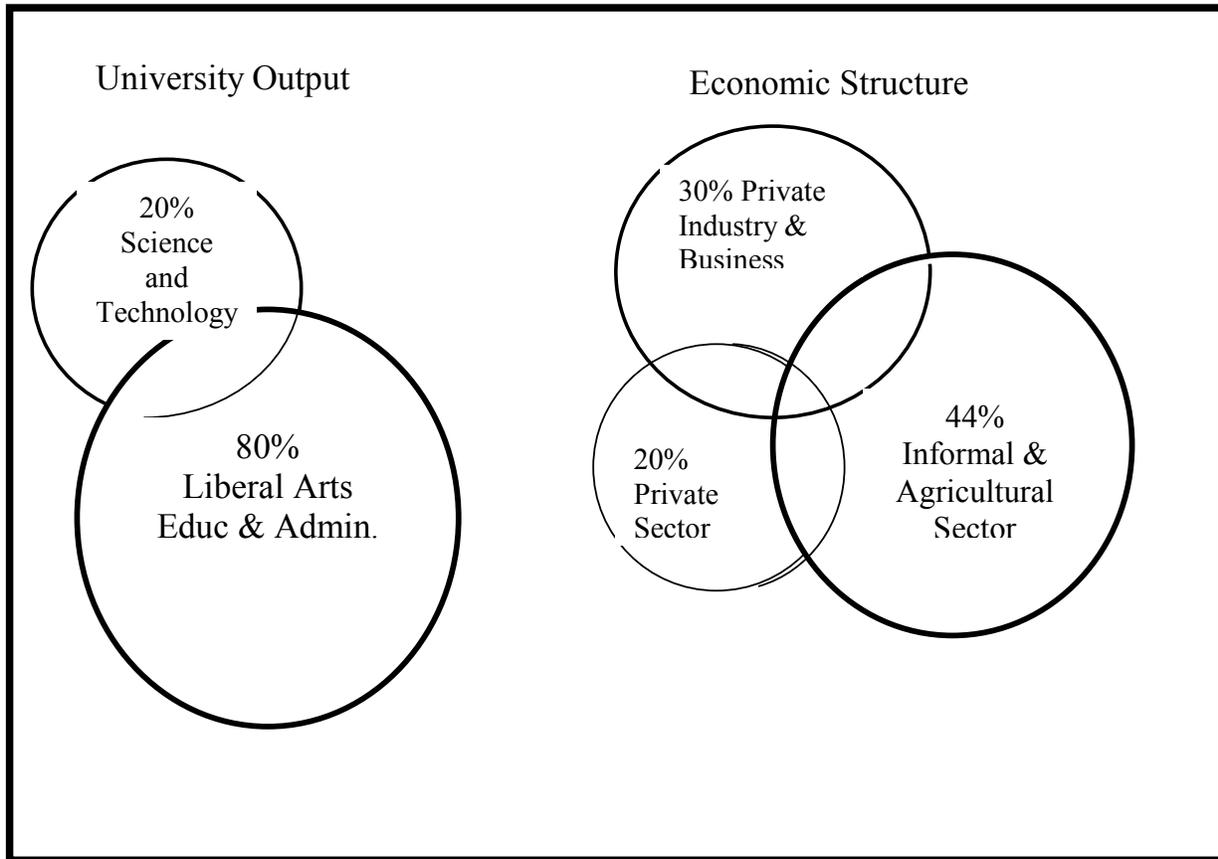
The Diagram rises a number of issues. First, how is the university equipped to tackle the informal peasantry and agricultural sector to contribute to poverty eradication? Is the way forward to transform this informal sector into a formal agriculture and modern business sector or to retain it in its static form? On the other hand one must also raise alarm about the 80% graduates in liberal arts and administration. According to Chart 2 and diagram 1 the public service sector which constitute 18% of GDP seems to be the main target for the 80% of graduate in the liberal arts. This is unlikely to be economically sustainable. If the entry requirement to university was to include a prerequisite to do industrial training in the field one intends to pursue at university many of the students enrolled in humanities would perhaps find it difficult to get an appropriate attachment.

It is not far fetched therefore to conclude that there is a mismatch between what the university is producing and what the economy needs. The situation in Uganda is such that all high level human resources with managerial and technical competencies is detached from the majority peasant farmers and this undermines

there complementarily and mutual benefit. The graduates therefore continue to be in ivory towers even in the world of employment.

In short, we need to rethink higher education in light of the projected future economic structure to build a closer match between the two. We need to make a clear assumption on poverty eradication intervention whether the target is complete over haul or marginal improvement in the informal rural sector, which constitute 45% of the economy. Re-inventing the service mandate offers a unique opportunity to the university to plan its programme with a real touch to the world of employment to address the mismatch.

*Diagram 1: Mismatch between the University Output and the Ugandan Economy*



4. **Service mandate of the University**  
Historically, Universities owned their origin less to economies than to religion, culture and nationalism and therefore such institution tended to be autonomous from economic regimes and trends. The social transformation, which have heralded in the industrial revolution, the world wars, the colonisation and decolonisation process in Africa and the globalisation trend could not leave Universities un affected. The

pressure to change has in particular brought about the massification of higher education. With massification, Universities run into financial crisis, which forced them to seek state patronage and of late the marketization process. Universities are therefore rapidly moving away from the classical norms to embrace closer links with business and industry.

Professor Derrick Swartz (2001) has pointed out that the transformation process of Universities will go to the core function of their institute. He distinguishes between the 'core' and the 'strategic' mission of higher education institutions where the former refers to traditional functions of teaching and research and the latter refers to its increasing involvement in social economic Development.

The range of services /functions which the University can be involved in is staggering; public service training, Public policy study and management, consulting, project management, extension services to farmers and industrialist etc To fulfil the new strategic mission, the University has to modify who gets in, the access issue, what it teaches, the curricula question and where the knowledge acquired leads, which is the labour market aspect.

Iowa state University Extension programme is a classical example of what a comprehensive service mandate should encompass. The mission of Iowa State University Extension is 'to build partnership and provide research based learning opportunities to improve quality of life in Iowa. Iowa is dedicated to engagement, entrepreneurship and local presence'. It engages the people of Iowa through the following six programme and areas.

- Agriculture and natural resources
- Business and industry
- Community activities including NGO and local government
- Families
- The youth Development programme
- Continuing Education and communication services.

##### 5. **Rationale for the new strategic role**

When the University was still an ivory tower, its main function was to prepare a small number of people from higher class for leadership. The curricula had therefore to emphasise liberal art. Once higher education is massified every body can't be prepared to be a leader and people have to be prepared for productive life. Improving productivity and competitiveness demands more application of science and technology, which Universities possesses in abundance.

A report to the British Parliament (1993) presented by the Chancellor of the Duchy of Lancaster observed:

*The United Kingdom's competitiveness rests increasingly on our country's capacity to trade in goods and services incorporating or produced by the latest science and technologies. This applies as much for example to trade in financial services as it does to manufactured goods and to both small and large enterprises(page4)*

From the stand point of the University and its faculties, their professional and technical knowledge will be more enhanced, sharpened and more down to earth when it is integrated with real life /industry needs and cross fertilised through the process of interdisciplinarity and transdisciplinarity. To day most of the technological advances and improvements in human medicine or manufacturing of high quality product is not so much from extension of frontiers of knowledge as it is from reorganisation of existing one and the application of knowledge from various disciplines. The involvement of faculties in extension service will be most enriching such that it will improve the quality of teaching and curriculum design for the benefit of the University and the present generation of students.

A corollary to this development is the dwindling public funding arising from the massification of higher education which will call for tapping into industries and business in the private sector. While higher education has some traits of public good in as much as it benefits the whole society it has also characteristics of private commodity which brings it into the realm of the marketization process. The historic role of Government as a source of funding for academics and others to engage in “non-proprietary” research that benefits everyone (and of no interest to industry) is diminishing. Many Governments now prefer to invest in industry partnership. As Ann Clark points out, “The decline of Government funding for research, coupled with the obligation to obtain matching funds from industry to access what remains of Government funding is reshaping Canadian Academia.” The underlying assumption is that what is good for industry is good for society. Once the private sector becomes a stakeholder in higher education it will increasingly call its stake to bring university education increasingly in the domain of the market

## **6. Makerere University extension Services:**

Extension services are not new to Makerere University. There are already three concrete programmes under way in this field namely [I@mak](#), Uganda Gatsby Trust (UGT) and the Faculties of Agriculture and Veterinary Medicine extension services.

### **6.1 [I@mak](#):**

The [I@mak](#) Programme seeks to link Makerere University with the District decentralization process which is seen as the main channel for delivering the poverty reduction programme. Through this programme, the University has carried out extensive training of district staff, rendered extension services, integrated practical decentralization issues into its curriculum in addition to making professional input in the process of decentralization. The programme is funded by the Rockefeller Foundation and the World Bank. The World Bank component is geared towards the Learning Innovation Loan (LIL), which aims at tapping the abundant technical and professional skills of universities and other tertiary institutions to back up the ongoing Government reforms starting with the decentralization process and using Makerere University for the pilot phase.

The total programme cost is US\$17. The project is funded through incremental funding where a small grant is available to a member of staff on approval of the Concept paper, more funds extended for Pilot activities and a larger grant is made available for full implementation.

A committee composed of membership from Makerere University, Ministry of Finance, Ministry of Education and Ministry of Local Government supervises the implementation of the Programme.

Although this project is a step in the right direction, its scope is limited to the field of public administration and its impact on the productive sector is indirect and long term as it does not engage with the private sector.

### **6.2 Uganda Gatsby Trust (UGT)**

Uganda Gatsby Trust is a none Governmental Organisation based at the Faculty of Technology at Makerere University, which was established to promote industry University Partnership in developing the small enterprise sector in Uganda. UGT was established in 1994 following seed funding from the Gatsby Charitable Foundation (GCF) of UK, itself established by Sainbury Family in the 1960s.UGT accomplishes its goal through the following activities:-

- Tailor made training courses for managers and artisans of small scale enterprises
- Business advisory services through extension works to cooperating enterprise aimed at diagnosing their problems and offering solutions.
- Revolving Fund lent to Gatsby Club members
- Students attachments for industrial training.

The Uganda Gatsby Trust project has the basic characteristics that a technology transfer and diffusion programme should embody. However, the project is limited in scope and it is almost in form of pilot. Its estimated annual budget is US\$ 200,000 for the whole country.

### **6.3 The Faculties of Agriculture and Veterinary Medicine extension services:**

The Faculty of Agriculture has a well established tradition on Agriculture Extension Education and Service to Farmers through the Internships, the Continuing Agricultural Education Centre (CAEC) and Makerere University Agricultural Research Institution, Kabanyolo (MUARIK). About 200 out of 800 students at both undergraduate and postgraduate levels in the Faculty of Agriculture are being sponsored for their internship programme during which students engage in participatory planning with farmers. Some of the organisations sponsoring extension activities at Makerere University include:- Investment in Development Export Agriculture (IDEA) by USAID, Farmers Organisation Secretariat with support from DANIDA and SASAKAWA Global 2000 which is a branch of the SASAKAWA of Africa Association with Head Office in Ghana, the NORAD and of late [I@mak](#), a Rockefeller funded Programme.

The Faculty of Agriculture and that of Veterinary Medicine are integrated in the Plan for Modernisation of Agriculture (PMA) which has a strong bias towards extension activities. The PMA is the Government Strategy for eradicating poverty through multisectoral interventions to enable people to improve their livelihood in a sustainable manner. Under PMA, one of the major strategy is supporting the dissemination and adoption of productivity enhancing technologies. Within this context, a National Agricultural Advisory Services (NAADS) was set up to take charge of Agricultural Extension services. In order to ensure that Agricultural extension services reach the grassroots, the Government is posting one graduate

Agricultural and one Veterinary Officer to each of the six hundred (600) sub counties which are the lowest autonomous services delivery unit in the local authorities.

As the Plan for Modernisation of Agriculture asserts, both the Faculty Makerere University Faculty of agriculture and the Government Department of Agriculture have no shortage of improved technologies for agriculture. However, a number of these technologies remain on the shelf. Some have not been commercially developed, packaged and marketed for the benefit of the subsistence farmers. Extension services for transmitting existing technologies to the private small scale farmer is the most crippling missing link. While the PMA is a laudable efforts, on the one hand it is weak in the dimension organisation of small farmers and on the other hand it lacks resources for effective implementation as it is dependant on donor support entirely.

#### **7. Linkage between the University and Business:**

While there is a US\$ 17 million project to link the University with the public sector under [I@mak](#) and an elaborate Plan on paper for modernisation of Agricultural, the business and industry sectors have yet to be brought on board. The current coffee slump which have depressed coffee prices to century lowest level should be a reminder that we cannot afford to rely entirely on primary commodities.

Two strategic interventions are appropriate here. First and fore most, investment in the development of capacity for teaching science and technology need to be stepped up. Science need affirmative action and it should not be left to the vagaries of the market. The lack of any clear competitive advantage for scientist in the job market which was noted in the findings of the tracer studies is likely to be a symptom of a mishap in the economy and cannot be a basis for abandoning the emphasis for science.

Side by side with the development of training capacity, there must be deliberate effort ton link the University with the productive sector in business and industry just as the [I@mak](#) has brought Makerere University in touch with the service delivery in the local authority. This process is mutually enriching both to the academics and the to business and industry. First it brings the academic in touch with the real issues in the world of work and hence they are integrated into the curricular and address the ivory tower syndrome which is now haunting the graduates in the world of work.. This process will direct attention where it is most urgently needed in poverty alleviation in the informal and peasantry agricultural sector which has so far not been responsive enough to technological transformation. Countries like India and China defined and adopted appropriate technology for this sector with resounding success.

Secondly, it facilitates the transfer of the university's abundant talents and expertise to business and industry. This will make business and industry science and technology compliant, increase the absorption rate of graduates and set in motion a process of multiplier effect on the productivity of the economy. The contribution of universities should be judged not only through production of graduates but also through its influence of public policies and transformation of the private sector.

Although universities are generally slow in adjusting to change, the Makerere University experience with the private students scheme and to some extent with the [I@mak](#) has revealed that once the paradigm of the change is realigned to the faculties

mission and the consensus of all constituents is built through education and participation coupled with putting appropriate structures of incentive in place the academic staff can quickly respond to the change.

Besides financial incentives the extension activities has to be integrated in the whole structure of the motivation. For example, the University of California guideline on University Industry Relation requires staff each year to submit an annual report on outside professional activities. This information is included in the Faculty members record and evaluated in the Academic Review Process. This is therefore a direct effort to include extension services in the criterion for promotion as part of the incentive package.

Incentives will not only be necessary for the faculties, but even more important for the business and industry. The cottage industry and small and medium enterprise (SMES) have a greater problem not only of creating new technologies but even utilising existing technology. Managers of small firms face problems of costs, technical expertise in accessing information on available technologies and possible solutions whether involving hard wares, softwares, processes control management methods or training. Some managers have insufficient information about their own manufacturing process or are unaware of best technologies and practices applied else where. In the case of Uganda firms may lack receptivity to new ideas and to the idea of change.

Efforts to enhance technology absorptive capabilities of micro firms involve a complex series of issues of information, management, training, financing and even counselling.

The transformation of the private sector to a science and technology led growth is not incompatible with privatisation. It is not acceptable therefore for Government to turn privatisation into a scapegoat to absolve itself of responsibility to create jobs under the liberalized economy as the ruling NRM in Uganda has been telling the people. When Government liberalises the economy, it remains accountable to the people and must of necessity nurture and support the private sector to develop capacity for using modern technology and new management techniques, which uses high level human resources from the University. It is not by mistake that USA which adopted the most extreme brand of privatisation still find it necessary to support private enterprises absorption of improved technology and management methods.

The existing informal sector and peasantry rural agriculture need to be reorganised into economically viable models to enable them absorb modern science and technology.

There are several possible models in which industry can be organised to gain competitive and cooperative advantages. It could take the form of industrial clustering i.e. bringing together several small businesses in a single sector and the state providing infrastructure and common services such as design, material procurement, quality assurance marketing and expert finance. Excellent examples of this can be found in India and Indonesia. The textile or Food sector could offer a good starting point for Uganda.

The organisation could take the form of crop zoning and creating commercial farmers along with small farms. There is also the British American Tobacco (BAT) company model in Uganda in which the large size Tobacco processor works with small producers to introduce modern technology, provides loan in form seed and fertilizer and also guarantees the market. The possibilities are many and the choice would be context determined.

9. **CONCLUSION AND RECOMMENDATION:**

The increasing number of graduates from Makerere University, who have joined the world of employment do not seem to have significantly impacted the economy especially the poverty eradication programme to set in motion a self propelling process of technological absorption and employment generation. Employment opportunities are ever dwindling and what is more disturbing is that the graduates are largely detached from the productive sector of the economy and therefore pushed in one corner of the economy namely the education and public and administration.

There is need for concerted efforts to increase the proportion of science graduates and to invest in building bridges between universities and business and industry to improve knowledge refinement and speed up its transfer. While research is geared towards extension of the frontiers of knowledge, participative extension service refines and realigns what is being extended to make it user friendly and viable. This will contribute to the evolution of an appropriate science and technology led growth model which is a critical missing link in the development strategy today.

The Government and development partners should invest in wealth creation through building capacity for transmitting research results from the University and other technology generation institutions to the productive sector. Given that virtually all enterprises in Uganda fall in the category of SMEs which have no capacity to generate technology on their own, it becomes more critical for such interventions to fertilise the productive sector. While such programmes do not necessarily focus on graduates the greater integration of professional knowledge and high level skills will automatically draw on the University graduates who have the expertise. Inevitably such moves will enhance graduate employability.

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