## Contents

Rural Banking for Development in Zimbabwe: a Conceptual Analysis...1  
*Mephias Matunhu*

Assessment of Foreign and Domestic Commercial Bank Efficiency in Uganda using a Data Envelopment Analysis Approach .......................13  
*Maurice N. Mukokoma*

Litigation in Education Service Delivery: a Case for Restraint.............37  
*Kayode O. Fayokun*

Ethnocentrism and National Elections in Uganda ................................49  
*John Paul Kasujja & Anthony Muwagga Mugagga*

Foreign Direct Investment and Development of Local Firms:  
Highlighting the Need to Build Absorptive Capacity ............................61  
*Peter Lugemwa*

Perceived value of Entrepreneurship Course Content among University Students in Uganda .................................................................73  
*Jacob L. Oyugi, Gorretty A. Ofafa & Wilson M. Mande*

Utilization of Teaching Resources and Academic Performance in  
Technical Colleges in Oyo State, Nigeria.............................................95  
*Timothy Okemakinde, Segun O. Adedeji & Jude Ssempebwa*

School Adjustment among Pre-Primary Pupils in a City Setting..........103  
*H. O. Owolabi, R. J. Ogidan*

Implications of Scientific Literacy for Secondary Schools in Uganda ...115  
*Kedrace Turyagyenda*

Private and Public Secondary School Chemistry Teachers’ Instructional and Evaluative Competencies..................................................131  
*Opateye, Johnson Ayodele*

Change Agents, Training and Age as Correlates of Use of Computers among Masters Students in Makerere University School of Education .......................................................................................145  
*Bakkabulindi, F. E. K. & Kabasiita, J.*

The Career Development Industry in Uganda .................................165  
*Norman Nsereko*

Note to Contributors .............................................................................183
Editorial

This volume of *Nkumba Business Journal* (NBJ) carries papers reflecting on a number of concerns touching on business in contemporary Africa. There are papers on banking, education, politics, investment, entrepreneurship and ICT. It is interesting to note that, as a volume, the papers blend empirical work and philosophical reflection and that they transcend disciplinary and geographical boundaries—indicative of the interdisciplinary scope of NBJ.

From Zimbabwe, Matunhu discusses the development of rural banking in the Southern African country. Conventionally, the need for business finance has been serviced through mobilisation of savings and provision of capital in form of credit. However, in the context of rural Zimbabwe, absence of financial intermediaries undermined potential for savings mobilisation and sustainable credit provision. This, the paper notes, could limit the capacity of development programmes to benefit the rural poor. Matunhu’s paper links the absence of these intermediaries to historical marginalisation of the rural parts of Zimbabwe under colonialist development policy before discussing emergence of rural banks that have been tailored to the areas’ needs. Drawing from the Ghanaian experience with similar institutions, and from related literature, the paper highlights the challenges facing the banks in the Zimbabwean context after which it propounds recommendations for their successful operation.

Still in the area of business finance, Mukokoma assesses the performance of commercial banks in Uganda. Taking cognizance of the liberal reforms implemented in the country’s financial sector and the crises the sector succumbed to during the mid-1990s, Mukokoma articulates need for checking on the progress of the sector thus far. Her paper attempts to respond to this need. In so doing, comparisons are drawn between the foreign and indigenous financial institutions in the country. She reports that domestically owned banks are more cost and profit efficient than their foreign owned counterparts. Fixed capital and interest rates on deposits, resulting into accumulation of liquidity for most banks, were found to be affecting the efficiency of the banking institutions. Thus, she recommends that government supports local banks to build strong capital bases.

Fayokun delves into litigation in education service delivery. Hitherto restricted to goods delivered through the market model, litigation is increasingly common in education service delivery. Subsequently,
Fayokun analyses selected cases of litigation involving education service delivery. He argues that although litigation could enhance accountability in education service delivery, it could also affect the decision-making climate in education institutions—risking some of the ideals and mandates underpinning education service delivery. Citing the peculiarity of education and the legal dilemmas that this peculiarity presents, the paper contends that the law may not guarantee good schooling. Improvements in education service delivery require social and political reforms. Thus, stakeholders should focus on making education service delivery responsive to the demands arising out of social change without recourse to judicial interpretation.

Kasujja and Mugagga’s paper focuses on ethnocentrism as an active factor for national election turmoil in Uganda. It argues that coups, military dictatorships and flawed elections attest to ethnocentric tendencies in the country. Thereafter, it discusses the 1996, 2001 and 2006 general elections held in Uganda before propounding implications for the country’s future, in which business enterprises have to develop.

Lugemwa’s paper is closely linked to the objects of Kasujja and Mugagga’s paper. He notes that policy makers in developing countries are competing for FDI, trusting that it will provide the impetus required for economic development. However, he expresses scepticism that, despite the merits associated with FDI, development agencies are focusing on private, rather than public, capital flows, which could threaten the survival of indigenous firms and long-term development of the FDI receiving countries in Africa.

Oyuğî, Ofafa and Mande report on the findings of a study that investigated the contribution of entrepreneurship education to the development of entrepreneurial self-efficacy and intentions among university students in Uganda. At a time efforts are being made to address graduate unemployment through mainstreaming training in entrepreneurial skills in post-primary and post-secondary education, this paper provides timely guidance on the entrepreneurship curriculum. In particular, these authors pose, and attempt to respond to, a basic question: do attendees of university-level entrepreneurship courses perceive the courses as adequate to develop the self-efficacy and entrepreneurial zeal they need to start and run enterprises? Their findings showed significant positive relationship between perceived entrepreneurship course content and self efficacy and self efficacy and entrepreneurial intentions. However, no significant relationship was established between perception of content and entrepreneurial
intentions. Although the students perceived the content they were given to have given them knowledge about business in general, they did not credit the content for creating entrepreneurial zeal among them, which points to gaps in the content.

Okemakinde, Adedeji and Ssempebwa’s paper touches on technical education—another educational alternative through which entrepreneurship is being promoted among graduates in many African countries. Taking the case of Oyo State, Nigeria, these authors attempt to account for the unsatisfactory performance of technical colleges, which is foiling efforts to realise the colleges’ objectives. They reach two main conclusions: the colleges are performing poorly because they are ill-facilitated; and in addition to their ill-facilitation, their resources are neither well maintained nor optimally utilised.

Owolabi and Ogidan discuss the findings of a study that delved into school adjustment among pre-primary pupils in a city setting, taking the case of Ilorin. National systems of education prescribe levels of maturity for entry into educational programmes. However, in many cities worldwide, parents’ business commitments are responsible for rising demand for crèche services—so many children enter school before reaching the conventional school-going age. There is need to check on the smoothness of these children’s home-school transition. Owolabi and Ogidan’s study attempts to respond to this need and advances several recommendations for policy and practice.

Contemporary thought on development recognises the role of scientific literacy in the pursuit of development. Against this background, Turyagyenda’s paper discusses the concept of scientific literacy, with specific reference to Uganda. The paper demonstrates three basic points. First, that attainment of scientific literacy is crucially important if countries like Uganda are to reach the levels of development that they desire. Indeed, the more developed countries acknowledge the need for scientific literacy. Conversely, Uganda is doing poorly in this area. Thus, recommendations for promoting scientific literacy, starting at the secondary school level, are discussed.

Ayodele’s study examined the instructional and evaluative competencies of high school Chemistry teachers. In as much as development is to be pursued majorly through science, as noted in Turyagyenda’s paper, science is to be pursued majorly through science teachers. Thus, Ayodele’s study, which discusses the competence of Chemistry teachers from a comparative perspective, is particularly pertinent to discourse on scientific literacy.
Like Turyagyenda’s and Ayodele’s papers, the paper by Bakkabulindi and Kabasiita also continues the discussion on science and development, from the point of view of education. The purpose of their study was to establish the relationship between change agents, training, age and students’ use of computers at Makerere University. They found that while interaction with ICT change agents and ICT training were insignificant correlates of use of computers, age was a significantly negative correlate of the same. The implications of this finding for ICT4D are discussed.

In the final contribution, Nsereko offers a description of the status of knowledge and practice related to career development in Uganda. A candid critique of the status quo of the industry is offered and possibilities for transformation and change that promote career development are suggested.

Professor Wilson Muyinda Mande
Editor
Rural Banking for Development in Zimbabwe: a Conceptual Analysis

Jephias Matunhu
Department of Development Studies, Midlands State University
jephiasmatunhu@yahoo.com

Rural poverty and underdevelopment is one of the challenges of President Mugabe’s political administration. The challenge is a result of the policies of the colonial era, which emphasized on urban development at the expense of rural development. The new political dispensation in the country has shifted towards improving the lives of millions of people who reside in the rural areas. Land reform is one of the many ways the government of Zimbabwe has tried to empower the poor. According to Moyo and Yeros (2004), at the turn of the 21st century, many land hungry people in Zimbabwe had access to arable land. Despite a positive policy shift by President Mugabe’s government, finance remains one of the fundamental issues in rural development. Something ought to be done to increase financial intermediation in rural areas in the country. This conceptual analysis addresses the issue of rural financial intermediation in Zimbabwe. More specifically, the paper examines the opportunities and challenges of introducing rural banks in Zimbabwe. The paper discusses the issue with reference to the Ghanaian experience as propounded by Asiedu-Mante’s thesis of rural banking in Ghana. The paper highlights several challenges and opportunities of establishing rural banks in Zimbabwe. Possible solutions were proffered against their challenges.

Keywords: Rural banking, Development, Zimbabwe

Introduction

Financial intermediation in the rural economy of Zimbabwe is at a very low level when compared with that of the urban economy. The gap between the urban economy and the rural economy is growing at a time when globalisation is shrinking the world. The difference between the urban economy and the rural economy is that the former is integrated whilst the later is not integrated with the global economy. It is this economic, technological and social integration that is responsible for the economic disparity between the two economies. According to the United Nations Development Programme (UNDP) in Buthelezi (2010:54), “those who are integrated live in a charmed circle of prosperity. But for those outside, the turbulence of continued marginalisation and poverty is creating a volcano of despair.” Commenting on world poverty, Martin Ravallion, the director of the World Bank’s Research Group, said:

The developing world as a whole has made progress in fighting extreme poverty, but the 663 million people who moved above the
poverty lines typically of the poorest countries are still poor by the standards of middle and high income countries. This bunching up just above the extreme poverty line is indicative of the vulnerability facing a great many poor people in the world. And at the current rate of progress, around 1 billion people would still live in extreme poverty by 2015 (Chakwakwama, 2012:04).

Most rural communities in Africa languish in poverty and underdevelopment whilst the urban economy is relatively stable. Put succinctly, the urban economy is charmed in prosperity while the rural economy live in poverty. This paper defines poverty as a state of deprivation. Poverty can either be relative or absolute (Bunwaree and Kasenally, 2007). Relative poverty is one that is based on comparison; Harare could be defined as poor when compared to Los Angeles in the United State of America. Absolute poverty is not comparable. A person who is not able to meet his/her basic needs for survival such as food, shelter, clothes and water is poor irrespective of age, sex, height, political affiliation or place.

The poverty in our rural economy in Zimbabwe is a result of a lack of financial intermediation to support development. Existing traditional banks in the country seem to deem that their operations are already profitable without taking on board the financial needs of the rural areas. Traditional banks are financial institutions that are created primarily to service the integrated economies. Examples of these institutions are Barclays Bank and Standard Bank. A technological revolution has helped to integrate economies. By contrast, rural banks are financial institutions that are formed for the purpose of availing the finances to the disintegrated economy (rural sector). The absence of adequate financial intermediation for the rural economy in Zimbabwe calls for an alternative financial sources to support productivity in our rural communities. This theoretical analysis examines the rationale for rural banks in the country. The discourse is based on the rural bank model of Ghana as expressed by Asiedu-Mante in his book, ‘Rural Banking in Ghana’, which was published in 2011. The author has been a senior employee of the Central Bank of Ghana since 1965. The author’s vast experience in rural banking in Ghana gives a sense of credibility and validity to his scholarship on rural banking. The first section of the paper is a discussion on the link between banking and rural development in general. The second section is an attempt to explore opportunities and challenges for establishing rural banks in the country.
Conceptual and Theoretical Framework

A bank is a financial intermediary. It brings together people who need money and those with excess cash. Banks use interest rates to attract deposits from people who have excess cash and they charge interest to those who seek credit (borrowers). Credit is a form of assistance given to an institution or individual with the intention of repaying within a specified period under agreed terms with interest. There is an obvious risk in credit transactions and security is required to safeguard depositors’ funds. The security that is required by traditional banks is not readily available among rural farmers (Chambers, 1983). This creates a void in institutional credit for rural communities. A rural bank, which is essentially the same as community bank, is a financial institution which is owned by residents in a locality. The institution is managed and patronized by the people in a locality. The absence of intermediaries for the rural residents affects their ability to mobilise financial resources to meet their developmental needs, whose effect is low acreages under cultivation, poor farm maintenance practices, inadequate fertilizer application, poor agronomic, and animal husbandry practices. In Ghana, such negatives resulted in poor yields which translated into poor incomes for the rural farmers (Asiedu-Mante, 2011).

Traditional banks in Zimbabwe are reluctant to modify their operations to suit the needs of small scale farmers in the rural areas. A study by the Central Bank of Zimbabwe noted that;

Commercial banks continue to shun rural areas, preferring urban areas. This had constrained efforts to bring the poor and marginalised into the mainstream economy . . . A study conducted by the RBZ established that only 30 percent of the adult population had access to financial services. The study noted that while about 70 percent of the population were in rural areas, only 11.7 percent of the banks' total branch network served them. Banks shun establishing branches in rural areas because they claim high information, transaction and monitoring cost, inaccessibility due to poor infrastructure, dispersed and intermittent demand for financial services, seasonality deposits and lack of collateral (The Herald, 24 June 2011).

The central bank's chief bank examiner, Mrs Rachel Mushosho, was speaking at a meeting of the African chapter of the International Association of Depositor Insurers in Victoria Falls. The conference was
running under the theme "Financial Stability: Role of Deposit Insurers and Financial Inclusion". It is evident that if economic activities in the rural areas of the country are to be enhanced, then some kind of institutional arrangements has to be put in place to address the problem of inadequate credit. According to Bornstein (2005), rural banks are a sustainable option for addressing rural poverty in a developing country.

Opportunities for Establishing Rural Banks in Zimbabwe

The rural bank initiative subscribes to the empowerment policy of President Mugabe’s administration. Economic empowerment is about creating conditions that allow poor people to ascend out of poverty (Kabeer, 1995; Coetze, 2010). The idea of economic empowerment of the poor in Africa was underscored by Kwame Nkrumah in 1960 when he told Tito of Yugoslavia that all people are created equal, born equal and have an equal right to full life. Apparently, Prime Minister Nkrumah’s drive for industrialisation could be seen in his determination to lift the people of Ghana out of their terrible poverty. It is therefore not surprising that the rural bank concept gained favour in Ghana. The rural bank initiative creates an opportunity for Africa to deal with the poverty and underdevelopment in the continent, which has been a lifelong dream of early politicians like Kwame Nkrumah and his friend Martin Luther.

Zimbabwe has an opportunity to learn about rural banks from other countries. In Ghana, Central Bank requires the communities to apply for a licence to operate a rural bank. The thinking is that if the local people owned the bank, then they would subscribe to its shares and do all that was necessary to get a rural bank operational. Rural banks would be required to register with the Registrar of Companies as limited liability companies. Just as is the case in Ghana, the rural banks in Zimbabwe would be expected to float shares that are subscribed to residents of a rural locality. To ensure that the rural banks are owned by residents of the locality, controls/limits should be put in place. For instance, without regulations on limits of preference shareholders, share ownership could be problematic. Rich people might own the banks and put in place operational regulations that shut the rural residents out of the rural banking system. Limits are necessary to control the board of directors. Issues of fiduciary and corruption are rampant where there are no clear controls (Matunhu, 2011). In Ghana, the regulations of a rural bank were so crafted that the holder of the preference shares was vested with a
veto power exercisable in the board room. The exercise of the veto power is meant to shape the mission and vision of a rural bank and also to ensure operational efficiency. The veto power gives a Central Bank some powers on decision making in the board rooms of rural banks (Asiedu-Mante, 2011). A senior lawyer and an experienced banker could be posted as Bank of Zimbabwe’s representatives to a first rural bank. These learned people would provide the badly needed experience in establishing a rural bank in Zimbabwe.

Rural banks provide an opportunity for the rural residents to access credit. This is the missing service in our traditional banks. The niche market of rural banks would handle small deposits and small credits for the rural communities. The Grameen Bank has been successful in supporting rural development initiatives. The bank was established in 1976 in Bangladesh by a Nobel Prize Winner, Professor Muhammed Yunus. The bank caters for the rural people (Bornstein, 2005). In Zimbabwe, rural banks could seek to avail cheap financial support to women, which is one of the most neglected members of our society. According to Matunhu (2011), women are more likely to honour their credits than men. Loans could be in the form of salary/pension credits. These credits are granted to salary or pension earners who collect their monthly emoluments from a bank. Salary/pension credits are usually used for payment of medical or educational bills, home improvement or furnishing. The banks could also offer other services such as money transfer, processing of cheques and offering business consultancy. The idea of rural banks is timely as some companies are beginning to respond to the government of Zimbabwe’s indigenisation and empowerment policy. The policy requires that foreign-owned companies transfer 10 percent of their stake to indigenise Zimbabweans. The Indigenisation, and Economic Empowerment Act [Chapter 14:33] defines an indigenous Zimbabwean as, “any person who, before 18th April, 1980 was disadvantaged by unfair discrimination on the grounds of his or her race, and any descendant of such person, and includes any company, association, syndicate or partnership of which indigenous Zimbabweans form the majority of members or hold the controlling interest.” Unki Platinum Mine in Shurugwi, an Impala subsidiary has already paid funds to the Shurugwi Rural District Development Trust Fund. These are some of the funds that would be deposited into rural banks to increase their viability share in the banking sector.

One of the opportunities available is that the Government of Zimbabwe is currently rural development focused because the
stronghold of President Mugabe’ party is in the ruling areas. Because of that political scenario, the presence of the Central Bank of Zimbabwe in the rural areas has been very high. The role of the Central Bank in the initial stages of the rural bank would be to; provide suitable banking premises, office furniture and equipment, stationery, appoint board directors, recruit and train staff. It would also be advisable that the Central Bank provides 50 percent of the finances that are required to establish a rural bank. The funds could be availed in the form of “redeemable preference shares”. Preference shares or stock is a share capital that has characteristics of a debt. The idea of preference shares serves as morale –booster to the people in the locality. In Ghana, the idea of preference shares was able to send a clear message that if the Central Bank of Ghana was a part-owner of a rural bank, then it was an activity worth supporting. The involvement of the Central Bank of Zimbabwe in rural banks would create public confidence in the rural bank system. The Central Bank would be expected to off-load its shares unto the local people for subscription as a rural bank showed signs of growth, liquidity, profitability and sound management. Asiedu-Mante (2011) warns that it is the responsibility of a rural community to apply for a rural bank licence. This creates a sense of ownership of the bank by the rural residents. According to de Wet (2008), impeded in a sense of ownership is commitment to succeed.

The Government of Zimbabwe’s support for entrepreneurship provides an opportunity for the rural residents to venture in venture into the banking sector. By holding ordinary shares in a rural bank, members of a local community automatically become true owners a bank. Ordinary shareholders have the right to influence decisions in a bank. The importance of shareholding or partnership in business has been emphasised in sustainable development conferences, including the Rio Earth Summit in 1992 and the Johannesburg World Summit on Sustainable Development (WSSD) in 2002 (Hamann, Woolman and Sprague (2008). According to Matunhu (2012), the Millennium Development Goals (MDGs) and Sir Mark Moody-Stuart, chairperson of Anglo American argue that all the best examples of the application of principles of sustainable development involve partnerships/shareholding.
Challenges affecting Rural Banks in Zimbabwe

The rural bank initiative has a fair share of distress or operational problems. In Ghana, the most pronounced of these challenges were those related to liquidity, loan recovery, profitability, poor staffing, weak managements, wrong citing if agencies, low capitalisation, poor service delivery, breach of oath of secrecy, weak internal control, connected lending, cumbersome cheque clearing arrangement, poor technology, and lack of adequate communication facilities and inadequate training (Asiedu-Mante, 2011). The challenges above have motivated Littlefield (2003) incorrectly conclude that; “microfinance offers an illusion of poverty reduction. As in any lottery or game of chance, a few in poverty, do manage to establish microenterprises that produce a decent living...these isolated and often temporary positives are swamped by the largely overlooked negatives . . .” The negative view above fails to recognise that most rural communities are poor and isolated because they do not have the finance to support their ideas. A study of rural poverty and microfinance by Prof Yunus demonstrated that micro-credit supports rural development.

Notably, most of the challenges mentioned by Asiedu-Mante, above are interrelated related. For example, liquidity is directly related to loan recovery which has an impact on profitability. Poor staffing, inadequate training of staff, poor service delivery and weak internal control can be traced to poor management. The institution of rural banks in Zimbabwe requires paying a close attention to the above mentioned challenges.

The major challenge that the rural bank system in Zimbabwe is likely to face today is that of liquidity of the Central bank of Zimbabwe. The bank is facing liquidity problems, which came as a result of the 2000 to 2009 economic recession in the country. The bank could start the project at a lower scale. Apart from that, the bank could link up with rural development financial institutions like the African Rural Agricultural Credit Association (AFRACA), which is an association of banks and financial institutions that offer financial support to rural development. Rural residents could contribute labour in the infrastructural development of the banks. The Central bank would be advised to provide the fittings and fixtures in the banks. Currently, the Central Bank of Zimbabwe is very particular about statutory reserves in the banking sector. This requirement could be relaxed in the case of rural banks until they have reached financial independence, which come with increased viability. Ntabeni-Bhebe (2011) defines financial
independence as the state of being able to generate enough money to save, invest and sustain life sufficiently.

Liquidity problem is a factor to consider in rural banks. In Ghana, most liquidity problems in rural banks can be traced to rapid and uncontrolled credit expansion, which was fuelled by over lending tendencies and practices of rural banks. It should be remembered that Ghana experienced negative interest rates between December 1994 and June 1996. The failure of the Central Bank of Ghana to provide adequate supervision and monitoring of the banking sector created the 1990s liquidity crises in many rural banks (Asiedu-Mante, 2011). The Central Bank of Zimbabwe is currently performing well in supervising and monitoring the banking sector. This evidenced by the stern measures that Dr Gono has put in place to bring about sanity and discipline in the traditional banking sector. The same aptitude and competencies would be required to instil and sustain financial discipline by the rural bank system.

Non-recovery of loans is one of the institutional challenges that the rural bank system should be concerned about. The experience of Ghana is that many rural banks were good at disbursing loans but poor at recovery. The assumption was that once loans were disbursed, the beneficiaries would automatically service their loans. This assumption had a disastrous effect on the viability of the banks. The non-collection of loans impacted adversely on the capital and profits of the rural banks. One lesson from the Ghanaian experience is that most loans granted by rural banks were not backed by security. In cases where securities were provided, most of them could not be foreclosed because there were no enforceable documents. The credit worth of applicants would require closer appraisal by qualified bank staff. In this regard Asiedu-Mante (2011:177) reports;

Reliance on the court system to collect outstanding loans was ineffective. This was because most rural properties, be they land or buildings did not have documents of title. In instances where there were documents, the slowness of the court system made that option unattractive. Where . . . a default on repayment had resulted in a repossession of the item financed . . . a rural bank was unable to resell the items seized because no one in rural Ghana would like to buy a confiscated item seized from belonging to a neighbour. It is either a taboo or an unforgivable act on the part of the one who bought that type of property.
The rural bank system in Zimbabwe would be expected to consider the issue of security seriously in order to avoid a repeat of the Ghanaian experience. One of the challenges is that of agreeing on the level of representation in a rural bank by the Central Bank of Zimbabwe. On one hand, too high a representation by people from the Central Bank might affect the rural residents’ feelings about ownership of the banks. On the other hand, too low a level of representation by the Central Bank in a rural bank board might affect board room decisions. The Central Bank of Zimbabwe in consultations with traditional leaders may have to agree on the size and composition of rural banks. In Ghana, the Central Bank books two seats of the board of a rural bank, which gives a rural bank a greater representation in the board? The Central bank representatives must be well grounded in banking and finance. This is to allow the transmission of current knowledge, skills and best practices from the experienced bankers to the local community. In Ghana, Central Bank representatives on the board of a rural bank were carefully chosen members of staff who were not only fairly senior in rank but were also knowledgeable in the operations of a rural bank.

Agreeing on the structure of a board of directors and such other issues that are related to ownership of a bank might be a challenge. Government of Zimbabwe could offer a legislation governing the structure of board of directors in rural banks. In Ghana, the board of directors who are formally elected from among the shareholders numbered five, and this is to increase to eleven as a rural bank grew and its activities expanded. People, who were not shareholders, but possessed exceptional qualities or expertise, could be co-opted unto the board. These would normally be prominent citizens for the area who possessed special knowledge, skills and expertise that could be brought to bear on the operations of a rural bank to enhance its performance. Co-opted members did not have voting rights but were showed to participate fully in the deliberations of a board.

One of the challenges of the rural bank initiative is that of setting the operational jurisdiction of rural banks in Zimbabwe. In Ghana, initially the operational jurisdiction of rural banks was limited to twenty mile radius. This was to ensure even distribution of rural banks in the country. Currently, the number of rural banks is determined by population and viability. A more densely populated and viable area could have more banks established in a radius of 25miles (Asiedu-Mante 2011). In Zimbabwe, the viability of a bank could also be established as a basis for the establishment of a rural bank. Viability
could be assessed on population size, sufficiency of infrastructure and vibrancy of economic activities to support a rural bank. If these are found to be meeting the minimum requirements set by the Central Bank of Zimbabwe, the area should be granted a license to operate a rural bank it applied for one.

Shortage of skills and knowledge on rural banks could be a challenge in Zimbabwe. Rural banks in Ghana did not attract good quality staff in the initial stages of the scheme (Asiedu-Mante, 2011). Two major factors are linked with the shortage of competent staff in rural banks. First, rural banks are cited in rural areas which most people consider to be hardship posts. Second, the remuneration of an average rural bank worker is likely to be far below that of his/her counterpart in a traditional bank. Zimbabwe would be expected to learn from the Ghanaian experience. Fieldwork on rural banks might be required. A few rural community leaders could be seconded to rural banks in Ghana to understudy the operations of the rural banks in that country. With a high literacy and numeracy rate in our rural communities (Chimhowu, Manjenwa and Feresu 2011), this would not be a challenge. After a tour of nations that have benefitted from the rural bank concept, resource persons from such countries could visit Zimbabwe to train the rural residents on rural banks. Writing about the importance of training, Confucius claimed that knowledge is power (Matunhu 2012). Given the dire economic posture of the Government of Zimbabwe, it would be advisable that AFRACA be involved in the initialisation of the rural bank initiative in Zimbabwe. This rural bank system in Zimbabwe would benefit tremendously from the experiences of AFRACA. The organisation (AFRACA) was formed in 1977 and has a liaison link with the Food and Agriculture Organisations of the United Nations.

The challenge of viability of the rural banks is real. The people of Zimbabwe are just moving out of a decade of financial crisis. Many people lost their investments as the economy shrunk. In some cases banks liquidated, resulting in many people losing their deposits. Resuscitating depositor confidence might be a problem. The government of Zimbabwe could increase the viability by making sure that all civil servants operating in the rural areas receive their incomes in rural banks. Presently, many rural agri-businesses and retailers transfer large sums of cash to and from urban areas, and there is an inherent risk in that. The rural bank initiative has the capacity to mitigate the risk. To minimise the risk of insolvency, which might result from mismanagement and malpractice, the banks would be regulated
by the Central bank of Zimbabwe. This regulation could be in the form of issuance of guidelines and directives with respect to the procedures for the establishment and continuing monitoring of the banks. In Ghana, the Central Bank undertakes off-site supervision and annual on-site examination visits to the rural banks (Asiedu-Mante, 2011). The process of establishing a bank in Zimbabwe is long and taxing. Government of Zimbabwe is advised to make the process simpler for the benefit of the rural communities in the country.

**Conclusion**

Financial intermediation in the rural economy of Zimbabwe is low. This paper explored the opportunities and challenges for establishing rural banks in the country. The rural bank initiative subscribes to the empowerment policy of Zimbabwe. The role of the Central Bank of Zimbabwe in the initial stages of the rural bank would be to provide the finances, monitoring and supervision that are required to establish a rural bank. The funds could be provided to a rural bank in the form of “redeemable preference shares”. In Ghana, the idea of preference shares was able to send a clear message that if the Central Bank was a part-owner of a rural bank, then it was an activity worth supporting. The local residents would be expected to own common stock in rural banks. The paper highlighted some of the operational problems associated with rural banks. Non-recovery of loans is one of the challenges that the rural bank system should be concerned about. The experience of Ghana is that many rural banks were good at disbursing loans but poor at recovering the loans. The non-collection of loans impacted adversely on the capital and profits of the rural banks. Loans granted by rural banks should be backed by security. The challenge of viability of the rural banks is real. The government of Zimbabwe could increase the viability of rural banks by encouraging all civil servants operating in a locality to receive their incomes in the rural banks. Despite all these challenges, the rural bank initiative is a noble idea for rural development in Zimbabwe.

**References**


Assessment of Foreign and Domestic Commercial Bank Efficiency in Uganda using a Data Envelopment Analysis Approach

Maurice N. Mukokoma
Faculty of Business Administration and Management, Uganda Martyrs University
mmukokoma@umu.ac.ug

The Ugandan banking industry has undergone tremendous changes during the last two decades from a very repressed industry in the 1980s to a fully liberalized industry by the fall of the millennium. The industry has experienced challenges in the process of this transition. Notable among the challenges was the accumulation of Non-Performing Assets (NPA), inappropriate corporate governance systems and a regulatory framework that led to the banking crisis in 1998 – 2001. The banking industry was liberalized with a view to improving efficiency and financial sustainability through increased competition. This study was motivated by the need to assess the level of efficiency of foreign and domestic banks over time so as to determine their levels of efficiency and the factors that contribute to such efficiency. We used Data Envelopment Analysis (DEA) with quarterly bank level datasets for the period 2003Q1 – 2009Q4 to examine the cost and profit efficiency between domestic and foreign banks in Uganda. The number of observations was 224 from 28 quarters for each of the eight (8) banks. We also used the Tobit regression model to identify efficiency drivers. The findings revealed that domestically owned banks were more cost and profit efficient than their foreign owned counter parts. We also found out that determinants of bank efficiency were adequate fixed capital and low interest rates on deposits, which has resulted into accumulation of liquidity for most banks. The main policy recommendation is for government to support local banks to build strong capital bases. Also government should promote competition in the industry by attracting more banks. Competition may help to reduce the margin between deposits and lending rates.

Keywords: Data Envelopment Analysis (DEA), Efficiency ratios, Commercial banks

Introduction

The economic reforms and liberalization of business activities to private investors in many developing countries has resulted into a surge in foreign private capital. In the financial sector, foreign banks have become major players in attempts to reap economies of scope, and to strategically position themselves to efficiently meet the demands of their multinational clients.

In Uganda, foreign bank entry expanded in the 1990s following the liberalisation of the capital account, which allowed free movement of private capital in or out of the country. While foreign bank entry is being embraced in many developing countries, the causes and effects of foreign entry have raised a lot of debate in the recent past (Kiyota, 2009). This assessment of the relative efficiency between foreign and locally owned commercial banks is therefore of interest to policymakers,
regulators and academicians. In this paper we give the background of commercial banking reforms in Uganda, a review of literature on banking efficiency, an explanation of DEA as applied in the study, and findings on efficiency levels and drivers of efficiency.

**Background of Commercial Banking Reforms in Uganda**

Commercial banking business has been in operation in Uganda for over a century. The first commercial bank in Uganda was the National Bank of India which was incorporated in 1906 (Stanbic, 2010). Thereafter a number of foreign owned banks with roots in Britain or its colonies established operation in Uganda. Until the transformation of the Uganda Credit and Saving Society (UCSS) into Uganda Commercial Bank (UCB) in 1965, Uganda’s banking industry was dominated by four foreign banks.

According to Thorsten and Heiko, (2009), the nationalisation policies of the 1970s forced foreign banks which had established up-country branches to either close or sell them to UCB – creating a pseudo-monopoly structure in the industry. During the 1970s up to early 1980s, the number of commercial bank branches and services contracted significantly. Whereas Uganda had 290 commercial bank branches in 1970, by 1987 there were only 84, of which 58 branches were operated by government owned Uganda Commercial Bank - UCB (Byrnes,1990). UCB was therefore the dominant commercial bank with the largest market share.

The other players within the finance sector are two development banks i.e. Uganda Development Bank (UDB) and the East African Development Bank (EADB). These were financial institutions set-up to provide long-term finance for investment, which could not be provided by the exiting commercial banks. UDB was wholly state owned while EADB was jointly owned by the three East African Countries.

This nationalisation policy coupled with the command economy regime of the time resulted into a period of profound financial repression. Nevertheless, the financial liberalization programme which began in the early 1990s reversed this scenario and ushered-in periods of increased influx of both foreign and domestic investments into the banking industry as shown in Figure 1. However, until 2003, the industry remained small with only 12 banks operating in the market and was characterised by concentration of operations, mainly within Kampala and Jinja.
There was however, drastic turnaround in the 1990s, following the liberalization of both the current and capital accounts of the Balance of Payments in 1994. The liberalisation led to higher currency convertibility and capital mobility. The liberalisation coupled with the renewed confidence in the economy resulted in sustained private foreign and domestic investments in the banking industry. The number of commercial banks increased to 22, most of which were foreign owned or had major equity shares held by foreign investors and corporations. The transition was however not smooth as the country experienced a brief banking crisis between 1998 and 2003, which constrained the initial gain from liberalization of the industry.

During the period 1990-1995, 11 private banks were licensed resulting in a three-fold increase in the number of banks relative to the pre-reform period. The reforms culminated in the passing of the Financial Institutions Act (2004) and Bank of Uganda Statutes in 1993 that enhanced the regulatory authority of Bank of Uganda (BOU). This gave the central bank significant regulatory authority and powers to prevail over weak banks. As a result of the crisis, several indigenous commercial banks were declared insolvent and taken over by the central bank and eventually sold or liquidated. A crucial outcome of the banking crisis was that it changed the market structure from one previously dominated by domestic banks (local private or government)
to one dominated by foreign banks. In addition to the loss of indigenous banks, the largest bank Uganda. The current banking system with sufficiently strong capital base, profits, effective management, good corporate governance, and well designed systems and controls, is now well placed to provide a growing contribution to financial inclusion and development of the economy. This is being fostered by the competition created by the foreign owned banks whose main objectives are to increase shareholders value to their investors. A number of domestically owned banks operate alongside these foreign banks and their ultimate goal is to provide banking services in a competitive finance sector that drives the economy. Table 1 below shows the domestically owned and foreign owned commercial banks operating in Uganda as at 31st December 2010.

<table>
<thead>
<tr>
<th>Domestic</th>
<th>Foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centenary Rural Development Bank (CRDB)</td>
<td>ABC Capital Bank (ABC)</td>
</tr>
<tr>
<td>Crane Bank Uganda Limited (CBU)</td>
<td>Bank of Baroda Uganda Limited (BOBU)</td>
</tr>
<tr>
<td>DFCU Bank Uganda Limited (DFCU)</td>
<td>Bank of Africa Uganda Limited (BOA)</td>
</tr>
<tr>
<td>Housing Finance Bank Uganda Limited (HFB)</td>
<td>Barclays Bank Uganda Limited (BBU)</td>
</tr>
<tr>
<td>National Bank of Commerce (NBC)</td>
<td>Cairo International Bank Uganda (CIB)</td>
</tr>
<tr>
<td>Citibank Uganda Limited (CBU)</td>
<td>Diamond Trust Bank Uganda Limited (DTBU)</td>
</tr>
<tr>
<td>Ecobank Uganda Limited (ECO)</td>
<td>Ecobank Uganda Limited (ECO)</td>
</tr>
<tr>
<td>Equity Bank Uganda Limited (EBUL)</td>
<td>Equity Bank Uganda Limited (EBUL)</td>
</tr>
<tr>
<td>Fina Bank Uganda Limited (FBU)</td>
<td>Fina Bank Uganda Limited (FBU)</td>
</tr>
<tr>
<td>Global Trust Bank Uganda Limited (GTB)</td>
<td>Global Trust Bank Uganda Limited (GTB)</td>
</tr>
<tr>
<td>Imperial Bank Uganda Limited (IBUL)</td>
<td>Imperial Bank Uganda Limited (IBUL)</td>
</tr>
<tr>
<td>Kenya Commercial Bank Uganda (KCBU)</td>
<td>Kenya Commercial Bank Uganda (KCBU)</td>
</tr>
<tr>
<td>Orient Bank Uganda Limited (OBL)</td>
<td>Orient Bank Uganda Limited (OBL)</td>
</tr>
<tr>
<td>Stanbic Bank Uganda Limited (SBU)</td>
<td>Stanbic Bank Uganda Limited (SBU)</td>
</tr>
<tr>
<td>Standard Charted Bank Uganda Limited (SCBU)</td>
<td>Standard Charted Bank Uganda Limited (SCBU)</td>
</tr>
<tr>
<td>Tropical Bank Uganda Limited (TBU)</td>
<td>Tropical Bank Uganda Limited (TBU)</td>
</tr>
<tr>
<td>United Bank of Africa Uganda Limited (UBAU)</td>
<td>United Bank of Africa Uganda Limited (UBAU)</td>
</tr>
</tbody>
</table>

*Note: 1) Abbreviations in parentheses; 2) Ownership is based on information from the annual financial statement and web-search.*

Subsequent to these reforms, the banking industry has been strengthened in many important aspects over the last few years and is
now stronger and vibrant but still at lowly development in terms of market coverage and products compared to other developing countries. Financial deepening has shown positive trend and in part, this has been achieved through effective supervision and enforcement of prudential regulations in the banking system, increased frequency of on-site inspections and surveillance.

In addition, improvements in supervision methodology and the prudent management of monetary and exchange rate policy by the BoU have contributed to strengthening the financial sector. This contributed to minimizing the non-performing assets as well as enhancing the profitability of the sector. The cleanup of the portfolio of UCB and its subsequent merger, and closure of trouble banks are key factors in explaining this improvement. High interest rate margins and the marked reduction in NPA have underpinned banks’ profitability.

Related Literature

Efficiency in Banking

Efficiency in banking has been defined and studied in different dimensions including scale, scope, and operational efficiency. Scale efficiency refers to relationship between the level of output and the average cost. Scope efficiency on the other hand refers to relationship between average cost and production of diversified output varieties; and operational efficiency, a widely used concept sometimes referred to as x-efficiency, measures deviation from the cost efficient frontier that represents the maximum attainable output for the given level of inputs.

With reference to various definitions, efficiency is therefore a multifaceted concept with several meanings depending on the perspective in which it is used (Leibenstein, 1966). Scale and scope economies for example, are achieved from the firms’ output expansion resulting in an increase in the industry’s output and that reduces costs of production thus leading to the strong technological external economy. Hirshleifer and Glazer (1993) argue that scope economies occur where it is cheaper to produce varieties in a plant than in separate plants, and this is the concept from which banking consolidation stems.

Efficiency in banking can also be distinguished between allocative and technical efficiency. Allocative efficiency is the extent to which resources are being allocated to the use with the highest expected value. A firm is technically efficient if it produces a given set of outputs using the smallest possible amount of inputs (Falkena et al., 2004). Outputs
could be loans or total balance of deposits, while inputs include labour, capital and other operating costs. A firm is also said to be cost efficient if it is both allocatively and technically efficient (Mester, 1997).

Studies on X-inefficiency, a measure of the loss of allocative and technical efficiency, have been carried out internationally. The results showed that X-efficiency is between 20-30% of total banking costs in the US (Berger & Mester, 1997). According to Falkena et al. (2004), “the notion of X-inefficiency suggests that comfortable incumbents may not produce in the most efficient method. If a few players dominate the market, they may be sheltered from competitive forces and may use rule-of-thumb rather than best practice methods”.

Commercial banks have been operating in an increasingly competitive environment (Isik & Hassan 2002; Mester 1997; Yeh, 1996). The long-term viability of commercial banks operating in this environment depends in part on how efficiently they are being run (Mester, 1997). The efficient and effective use of resources is a key objective of every banker. Whilst this issue has always been relevant, global trends such as increasing competition for financial services, deregulation, technological innovations and banking consolidation have brought more attention on controlling costs and providing products and services more efficiently (Spong, Sullivan & De Young, 1995).

According to Yeh (1996), the competitive banking environment has heightened the need to evaluate risks and returns involved in banking. There is also a need to explore other methods besides financial ratios for assessing economic performance and management quality of banks.

**Efficiency Measurement Methods**

There are various methods that can be used to measure cost and profit efficiencies. These can be grouped into financial ratios and econometric approaches.

**Ratio Approach**

Within the banking industry, cost efficiency is often measured by using a cost to income ratio (Isik & Hassan, 2000). The current international benchmark for this ratio is 0.6 (Falkena et al., 2004), indicating that banks with a higher value are inefficient. For profitability, the measurements that are used include Return on Assets (ROA), Return on Equity (ROE) and capital asset ratio, liquidity ratios and ratios measuring credit risk (Yeh, 1996; Maudos et al., 2002).
Whilst these ratios are widely used to measure efficiency they have certain limitations. As highlighted by Falkena et al. (2004) “whilst the cost to income ratio may provide a rule of thumb by which to measure efficiency, it does not allow for analysis of market dominance and the ability of a dominant firm to grow its income as expenses climb”.

Yeh (1996) highlighted the disadvantages of financial ratios as being that they are only meaningful when used with a suitable benchmark, which may be difficult to establish.

Secondly, each performance measure is calculated using only a subset of data available to a firm. The problem with partial measures is that a bank may perform well using one measure but badly when using another (van der Westhuizen, 2004). Therefore, there is need for a more flexible way of expressing a bank’s financial position (Yeh, 1996). This would be a measure that incorporates all the bank’s input and output data available on the firm and the econometric approach attempts to do this.

**Econometric Approaches**

A number of approaches have been reported in the literature to evaluate bank efficiency. These include; Data Envelopment Analysis (DEA), (Sathy, 2001), Free Disposal Hull (FDH) (Chang, 1999), Stochastic Frontier Approach (SFA) also called Econometric Frontier Approach (EFA), as in (Koetter, 2005); Thick Frontier Approach (TFA) as in (De Young, 1998) and Distribution Free Approach (DFA) as in (Berger, Hancock, and Humphrey, 1993). In this paper we used DEA approach because of its ability to handle multiple inputs and outputs, and ability to identify possible benchmarks.

DEA is a non-parametric method for calculating relative efficiency scores in a multiple input and output production environment. The DEA methodology was first introduced by Charnes et al. (1978) based on the original Farrell (1957) efficiency measure. It measures the performance of all Decision-Making Units (DMU) compared to the generated efficient frontier. Within the banking industry a DMU can be a commercial bank operating within a given area under single management or if a branch is independent in its decision. The best-practice banks, produces given output combinations with the lowest level of inputs or achieve the highest level of output with a given level of inputs (optimal input-output combination).

Technical efficiency reflects the ability of a firm to obtain maximum output from a given set of inputs (Farrell, 1957). The simplest ways to measure efficiency is to compute an output input ratio:
If a firm produces only one output, using one input this could be done easily. However, this method is often inadequate as firms normally produce multiple outputs by using various inputs related to different resources. However this is not realistic in the real world.

In most cases, the measurement of relative efficiency which involves multiple, possibly incommensurate inputs and outputs as was first addressed by Farrell (1957). This will require a frontier of most the efficient decision making units (DMUs) and then to measure how far from the frontiers are the less efficient units. The relative efficiency can be measured as:

\[
Efficiency = \frac{\text{Weighted sum of output}}{\text{Weighted sum of input}}
\]  

Thus a bank’s efficiency for a given period (year) is defined as the maximum of a ratio of the weighted sum of the outputs to the weighted sum of the production factor inputs. Thus, the efficiency of the period is determined as follows:

\[
\text{Maximize} \quad \sum_{r=1}^{s} U_r Y_{r0} \\
\sum_{i=1}^{m} V_i X_{i0}
\]

subject to:

\[
\text{Maximize} \quad \sum_{r=1}^{s} U_r Y_{rj} \\
\sum_{i=1}^{m} V_i X_{ij} \leq 1 ; \quad j = 1, \ldots, n
\]

\[
U_r, V_i \geq 0 ; \quad r = 1, \ldots, s \quad \text{and} \quad i = 1, \ldots, m
\]

The \( Y_{rj} \) and the \( X_{ij} \) are the \( r^{th} \) output and the \( i^{th} \) input for the \( j^{th} \) year. Both \( Y_{rj} \) and \( X_{ij} \) are known and positive. The \( U_r \) and \( V_i \) are weights (implicit) assigned to the inputs and outputs. In the DEA application that follows, these will be defined to be strictly positive. They are determined by the linear programming solution using the input-output for all the years under consideration. The particular year being evaluated is assigned the sub-scrip 0 and in equation [3]. All \( n \) years, including the ones under evaluation are used in determining the \( n^{th} \) constraint. This is necessary so that no year can be assigned efficiency rating of more than 100%.

For each year under consideration, the efficiency rating of each bank will be determined. This will be a relative rating in the sense that the
observation is compared to all other observations being examined. Year 0 will be considered inefficient if, in comparison to other years the bank could have reduced it input usage with no reduction in output produced or more output without reduction in input or both reduced input and output”.

The simple DEA model described in equation [3.3] to [3.5] above assumes constant return to scale. However, it is possible to modify the model to accompany increasing or decreasing return to scale, should these conditions be determined to exist.

**Concept of Profit Efficiency and Cost Inefficiency**

Profit efficiency is the ratio of predicted actual profit to predicted maximum profit, which could be earned if a bank was as efficient as the best practice bank after adjusting for random error. Profit efficiency is ability to achieve maximum profits for a given set of output and the estimated values in logarithm are bounded between 0 and 1. The higher the profit efficiency score is, the more profit efficient the bank will be. If the score is 1, it means the most profit efficient bank.

Cost inefficiency measures the change in a bank’s variable cost adjusted for random error, relative to the estimated cost needed to produce an output bundle as efficiently as the best-practice bank in a sample facing the same exogenous variables, which include variable input prices, variable output quantities and fixed outputs (inputs and outputs). It arises due to technical inefficiency, which results in the use of an excess or sub-optimal mix of inputs given input prices and output quantities.

The value of cost inefficiency can be equal to or greater than one. It is equal to one for the best-practice commercial bank within the given sample. If it is greater than one, then the bank is thought of wasting a certain proportion of its resources relative to a best practice bank facing the same condition. Thus, the higher value of cost inefficiency is, the greater the inefficiency is. For example, a value of 1.17 implies that a bank has costs that are 17 percent above minimum defined by the frontier. It also means that 17 percent of its costs are wasted relative to the “best-practice” commercial bank producing the same output and facing the same conditions.

**Studies on Assessing Bank Efficiency using DEA**

Most studies on performance measurement focus on the operational (technical) efficiency of an organization(s) and the aspect of operational
effectiveness is usually ignored. Nevertheless, in recent years, there exist a few studies which explicitly recognized the efficiency and effectiveness as two mutually exclusive components of the overall performance of an organization. For instance, Byrnes and Freeman (1998) utilized DEA to assess the efficiency and effectiveness in contractor delivery of service in Franklin County Alcohol, Drug and Mental Health Board at Ohio State. They concluded that integrating DEA results into current board performance funding could be a valuable instrument for promoting efficiency and effectiveness. Karlaftis (2004) utilized DEA to evaluate the efficiency and effectiveness of 256 US urban transit systems over a five-year period (1990-1994). The results show that efficiency and effectiveness are positively related and, thus, the systems performing well in one dimension (i.e. efficiency) generally perform well in the other dimension (i.e. effectiveness).

Ho and Zhu (2004) utilized a two-stage DEA model to evaluate the performance of 41 Taiwan’s commercial banks for the financial year 2001. The main empirical finding is that the bank with better efficiency does not always mean that it has better effectiveness. They found no apparent correlation between efficiency and effectiveness.

Data

In this study we used secondary bank-level panel data sourced from the central bank’s quarterly reports. Quarterly data was collected from published financial reports of the banking industry and from the International Financial Statistics (IFS) Online Services database. The financial surveillance database has two major advantages. First, the data is very accurate and reliable since they are rigorously checked by the commercial banks, their regulators and researchers. Second, the accounting information for each bank is presented in standardized form (BS 100) whose coverage is fairly comprehensive, with 100% of the commercial banks covered and the data aggregated for economic statistics.

However, there are has some limitations. First, there is a sample-selection bias for the domestic banks which were limited to only four (4) banks. The sample selection for foreign banks was based on stratified random sampling approach. The 18 foreign owned banks were stratified according to the book value of the owners’ equity as at 2009Q4 and random samples drawn from each category. Quarterly data for the period 2003Q1-2009Q4vi were used. The sample covered eight (8) commercial banks four (4) of which are
domestically owned and the other four (4) are foreign owned banks. The number of observations was 224 from 28 quarters for each of the eight (8) banks. The detailed list of commercial banks from which this sample was drawn is presented in Table 2.

**DEA for the Study**

This research utilized the output oriented DEA with variable return to scale (VRS) models. The assumption of VRS was used in specifications because this hypothesis is more relevant with the environment of imperfect competition in which banks operate. All the banks in Uganda are not operating at optimal capacity with constraints arising from imperfect competition, mobilization of deposits and input costs. This assumption was made by Grigorian and Manole (2002) to evaluate the efficiency of transition countries banks from Eastern Europe, following the technological changes which occurred in the banking industry and the banking system reforms after financial liberalization. The applied DEA methodology also views banks as institutions that collect and allocate funds into loans and other assets.

This research applied the input oriented variable return to scale (VRS) DEA, which focused on the technical-physical aspects of production. The VRS DEA model is adopted because it is assumed that banks can vary their input cost in order to maximise returns. The approach is appropriate if bank managers can make behavioural assumption of firms' objectives like cost minimization or profit maximization. Thus the objective functions of the VRS DEA can be considered to be reasonable if reliable price information is available to identify allocative efficiency.

**Variables used in the Study**

To define inputs and outputs in the banking industry may be the greatest problem associated with efficiency measurement (Mlima & Hjalmarsson, 2002). With the multi-product nature of a banking firm, there is still no agreement as to the definition and measurement of a bank's inputs and outputs (Girardone et al., 2004). Berger and Humphrey (1997) pointed out that the intermediation approach is the most appropriate approach for evaluating financial institutions. The reason is because this approach includes interest expenses, which account for up to two-thirds of total costs.

Molyneux et al. (1996) and Mester (1996) stated that the intermediation approach is used because it views financial institutions as mediators between the supply of and the demand for funds. Elyasiani
and Mehdian (1990) also stated that the intermediation approach is preferred because the quality of data benefits the intermediation approach.

Under the intermediation approach, banks are treated as financial intermediaries that combine deposits, labour and capital to produce credits (loans and advances) and other investments incurred make profits. The interest earnings from credits, investments and profits were treated as output measures while the cost of labour, deposits and value of owners’ equity were treated as inputs. The components of each variable are as shown in Table 2.

### Table 2: Variables used in DEA

<table>
<thead>
<tr>
<th>Variables</th>
<th>Component from the BS\textsuperscript{x} or IS\textsuperscript{x}</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Envelopment Analysis</strong></td>
<td></td>
</tr>
<tr>
<td>Labour cost</td>
<td>Staff salary, wages and other staff cost from IS.</td>
</tr>
<tr>
<td>Interest on deposits</td>
<td>Total Interest on Demand, Saving and Time deposits from IS.</td>
</tr>
<tr>
<td>Equity capital</td>
<td>Tier I &amp; II capital, Retained earnings from the IS and revaluation reserves.</td>
</tr>
<tr>
<td>Interest from credits</td>
<td>Interest earned on credits and advances from the IS.</td>
</tr>
<tr>
<td>Interest from investments</td>
<td>Interest earned on other investments (BOU schemes, government securities and interbank investments) from the IS</td>
</tr>
<tr>
<td>Profit</td>
<td>Net profit from the IS.</td>
</tr>
</tbody>
</table>

### Cost efficiency DEA Specifications

The DEA frontier is formed as the linear combination that connects the set of these best practice observations, yielding a convex production possibility set. The DEA provides an analysis of relative efficiency for multiple input/output situations, by evaluating each DMU and measuring its performance relative to an envelopment surface composed of best practice units. The units that do not lie on the surface are considered inefficient. This way, the method provides a measure of relative efficiency.

In this study we assumed that banks minimize cost and consequently, it can consider the input orientated efficiency with variable return to scale (VRTS). The cost model can be written as follows:

$$
\min \sum_{i=1}^{m} C_{i0} x_{i0}, \quad (i = 1, 2, 3, \ldots m)
$$

s.t.  
$$
x \geq \sum_{j=1}^{n} x_{ij} \lambda_{j}, \quad (j = 1, 2, 3, \ldots n)
$$

$$
y \leq \sum_{r=1}^{s} y_{ij} \lambda_{j}, \quad (r = 1, 2, 3, \ldots s)
$$
\[ \sum_{j=1}^{n} \lambda_j = 1 \]
\[ \lambda_j \geq 0, \text{ for all value of } j \]  

where \( j = (1, 2, 3, \ldots, n) \) are the number of bank, \( i = (1, 2, 3, \ldots, m) \) are input volumes used by bank \( j \), \( (r = 1, 2, 3, \ldots, s) \) measures the volume if output \( r \) and \( C_{i0} \) is the unit cost of the input \( i \) of bank DMU \( 0 \) (which is the benchmark projection), that can be different from one bank to another. The minimization problem is calculated for each bank of the sample by utilizing its benchmark combination of inputs cost and outputs. The DEA model assumes a returns-to-scale characteristic that is represented by \( L \leq \lambda_1 + \lambda_2 + \cdots + \lambda_n \leq U \). In this case, we compute variable returns to scale and use \( L = U = 1 \). Our model allows substitutions in inputs. Based on an optimal solution of the problem \( (4.1), (x^*, \lambda^*) \), the cost efficiency of DMU \( 0 \) is defined as:

\[ CE_0 = \frac{c_0 x^*}{c_0 x_0} \]  

where \( CE_0 \) is the ratio of minimum cost to observed cost for the \( 0^{th} \) bank. This approach implies that all observed input-cost combinations are measured with no error. Outliers may be considered as very efficient as data error implies no comparison unit for these banks or they may be simply unique. The hypothetical bank co-determinates the frontier relative to which all other peers are evaluated, mean efficiency may be low as the majority of banks are located far above this benchmark. By assuming that measurement errors occur randomly, a stochastic approach can alleviate the problem.

**The Profit Efficiency DEA Specifications**

Building on the previous model [3.2] let where \( p_i^0 \) and \( q_r^0 \) are the unit price of the input \( i \) and unit price of the output \( r \) of bank \( 0 \), respectively. These price data may vary from one bank to another. The cost efficiency and revenue efficiency of bank \( 0 \) is defined as:-

\[ \frac{\sum_{i=1}^{m} p_i^0 x_i^*}{\sum_{i=1}^{m} p_i^0 x_i^*} \]

\[ \frac{\sum_{i=1}^{m} q_r^0 x_r^*}{\sum_{i=1}^{m} q_r^0 x_r^*} \]  

And;
The cost and revenue efficiency scores are within the range of 0 and 1. Therefore the profit efficiency DEA model is defined as:

\[
\max \sum_{r=1}^{s} q_{r} y_{r0}^* - \sum_{i=1}^{m} p_{i} x_{i0}^* \\
\text{Subject to} \sum_{j=1}^{n} \lambda_{i, x_{ij}} \leq x_{i0}^* , \quad (i = 1, 2, 3, \ldots, m) \\
\sum_{j=1}^{n} \lambda_{i, y_{ij}} \leq y_{r0}^* , \quad (r = 1, 2, 3, \ldots, s) \\
x_{i0}^* \leq x_{i0}, \quad y_{r0}^* \geq y_{ro} \\
\lambda_{j} \geq 0 \\
\text{Equations 3.2 and 3.8 will be evaluated to estimate the cost and profit efficiency of domestic and foreign owned commercial banks.}
\]

**Tobit Model for Estimation of Drivers of Bank Efficiency**

To establish the factors which drive commercial banks operational efficiency (x-efficiency), the Tobit model is applied to the results of the DEA and macroeconomic variables. The Tobit model has the strength of estimating equations whose dependent variables values are restricted within some range. To establish the inefficiency index of an observation, the research undertakes exponential transformation of the difference between 1 (or 100% efficiency) and the estimated efficiency score from the DEA estimations, such that, efficient observations are assigned a 0 inefficiency index value. In this regard some observations are assigned positive inefficiency indices while others, the efficient ones, are assigned zero index value. This kind of regressions are best handled by the two limit Tobit model since estimates of the simple linear models such as ordinary least squares (OLS) would be biased. The original Tobit
regression model is referred to as a censored regression model with reference to Tobin (1958) who first proposed the model. The model is specified in terms of the indexed function as:

\[ y_i^* = x_i \cdot a + a_i \]  \hspace{1cm} [3.7]

\[ y_i = 0, \text{ if } y_i^* \leq 0 \quad \text{and} \]
\[ y_i = y_i^*, \quad \text{if } y_i^* > 0 \]

Where \( y_i \) is a new random variable transformed from the original one, and \( y_i^*, x_i \) is a column vector of independent variables which is a transpose of \( 1 \times K \) row of \( x \), and \( a \) is a vector of parameters. In a column vector of disturbances is represented by \( a_i \). This model may require adjustment for data with lower and upper truncation. Below is the two-limit specification of the doubly-truncated Tobit model; this model is the version used in the estimation of the source of efficiency in this research.

\[ y_i^* = L_{i1} \quad \text{if } y_i^* \leq L_{i1} \]
\[ = y_i, \quad \text{if } L_{i1} < y_i < L_{i2} \]
\[ = L_{i2} \quad \text{if } y_i \leq L_{i2} \]  \hspace{1cm} [3.8]

Where \( y \) is a latent variable while \( y_i^* \) is observed dependent variable. \( L_{i1} \) is a lower limit and \( L_{i2} \) is an upper limit.

The model is therefore specified with x-inefficiency (operational) index as a function of repressors hypothesized as determinant of x-inefficiency among Ugandan banks,

\[ Ineff = f \left( K, I, AQ, S, EL, ER \right) \]  \hspace{1cm} [3.9]

where \( Ineff \) denotes x-inefficiency index estimated from the multi-product translog cost function. \( K \) is capital adequacy measure of which the research uses the proportionate spending on capital goods relative to other non-tax expenses as a proxy. \( I \) is interest rate relative to the bank’s net income. \( AQ \) is a proxy for asset quality – captured in this case by the ratio of non-performing loans to total loans, while \( S \) is the bank size measured by total assets. \( EL \) is excess liquidity variable constructed by total bank liquid assets less the amount sufficient to finance its statutory required reserves, deposit outflows and short-term
maturing obligations, and ER is the exchange rate. The x-efficiency model is expressed mathematically as:

\[ \text{if } \ LHS > 0 \]

\[ (\text{Ineff})_i = 0, \text{ otherwise}. \]  

[3.10]

This means x-efficiency index is estimated for all inefficient observations; otherwise observations that are efficient have indices of zero inefficiency.

**Findings**

**Descriptive Statistics**

The summary statistics for the input and output variables used in the study are presented table 4. The mean, median, minimum, maximum and standard deviation for the six variables used are shown. The first part of the table gives the descriptive statistics for all the eight banks and the remaining two parts give the statistics for the 4 domestic and the 4 foreign banks.

| Table 3: Input and Output Variables 2003-2009 (UGX, millions) |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Variables       | Mean            | Median          | Minimum         | Maximum         | Std Dev         |
| Labour Cost (X_1) | 3,022.17        | 1,355.96        | 50.13           | 14,521.51       | 3,474.11        |
| Interest on Deposits (X_2) | 1,699.06        | 1,073.87        | 26.28           | 10,957.24       | 2,098.81        |
| Equity Capital (X_3) | 70,790.60       | 51,551.85       | 8,241.77        | 336,120.30      | 62,422.75       |
| Interest on Credits (Y_1) | 5,799.48        | 4,161.82        | 56.77           | 22,949.77       | 5,687.90        |
| Other Investments (Y_2) | 4,358.21        | 1,677.19        | 43.44           | 35,281.99       | 5,688.53        |
| Profits (Y_3) | 5,828.99        | 2,301.38        | (6,780.08)      | 41,974.98       | 8,635.39        |
| Labour Cost (X_1) | 2,109.56        | 1,255.05        | 50.13           | 8,856.58        | 2,502.41        |
| Interest on Deposits (X_2) | 1,382.44        | 873.67          | 26.28           | 10,333.58       | 1,957.36        |
| Equity Capital (X_3) | 49,150.26       | 38,757.67       | 8,241.77        | 140,046.70      | 36,766.32       |
| Interest on Credits (Y_1) | 4,786.67        | 3,561.70        | 56.77           | 22,949.77       | 4,964.17        |
| Other Investments (Y_2) | 2,152.48        | 1,122.41        | 106.10          | 19,649.42       | 3,550.65        |
| Profits (Y_3) | 2,972.12        | 1,661.73        | (1,059.21)      | 19,841.26       | 4,248.46        |
| Labour Cost (X_1) | 3,934.77        | 1,982.91        | 130.96          | 14,521.51       | 4,037.93        |
| Interest on Deposits (X_2) | 2,015.67        | 1,389.08        | 43.45           | 10,957.24       | 2,194.56        |
| Equity Capital (X_3) | 92,430.94       | 90,387.36       | 10,702.49       | 336,120.30      | 74,374.02       |
| Interest on Credits (Y_1) | 6,812.30        | 6,198.91        | 259.36          | 20,752.86       | 6,187.31        |
| Other Investments (Y_2) | 6,563.95        | 3,733.53        | 43.44           | 35,281.99       | 6,525.71        |
| Profits (Y_3) | 8,685.85        | 4,267.83        | (6,780.08)      | 41,974.98       | 10,737.40       |
The analysis focuses on the assessment of the domestic and foreign owned bank’s intermediation efficiency. This approach assumes that banks raise deposits from surplus spending units and re-package them into loans or other interest earning investments to make profits. Banks are therefore faced with cost minimization and profit maximization constraint in attaining their profit maximization objective. Therefore, we computed the DEA for cost, and profit efficiency.

### DEA Cost and Profit Efficiency

The DEA cost and profit efficiency analysis covered the period after the banking crisis in Uganda. The DEA results in table 4 reveal that most banks in the sample were operating at increasing return to scale for both cost and profit efficiency. This suggests that after the banking crisis (1998-2001), commercial banks in Uganda began operating at the raising part of the average cost and profit curve.

The average cost efficiency of domestic banks was 86.7 percent while that of foreign banks was 55.3. These rates indicate the extent to which banks could reduce input and yet at the same time produce the same amount of output. The slack variable indicates that technical inefficiency resulted for inefficient use of input resources. The mean profit efficiency for the domestic banks is 83.1%, while for the foreign banks the score is 45.7%. Clearly domestic banks are more profit and cost efficient than foreign banks. This means that domestic banks have the ability to achieve maximum profits for a given set of outputs.

<table>
<thead>
<tr>
<th></th>
<th>Cost Efficiency</th>
<th>Profit Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VRS Scale</td>
<td>VRS Scale</td>
</tr>
<tr>
<td><strong>Domestic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank - 1</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Bank - 2</td>
<td>1.000</td>
<td>0.430</td>
</tr>
<tr>
<td>Bank - 3</td>
<td>0.468</td>
<td>0.788</td>
</tr>
<tr>
<td>Bank - 4</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>0.867</strong></td>
<td><strong>0.805</strong></td>
</tr>
<tr>
<td><strong>Foreign</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank - A</td>
<td>1.000</td>
<td>0.234</td>
</tr>
<tr>
<td>Bank - B</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Bank - C</td>
<td>0.096</td>
<td>0.009</td>
</tr>
<tr>
<td>Bank - D</td>
<td>0.010</td>
<td>0.014</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td><strong>0.553</strong></td>
<td><strong>0.314</strong></td>
</tr>
</tbody>
</table>

*Note: CRS = technical efficiency from CRS DEA; VRS = technical efficiency from VRS DEA; Scale = scale efficiency = CRS/VRS; DRS = Decreasing Return to Scale; IRS = Increasing Return to Scale*
Drivers of Bank Efficiency

The determinants of bank efficiency in Uganda were estimated using two-limit Tobit model (see Equation 3.9). X-efficiency indexes were regressed against six explanatory variables namely: Capital adequacy rating of the bank (K), interest rate (I) relative to the bank’s net income, asset quality (AQ), bank size (S), excess liquidity (EL) and average exchange rate (EX) between the USD and UGX during the period. Using consolidated data from all the banks in Uganda the Tobit model was estimated and the results are as shown in Table 5.

Table 5: Tobit Estimate of the Determinants of Bank Efficiency

| Ineff | Coef  | Std Err | t     | P>|t| | [95% Conf Interval] |
|-------|-------|---------|-------|------|---------------------|
| Ki    | -2.74e-8 | 8.34e-9 | -2.75* | 0.000 | -4.74e-8 to -1.59e-8 |
| IRi   | -746.236 | 154.7321 | -5.53* | 0.000 | -2543.184 to -371.3427 |
| AQi   | -4.6531 | 8.4329 | -0.51 | 0.417 | -32.60738 to 18.3647 |
| Si    | 1.673e-10 | 10.47e-10 | 3.29** | 0.092 | 1.57e-10 to 2.78e10 |
| ELi   | 0.04172 | 0.0458 | 2.44* | 0.006 | 0.02357 to 0.072343 |
| EXi   | -0.07451 | 1.5983 | 3.27** | 0.057 | 0.04329 to 0.045327 |
| Const | 1.72851 | 0.0373 | 3.16* | 0.000 | 0.06784 to 0.34628 |

*Significant at the 1% level; **significant at 5% level

Se         0.0654792          0.0042171      (Ancillary parameters)

All the factors apart from asset quality significantly influence efficiency. Capital adequacy was significant but bears a negative sign. This implies that as commercial banks spends more on improvement of its capital base; it raises its efficiency gains. Investments in capital assets by commercial banks include efficiency generating items like: banking software, computers, ATM and point of sales machines, and network development linking branches which enhances efficiency in service provision. Thus, under capitalisation can be a source of bank operational inefficiency.

The interest rates have a negative significant influence on operational inefficiency. This indicates that when interest rates increase, operational inefficiency of commercial banks decreases. This is explained by difference in the interest margin between the lending and deposit rates. The deposit rates tend to be rigid there by allowing banks to increase their net earning if interest rates are high.

In the literature, the size of the bank is believed to be inversely related to operational inefficiency index. However, the results of the Tobit
estimate revealed that bank size is positively related operational inefficiency. The underlying argument is that large firms are more vulnerable to managerial utility maximization which may be motivated more by external factors than by internal performance objectives. As the size of a bank grows, the separation of ownership and management increases and thus the management self interest easily entrench the bank’s efficiency objectives.

In terms of liquidity, the estimated parameters revealed significant relationship between bank efficiency and excess liquidity (EL). In this study, excess liquidity was found to be positively related to the operational inefficiency index. This finding confirms the hypothesis that excess liquidity in banks leads to inefficiency.

The impact of exchange rates as a determinant of efficiency was found to be significant and positive. Exchange rate movement is related to interest rate changes. Although there is limited trade between the US$ and Shs, this result revealed that exchange rate effect bank x-inefficiency in Uganda.

**Conclusion and Policy Recommendation**

The relative profit efficiency levels were found to be significantly lower than the cost efficiencies. According to the profit efficiency estimation results, the alternative profit estimates for domestic banks was lower than for foreign banks. From this result we conclude that approximately one-third of banks’ profit was lost to inefficiency during the period reviewed. All banks have however, increased their profit efficiency since 2003Q1.

Estimates of the Tobit model indicate that the determinants of operational inefficiency in banks was the outcome of adequate fixed capital, low interest rates (deposit) and overwhelming accumulation of excess liquidity. This therefore suggests that an optimal interest rate and low liquidity is necessary for attainment of bank efficiency.

The implication from this finding is that there is room to improve efficiency of commercial banks in Uganda. It is therefore important to encourage more bank entry to enhance competition in the industry. Foreign banks are particularly encouraged since they tended to be efficient and a source of productivity and human capital spill overs to the local firms.
References


Maudos, Joaquin et al (Sept 2009) Cost and Profit efficiency in European Banks WP-EC 99-12


P.C. Smith/A. Street (2005), A. Pritchard (2001) for the Productivity measurement in the UK.
Notes

1 After several name changes the National Bank of India became Grindlays Bank in the 1980s. The Grindlays network in Africa was subsequently acquired by Standard Bank Group in October 1993 and now operates in Uganda under the corporate name Stanbic Bank Uganda Limited.

2 The first four foreign owned commercial banks in the market were; Grindlays, Standard Chartered, Barclays and Bank of Baroda. Standard Chartered and Barclays are British banking conglomerate which have been in operation in the Ugandan market since 1912 and 1927, respectively.

3 UCB was the only bank which established and operated branch networks in all major towns outside Kampala and Jinja in the 1980s and 1990s.

4 Charnes, Cooper and Rhodes used the term DMU (decision making unit) because DEA can be used not only to measure efficiency of firms but also branches within a firm.

5 Note that, firms (banks), which do not operate on the optimal frontier, suffer a certain level of efficiency loss.


7 In this research report Q1, Q2, Q3 and Q4 represents the quarters based on calendar year. Where Q1 is for the quarter ending 31st March and Q4 is for the quarter ending 31st December.

8 A domestic bank is defined as one in which resident enterprise(s) and/or individual(s) investor(s) solely or collectively own more than 50% equity stakes. Foreign banks on the other hand are those in which the majority equity stakes are held by non-resident individual(s) and/or enterprise(s).

9 BS = Balance Sheet

10 IS = Income Statement

11 Tobit regression is often encountered in second stage data envelopment analysis (DEA), i.e. when the relationship between exogenous factors (non-physical inputs) and DEA efficiency scores is assessed. It is however not obvious that Tobit is the only, or optimal, approach to modelling DEA scores.
Litigation in Education Service Delivery: a Case for Restraint

Kayode O. Fayokun
Faculty of Law, Obafemi Awolowo University

Taking the case of education service delivery, this paper examines the promoters and implications of litigation (hitherto restricted to goods delivered through the market) in the delivery of social services. It examines the facts and implications of two court cases, with the conclusion that litigation in education is a reflection of changes in the social context of education, so educationists should beware of the legal issues facing them. It notes that, nevertheless, litigation could affect the decision-making climate in education, risking some of the ideals and mandates of education service delivery. Citing the peculiarity of education and the legal dilemmas that this peculiarity presents, the paper contends that the law may not guarantee good schooling; improvements in education service delivery require social and political reforms. Thus, stakeholders should focus on making education service delivery responsive to the demands arising out of social change without recourse to judicial interpretation.

Keywords: Litigation, Service quality regulation, Education management

Introduction

Traditionally, litigation has been applied to the resolution of disputes in business transactions. This has been credited as not only ensuring justice and equitability in business practice but also enhancing the effectiveness and overall performance of the business sectors in which the litigation is applied. In particular, litigation processes and, subsequently, verdicts have promoted adherence to standards of fair business practice, where these standards exist; led to development and adoption of these standards, in instances where they did not exist; or highlighted need for closing legal loopholes hindering equitable and effective business practice, in instances where such loopholes exist.

Review of related literature (e.g. Bakibinga, 1993; Bakibinga & Abdulrazaq, 1989) indicates that litigation has been mainly undertaken with respect to the delivery of goods (as opposed to services) that are delivered through the traditional market sector—in which contractual obligations are clear-cut. However, following increasing commoditization of the delivery of social services—under the auspices of economic liberalization and privatization (Lipsey, 1999; Mamdani, 2007)—there is a marked increase in the number of litigation cases in the area of social services delivery (see, for example, Schneider, 2007; 2006; http://www.schoolfunding.info/litigation/litigation.php3). Nevertheless, relevant legislation is underdeveloped and, in some
instances, entirely non-existent. Precedents are also scanty. This points to need for discourse on the applicability of litigation processes (which have been traditionally applied to market-based business delivery) to the delivery of services that have social dimensions (e.g. education and healthcare)—to inform efforts to develop and enact the required legislation.

This paper undertook to contribute to this discourse, taking the case of education—since education is recognized as a mirror of society and educational institutions are recognized as society in miniature (Aggarwal, 1996). The paper examines the facts, procedure and implications of two cases, namely, Peter Doe and Ianiello. Grounded on the outcomes of the examination, the paper contends that invoking the law in the education sector is not an intrusion, considering that the delivery of education is increasingly following a market-based model. In other words, it is argued that litigation in the sector is a mere reflection of the changing social context of education and may only be expected to increase, so education managers and teachers should beware of the legal issues facing them (Shaffer, 1984).

Nevertheless, the litigation could transform the decision-making climate in education undesirably, risking some of the ideals and mandates of education service delivery. Using the considerations made in deciding the Peter Doe and Ianiello cases, the paper highlights the peculiarity of education as a service. Among other things, it is noted that, in education, the effectiveness of service delivery is influenced by the consumer (even if the supplier has an obligation to ensure effective delivery of the service), which presents a legal dilemma on the extent of the suppliers’ responsibility for the effectiveness of service delivery. Cognizant of the legal dilemmas that this peculiarity presents, the paper contends that recourse to the law may not guarantee good schooling. Rather, it expresses optimism that realistic improvements in education service delivery will result from relevant social and political processes and decisions. Accordingly, the paper urges stakeholders to concern themselves with how educational service delivery can be responsive to the demands arising out of social change without recourse to judicial interpretation, adding that this conclusion may be true for other services that have attributes of both private and public commodities but whose delivery has been significantly commoditized.

**Related Literature and Objective**

Schools are creatures of law. Their creation, control, management and day-to-day decisions are directly or indirectly products of the law.
Matters of school finance, teacher-to-board relations or teaching service commission/ employment relations, curriculum, policy-making and their effects on teachers, pupils and parents (and a variety of relationships among schools, community and other bodies) derive from the constitution and relevant enabling legislation. Most school problems arise from human interactions that are generated and resolved within the framework of law. As a result, a medley of legal principles known as “education law” has emerged in our corpus juris. It refers to the combination of legal principles dealing with the operation and management of educational institutions and consists of issues of law on education-related activities. Its focus is the operation, administration and control of education institution. Interaction of issues of law and schooling are becoming more pronounced by the day as our society continues to witness significant and rapid socio-political and economic changes. In an age that is globally infused with concern for individual and group rights and the delivery of services increasingly rooted in market models that are characterized with high customer focus, court cases challenging the authority and decisions of schools have been registered.

Knowledge of “education law” is becoming a career enhancement at aptitude tests for managers of education at all levels. Understanding the way the constitution works and the place of the judicial function within the legal system is now of importance not only to practicing education administrators but all stakeholders in education. Peretomode (1992) posited that “legal issues in education” have a long history in Europe and America, particularly in the curriculum of graduate and professional schools. The works of Blackmon (1982) and Sorenson (1984) are cited to buttress this point. Blackmon (1982)’s findings revealed that by 1972 about 85% of all teacher training institutions in the United States included a course on education/ school law in their programs. By 1992, the number had increased to 95% and is almost 100% presently.

Since the activities of those involved in education generate legal issues, the extent to which they create ripples for judicial intervention and the ways in which they have contributed to shaping education policies need study. A key justification advanced for the incursion of litigation in the education service delivery sector is that education service delivery needs to be efficient and effective (Owolabi, 2006; Abdulkareem et al., 2008; Adaralegbe, 1978), so courts of law have an obligation to intervene and ensure that schools meet these societal expectations. After all, even if the right to quality education is conferred by national constitutions and broad education policies are taken through national legislative process, detailed rule-making functions are
delegated to education administrators (i.e. ministers, commissioners, directors, school boards, commissions, head teachers, teachers, etcetera) and sweeping powers conferred upon them to implement the right to quality education, the inference being that they are supposed to be held to account for the powers delegated to them and courts have the mandate to demand such accountability from them.

Subsequently, judicial directives are increasingly re-casting school decisions to an extent one can say they have affected the operation of schools and school law has become a pertinent aspect of our *corpus juris*. However, because the legal principles applicable to schools operate in a broader framework, “education law” is hardly regarded as a separate branch of law. Thus, the phrase serves merely as a generic term to cover a wide range of school issues. Therefore, the applicable legal principles discussed under that catchphrase include rules of constitutional law, law of contract, torts, property law and labour rights as they relate to schools and educational management in a given society. As application of law to education practice is increasing (Shaffer, 1984) and school house decisions are increasingly drawn to public glare through litigation, it is important to understand the impact of applying these legislations on education.

Hitherto, however, this impact has not been examined, hence a knowledge gap. The objective of this paper, therefore, is to contribute to the closing of this gap. Methodologically, the paper relies on two prominent court cases that touched on the effectiveness of education service delivery and the contract between school systems and the students that study in these systems (i.e. Peter Doe and Ianiello). The facts articulated in the cases are identified and the verdicts passed, as well as the legal basis of these verdicts, are discussed. Subsequently, the implications of both the facts articulated and the verdicts passed for the delivery of education services are discussed and conclusions drawn.

**Peter Doe Case: is “Poor’ Teaching a Tort?**

**Facts in the Peter Doe Case**

In the Peter Doe case, the plaintiff, a graduate of a San Francisco high school with 5th grade reading ability—a functional illiterate—charged the defendant school district, board members, and professional staff with negligence for their failure to teach him to read and with misrepresentation for the school’s failure to properly apprise his parents of his limited progress in reading skills. The complainant alleged a
series of duties on the defendants (e.g., provide him with appropriate reading materials, appropriate instruction, diagnosis, and remediation); a breach of duty by their failure to perform such duties; and resulting injury to him in thus denying him of his rightful education.

In other words, Peter Doe alleged that the defendants tortuously injured him by their individual and collective negligence and thus entitled him to a remedy in money compensation ($500,000 in damages to be exact). The facts indicated that Peter Doe was of average or above-average intelligence, attended school regularly, and was passed along from grade to grade on schedule. Upon the parents’ inquiries about Peter’s academic progress, the defendants assured them that he was doing satisfactory work. In fact, Peter was not performing satisfactorily in reading and, despite state laws mandating specific reading levels as conditions precedent to graduation, Peter was graduated from high school with only fifth grade reading ability. After leaving high school, Peter undertook tutorial assistance in reading and progressed rapidly, evidence that he was indeed, capable of learning to read.

The complainant stated seven counts, one alleging negligence by the defendant for its failure to properly instruct the plaintiff, another charging the defendant with misrepresentation of the plaintiff’s true progress to his parents, and five counts alleging the defendant’s violation of specific statutory and constitutional duties imposed by the California State Constitution and the California School Code. The sum of Peter Doe’s complaint was: “school, you had a legal duty to teach me to read, you negligently failed to teach me, and I have been injured in the sum of $500,000 by your negligence”.

The defendants demurred to all causes of action, arguing in effect that even if the alleged facts were true, they failed to state a cause of action for the reason that defendants have no legal duty to teach Peter to read. The complaint rests on the theory that the defendant school and its operators are under a tort duty to teach Peter to read, such duty based on the cited statutory and constitutional mandates to provide an education, employ qualified teachers, provide appropriate curriculum and to provide any other kind of support that a student may require to succeed in his or her learning endeavours. The duty, according to the complainant, is not merely to offer certain instructions and go through mandated pedagogical dances but rather is a duty to produce certain reading skills, the breach of which duty is negligence and imposes tort liability on the schools.

The defendants argued on the contrary. They submitted that the several duties are not intended to vest rights in a specific person but express legislative intent to operate schools in certain ways. The
statutory mandates, if breached by the defendants, do not create actionable rights in specific pupils or parents and even if there was a violation of a duty, the violation is no negligence in the tort sense.

**Salient Issues in the Peter Doe Case**

The case was decided in favour of the defendants. However, the issues raised in the case are important to all social and governmental units charged with the delivery of services to the public. If a pupil’s failure to learn to read or write (or to develop any other skill) is chargeable to the school’s failure to teach, at least two other problems arise. First, can the law establish the proximate causation between the school’s performance (alleged negligent teaching) and the pupil’s injury (the failure to learn)? Second, can the courts define the school’s legal duty in such terms (of performance) as to know when and where the school falls short? To infer negligent teaching from pupil achievement may be attractive but is not supported research evidence. Few educators would deny that the school’s fundamental duty is to instruct pupils. However, it does not follow that pupil learning stems from the school’s instruction or that the quality of instruction is the proximate cause of the learning. In essence, the *Peter Doe* asks the court to make a legal connection between teaching (as a series of specific qualitatively and quantitatively assessable acts) and learning (as a series of specific assessable performances) (i.e. a cause-effect relationship on which there is no definitive data, despite a multiplicity of studies delving into it).

For the law to find negligence in teaching, it must define the standard against which the defendant’s performance is measured vis-à-vis the quality of teaching to which the school subjected the learner. Furthermore, to use the negligence concept in instruction, the court must link the defendants’ breach of duty to the plaintiff’s injury (i.e. failure to learn). If a child fails to learn, can this failure be linked proximately to his or her teachers’ behaviour? Incidentally, this question is controversial, especially when it is taken into account that, although some pupils may not learn well, their cohorts, who are subjected to the same quality and quantity of instruction, learn. This appears to clear the school, and its teachers, of possible negligence and/ or bad will against the learners that fail to learn, the inference being that, for court to qualify a case against them, it must define the duty they breached (but cognizant of the duty that they fulfilled towards the learners that made satisfactory progress). This discourse also points to several dilemmas. Even if the courts undertake to define the schools’ duty to teach, one wonders what would happen if the school, and its teachers, follow the
court’s mandate and a child still doesn’t learn. If teachers are found liable in tort for the pupils’ failure to learn, should the child, in turn, be liable in tort for his or her failure to learn from good teaching?

Facts in the Ianiello Case

The case of Ianiello was an action against the University of Bridgeport for breach of contract and fraud. It raises the issues of educational malpractice at the tertiary level. The plaintiff, preparing to qualify as a teacher, enrolled in a required course at the University of Bridgeport (defendant), completed the course (with an “A” grade) and thereupon sued to recover damages against the defendant for its alleged breach of contract and fraudulent misrepresentation. The complaint alleged that the course as given was substantially different from the course described in the college bulletin and, further, the course received was worthless and of no benefit to the plaintiff. Specific allegations about the instructional mode, the absence of tests and evaluation, and the nature of the breach of contract were included in the complaint. The gist of the complaint focused on the alleged promise by the university concerning the course description, the performance breach, the misrepresentations by the defendant upon which Mrs. Ianiello relied, to her injury. She sought, as damages, an amount equal to tuition, fees, books, lost income, and attorney fees.

The University’s defence amounted to a denial of breach of contract or misrepresentation plus several “special defences” that the University complied fully with the contract, if any contract existed; the course description is not a contract and, further, the content description is subject to change by the University and the professor to satisfy “the current needs, developments during the course and desires of the students”; the plaintiff took the course, took the grade and any benefits from the course, including the three credits toward her degree and she is stopped from complaining now; the plaintiff cannot retain the course credits and claim her money back at the same time; and the plaintiff’s claim for relief does not represent a proper measure of damages under her complaint.

What are the consequences of Ianiello? This case, if decided in favour of the plaintiff, represents difficult questions for schools and schooling. The problem raised is familiar enough: the school promised more than it delivered. To correct the problems raised may require fundamental changes in the schooling process. It could be simple to describe courses more clearly and frame the syllabi to reflect the course descriptions. However, if the course outlines, syllabi and catalogues are treated as
contractual terms then some intricate consequences may follow. Instruction could stray from the outline, even for urgent interests or related matters, albeit at the risk of suit by a non-consenting member of the class. To deviate from the instructional contract would call for renegotiated contracts with the students. If the “worth” of the course is a key issue for the court, we should expect the courts, over time to delineate criteria by which the worth of courses is ascertained. It seems unlikely that the courts would undertake to legally determine the structure of knowledge or the elements of academic disciplines by evaluating the worth of course content.

Discussion and Conclusions

The complaint in Ianiello raises the issue of the instructor’s teaching competency and his evaluative judgment in grading the plaintiff’s work. As in Peter Doe, to find malpractice, the court must define good practice as a measure of minimum accepted practice. Once these legally acceptable standards of performance are defined, close adherence to them would protect teachers, administrators, professors against malpractice suits but this may be at the expense of learning and relevance. Accordingly, turning to courts of law to correct inadequacies in the teaching and learning process may be no guarantee that learners’ needs will be better satisfied and that their teachers and/ or schools will act in their best interest. The law can mandate some processes, practices and elements of educational equity and can discourage some iniquities in education service delivery. However, it may not design and implement the corrective action needed to secure the rights claimed in Peter Doe or Ianiello.

From the foregoing analyses and comments, some implications and observations about social change and educational reform seem plausible. Clearly, involvement of the law in education is hardly an intrusion. Rather, it is a proper and predictable relationship. In this regard, Peter Doe and Ianiello point to gaps in the understanding of the contract that exists between educational institutions and their students, especially before the law. This has implications for legislation relevant to education. These implications are mostly true for the education institutions themselves as it is only reasonable to expect that as this legislation develops, the schools’ scope of (legal) responsibility towards their students, and the parents/ guardians of these students, will increase phenomenally. The cases also point to the fact that recourse to litigation in the education sector is in response to perceived malpractice. Notwithstanding the legal dilemmas and controversies regarding the
legal obligation of schools towards their publics, both Peter Doe and Ianiello put education service providers on the spot to be legally accountable and challenge court to define educationists’ legal obligation when it comes to the quality of teaching and the learning that they offer. Therefore, those involved in education service delivery can no longer sit back and preside over the status quo; people are demanding greater accountability from them and they will seek legal redress if they do not realize this accountability.

Unlike in business, however, in education, litigation is more complicated, due to the complex nature of education service delivery. First, it is a necessary condition of being a student that the latter is ignorant of the course of study until he or she has gone through it (Gilroy et al., 1999), the inference being that, at the time of starting a course of study, the learner is technically incapable of entering a legally binding contract with the school. Second, even in the unlikely event that the contract reached between the school and the learner in the matter of what is to be taught and its anticipated deliverables, the need to ensure the relevance of curricula to learners’ and society’s needs has conventionally required reviews of curriculum and rigid adherence to the content agreed upon may in fact be in disfavour of the learner (who, at the same time, is a potential plaintiff).

Besides, it is important to note that as a commodity, education is usually consumed in a social setting (i.e. class), which points to the question of the extent to which a school, and its teachers, have the liberty to cater for the special needs and interests of an individual learner who may sue, even if at the expense of the needs and best interest of the other learners in the cohort. Finally, the benefits of education to its recipients are relative to those perceiving them and are neither clear-cut nor time-bound, meaning that a school, or its teachers, cannot be charged for the lack of the particular benefits that an individual learner may demand to realize at a certain time after or during his or her course of study. This means that, in education, stakeholders should not be litigious. Though invoking the power of the law to resolve disputes in educational service delivery may discourage ineffective instruction, increase accountability in the sector and prohibit some unacceptable practices, it would be wrong to expect the law to resolve school problems that are created or sustained by complex forces, some of which are conventional and in the best interest of the learners. The law may not guarantee good schooling. More realistic, and significant, improvements in education service delivery will come from social and political decisions. Thus, stakeholders should concern themselves more with how educational service delivery can be
responsive to the demands arising out of social change without recourse to judicial interpretation, a view that is corroborated by other authors on litigation in education (see, for example, Bergan; 2004; Glanzer & Milson, 2006). This conclusion may be true for other services that have attributes of both private and public commodities but whose delivery has been commoditized.

References


Ethnocentrism and National Elections in Uganda

John Paul Kasujja, Anthony Muwagga Mugagga

The paper focuses on ethnocentrism as an active factor for national election turmoil in Uganda. The bewitchment of the military by ethnocentric virus, the subsequent coups and overthrows, to the military regimes and dictatorships by successive presidents since 1966, the 1980, 1996, 2001 and 2006 presidential elections, can account for ethnocentric tendencies in the Pearl of Africa. Thereafter, the paper discusses the 1996, 2001 and 2006 general elections held in Uganda before propounding implications for the country’s future.

Keywords: Ethnocentrism, Politics and development, Elections

Introduction

Uganda is in the easterly region of the African continent with a diverse ethnic composition. It borders Kenya in the East, Democratic republic of Congo in the west, Southern Sudan in the north and Tanzania in the south, Ssekamwa (1994). The area has attracted almost every ethnic group for settlement and business, and this has sensitized ethnocentrism among the settlers. This trait has been practiced in the politics of the state especially in national elections.

Ethnocentrism exists in most countries across borders, but how it affects the political endeavours of a state with multi-ethnic populations vary. For the case of Uganda, ethnic differences make a significant impact on political activity, like national elections. The awareness of these differences has been referred to as “tribalism”, or ethnicity. The term ethnocentrism is a commonly used word in circles where ethnicity, inter ethnic relations and similar social issues are of concern. Its definition is “thinking one’s, group’s ways as superior to others”, or “judging other groups as inferior to one’s own”, K. Barger (2010). “Ethnic” refers to cultural heritage and “centrism” refers to the central starting point. Violent inter-communal conflicts in Ugandan have occurred because of the persistence of ethnocentrism – a phenomenon rather unlike racism in its economic and political outcomes of inequalities in that, allegiance to an ethnic group, patronage based on ethnicity, family and kinship ties, and networks of ethnic interest trump other networks in society. It is this extreme ethnocentrism that manifests into ethnic hostility with regards to national issues.

Evolution of Ethno-political Conflicts in Uganda

A primordial interpretation of ethnocentrism advocates that societies have differences in value system, differences in language, culture,
political systems, and this arises out of issues that are hard, or difficult to change. Some ethnic groups speak Luo, others Luganda, Lusoga, Runyakitara, Lunyoro, Lutoro, Rukiga, among others, and this goes back to the differences in the philosophy of life, for example, an eating habit where some people eat matooke, others millet, rats, animal blood and this applies to drinks as well. In addition, some people were born under monarchies and were/are thought to be more civilized naturally than others, whereas others were born under acephorus societies and were/are thought to be backward and primitive; therefore this situation is an archaic reality underlying modernity (Okulu, 2000: 8).

Before colonialism, ethnocentrism had not been awakened to the levels of today, because market economy had not started in Africa. The bonds of common interest and the period over which these bonds had been forged had consolidated, made the bonds of friendship too solid to be shaken by short term benefits that could be reaped from collaboration with the aliens (Karugire, 1980). In Uganda, ethnic wars existed in 1894 between Baganda and Banyoro, Bahima and Bairu in the west, the Teso and Karamojong in the north, and the Banyoli and Chapadhola in Tororo District. Among these societies up to now, there existed derogatory and moronic vocabulary terms which were/are used against each other, one ethnic group claiming to be more civilized than the other.

The intensity of ethnocentrism in Uganda is indeed a frightening one, as it transforms long-time neighbours into mortal enemies overnight based on ethnic affiliations. Long term neighbours become marauding killers, and ethnic differences become reasons for denying humanity to others, and all other social relations and interactions cease to matter (Yoku, 2003).

During colonialism in Uganda, the British put together different ethnic groups under one leadership, for example, Toro ruling Bakonzo and Bamba in the West, Buganda ruling Eastern Uganda under Semei Kakunguru, Bafumbira under Bakiga, and others. In this administrative policy, the Parish chiefs and sub-county chiefs were posted from the ruling ethnic group. This caused resentment to the rest of Uganda, which resentment took a violent form after independence (Karugire, 1988: 18). This amalgamation of a large number of ethnic groups caused, and strengthened ethnocentrism, as divisions among Ugandan created struggles, jealousy, envy and finally ethnical conflicts in national affairs. The post 1945 to 1962 in Uganda marked the beginning of interest groups over who would inherit the post-colonial state. From then, Ugandan politics was aimed at when Uganda would recover independence and on whose terms. It was in this trend that ethnic
groups redefined their interests and took positions in the struggle for political dominance, and since then, Uganda’s instability became a function of a negative polarized imbalance of political forces in which groups dictate political terms only acceptable to themselves, to overthrow the established order (Mudoola, 1993: 1).

After 1962, the limits of political analysis began to surface in political violence. Different political parties based on ethnocentrism in effort to satisfy their desires, began to injure each other as squabbles over desirable objects rotated around national resources and dominance, and since independence, Ugandan liberators / presidents have lacked reform insurgencies committed to the revolutionary ideologies found in East and South Asia, as well as in Latin America (Clapham, 1998). These insurgencies arise towards a change of leadership which does not entail the creation of a state any different from that they seek to overthrow.

Ethnocentrism and National Elections in Uganda

On 9th October 1962, Uganda achieved independence from Britain and became a republic replacing the white Governor General with an African president. This transfer of power has marked the only peaceful change of government in Uganda’s history as an independent state. Since then, the change of government and several institutional transformation have no democracy, instead have taken a violent form, involving loss of life and property among the guilty and innocent Ugandans, and this has failed Uganda leaders to realize that violence, once employed as an instrument of internal policy becomes very difficult to control. The presidents of Uganda, past and present, have taken a political culture known as dictatorship, which stems from ethnocentrism. The dimension of this culture is plastic and can change quite dramatically in response to regime performance, historical experience and political socialization, and once established, these orientations have a momentum of their own and may act as autonomous influences on the political set up (Diamond, 1999).

Fore ethnocentric tendencies, bullets rather than ballots have dominated politics in Uganda since 1962; where two governments have been removed by coups, and by a foreign invasion, and another by an armed rebellion. This situation of cultural-military rule, has threatened the economic and social basis on which democratic - processes and progressive development depends. The ethnocentric - military rule and civil wars in Uganda have destroyed lives, skills and assets, undermined institutional competence and accountability, caused widespread personal trauma, suppressed autonomous organisation in
civil society and intensified ethnic hostility and conflict; an element that has made the Pearl of Africa to languish in decay. The post-independent period in Uganda has been characterized by violence and warfare since the end of Idi Amin’s bloody reign, putting groups from different regions against each other, as political manipulation of ethnic and religious differences has/is the primary means for the political elite to legitimize their claim and hold on to power. During the 1962-1971 and 1980-1985 Milton Obote regimes, the national armed forces were dominated by soldiers from northern Uganda, particularly the Acholi and Langi regions, during 1971-1979 late Idi Amin’s regime; the national armed forces were mainly dominated by Amin’s kinsmen from the northwest Nile region. It should also be noted that the downfall of Professor Yusuf Lule was partly due to his ethnic tendencies in government affairs. This set precedence to every leader who captures power to count on his tribesmen in order to influence state affairs, 1980 elections and after Museveni’s National Resistance Army (NRA) had captured power in 1985/86, the pattern created a climate of fear, with an underlying fear of reprisals, should the power captured be lost together with perceived economic injustices.

This has created a negative attitude in the minds of observer, and in 1989 Museveni’s NRM regime began to face resistance against other ethnic rebel-based groups centred in northern Uganda, notably a faction from the Uganda People’s Democratic army (UPDA) and the Uganda Democratic Christian Army (UDCA), formed out of the government’s abuse of human rights – throughout Acholi region in the name of crushing an emerging rebellion. These two rebel forces merged and formed the Lord Resistance Army (LRA) headed by Joseph Kony in 1987. While in the north-west region of West Nile bank, relative peace prevailed until mid 1990s, however the West Nile Bank Front rebel group (WNBF) emerged, claiming to fight for the introduction of multiparty democracy, led by Juma Oris, a former foreign minister in Amin’s regime and in 1996, a large group of soldiers broke away from WNBF and created the Uganda National Rescue Front II (UNRF) after soldiers in WNBF, loyal to Conel Ali Banuze opposed the idea of making a possible deal with the ruling National Resistance Movement (NRM) government. Finally in Western Uganda, primarily in Ruwenzori Mountains, a rebel group calling itself – Alliance for Democratic Forces (ADF) emerged in 1996 in protest of NRM’s government policy of one party state.

In addition, we have inter-state conflicts and the damage of these conflicts is growing up as conditions in the region surrounding also play a part in the Ugandan civil wars, most especially in the
neighbouring Sudan, and Democratic Republic of Congo have had significant implications on Uganda. The Sudan government, a radical Islamist agenda from 1994 provided essential support from the LRA claiming that the NRM government since 1986 aided the Sudanese rebel group SPLM/A. In return thus, the Khartoum government up to 2000 supported LRA, by providing bases, weapons and military training. In return LRA fought alongside Sudanese government against Ugandan government. More so, Sudan also provided ammunition to WNBF, UNRF II, and ADF. In Western region, DRC has actively supported rebel groups against NRM’s government, by providing bases on DRC territory, the WNBF, ADF, LRA and PRA as claimed by the NRM government of Uganda.

Most civil wars in Uganda and subsequent coups have been waged with the superficial intention of national character, however with clear observation of military or civil governments in Uganda reveals that these leaders and groups have a strong element of ethnocentrism, and this can explain why such governments captured power through repressive measures. These armed conflicts waged after national elections. Like 1980 to 1986 NRA bush war can be attributed to the Collier-Hoefller model of conflicts. This model suggests that, civil wars are distinguished between two possible motives, “justice seeking” and “loot seeking”, referring to them as “greed and grievance”. These are elements of ethnocentrism and can explain why people take a violent form to capture power in multi-ethnic societies.

Huntington (1996), argues that the explanatory factors explaining the emergence of civil wars after elections are not ideological, but cultural. In this situation, what counts is blood and beliefs, culture, norms and customs of a group where people identify themselves. In Uganda, ethnicity discriminate humans in a sharp and exclusive way, even more than belonging to a country would do.

Bwengye (1985) in his study about the electoral process in Uganda, analyses the 1980 controversial general elections and its aftermath. He argues that the 1980 presidential election was indeed sham. This election did not only put the country into ridicule, but also endangered political chaos, kidnapping and killing of political opponents, faking of the registration exercise, gerrymandering the constituencies, defrauding of the palling, concoction of results and acquisition of power by fraud and force of arms. This election made no doubt that any future rigging of elections will be met with unprecedented resistance, and that the natives, and Ugandans will continue to live in political and economic agony. Whereas his argument is partly true, it underestimates the central idea which led to sham elections in 1980, which I attribute to
ethnocentrism. Elections in multi-ethnic societies like Uganda make people to elect persons that belong to one’s group, speaking the same language, share culture, history and prejudice, while deselecting others who are from remote areas, speaking unintelligible languages, with different cultures and contrasting interpretations of history.

Bakahumura (1997) believes that in divided societies, ethnic conflict is at the centre of politics. In Uganda, ethnic divisions pause challenges to the cohesion of state where ethnic conflicts based on cultural background of groups cause political marginalization, for competition of limited positions and resources.

The 1996, 2001 and 2006 Elections in Uganda

Ethnocentrism is a stronger factor of identification and much more politicized in Ugandan politics. In assessing how and to which extent ethnocentrism influences elections in Uganda, the paper focuses on how the voting patterns of Ugandans reflect specific groups’ interests in relation to the 1996, 2001 and 2006 national elections. However, the paper randomly selects samples of election results generated from the electoral commission of Uganda and categorize it into four dimensions; West, East, North and South. From an analysis of the three contested elections in Uganda the paper reveals a drastic change of voters’ perceptions on the presidential elections as the graphs reveal.

Figure 1: Perceptions of voter groups from 1996 national elections
Fig. 2: Perceptions of voter groups from the 2001 elections
From Figures 1, 2 and 3 reflects an increase in perception of ethnocentric tendencies in national elections of Uganda. In 1996, elections reflect presidential candidate Y.K. Museveni as strong in all regions with 77.4% in central, 73.1% in East, 30.4% in north and 97.2% in the west – his home region, while his fellow candidates; Mayanja and Ssemwogerere lost heavily even in central; their home region with 3.1% and 19.5% respectively. While in 2001 elections, Y.K. Museveni got 65.3% votes in central, 75.1% votes in East, 46.6% votes in north and 97.2% votes in the west; his home region. Mayanja received 1.0% in central; his home region, 0.9% in the East, 1.9% in the north and 0.4% votes in the west. Besigye got 33.0% votes in central, 20.5% votes in East, 48.9% votes in north and 11.4% votes in west; his home region. Bwengye got 0.1% votes in central, 0.4% votes in East; his home region, 0.7% votes in north and 0.2% votes in west, while Karuhanga got 0.1% votes in central, 0.1% votes in East, 0.3% votes in north and 0.1% in the west; his home region.
In 2006 elections, Museveni got 59.7% votes in central, 55.5% votes in East, 31.3% votes in the north and 78.4% votes in West; his home region. Besigye registered 36.6% votes in central, 41.8% votes in East, 61.6% votes in north and 20.1% votes in the west; his home region. Bwanika and Ssebaana got 0.6% votes and 2.8% votes in central, 1.0% votes and 0.9% votes in East, 2.1% votes and 2.0% votes in the north, and 0.2% votes and 0.7% votes in the West respectively, while Maria Obote got 0.2% votes in central, 0.8% votes in East, 2.9% votes in the north; her strong hold region, and 0.2% votes in the western region.

**Implication of Ethnocentrism on Ugandan Elections**

The elections in Uganda are increasingly competitive along, and seem to be more characterized by a cultural impulse. An analysis of the three election phases reveals that there is a significant change of people’s perceptions on national elections, where people vote specific candidates, tribesmen, or not, because they believe these candidates will better satisfy their group interests. This implies a drastic change, or decline in support of either the ruling party candidate or opposition party candidate. The study reveals that there is a decline of Y.K. Museveni’s support in different regions and an increase in support of opposition candidates in other regions. In Figure 1, Museveni got 77.4% votes in central region compared to his 65.3% votes in 2001 (Figure 2) and 59.7% votes in 2006 (Figure 3) in the same region. In East, Y.K. Museveni in 1996 (figure 1) got 73.1% votes while his support increased to 75.1% votes in 2001 (Figure 2) and was reduced in 2006 to 55.5% votes (Figure 3). This implies that people vote certain candidates, not because they are their darlings, but because they believe such candidates can better serve their group interests. The failure of the candidates to satisfy individual group interests result in hatred and support of an opposition candidate deemed relevant to specific groups’ interests. A prototype of such is revealed in Figures 1, 2 and 3 in the northern region, where Y.K. Museveni got 30.4% votes in 1996, while his counterpart Ssemwogerere got 67.4% votes. In 2001 election, Y.K. Museveni got 46.6% votes while his greatest challenger Besigye bagged 48.6% votes; while in 2006, in the same region, Museveni’s support declined to 31.3% votes while that of Besigye increased to 61.6% votes.

Ethnocentric tendencies are complex in such a way that, groups tend to support candidates of different regions at the expense of their own. This trend is experienced in all regions of Uganda, with the exception of Western region, where Y.K. Museveni has overwhelming won in all the three contests, implying that Y.K. Museveni better satisfies their
interests than any would-be candidate. However in other regions, ethnocentrism tends thwart the region’s candidates at the expense of outlying factors. This is so, because the people in their respective regions tend to concentrate on those candidates, whether tribesmen or not, who convincingly promise to fulfil specific group’s interests. This explains why in 1996, 2001 and 2006 presidential elections, Y.K. Museveni won in Central region with 77.4% votes, 65.3% votes and 59.7% votes, and Kiiza Besigye in 2001 and 2006 won with 33.0% votes and 36.6% votes respectively in central region at the expense of Ssemwogerere and Bwanika who trace their origins in same region.

From the above discussion and analysis, it was discovered that ethnocentrism and ethnocentric tendencies have a significant bearing on the national elections of Uganda. It creates and strengthens ethnocentric divisions among Ugandans, and the reaction is observed when national Presidential elections take place, like the in 1996, 2001, and 2006.

References


Ken Barger, (2010), Ethnocentrism; What is it? Why are people ethnocentric? What is the problem and what can we do about it? Indiana University Indianapolis, USA.


Foreign Direct Investment and Development of Local Firms: Highlighting the Need to Build Absorptive Capacity

Peter Lugemwa
Faculty of Business Administration and Management, Uganda Martyrs University

Many developing countries are investing a lot to attract FDI. As a consequence of the linkages between FDI and the local firms and the resultant technological spillovers, local firms are expected to experience growth. However, there is evidence to suggest that FDI does not necessarily lead to the growth of local firms. Rather, local firms may be competed out of business. It is therefore imperative that local firms build absorptive capacity to benefit from FDI. A minimum threshold of absorptive capacity is necessary for FDI to contribute to the growth of local firms. In this context absorptive capacity is the technological gap between the domestic and foreign firm. Evidence suggests that the wide technological gap between local and foreign firms is impediment to the technological transfer between them.

Key words: FDI, Absorptive capacity, Private sector development

Introduction

Foreign Direct Investment (FDI) is largely thought to lead to a host country’s development through the enhancement of the productivity of local firms and industries. As such many developing countries are investing a lot to attract FDI. Policy makers in developing countries are competing fiercely for FDI. They hope that FDI will provide a major impetus for economic development through the better performance of indigenous firms (Paus and Gallagher, 2006). Most developing country governments have removed restrictions on FDI inflows (Lall & Narula 2004). International donors and development agencies focus more on promoting private rather than public capital flows as catalysts of long-term development.

FDI is widely thought to bring with it, into the host country, a bundle of productive assets, including long-term foreign capital, entrepreneurship, technology, skills, innovative capacity, and managerial, organizational and export marketing know-how. FDI spurs long-run growth through such variables as research and development (R&D) and human capital. MNCs can speed up the development of new intermediate product varieties, raise product quality, facilitate international collaboration on R&D, and introduce new forms of human capital (Ikiara, 2003). Multinationals are seen as agents that increase competition in the host economy, transfer modern technology, and help achieve a more efficient allocation of resources. The greatest
contribution of FDI to economic growth occurs through technology transfer (which includes managerial skill, know-how, production techniques, machinery, information, and other intangible forms of capital). Developing countries, lack the capacity to undertake research and development activities and to generate technological innovations; therefore they rely on foreign source of technological innovations in their growth process (Mucchielli & Jabbour, 2004).

There is emerging evidence however that the flow of FDI doesn’t necessarily lead to the development of local firms. Calagni (2003) maintains that empirical evidence from the developed and developing world demonstrates that the positive spillover effects from FDI do not necessarily occur in practice. Moran et al (2005), maintain that studies of the linkage between Foreign Direct Investment and development have produced confusing and sometimes contradictory results. Some have shown that FDI spurs economic growth in the host countries; others show no such effect. Smallbone (2007) argues that whilst there are ‘a priori’ arguments to support the potential role of FDI-SME linkages between enterprises as a development strategy in transition and developing countries, and some positive case examples, empirical evidence suggests that the potential benefits do not always materialize.

This brings into question the wisdom in giving the too many concessions by developing countries to attract FDI. Smallbone (2007) says that financial incentives to FDI, whether in the form of grants or tax concessions, can represent a considerable burden to developing countries and are unlikely to represent a sustainable strategy for longer-term development. Ikiara (2003) holds that it is not clear whether FDI coming to Africa generates the expected benefits. The dilemma facing the continent therefore is whether to use the scarce resources available for poverty reduction as meagre as they are, or to use them for attracting FDI, whose contribution to poverty reduction is not certain.

Among other things, there is need to develop absorptive capacity to enable local firms to have linkages and spillover effects with multinational firms. In 1989 Cohen and Levinthal defined the absorptive capacity of a firm as its ability to recognize the value of new, external information, assimilate it and apply it for commercial ends. The seminal works of Cohen and Levinthal (1990) offered the highly influential definition of absorptive capacity, as a firm’s ability to: ‘identify, assimilate and exploit knowledge from the environment’. Mowery and Oxley (1995) define absorptive capacity as a broad set of skills needed to deal with the tacit component of transferred knowledge and the need to modify this imported knowledge. Lall and Narula (2004), hold that absorptive capacity is significant for development because it allows
domestic actors to capture knowledge that exists elsewhere. Where absorptive capacity is lacking in domestic firms, they may, instead of reaping technological benefits from FDI, be ‘crowded out’. Borensztein et al (1998) hold that at country level, a minimum threshold of absorptive capacity is necessary for FDI to contribute to higher productivity growth.

**Linkages and Spillovers between MNCS and Indigenous Firms**

**Backward Linkages**

FDI spillovers may result from MNCs having backward linkages with local firms. The backward linkage is the relation between domestic and foreign firms when the domestic firm operates as the input supplier of the sector that multinational operates in (Sayek and Koymen, 2009). Backward linkages with suppliers are the extent to which components, materials and services are sourced from within the host economy, since this can create new market opportunities for local firms (Dunning, 1992). The evidence of positive spillovers is strongest and most consistent in the case of backward linkages, with local suppliers in developing countries (Smallbone 2007).

MNEs can benefit the host economy through relations with local suppliers of intermediate inputs in their production process. As a result, MNE affiliates may transfer technologies to local firms in their value chain; i.e. either to those firms who supply them with intermediate goods or to local buyers in the host country (Narula and Portelli 2004). The most important vertical spillovers happen through the supply chain linkage. Potential indigenous input suppliers for TNCs become actual input suppliers, as they learn to meet international quality standards, and on-time delivery and technological efficiencies that allow for competitive pricing (Paus and Gallagher, 2006). Backward linkages from FDI are beneficial to local suppliers in forms of increased output and employment, improved production efficiency, technological, managerial capabilities and market diversification (Liu and Lin, 2004).

Backward linkages create technology spillovers through several mechanisms (Hoi Le and Pomfret 2008). First, MNEs may transfer technology directly to their local suppliers by training or technical assistance in order to increase the quality of supplier products. Because multinationals demand higher-quality inputs, they will try to improve the efficiency of their intermediate input suppliers by direct knowledge transfer (Sayek and Koymen, 2009). They may help indigenous producers to upgrade their technological capabilities, directly through assistance with technology acquisition and sharing of relevant production knowledge (Paus and Gallagher, 2006)
Secondly, higher requirements for product quality and on-time delivery set by MNEs may provide incentives to local suppliers to improve their production process or technology. As multinationals demand higher-quality inputs to be able to sell their products to foreign affiliates, local suppliers will have an incentive to improve their production techniques. Entrance of multinationals into the final goods sector may create benefits of scale for domestic suppliers (Sayek and Koymen, 2009). Paus and Gallagher, (2006) maintain that TNC affiliates may help indigenous producers to upgrade their technological capabilities, indirectly through the expectation of high quality standards and feedback on technical specifications of suppliers’ output. In the best-case scenario, the newly acquired competitiveness will form the basis for supplier-oriented upgrade.

Forward Linkages and Spillovers
The spillover benefits may be realized through forward linkages when a multinational operates at the upstream sector of the domestic firm; in other words, the multinational operates as the input supplier of the domestic firm (Sayek and Koymen, 2009). Forward Linkages with customers include marketing outlets, which may be outsourced. Examples include petrol stations and restaurant chains; and linkages with industrial buyers, through, for example, value-added after-sales services (Dunning, 1992). Domestic firms who gain access to higher-quality intermediate inputs and to the complementary services provided for these inputs may present higher levels of productivity (Sayek and Koymen, 2009).

Forward Linkages may induce technology spillovers through various channels. First, domestic firms may benefit from supplies of intermediate goods and machinery from MNEs that provide better quality products and lower costs. Secondly, as marketing outlets for MNEs, domestic firms may receive support in the form of training in sales techniques and supply of sales equipment, therefore generating more technology externalities. Thirdly, FDI in infrastructure and business services directly improves the productivity of its customers if these services are introduced or improved (Hoi Le and Pomfret, 2008).

Horizontal Linkages and Spillovers
Horizontal spillovers take place when domestic firms benefit from foreign affiliates which are operating within the domestic firm’s sector (Sayek and Koymen 2009). Horizontal spillovers refer to the technology leakage from multinationals to local firms in the same industry (Liu and Lin, 2004). There are three types of spillover effects, which can
potentially work at the horizontal level: the human capital effect, the demonstration effect and the competition effect. The human capital effect occurs when TNCs train workers and provide them with new knowledge and skills, which workers take with them if they work for an indigenous company or establish their own business. Labour turnover may disseminate technology from MNEs to other firms as workers trained or employed by MNEs move to domestic firms or start their own businesses. Workers employed by a MNE affiliate are most likely to receive and acquire knowledge of superior technology and management practices. Through the switching of employers or even the start up of new business enterprises by of MNE trained personnel, the knowledge embodied in human capital can spill over to other host country-based firms ((Paus and Gallagher, 2006; Narula and Portelli, 2004; Hoi Le and Pomfret, 2008).

The demonstration effect occurs when local firms learn from foreign ones simply by observing and imitating product innovations or novel forms of organization adapted to local conditions (Hoi Le and Pomfret, 2008). The horizontal spillovers may be realized through imitating the foreign technologies, techniques and managerial skills (Sayek and Koymen 2009).

The competition effect occurs as a result of competition generated by the presence of MNEs. Existence of a foreign affiliate in the sector may create a competition effect and domestic firms may try to catch up with multinationals through research and development activities and reallocation of resources (Sayek and Koymen 2009; Blomstrom and Kokko, 1998). If MNEs have advantages over domestic firms in technology, then greater competitive pressure may induce domestic firms to introduce new products or new technology to defend their market share, and to adopt new management method to increase productivity (Hoi Le and Pomfret, 2008).

**Need to Build Absorptive Capacity**

As already indicated, FDI doesn’t necessarily lead to the development of local firms. In other words the inward flow of FDI doesn’t necessary lead to spillover effects between MNCs and local firms. The occurrence of spillover effects between MNCs and local firms is based on the assumption that foreign firms are more technologically advanced than local ones. In fact, the theory of multinational firms supposes that multinationals rely on intangible assets such as technological advantages to be able to compete with local firms who are more familiar with the host country environment. The hypothesis of the technological
superiority of multinationals is the basis that drives the analysis of the technology transfer through FDI (Mucchielli & Jabbour 2004; Markusen and Venables 1999; Rodriguez-Clare 1995; and Saggi 2002).

However the entry of foreign firms will increase the competition faced by local firms and forces some of them to exit the market or to cut back on their output. Thus the net effect of the entry of multinationals on the host economy depends on the technological gap (absorptive capacity) between the multinationals and the local firms. Absorptive capacity refers to the ability of an organization or region to identify, assimilate and exploit knowledge from the environment (Fu 2007, Cohen and Levinthal, 1989). Absorptive capacity is usually proxied by the technology gap between the foreign and the domestic firms (Fu, 2007). Lall and Narula (2004), hold that absorptive capacity is significant for development because it allows domestic actors to capture knowledge that exists elsewhere. Where absorptive capacity is lacking in domestic firms, they may, instead of reaping technological benefits from FDI, be ‘crowded out’. They quote Borensztein et al (1998) who show that, at country level, a minimum threshold of absorptive capacity is necessary for FDI to contribute to higher productivity growth.

In the presence of a large technological gap, the competition effect of the entry of foreign firms will be very important and the linkage effect will be too small to compensate the exit of local firms (the intermediate requirement of the foreign firms is too small relatively to that of the local firms) (Mucchielli & Jabbour, 2004). Studies which consider technology gap between domestic and foreign firms as an absorptive capacity, propose that in the case of large technology gaps an increase in foreign presence may hurt domestic firms through the competition effect (Sayek and Koymen 2009). Glass and Saggi (1998) hold that the larger the gap, the less likely are host country firms to have the human capital and technological know-how to benefit from the technology transferred by the multinationals and, hence, the lower is the potential for spillover benefits.

Kokko et al. (1996) hypothesize that domestic firms can only benefit if the technology gap between the multinational and the domestic firm is not too wide so that domestic firms can absorb the knowledge available from the multinational. Thus domestic firms using very backward production technology and low skilled workers may be unable to learn from multinationals. Indigenous input producers may not be in a position to respond to latent demand from MNCs, because the technology gap may be too big for them to meet TNC demand in terms of cost, product quality, or on-time delivery (Paus and Gallagher, 2006) Kokko et al. (2001) highlight the importance of past experience in
industrialization as a precondition for international transfer of technology and the absence of this experience is concomitant to lack of absorptive capacity by the local sector. Thus the building of absorptive capacity is a necessary prerequisite for local firms to benefit from FDI.

At a country or regional level, to build the absorptive capacity of local firms, the host country needs to develop policies that will help to build local capabilities in order to benefit from FDI spillovers. FDI cannot drive industrial growth without local capabilities (Lall & Narula 2004). Policy needs of capability building exist to provide ‘space’ for enterprises in the infant industry to master new technologies without incurring enormous and unpredictable losses, and to ensure that skill, capital, technology and infrastructure markets meet their needs. There is also a need to coordinate learning across enterprises and activities (Lall & Narula 2004). Policy makers should work with inward investing enterprises, donor organizations and other appropriate intermediaries to develop capacity building programmes for local firms, in order to facilitate the development of backward linkages and other positive spillover effects. Such programmes will need to pay attention to quality management, training and management development programmes. It is important to recognize that a number of governments have adopted special policies and programmes to promote buyer-supplier relationships between MNEs and domestic SMEs, not all of which have been successful. Such linkages cannot be artificially created, since they must be based on a business case and will not develop on a sustainable basis unless the inward investor judges local sourcing to be a viable strategy. The role of government, in this regard, is to facilitate the actions of other actors, namely FDI enterprises, local SMEs, business support intermediaries and the various providers of technology, education, training and financial services (Smallborn 2007).

Human resource practices and organizational routines can play an important role in enhancing absorptive capacity at firm level. Giuliani and Bell (2005) claim that at least when absorptive capacity is analyzed at the firm level, there is a convergence in the literature on the importance of human capital for the purpose of a firm’s capability to access external sources of knowledge. Overall, in the literature, absorptive capacity is often described in terms of the knowledge base of the firm. This is usually identified in terms of human resources (skills, training, experience, etc.) Minbaeva et al, maintain that to enhance absorptive capacity at firm level, there is need to invest in human resource management practices, such as employee training or performance-bound incentives, that support the ability and motivation of the employees to absorb knowledge, and by creating an environment
that enhances frequent communication and knowledge sharing (Minbaeva et al, 2003; Minbaeva, 2005). Rothwell and Dodgson (1991) found that (small) firms need well-educated technicians, engineers and technological specialists to access knowledge from outside their boundaries. For Kamoche and Mueller, (1998) managing human resources to achieve better knowledge-related outcomes means “retaining personnel, building their expertise into the organizational routines through learning processes, and establishing mechanisms for the distribution of benefits arising from the utilization of this expertise”.

Organizational Routines can be seen as essential elements in inter-organizational knowledge sharing and learning. Routines entail standard procedures, rules, and patterns of behaviour which facilitate more effective organizational decision-making processes (Parmigiani and Howard-Grenville, 2011). Firms’ ability to learn will depend on the internal characteristics of the company and on its organizational learning capabilities (Teece et al., 1997; Zahra and George, 2002). Absorptive capacity can be looked at as a set of organizational routines and processes, by which firms acquire, assimilate, transform, and exploit knowledge (Zahra and George, 2002). Nelson and Winter (1982) argued that routines are the aggregation of the individual behaviour of the employees or collective behaviour of the organization. Organizational routines are suggested to be basic components of organizational behaviour and repositories of organizational capabilities. Williamson (1967) argues that information gets lost or at least distorted if it is transferred through different layers of hierarchy. Thus, direct contact among employees from different departments, units and the like should lead to a more efficient transfer of knowledge and a subsequently higher absorptive capacity. As the absorptive capacity of an organization or organizational unit consists of the absorptive capacities of its individual members, the absorptive capacity can be developed by enhancing the absorptive capacities of each individual employee.

Eisenhardt and Martin (2000) argued cross-functional R&D teams, new product development routines, quality control routines, and technology and knowledge transfer routines, and certain performance measurement systems as micro foundation of firms’ dynamic capabilities to deal with technological change and market dynamism. Similarly, Peng et al. (2008) suggested that firm’s innovative performance is dependent on routines involving the search for new technology, process and equipment development, and cross-functional product development.
For local firms to benefit from foreign direct investment there is need to have linkages with multinational companies. Spillover effects from multinational companies to local firms will occur through these linkages local firms need to have absorptive capacity. Local firms must introduce Human Resource Practices and Organizational Routines that would enhance absorptive capacity.

References

Fu Xiaolan (2007), Foreign Direct Investment, Absorptive Capacity and Regional Innovation Capabilities: Evidence From China, OECD Global Forum on International Investment


Liu Zhuomin, Lin Ping (2004), Backward Linkages of Foreign Direct Investment - Evidence from China, Department of Economics, Lingnan University, Hong Kong.


Narula R., Portelli B. Foreign direct investment and economic development: Opportunities and limitations from a developing country perspective, Maastricht Economic Research Institute on Innovation and Technology April 2004


Sayek Selin, Koymen Seda, the Role of Human Capital in Productivity Spillovers from FDI: An Empirical Analysis on Turkish Manufacturing Firms, Bilkent University, February 10, 2009.
Smallbone, David (2007), Foreign Direct Investment and SME Development: Some Policy Issues for Transition and Developing Countries, Kingston University, Surrey
Perceived value of Entrepreneurship Course Content among University Students in Uganda

Jacob L. Oyugi
School of Management and Entrepreneurship, Kyambogo University

Gorretty A. Ofafa
School of Business, Kenyatta University

Wilson M. Mande
School of Business Administration, Nkumba University

This article is part of a study that focused on the contribution of entrepreneurship education to the development of entrepreneurial self-efficacy and intentions among university students in Uganda. It reports on students’ perceived value of course content of entrepreneurship education at universities. The basic problem investigated involved the public concern that many students who study entrepreneurship at the universities in Uganda might simply not have developed self-efficacy and intentions to become entrepreneurs. Primary data was collected mainly through self-administered questionnaire, focus group discussion and in-depth interviews. A total of 255 students, selected through simple random sampling, participated in the study. Correlation matrix results showed significant positive relationship between perceived content and self efficacy (r=0.454, p<0.01), self efficacy and entrepreneurial intention (r=0.418, p<0.01) but no significant relationship between perceived content and entrepreneurial intentions. Students perceived the course content to have given them knowledge about business in general, venture creation and opportunity identification. These are necessary but insufficient for business start up. This implies that reliance on the current course content may not adequately contribute to developing entrepreneurial intentions among university students.

Keywords: Entrepreneurship, Self Efficacy, Entrepreneurial Intentions

Introduction

For both start-up companies and existing firms, entrepreneurship spurs business expansion, technological progress and wealth creation (Lumpkin and Dress, 1996). The Global Entrepreneurship Monitor (Reynolds, Bygrave, and Autio, 2004) confirms the importance of entrepreneurship. A wide range of factors have contributed to the revival of interest in entrepreneurship. Among these are the economic recessions brought about by the Second World War and high unemployment rates in Europe and America. Given the prevailing economic conditions, policy makers worldwide, starting from 1947, began to recognize the instrumental role of entrepreneurship for economic growth.

As a result of proliferating emphasis worldwide on entrepreneurship as the catalyst for economic development and job creation, policy makers have developed a wide range of measures to support
entrepreneurship. Key among these is the call for academic institutions, such as universities, to contribute through appropriate educational programmes, that is, entrepreneurship education (Laukkanen, 2000). According to Gibb and Nelson (1996) entrepreneurship education relates to the development of fundamental management skills and abilities that train the individual to start, manage and develop a business. Formal entrepreneurship education has its origin in the USA and Canada (Gibb, 1993, Kolvereid and Moen, 1997) where most universities started to offer courses in entrepreneurship, along with majors in more traditional business areas such as finance, accounting and marketing.

Formal education had been found to affect attitudes of college students toward entrepreneurship as a career option (Haffen and Ruhland, 1995; Hansemass, 1998) cited by Rasheed (2000). The contribution of entrepreneurship education to economic growth in western society is well documented (Charney and Libecap, 2000; Ronstadt, 1985; Sexton and Upton, 1987; and Donckels, 1991). As noted by Galloway and Brown (2002), in addition to developing skills for business start-up and ownership, entrepreneurship education makes a significant contribution in terms of the quality of graduate start-ups, and it influences general attitudes to entrepreneurship in the long term. In line with the critical role entrepreneurship education serves in the venture creation, numerous studies have been carried out to investigate the effects of entrepreneurial education on entrepreneurship (Charney and Libecap, 2000; Donckels, 1991; Sexton and Upton, 1987; Ronstadt, 1985). Acs et al (2004) cited in Urban (2008) asserted that in high income countries, 57% of entrepreneurs had post secondary education, suggesting that in those countries the education systems tend to build a suitable skills base for entrepreneurs. In poorer countries only 23% of entrepreneurs had post secondary education. These key differences suggest that more educated entrepreneurs are pursuing more opportunity-based ventures, while less educated entrepreneurs are involved out of necessity.

Following a trend initiated in the USA in the 1970s, and considering the contribution of entrepreneurship education, the number of public and private initiatives to train and educate people to be more entrepreneurial has multiplied on both sides of the Atlantic (Fayolle, 2006). This spread to other countries such as, UK, Netherlands, and South East Asia just to mention a few. Kee, Rodrigues, Kundu and Racine (2008) surveyed the status of entrepreneurship education in different countries and indicated that entrepreneurship education exists
in the secondary vocational, medium or at the graduate level through business management courses.

A similar trend is being followed in African countries. Among the African countries Uganda is one of the economies that appreciate formal entrepreneurship education as a way of developing entrepreneurs.

**Entrepreneurship and Entrepreneurship Education in Uganda**

The education system plays a critical role in the economic advancement of nations since it is the primary developer of human resource (Kee, Rodrigues, Kundu and Racine; 2008). However, the quality of education globally, and especially in developing economies, leaves much to be desired. The focus is on rote learning and the education system does not actively encourage students to think on their own and take responsibilities. Ocici, (2006:1) reported that Uganda is one country whose education system still produces skilled and semi-skilled labour, which is oriented towards entry into white-collar employment, academia and the civil service, where it is thought that a sustainable livelihood can be sustained. Anecdotal evidence (GEM, 2004:17) suggests that Ugandans regard white collar employment in the government service or established businesses as the most prestigious form of employment. Self-employment has a comparatively low status, and is undertaken only if one has to.

Research by Walter, Balunywa, Rosa, Sserwanga, Barabas and Namatovu, (2003) has shown that in Uganda there is no clear definition of an entrepreneur. People try to start all sorts of businesses and when they succeed they are referred to as entrepreneurs. The Uganda 2003 GEM National Report looked at the informal sector as one involved in entrepreneurial activities, which contributes to high levels of employment both in urban and rural settings. The report further observed that in 2003 Uganda was the most entrepreneurial country in the world. Uganda had the highest Total Entrepreneurial Activity (TEA) Index (29.2) among all GEM countries, signifying that 29 out of every 100 Ugandans are entrepreneurial. In 2004 Uganda ranked second (33.7) after Peru (42.6), with a slightly higher TEA than (2003). Most of the businesses are family-owned and/or are operated as sole proprietorships. The start-up capital is either from personal savings, borrowed from family friends, or other informal sources. Many who start businesses do not generally innovate but duplicate existing trends, so differentiation in the market is quite uncommon.

The GEM report (2003) also indicates that the few individuals who have succeeded as entrepreneurs only started business because they had
dropped out of school and had no other employment options. This trend could be in line with Ocici’s (2006) observation that entrepreneurship was not championed in the traditional educational system, and it was just introduced in the curriculum of institutions of higher learning in the recent past.

GEM (2004) investigated the extent and quality of training in starting or managing small, new, or growing businesses through the educational system at all levels – from primary school to postgraduate courses. The result of the interview ranked education and training number one (named by 33%) as a contributing factor. The GEM report (2004) also indicates that colleges and universities have enough courses and programmes on entrepreneurship. Much as the GEM report (2004) has documented this, no empirical study has been conducted to measure how the courses are stimulating to the students. The courses may be adding to the stock of existing courses without much value.

Based on the researches conducted, as elaborated in the foregoing sections, it was possible to identify that entrepreneurship education was indeed a felt need and critical for economic development. The aim of this study was therefore to investigate entrepreneurship education in universities in Uganda and to explain the variance in their entrepreneurial intentions. As confirmed by the GEM report (2004) entrepreneurship courses and programmes exist in universities in Uganda as formal academic programmes.

In school context entrepreneurship education can be divided into three aims that are learn to understand entrepreneurship, learn to become entrepreneurial and learn to become an entrepreneur (Hytti, 2002). Therefore entrepreneurship education should be considered both as a content of learning as well as a method of learning. Gibb (2001, 2003) has stated that entrepreneurship education is about learning for entrepreneurship, learning about entrepreneurship and learning through entrepreneurship.

Like any other university programmes, entrepreneurship education programmes at universities have objectives. Table 1 shows the objectives of entrepreneurship courses of each of the three universities included in the study. These were Makerere University Business School (MUBS), Uganda Martyrs University (UMU) and Kampala International University (KIU).

Although the course titles and objectives may be stated differently, they all focus at the same end result of equipping the learner with entrepreneurial skills so as to give the students the confidence and willingness to choose entrepreneurship as a career. For example, Makerere University Business School, which offers Bachelor of
Entrepreneurship and Master of Science in Entrepreneurship, had part of the objectives of its entrepreneurship programmes (2007) as follows: (i) to provide specialist knowledge and skills to students about how to start and manage small businesses, (ii) to inspire graduates of the programmes to start-up and grow businesses and (iii) to inculcate an entrepreneurship culture in graduates of the programmes.

Statement of the Problem

Given the course titles, and objectives of offering entrepreneurship education by the universities in Uganda, it is presumed that entrepreneurial self-efficacy and intentions would be enhanced through entrepreneurship education. It is for this objective that universities try to ensure that students graduate and become entrepreneurial. Yet there has been a debate regarding entrepreneurship education. The debate questions how entrepreneurship should be taught and whether it can be taught at all.

Even when entrepreneurship education is taught, there are still people who argue that it is all purely academic, meaning that students do not acquire the skills that make them job creators or entrepreneurial. For instance, Global Entrepreneurship Monitor, GEM (2003) and National Council for Higher Education, NCHE (2006) point out that the education system in Uganda is too academic and does not deliver any practical entrepreneurial know-how and skills. The education system does not promote entrepreneurship as a career option. Similarly, the Vice Chancellor of Uganda Christian University, Rev. Professor Stephen Noll, commented (Ssenkaaba, 2007) that the tendency for university education in Uganda to concentrate on academic knowledge at the expense of hands-on experience has compromised skill development among graduates. The New Vision (2007) Editor commented that one of the biggest problems with Uganda’s education has been lack of emphasis on practicality. He pointed out that many students do even practical courses without hands on experience. This is consistent with a statement by Tamale (2002) who noted that although entrepreneurship is perceived as a value, attitude and behaviour that enables one to appreciate self-employment as a career, the programmes in the formal education system do not provide such needs and has traditionally produced job seekers and not job creators.

The debate on the effectiveness of entrepreneurship education was the genesis of this study and it was important for answering the sub-question: Does entrepreneurship education contribute to the development of entrepreneurial self efficacy and intentions? This
question is in line with the observation made by Kennedy and Peterman (2003), that the impact of entrepreneurship education, as distinct from general education, on attitudes and intentions of entrepreneurs were still not clear. Accordingly, the purpose of the study was to investigate the impact of entrepreneurship education on students’ perceived self-efficacy and entrepreneurial intentions among university students in Uganda.

Objective and Hypothesis

The objective of this research was to analyse the extent to which university students perceive the content of entrepreneurship education in relation to the contribution to the development of their self-efficacy and entrepreneurial intentions. In order to shape and focus the study, a corresponding hypothesis was formulated as follows: University students who have done entrepreneurship course perceive content of entrepreneurship education to have positively contributed to the development of their self-efficacy and entrepreneurial intention.

Methodology

Design

This paper explores perceived value of entrepreneurship education course content from the student’s perspective. To achieve this objective, a cross-sectional survey design was used since it provides a quantitative or numeric description of attitudes or opinions of a population by studying a sample or cross-section of the population (Creswell, 2003) as well as collection of data from a sample from varied sources at one point in time. The cross-sectional survey is the most commonly used research method in social research (Amin, 2005) and can produce data which permit the establishment of casual relationships (Sarantakos, 2005). Apart from advantages in costs and time, compared with experimental method, cross-sectional studies are the appropriate choice for preliminary studies (to discern and define problems and for exploratory studies, seeking optional actions, (Luck and Rubin 2002:58). Earlier studies by Ajzen (1997) confirm that cross-sectional models are widely used in intentional research without losing validity or robustness.

This research employed a mixed methodology approach using quantitative and qualitative design (Creswell, 2003) which is highly grounded in the philosophy of social sciences literature. The
quantitative data was to help establish the relationship and its magnitude between entrepreneurship education, self efficacy and entrepreneurial intentions of university students. On the other hand, the research methodology relied on qualitative data where the body of data consisted of texts and narration to help in explaining what was happening in as far as entrepreneurship education in the selected universities was concerned. The choice to collect the data using a combination of methods was based on the idea of triangulation for creating a richer and deeper understanding of the phenomenon as well as increases the validity of the research findings.

**Target Population and Sample**

Population of interests for the study was final year students (who studied entrepreneurship) from three universities out of a population of 22 universities in Uganda at the time of the study (2006 – 2009). The targeted universities were: Makerere University Business School, Kampala International University and Uganda Martyrs University. The three universities were purposively selected because they had been teaching and examining business and entrepreneurship courses for more than five years. From these universities, all the final year students (2008/2009) studying entrepreneurship in their programmes were the target. A total of 2,042 students were identified from Makerere University Business School, 85 from Uganda Martyrs and 96 from Kampala International University giving a total of 2,223 to form the student population.

In addition to the students, a total of 37 university managers and academic staff directly involved in managing the programmes and teaching the entrepreneurship courses for each of the three universities were included. This category included: Deputy Vice Chancellors/Principals/ Directors in charge of Academics Affairs, Academic Registrars, Deans of Faculty housing the entrepreneurship education course/programme, Head of Departments and Academic Staff involved in the implementation of the entrepreneurship programme.

**Data Collection and Analysis**

The overall purpose of this chapter is to lay out the concise methods and course of action that was followed in conducting the research for this thesis. This was accomplished in this section by describing the strategy and procedures that were employed in the data gathering efforts. The questionnaire was the main data collection instrument. Even though
the questionnaire was the main method of data collection from the selected university students, focus group discussion and interviews were also used to gather more information from students, lecturers, heads of department, and deans.

Data obtained from the questionnaires was analysed using SPSS 17.0 software programme. The analysis was done at three levels: univariate, bivariate and multivariate. At the univariate level, descriptive statistics were used; at the bivariate level correlations were used to determine relationships between variables; and at multivariate level, regression analysis was executed in order to determine the effect of the independent variable on the dependent one. Furthermore, a path analysis was used to develop a predicative model about the relationship between entrepreneurship education and entrepreneurial intentions among university students in Uganda.

Results and Interpretation

This paper presents a report on the perceived value of course content of entrepreneurship education among university students who were in the final year of their university education.

All the three universities offer mandatory entrepreneurship courses for all students doing business courses. Makerere University Business School offers it also as an independent programme at both undergraduate and graduate level. Regardless of the differences, course content was one of the constructs of entrepreneurship education used to explain entrepreneurship self efficacy and intention. Students’ perceptions of content of entrepreneurship courses were expected to be positively related to their level of entrepreneurial self efficacy and entrepreneurial intention. The three universities have entrepreneurship education curricula with detailed course contents. Their methods of generating course contents, according to the Heads of Department, included: (i) benchmarking with other universities. Benchmarking was the most common method (67%) of generating content for entrepreneurship education just because competitor universities are offering them, (ii) analysis of job market, (iii) input from industry experts (iv) discussion with entrepreneurs, (v) using visiting professors, and (vi) knowledge acquired through training. The most common topics identified in the content of the courses include: the concept of entrepreneurship, characteristics of an entrepreneur, entrepreneurial process and development. NCHE (2009) gives details of the courses offered by Makerere University Business School (MUBS), Uganda Martyrs University (UMU) and Kampala International University (KIU).
The findings indicate that the course titles are unique to each university though the topics and content overlap in most cases. What is not clear is whether the overlapping courses are delivered in the same way across universities and given the same number of contact hour. There was no standard way of presenting the course content in terms of topics, content, duration and methods so as to compare. The variation could be due to the fact that universities are autonomous in designing and implementing the courses of study. Although there appear to be variation in the presentation, the overall purpose is for students to take more responsibility for themselves and their learning, to try to achieve their goals, be creative, discover existing opportunities and in general to cope in the complicated society. Moreover, the aim is for them to take an active role in job markets and consider entrepreneurship as a natural career choice. The extent to which the variations in course content affect the students’ self efficacies and intentions is not much of the focus of this study.

However, in an attempt to reduce the effect of variations in the course offering, National Council for Higher Education (2009), started controlling quality by setting minimum standards for all programmers and courses in universities in Uganda. Entrepreneurship education was among the first programmes for which a minimum requirement standard was set. The minimum standards were based on the courses offered in each of the three years, contact hours, credit unit and duration for each course. The National Council for Higher Education regulates quality by establishing the minimum standards for content to which all universities, in Uganda, teaching or planning to introduce the programme must comply.

While minimum standard for entrepreneurship course content exists, analysis of the course content revealed that a great deal of the content relate to management, finance, marketing and other functional areas. These functional areas assumes the company is in existence and have very little to do with creation of new ventures. Courses that relate to entrepreneurship still remain limited. For instance, there are only two courses out of eight in year one that directly relate to entrepreneurship. Similarly there are only two out of eleven courses in year two that relate to entrepreneurship and so is the same structure in year three. This issue was raised in the focused group discussion with the lecturers. According to the findings the lecturers have at times had difficulties in identifying contents and means by which to respond to challenges posed by entrepreneurship education. It also seems that the entrepreneurship education in terms of the given content is still rather
insignificant. One of the gaps in the content is business idea development.

It can be argued that entrepreneurship education can be delivered in a number of different knowledge contexts but the common context is that of setting up a business or self employment. It has been argued by Gibb (1987, 2002) that the conventional organization and delivery of knowledge around functional inputs of management, finance, marketing, operations, human resource development, and so on, is not appropriate. The fact that so much knowledge for business start-up is delivered in this way reflects the corporate ‘institutional’ bias of the universities. It does not reflect the holistic ‘knowledge of the totality of the business’ that is needed by the entrepreneur. In reality there is no such thing as a marketing problem, a finance problem or human resource problem, only multifaceted problems and opportunities. On the other hand it was observed that the business plan is often placed at the centre of entrepreneurship education. Yet there is little evidence to demonstrate that such plans are central to developing entrepreneurial self-efficacy and intentions at the start-up stage. Business plans were almost certainly not invented by entrepreneurs but by bankers, accountants, suppliers of finance and donars. They are important as relationship management instrument in raising finance from and through the above but are probably not core to initial entrepreneurial endeavour. While much of the content is interesting in itself it does not necessarily equip the student with the entrepreneurial spirit.

If for example the aim is to primarily encourage students to think about, and be excited by, the opportunities for personal entrepreneurship then the focus would be much more on the ‘need to know’, ‘know how’, and ‘know who’ of going into business. A key question to ask in this respect is what would an entrepreneur really need to know about and for what outcome? In other words there is need to have an entrepreneur’s profile. One of the things expected of an entrepreneur is opportunity recognition. Opportunity recognition is commonly considered the first stage of the entrepreneurial process (Christensen et al., 2004; Timmons, 1999), which Bygrave and Hofer (1991) argue involves all functions, activities and actions associated with perceiving opportunities and creating organizations to pursue them. Entrepreneurship education in the higher education system primarily targets students in the pre-entrepreneurial phase (Leskinen, 1999; Melin, 2001; Peterman and Kennedy, 2003) cited by Luoto et al (2009). While writing a business plan is a common focus of entrepreneurship education in universities, Paasio et al., (2005) in Luoto et al, (2009),
argue that the business idea development process is not paid sufficient attention.

The entrepreneurship education content as it stands raises a number of questions: First, to what degree does the content have activities that seek clearly to develop opportunities, initiative taking, commitment to see things through, networking capacity and incremental risk taking? Second, to what degree does the content help the students feel the world of living with uncertainty, building know who and trust relationships, learning by doing, problem solving? Third, to what extent does the content seek to inculcate and create empathy with values such as self belief, strong sense of ownership, belief that rewards come with own effort, believe can make things happen and strong belief in freedom to take action? Fourth, to what degree does the content help students understand the benefits from an entrepreneurship career and compare with employee career? Fifth, to what degree does the content take students through the total process of setting up an organization from idea to survival and provide understanding of what challenges will arise at each stage? Sixth, to what degree does the content build the capacity to find an idea, appraise an idea, see problems as opportunity, improve emotional self awareness and know where to look for answers? Seventh, to what extent does the programme help students to identify the appropriate scale of a business to make a living, finance the business appropriately from different sources, develop a business plan as a relationship communication instrument?

In order to analyse and understand the issues of entrepreneurship content raised above, seven items were used to measure the desired outcome of the content of entrepreneurship education. These were capacity for opportunity seeking, creating empathy with key self belief, confidence to consider entrepreneurship as a career option, capability of setting up an organization from idea to survival, seeing problems as opportunity, living with uncertainty and developing a business plan. These outcome dimensions of content were investigated to establish which of them are important. To do this, exploratory factor analysis was used to examine the underlying factor structure of the items for measuring expected outcome of content.

Out of the seven items only five emerged to be important with eigenvalue greater than 1. These were loaded on one factor. Since only one component was extracted, the solution could not be rotated and it was reported using the component matrix. This factor was referred to as entrepreneurial capabilities. Individuals who perceived themselves as “entrepreneurially capable” are expected to be alert and sensitive to opportunities, and able to take advantage of such opportunities if they
consider the endeavour worthwhile. The result of the factor analysis is presented in Table 1.

**Table 1: Component Matrix for Content**

<table>
<thead>
<tr>
<th>Outcome Dimension of Content</th>
<th>Entrepreneurial Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>See problems as opportunity</td>
</tr>
<tr>
<td>2</td>
<td>Capable of setting up organization</td>
</tr>
<tr>
<td>3</td>
<td>Opportunity seeking</td>
</tr>
<tr>
<td>4</td>
<td>Empathy and self belief</td>
</tr>
<tr>
<td>5</td>
<td>Cope with uncertainty</td>
</tr>
<tr>
<td></td>
<td>Eigenvalue</td>
</tr>
<tr>
<td></td>
<td>Percent Total Variance</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis. a. 1 components extracted.

The first item related to desired outcome is developing the students’ capacity to see problems as opportunity with coefficient of 0.73, measured entrepreneurial capabilities strongly. This involves scanning the environment to identify problems which can be translated into opportunity. This relationship is consistent with Christensen et al., (2004) and Timmons, (1999) who stated that opportunity recognition is commonly considered the first stage of the entrepreneurial process, which Bygrave and Hofer (1991) argue involves all functions, activities and actions associated with perceiving opportunities and creating organizations to pursue them. The second (item 2) is the capability of setting up organization with coefficient of 0.70. The third item (item 3) pointed towards the development of opportunity seeking behaviour seeking with coefficient of 0.69 which is closely followed by empathy and self belief with coefficient of 0.68. On the other hand, the fifth item (item 5) described the ability to cope with uncertainty and complexity of the world, as the least measure of entrepreneurial capability with coefficient of 0.65. These items are the ones that measured entrepreneurial capabilities strongly. All the items explained 45.2% of the students’ entrepreneurial capabilities.

It can be argued that knowledge input (entrepreneurship education) can be delivered in a number of different knowledge contexts dependent upon the desired outcomes stated above. Although the conceptualization of entrepreneurship education content appears to be widely accepted by the universities in Uganda, in practice it is difficult to link it with clear, targeted outcomes. Furthermore, the conventional organization and delivery of content around functional inputs of marketing, human resource development, operations and finance is not

84
appropriate. The fact that so much knowledge for business start-up is
delivered in this way reflects the corporate ‘institutional’ bias of the
universities. It does not reflect the holistic ‘knowledge of the totality of
the business’ that is needed by the entrepreneur. In reality there is no
such thing as a marketing problem, or a finance problem for instance,
only multifaceted problems and opportunities. The functional delivery
approach also tends to lead to an over-sophistication of the knowledge
delivered.

The priority is to deliver on a ‘need to know’ and ‘need to apply’. The
desired emphasis which also substantially affects the organization of
content is upon ‘know how’. Thus instead of delivery of generic
marketing material, the emphasis might be upon, ‘how to find
customers’, ‘how to educate the customer’, ‘how to build a customer
base’, ‘to learn from customers’ and so on. The emphasis is therefore
upon how to take up different opportunities, anticipate problems and
transform this into new venture. This argument is raised in recognition
that the major learning field for those who set up and run businesses is
that of responding to and anticipating the desires of the stake holders
(customers, suppliers, financiers, agents, professional service providers,
tax and other regulatory authorities, other business persons, family,
staff and competitors).

As noted in all the entrepreneurship courses, the business plan is
often placed towards the end of content with the hope that the students
would be able to translate the acquired knowledge and skills into a
viable venture. Yet Gibb (2006) argues that there is little evidence to
demonstrate that such plans are central to entrepreneurship at the start-
up stage. They were almost certainly not invented by entrepreneurs but
by bankers, accountants, suppliers of finance, regulatory bodies and
donors. They are important as a communicating tool and management
instrument in raising finance from the above sources but are probably
not core to initial entrepreneurial endeavour. However, respondents in
Uganda say that the idea of business plan is good because it enables the
students go through the rigour of business start up. They say that it the
practice of real business but on paper. In their view, they strongly
recommend business plan competition and institutional support for the
best business plan for implementation. Finally linked with this is the
importance of delivering ‘know-who’ capacity in recognition that it is
the capacity to build, work and learn from networks that arguably is the
most critical factor in entrepreneurial endeavour.

This result was further analysed using statistical analysis to establish
the extent to which content contributes to the development of self-
efficacy and intentions. First, Pearson correlation matrix was used to
examine the relationships between content, self efficacy and intention variables. The results of the correlation matrix are shown in the Table 2.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content(1)</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Efficacy (2)</td>
<td>.454**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Entrep.Intentions (3)</td>
<td>.049</td>
<td>.418**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (1-tailed).

The result indicates that Content of entrepreneurship and Self Efficacy were found to be significantly positively correlated (r = 0.454, p<0.01) supporting part of hypothesis one. However, the result did not show support for significant relationship between content and intention. Instead relationship between self efficacy and entrepreneurship intention was significantly positively correlated (r = 0.418, p<0.01). This finding was further explored by conducting interviews with the students. The result of the interviews with 20 students, revealed that content and time allocated was not enough. They reported that course unit in entrepreneurship is usually done in one semester and for two hours per week. They would prefer the course to be spread throughout the programme.

Two Students commented that there is lack of continuity since the course unit is done in one semester and usually in the second year of their study. This creates a gap in as far as flow of knowledge is concerned and students lose the interest and see less value of the course. Instead they concentrate on their core courses. Despite the limited scope of content and time, all the 20 students interviewed admitted that entrepreneurship course is a good course and whatever content they learnt was in line with their expectations. This finding means that students appreciate more content and time in order to build the necessary skill and be able to assess whether they are entrepreneurial. This is consistent with De Noble et al (2000) findings that students have to be given time to develop an appreciation for the myriad of activities necessary to raise capital, attract critical human resources, and define the company’s core purpose. Thus the course contents determine whether the students can build the confidence and intentions to be entrepreneurial or not, and it is the means of assessing the curriculum as a whole. Johanisson (1991) asserts that if the quality of content is substandard, teachers will find it difficult to address issues related to confidence building in their students which in turn will affect their entrepreneurial intentions.
The issue of content of entrepreneurship education was probed further during a focus group discussion. In their view, they agreed that the content was good but suggested that risk management was important missing link in the content. They argued that the students would receive the knowledge but would still lack confidence to venture into entrepreneurial activities because of fear of the risks. However, a lot has been said about content but the question that remains to be answered is whether it is the content which is at stake of skills-building that are not well taken care of. It was found that the issue of timetabling could not allow for skill-building which requires longer hours during and outside the lectures. First there are so many other courses in any one semester which leaves very little room for effective skill-building hence less confidence-building and less entrepreneurial intention.

Correlation matrix results did show significant positive relationship between content and self-efficacy (r=0.454, p<0.01), self-efficacy and entrepreneurial intention (r=0.418, p<0.01) but could not be used to predict their behaviours. Linear regression takes us a step further in the direction of prediction. If the correlation between content, self-efficacy and intention variables is sufficiently consistent, content can be used to predict self-efficacy or intentions.

The model summary table provides the value of R and $R^2$ for the model that has been derived. R has a value of .454 which indicates the correlation between content and self-efficacy. The value of $R^2$ is .206 which tells us that content accounted for 20.6% of the variation in entrepreneurial self-efficacy. This means that 79.4% of the variation in entrepreneurial self-efficacy cannot be explained by content alone in the model. Therefore, there must be other variables that have influence also. Adjusted $R^2$ shows that 20.3% of the variance in entrepreneurial self-efficacy of the students is explained by content of entrepreneurship. It can be said that content contributes 20.3% to the development of self-efficacy. The model also produces Durbin-Watson test statistics value of 1.833. The test statistic can vary between 0 and 4 with a value of 2 meaning that the residuals are uncorrelated. The value depends upon the number of predictors in the model, and the number of observations. As a very conservative rule of the thumb, values less than 1 or greater than 3 are definitely cause for concern (Field, 2005:170).

Meaning there is a problem of correlation. Since the result of the Durbin-Watson test statistic is 1.833>0.203 Adj $R^2$, it can be concluded that the model is well specified. This means that content and self-efficacy are uncorrelated.

The regression output compares very well with the correlation (r=0.454, p<0.01) results and therefore it can be concluded that the
hypothesis was partially achieved. Content positively contribute to development of entrepreneurial self efficacy. A separate regression analysis was conducted with entrepreneurial intention as the dependent variable with content and self efficacy as predictor variables. The results were presented in Table 3 where there is no significant relationship between content and entrepreneurial intention (r=-0.157, p>0.01).

Table 3: Relationship between content, self efficacy and entrepreneurial intention

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.492</td>
<td>.018</td>
<td>27.603</td>
</tr>
<tr>
<td>Content</td>
<td>-.039</td>
<td>.021</td>
<td>-1.851</td>
</tr>
<tr>
<td>Self Efficacy</td>
<td>.164</td>
<td>.029</td>
<td>.485</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Entrepreneurial Intentions

Results show that self efficacy is a significant predictor of entrepreneurial intention. The overall regression was significant at 1% level. The modal summary is shown in Table 4.

Table 4: Regression Model with entrepreneurial intentions as dependent variable

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>Adjusted R Square</th>
<th>R Square</th>
<th>Std. Error of R</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.442a</td>
<td>.195</td>
<td>.183</td>
<td>.20012</td>
<td>.195</td>
<td>16.476</td>
<td>2</td>
<td>136 .000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Self Efficacy
b. Dependent Variable: Entrepreneurial Intentions

The regression model predicted 18.3% of the variance in entrepreneurial intention. The table reveals that content is not a significant predictor of entrepreneurial intention unless mediated by self efficacy.

Scalar Estimates (Group number 1 - Default model)

Discussion of Findings

The result from this study indicates that content of entrepreneurship and Self Efficacy were found to be significantly positively correlated (r = 0.454, p<0.01) supporting part of hypothesis one. However, the result did not indicate significant relationship between content and intention. This was confirmed by result of the path analysis which indicated a very weak effect (0.06). Instead relationship between self efficacy and
entrepreneurship intention was significantly positively correlated \( r = 0.418, p<0.01 \). This implies that the students had gained confidence from the knowledge they acquired which might not be necessarily from the content. This finding was based on how the students perceived the knowledge passed onto them as entrepreneurs to be.

According to Vesper (1998) there are four kinds of knowledge useful to entrepreneurs: first is business general knowledge which applies to business in general, both new and established firms; second is venture general knowledge which is distinct from business general knowledge but fairly general to ventures; third is opportunity specific knowledge which is the knowledge about the existence of an unserved market and/or about the resources needed for venturing in it; and lastly is venture-specific knowledge which is the knowledge on how to produce a particular product or service. The last two are generally the most important ones for entrepreneurial success, but business schools normally offer courses that foster the first two categories of knowledge. It is widely recognized that most of them educate ‘about’ entrepreneurship and enterprise rather than educating ‘for’ entrepreneurship. Only rarely do they focus on developing in their students the skills, attributes and behaviour of the successful entrepreneur.

This situation was comprehensively described in an interview with the students and is also evidenced by the content of textbooks on entrepreneurship. For instance, most of the content talk about the entrepreneurial process, opportunity recognition, entry strategies, market opportunities and marketing, creating a successful business plan, financial projections, venture capital and other forms of financing, franchising and corporate entrepreneurship (intrapreneurship). While these skills traditionally taught in business schools are necessary, they are not sufficient to make a successful entrepreneur.

There is also little uniformity in program offerings across universities, and this is commonly considered related to the fact that entrepreneurship is an emerging field and there is no entrepreneurship theory yet which can decrease the divergence. This may need to be revised. Revision in course contents was first suggested by Fiet (2001) who emphasized that the only way to effectively teach entrepreneurship is to strongly rely on theory. Fiet (2001a) stresses that there is nothing more practical than theory. He stated that entrepreneurship theory is a set of empirical generalizations about how entrepreneurs should behave that allows for predictions of true outcomes. Theory must be taught to aspiring entrepreneurs because nothing is more practical than understanding the consequences of committing resources to launch a
venture. On the basis of a survey, Fiet (2001b) notes the divergence in topics within entrepreneurship courses and attributes it to the lack of a comprehensive theory of entrepreneurship.

Even though a comprehensive theory exists, still little attention has been given to how to measure the effectiveness of entrepreneurship education content towards individual. The main problems related to the assessment of entrepreneurship education content may be measuring output from the entrepreneurial education process. Although it seems difficult to determine causality, some output measures such as increased orientation towards entrepreneurial careers could also be examined. A satisfaction index of students regarding course content, usefulness and instructor appeals can be used. Even though this seems to be a reasonable measure of satisfaction, this kind of instrument does not state directly whether the students learnt anything. On the contrary, the key question for assessing entrepreneurship education content should be: what value is added by a specific course?

On the other hand there are tests, assignments, projects and examinations conducted in the course of the training. Still, this measurement does not grasp the real value the content of entrepreneurship education generates. Programmers in entrepreneurship education generally have the overall objective to bring about some kind of change in the economy, society or even individuals. The expected changes may involve change in behaviour, such as establishing new venture. Measuring dimensions of change implies also that the point of departure has to be established in addition to the achieved results of entrepreneurship education content. All these may require careful evaluation before, during and after the educational process in order to trace and assess the changes due to the pedagogical intervention.

The debate on the contents of entrepreneurship education may be partly related to the debate on the objectives of entrepreneurship education and which target group should be focused at the universities. If the objective is to increase the number of new enterprises resulting from the university context, the tendency will be towards contents which are tailored to the needs of those directly interested in becoming entrepreneurs. However if the objective is to improve the social culture of entrepreneurship, suitable target groups would be future opinion-leaders, decision-makers or managers in larger companies who require more precise analytical skills, situational decision-making and action-taking aspects of entrepreneurship. Further responses from the students interviewed together with that of the lecturers during focus
group discussion, showed that feasibility study and risk management were noted as problems. Therefore some of the topics that students perceived as important to entrepreneurial learning were not being adequately covered in the content. Based on these results, one could deduct that entrepreneurship education content may have less value as far as the development of entrepreneurial intentions among university students in Uganda is concerned.

**Conclusion**

This paper presented students’ perspectives on the perceived value of entrepreneurship education content in relation to developing their entrepreneurial self efficacy and entrepreneurial intentions. Based on the findings and discussions presented in this paper, it can be concluded that universities in Uganda have traditionally focused on offering courses which are relevant only prior to the “awareness” of “new venture creation” and management of established business organizations. Furthermore, it was found that while educators frequently debate the issues surrounding the appropriate content of entrepreneurship education, no concrete theory of entrepreneurship is available to guide the content development. The current content of entrepreneurship education is overcrowded with courses that relate to functional areas of established businesses. The content is necessary but not sufficient in developing the entrepreneurial intentions of the learners.

**Recommendation**

The finding under objective one points out that the content of entrepreneurship is overcrowded with theoretical courses that relate to functional areas of established businesses. Based upon this finding, entrepreneurship scholars should review the content to have more practical than theories. Where the content is derived from various courses as it is the case at the time of this study, senate should assess value added by each course to the development of entrepreneurial intentions among university students and leave out those that may add no value. Arising from focus group discussion, one of the key areas to be emphasized in the content of entrepreneurship is feasibility study and risk management. As providers of entrepreneurial knowledge and skills, students are our “customers” and universities must continually seek out their perceptions of how well their needs are being served.
References


and Development Centre. Turku School of Economics and Business Administration, Turku.


Utilization of Teaching Resources and Academic Performance in Technical Colleges in Oyo State, Nigeria

Timothy Okemakinde
Department of Educational Planning, University of Ibadan

Segun O. Adedeji
Department of Educational Planning, University of Ibadan

Jude Ssempebwa
School of Postgraduate Studies and Research, Kampala International University

The debate on technical education in Nigeria has centred on access to and the quality, funding and benefits of technical education. Questions relating to differences in the resources allocated to technical colleges; and the relationship between the availability and utilization of resources and academic performance in these colleges have remained unanswered. Taking the case of Oyo State, therefore, this study was conducted to examine the variations in the resources allocated to these colleges; and the relationship between the availability and utilization of resources and academic performance in the colleges. Data were collected using documentary analysis, questionnaire and observation. Analysis of variance in the resources allocated to the colleges indicated that there were variations in the resources allocated to the colleges. Notwithstanding, all the colleges studied were under-facilitated. Pearson Product Moment Correlation and regression analysis indicated significant relationships between the availability and utilization of resources and academic performance in the colleges.

Keywords: Technical education; Resources utilization; Financing higher education

Introduction

The tertiary education sector in Nigeria is tasked to be a driver of socioeconomic development (Adedeji et al., 2003). Over the years, therefore, it has expanded phenomenally, enrolling more students each year (Oyebade, 2007, Akintayo, 2003 & Babalola & Jaiyeoba, 2008). However, there has also been a marked decline in academic performance at this level of education. This has been especially true of technical education, despite the fact that its provision and attainment is considered as one of the most important means towards the attainment of national development (Longe & Adedeji, 2003; & Adedeji, 1998). This could be blameable on the availability, and utilization, of teaching resources in the colleges, among other factors.

In spite of this hunch, hitherto, quality information on the relationship between the resourcing of technical colleges and academic performance of their students has been nonexistent, notwithstanding the fact that it is critically necessary—to highlight inadequacies in the
facilitation of the colleges (if any) and to highlight the costs of these inadequacies (if any) so as to motivate and guide improvement.

**Research Hypotheses**

It is against this background that, taking the case of Oyo State, this study delved into the relationship between institutional resources and academic performance in technical colleges, specifically looking at the availability and utilization of resources in the colleges and the college students’ examination results.

Grounded on the hunch that academic performance in the colleges could be related to the availability and utilization of the resources that are requisite to quality pedagogy and, subsequently, academic excellence, the study undertook to verify the hypotheses that: 1) there is no significant variation in the resources allocated to the technical colleges in Oyo State; 2) there is no significant relationship between the resources allocated to the technical colleges in Oyo State and the academic performance of their students; and 3) there is no significant relationship between the utilization of the resources allocated to the technical colleges in Oyo State and the academic performance of their students.

**Methodology**

**Design**

The study was conducted following a cross-sectional survey design, by which both primary and secondary data were collected through the administration of a questionnaire, on the availability and utilization of resources in the technical colleges; analysis, of the colleges’ records on resources acquisition and utilization and on their students’ academic performance; and observation of the occupancy of teaching spaces and frequency of use of the colleges’ resources. Data collection focused on the period 2002 to 2006. The validity of the data collection instruments was ascertained through expert judgment while the reliability of the questionnaire was established through a pre-test, the results of which were subjected to an internal consistency test using Spearman Brown’s formula, which returned a consistency coefficient of .86, meaning that it was consistent.
Sample
Two out of the five technical colleges in the state were involved in the study and, using stratified sampling, 80 subjects were purposively selected to represent all the categories of technical college staff and students; and all the trades that are offered in the colleges namely, motor mechanics, painting and decorating, woodwork and carpentry, bricklaying, electronics, metal work and refrigeration and air conditioning.

Data Analysis
Analysis of Variance was used to examine the variation in the allocation of resources to the colleges. In addition, the Pearson Product Moment Correlation test was used to measure the relationship between the allocation and utilization of resources on one hand and students’ academic performance on the other. Finally, Ordinary Least Squares regression was used to estimate the lag between the availability and utilization of resources after which the results were related to indicators of academic performance.

Results and Discussion

Resources Allocated to the Colleges
To test the hypothesis that there is no significant variation in the resources allocated to the technical colleges in Oyo State, the data collected on the resources that were allocated to the colleges over the period that was studied was subjected to an analysis of variance test at the confidence level of $\alpha=.05$. The findings were that there are significant variations in, both, the quantity and quality of resources allocated to the colleges. The respondents said that these differences have been due to differences in the age, reputation, location and enrolment of the colleges.

Differences in the vibrancy of the colleges’ staff and students’ associations; ability of the colleges to attract donations; lobbying power of the colleges’ managers; and favourability of the prevailing economic situation were also cited for the differences in the facilitation of the colleges. Specifically, the study established that the older, flagship, urban-based and larger college attracted more resources from, both, the government and philanthropy. This finding is corroborated by Adedeji

Taking the case of vocational secondary schools, Adedeji (1998) affirmed a direct relationship between the age, location and student population of the schools and their facilitation while, taking the case of Makerere University, Kampala, Ssegawa (1995) established a significant relationship between the vibrancy of the university’s staff and students’ associations namely, Makerere University Academic Staff Association and students guild, on one hand, and the facilitation of the university, by the Ministries of Education and Finance on the other hand, which is in consonance with Mamdani (2007). Furthermore, Ezewu (1998) and Mbaekwe (1986) observe that, compared to other schools, urban-area-based schools usually attract more resources.

Availability of Resources and Students’ Academic Performance

To test the hypothesis that there is no significant relationship between the resources allocated to the technical colleges in Oyo State and the academic performance of their students, the data collected on the resources allocated to the colleges and their students’ academic performance were subjected to regression analysis, using the Ordinary Least Squares model.

Subsequently, the β coefficient and constant for the relationship were respectively established at .28 and 32.62, indicating that there is a positive relationship between the resources allocated to the colleges and the academic performance of their learners. Specifically, the model Y=32.62+0.28x was established for the relationship, meaning that increasing the level of resources allocated to a college by 100% would improve the academic performance of its students by 28%.

This finding rhymes with Adedeji (1998), who, taking the case of vocational secondary schools, observed that there is a causal relationship between the availability of teaching resources and academic performance of learners, adding that imbalances in the allocation of tutors and other resources would lead to academic performance gaps in the institutions. In addition, in affirming relationship between the availability of resources and the academic performance of learners, this study concurs with Oloyede (2003) in his contention that inadequate expenditure on teaching resources in vocational education institutions will impinge on students’ academic performance, which is appreciable, since mastery of the skills offered by the institutions invariably necessitates the availability of enough qualified tutors and quality equipment.
At the level of confidence $\alpha = .05$, however, the asymptotic level of sig. was established at .32, leading to the decision to accept the null hypothesis. This means that the relationship established between the availability of teaching resources and academic performance of learners established is not (statistically) significant.

A possible explanation for this finding is that, even though one of the colleges was found to be better facilitated, critical analysis of the findings (from observation and the questionnaires administered) indicated that, in general, both the colleges were ill-equipped, which is why differences in the academic performance of their students were insignificant. In both the colleges, the workshops, which are supposed to help students to practise the skills that they acquire from their instructors were either rundown, as a consequence of ill maintenance and, ironically, under- (or even non-) utilization or entirely nonexistent, meaning that, even though more resources were allocated to one of the colleges in the past as is explained in the foregoing subsection, today, many of these resources are inoperative. Thus, the conclusion, from the study of investment in ICTs in Rwandan higher education, that the allocation of equipment to institutions must be complemented by a focus on their functionality (maintenance and utilization) (Ssempebwa et al., 2007) is relevant to investment in the facilitation of the technical colleges in Oyo State.

**Utilization of Resources and Students’ Academic Performance**

Through observation, data were collected on the occupancy and frequency of use factors of the physical teaching resources in the colleges while data on the utilization of the instructors were elicited from them (using questionnaire). To test the hypothesis that there is no significant relationship between the utilization of the resources allocated to the colleges and academic performance of their students, the findings on the occupancy of teaching spaces and frequency of use of the physical resources and the views of the instructors were correlated with the findings on the academic performance of the students of the colleges in a Pearson Product Moment Correlation test.

The results were significant at the level of confidence $\alpha = .05$, hence the decision to reject the null hypothesis, meaning that there is a significant relationship between the utilization of the resources allocated to a colleges and the academic performance of its students. That way, the study affirms that, crucially important though it is, the availability of resources is not a sufficient condition for good academic performance; the resources must also be put to optimal use. Indeed, academic
Performance was found to be better in departments where resources were put to more optimal use, which is in congruence with Owolabi (1993), who reports that streamlined utilization of teaching resources improved the quality of pedagogy at the University College of Winneba, Ghana; Oloyede (2003), who observes that effective utilization of school resources significantly impacts on the level of students’ academic attainment; and Farombi (1998), who concludes that effective utilization of educational resources could enhance the academic performance of learners.

**Conclusions and Recommendations**

It was, therefore, concluded that, the differences in the facilities allocated to the technical colleges in Oyo State established by the study notwithstanding, on the whole, these colleges are inadequately facilitated. This has affected the quality of pedagogy and, subsequently, academic performance in these institutions. To this end, it is recommended that their managers, as well as staff and students, lobby the relevant government departments for greater facilitation and devise alternative means of acquiring the necessitated facilities like the attraction of philanthropic donations and levy of fees, since governmental capacity to facilitate the colleges may be limited by the prevailing economic hardships. However, it was also concluded that acquisition of the facilities necessitated is a necessary but insufficient condition for the enhancement of pedagogy and, subsequently, academic performance in these colleges. Thus, the study recommends that the managers, as well as staff and students, of the colleges endeavour to put their facilities to optimal use.

**References**


School Adjustment among Pre-Primary Pupils in a City Setting

H. O. Owolabi
University of Ilorin, Nigeria

R. J. Ogidan
African Council for Distance Education, Nairobi, Kenya

Against the background of rising demand for crèche, nursery and kindergarten centres in most urban settlements in Nigeria, children continue to face school adjustment problems which are associated with early schooling life in most parts of the world. This study investigated school adjustment problems faced by children during their transition between home and school as well as that between pre-primary and primary stages of education in Ilorin, Nigeria. The study aimed to find out what care and supervision are provided for children, whether nursery schools in Ilorin foster a smooth transition from home to school, and the extent to which children in these schools are prepared for the primary level of education. Particular attention was paid to pre-primary educational institutions in Ilorin, the capital city of Kwara State. Information was obtained from four purposively selected nursery schools. The information obtained was subjected to qualitative analysis. An evaluation of the Nursery Education Programme of the sampled institutions in only three out of the eight objectives enumerated in Nigeria’s National Policy on Education was carried out. Children admitted into the nursery schools were found to be between two and five years where the rudiments of literacy and numeracy are taught to them. School activities were also found to facilitate both home-school and nursery-primary transition among the children. It was observed that most of the children who attend the sampled nursery and kindergarten schools enter the primary one class somewhere between age 4½ and 5 years. It was thus recommended that schools should conform to the prescribed age of 6 years for children to be enrolled in primary one class.

Keywords: Assessment of school adjustment, Home-school transition

Introduction

Primary education in Nigeria is expected to commence for children that are six years of age. The years immediately preceding these are expected to be spent in pre-primary institutions, if they are available. Whereas primary education institutions could be found in most parts of the country, the same could not be said about crèche, nursery or kindergartens. They tend to be more available in the cities where private and voluntary agencies are involved in their establishment and management under the regulation and supervision of government ministries and departments.

Access to institutions with arrangements and facilities for crèche, nursery or kindergarten education is more widespread in the cities. This development could be linked with the history of education in Nigeria. The first educational institution established in the country was a primary school. Since that development in the 1840s, attempts have
been made to universalize primary education in Nigeria first by the government of Western Region in 1955, followed by the Eastern Region in 1957 (Fafunwa, 1974) and later with the launching of Universal Primary Education (UPE) for the whole country in 1976. Due to the fact that UPE derailed after just three years of its operation, the federal government again launched the Universal Basic Education in 1999. The emphasis in all these has been on primary or basic education and thus the pre-primary education component of early childhood education has suffered a measure of neglect over these years.

The only attention paid by Nigeria’s federal government is in giving policy guidelines. The objectives of pre-primary education stated in the National Policy on Education (2004) include:

1) Effecting a smooth transition from the home to the school
2) Preparing the child for the primary level of education
3) Providing adequate care and supervision for the children while their parents are at work
4) Inculcating social norms
5) Inculcating in the child the spirit of enquiry and creativity through the exploration of nature, the environment, art, music and playing with toys etc.
6) Developing a sense of cooperation and team – spirit
7) Learning good habits, especially good health habits and
8) Teaching the rudiments of numbers, letters, colours, shapes, forms, etc through play.

Despite the lofty objectives, various levels of government tend to overlook education of children at the pre-primary level. Feeble attempts at participation in this level of education have ended just at merging it with primary education. The Universal Basic Education Commission (UBEC) for example controls thousands of schools nationwide but it is not involved in the provision of pre-primary education. The commission’s activities tend to therefore suggest that school based learning is unnecessary for children between the ages of three to five years. It is pertinent to note, however, that this negligence has a tendency to produce serious effects on the educational development of the nation. Melhuish (2001) found that pre-school experience of children significantly affects their cognitive and affective readiness not only for primary education but determines a large number of development outcomes. It is necessary to carry out research to address the issue of limited information on the extent to which the objectives of pre-primary education in the nation’s policy on education are achieved.

Commitment of the government to the right of every Nigerian child to education should extend to each of the children whose parents
contribute to the economic sustenance of the country as productive members of the labour force. The fact is that these working class parents are the ones who also pay taxes. They, at the same time, send their children to private nursery and primary schools, which implies that these children are denied the benefit of state support for their education programme at the pre-primary level. Government support and provision of basic education is exclusive to children in public schools and in this wise, it is not universal in application and effect.

It is not clear whether specific financial allocation is made to support the pre-primary education of Nigerian children. The yearly budgets only reel out figures allocated to primary or basic education and since none of the unit of our ministries of education specifically cater for pre-primary education, nothing gets done by way of government involvement of commitment.

Parents may not be able to handle the matter of educating their children like the governments do. Most parents of pre-primary school age children in Nigeria are also young and employees of government ministries, public corporations, private organizations or other enterprises. It should be noted that the demands of work do not preclude the education and training of their children, rather they necessitate it. This, along with increasing urbanization significantly contributes to an upsurge in the demand for pre-school education in the urban areas of Nigeria.

The private sector has picked up the gauntlet by taking the lead in establishing crèches, nursery schools and kindergartens in most urban areas in Nigeria. This development seems to be emerging as a middle class value ostensibly due to the cost implications of sending children to such institutions. The public schools are open to children of primary school age only. Many lower class parents and illiterates residing in Nigerian cities tend to find the cost of pre-school education unaffordable. Some are still at a loss as to why so much money should be expended on children just to keep them somewhere during parents’ absence from home. These private nursery institutions are becoming increasingly noticeable and this have the tendency of making significant contributions to educational development in the country.

In the light of the declining productivity of public educational institutions in Nigeria (Fabunmi, 2000), the rise of private pre-primary schools as well as others at the basic, secondary and tertiary levels as viable alternatives is a welcome development. It is in agreement with the Federal Government’s Policy of creating an enabling environment for private sector initiative. The blueprint on Universal Basic Education (1999) included in its objectives the readiness of government to
strengthen partnership with the private sector in the provision of basic education through collaboration, cooperation and coordination.

The social environment in which a school is located plays host to the family and the child in particular. One cannot be separated from the others. Nettles, Caughy, and O’Campo (2008) reviewed social influences exerted on school adjustment in the early elementary years. They examined how neighbourhood activities could influence child development, and proposed a guide for community research and intervention. They also indicated that neighbourhood risk factors could moderate the association between school adjustment and family and child risks. In view of this, it is necessary to find out what pre-primary educational institutions have put in place to ensure a smooth home-school transition and to help children to overcome adjustment problems.

Margetts (2003) adopted an ecological approach to school adjustment and from a sample of 212 children from 12 preparatory classrooms across Melbourne, Australia public schools, found that adjustment difficulties are associated with children’s ages, care experiences, socio-cultural groups, and school experiences. The study also revealed that school adjustment tends to be easier for children showing confidence in own abilities, taking responsibility for their own actions and manifesting socially valued academic skills and conceptual knowledge, displaying independence and self reliance, concentration and perseverance, the ability to share, take turns, cooperate and follow reasonable instructions. The nature of adjustment problems faced by children in pre-primary educational institutions in Nigeria needs thorough investigation.

Children coming to school for the first time may be faced with distractions which indicate responding to external and internal stimuli such as their own thoughts, daydreams and other neighbourhood activities. Teachers and care givers have more difficulty when children presenting with distractibility also have problems with other children in a classroom or when accompanied with over activity, impulsiveness and serious attention difficulties could even be classified with Attention Deficit Hyperactivity Disorder. Another common problem with children in early childhood relates to non-persistence. This occurs when a child stops attending to a task whenever any stumbling block arises. Such a child persistently asks teachers to explain things instead of making an attempt or putting in an effort. They tend to lose focus if a task lasts longer than some minutes. Margetts (2005) stated that poor academic achievement and behaviour problems at adolescence could be linked to early childhood problems like extreme over activity, inability to sit still,
short attention span, emotional difficulties, and other negative attitudes. She used confirmatory factor analysis and structural equation modelling to identify items that contribute to hyperactivity, internalizing and externalizing behaviours and the relative contribution of each of these items to the adjustment domain of problem/maladaptive behaviour.

Nihira, Mink and Meyers (1986) also studied the relationship between home environment and school adjustment among 104 children with the use of social status, self-concept, and IQ and teacher's ratings of classroom behaviour for measuring school adjustment. They concluded that such home environment factors as harmony and quality of parenting, educational and cognitive stimulation available at home, emotional support for learning and cohesiveness of family members are associated with school adjustment.

The structure of the family that supports a child also plays a significant role in school adjustment. When parents are together sending a child to school, it is not the same as either of them doing this singly. On the other hand, the child may also be under the care of grandparents and this is particularly true in the African setting where the need to earn a living by biological parents tends to be shifting the burden of parenthood to grandparents. Solomon and Marx (1995) examined health and school adjustment of children under the sole care of grandparents from the 1988 National Children's Health Supplement data. They found that children under the sole care of grandparents fare quite well compared to those in single parent families. However, children raised by two biological parents were not significantly different from those raised solely by their grandparents, except in their academic performance.

Social class also plays a role in school adjustment. In the Nigerian setting, most of the children exposed to nursery and kindergarten education are of middle or upper class parenthood. Aharchaou (1995) conducted an extended field study of the educational relationship between home and school and found better educational adjustment among children of high socio-cultural status compared to those from low socio-cultural status. Even though most of the children attending pre-primary educational institutions in Nigeria fall within the middle and upper class of society, it is necessary to find out the home-school transition problems encountered by them.

**Research Problem**

The policy on education in Nigeria has eight clearly stated objectives on pre-primary education. Most of the existing public institutions provide
primary education while the private sector initiative has many institutions providing pre-primary education at a cost that may not be affordable to the lower class under the regulation of Ministries of Education of the different States in the country. Thus, those in the middle and upper classes residing in cities are the major families whose children have access to pre-primary education. The children are registered in the pre-primary school at a tender age and since this may be their first experience of staying away for long from their family members, especially parents and siblings, it is necessary to find out whether they manifest adjustment problems at the first contact with school and between the end of pre-primary and primary stages. It is also necessary to find out the care and supervision the pre-primary schools have in place for children to be able to cope with the school adjustment problems they may have.

Research Questions

This study is interested in obtaining information for answering the following research questions:

1) How do nursery schools in Ilorin ensure smooth transition from home to school?
2) What care and supervision do nursery schools provide for children admitted by them?
3) What level of preparation for the primary level of education is given to children in these pre-primary schools?

Methodology

This is a survey aimed at gathering information to help draw inferences on the extent to which specific objectives contained in the policy on pre-primary education in Nigeria are achieved. The survey design was adopted in this study. The research approach was to specifically achieve the objectives of discrepancy evaluation. The information obtained from the sampled nursery schools in Ilorin was used to assess the extent to which actual practices in the sampled pre-primary schools agree with the three objectives of pre-primary education stated in the Nigerian National Policy on Education focused by the research questions.

The study was conducted in Ilorin, the capital city of Kwara State. The State is located in the North Central geo-political zone and it shares common characteristics with the rest thirty-five States of the Nigerian federation. A cross section of staff of Ministries and Departments of Government at the Federal level serve in Ilorin and this has thus
brought Nigerian citizens from all the states to the city while the State Civil Service has also attracted citizens from all the Local Government Areas. There is therefore the tendency that a fair representation of both the nation’s and the State’s populace obtains in Ilorin, the Kwara State Capital where the study was conducted.

For the purpose of this study, the city was zoned into four: City-Centre, Government Reservation, Outer-City and Peri-urban Areas. A school was purposively selected from each of these zones and each selected school was considered representative of schools in the zone. The four sampled schools represented those in the entire city in terms of age of establishment, school population, patronage by community, settlement spread and ownership structure.

Information was obtained from the Head-Teacher of each of the schools through the aid of an interview schedule developed by the researcher. Apart from the background information obtained from school heads, the interview schedule was used to obtain information on the environment in which children are kept, age of children at admission and activities for achieving home-school transition. Information was also obtained on problems relating to school adjustment presented by the children right from their first contacts with the school, care and supervision provided by the school and transition from nursery to primary classes. Children were also observed in the different school settings. Qualitative analysis was used for answering the three research questions.

Results and Discussion

Home-School Adjustment

The first consideration with respect to ensuring smooth home-school transition is the age at which children are brought into the pre-primary institutions. This is because age is considered as an important factor in the adjustment of children to the school environment. It affects the tendency that children will be able to cope with learning experiences provided by schools (Margetts, 2003). Head Teachers of the four schools interviewed were asked to indicate the ages at which children are admitted by them into the pre-primary classes. All of them stated that the minimum age of children admitted into nursery classes was 2 years. In fact one of the School Heads stated that immediately a child is able to speak, she/he could be brought in to the nursery or kindergarten class. Apart from the fact that adjustment may be a problem for these children
at that age, they also will start primary education at an earlier age than six years as contained in the National Policy on Education. Maturation, which is a major consideration for the prescribed age in this policy is thus undermined with majority of children passing through pre-primary education advancing to primary one class before reaching six years.

The first class into which children are admitted is given different names in the different schools. Names given to it include play-group, reception, pre-nursery or preparatory classes by the respective schools. This finding does not agree with the nation’s policy statement that pre-primary education is meant for children between three and five years of age (NPE, 2004). The discrepancy may be the result of needs in the different homes for a place to keep their children as parents attend to work and/or business.

The practice of admitting children below three years of age into pre-primary classes however agrees with Bronner’s (1996) categorization of 2-6 years as ‘pre-school’ period for children. A look at what obtains in other countries indicates that the current practice in Nigeria is not out of tune with what obtains in other societies. In Hungary, nursery schools which are named ‘Bolscode’ admit children aged between one and three years while kindergartens called ‘oroda’ are for children between three and six years. South Africa provides education for children below five years of age but this is white dominated while Japan admits children at age three. In Canada, early childhood services are available and optional for children below school age and nearly all children are enrolled (NARIC, 1991).

The next issue raised in connection with home-school transition was the behaviours indicating adjustment problems usually noticed among the children. School Heads stated that some children display such behaviours as crying, moodiness, failure to respond to instruction and other cues while others were extremely active and eagerly respond to instructions. In addition, it was found that language problems were also prominent because English is used in all the schools as medium of instruction and this happens not to be the children mother tongue. Starting new relationships with teachers, helpers and other children in a classroom setting other become necessary but remains a great challenge to the child. School Heads also indicated that most of the school adjustment problems children have were noticed in the first few weeks of their enrolment. This finding agrees with that of Margaret (2005) who identified problems like over activity, inability to sit still, short attention span, emotional difficulties, and other negative attitudes among children.
School Heads were also asked to state the steps taken to address the problems manifest among the children and ensure smooth home-school transition. They explained that the children are not only grouped according to their but they are also brought into a friendly environment. It was explained that in addition to making schoolrooms attractive, the teacher’s initial actions are to create a sense of security, as she/he gets familiar with the child. Each school head explained that teachers first familiarize themselves with the children and use different methods to motivate them to participate in classroom activities and particular attention paid to those who may have special problems after they have been identified. It was particularly noted that children become more enthusiastic about school work as they are engaged in learning activities and experiences which are interesting to them. Though Head Teachers did not specifically state this, it was observed that educational toys and games were made available to help in enlisting children’s interest in schooling and fostering home-school transition. Two of the head teachers stated that the use of gifts also motivate the children to overcome problems associated with the home-school transition. It was further observed that each of the sampled schools provided out-door games facilities like swing, merry-go-round, balancing poles and slide in a playground. Steps for ensuring home-school transition and deal with adjustment problems while at the same time promoting learning at this stage of the children’s development agree with prescriptions that they be exposed to language acquisition and familiarization with objects in their immediate environment by Ogunlade and Olashinde, (1996).

Care and Supervision

Information was obtained on children’s care and supervision provided by these institutions. The researcher personally observed the premises of each of the schools as well as the classrooms in which these children are kept. It was found that each school was fenced and provided with a lock –up gate to prevent random movements in and out of the school and ward-off unwanted visitors. The children were provided with low, comfortable seats and tables to facilitate learning. The classes were manned by female teachers in all these school while female helpers were on hand to support the teachers.

Familiarity of teachers with school children was observed in all the institutions. Food which was supplied by most of the parents to the children in lunch boxes was taken also under the supervision of teachers and helpers. The teachers also watched over children in the play ground. It was found that teachers and care givers took up the roles as
parents to these children to ensure that the care and supervision given by the schools cover all spheres of children’s activities within and outside the classrooms (Solomon and Marx, 1995).

**Preparation for Primary Education**

The School Heads were asked what is expected from the children of pre-primary classes before they could be promoted to the primary one (1) class.

Their responses to this question are summarized as follows:

1. Ability to count and recognize numbers 1-100
2. Ability to recite and recognize all letters of the alphabet.
3. Ability to obey simple instructions and commands given in English.
4. Ability to read pictures in recommended textbooks.
5. Ability to write numbers 1 – 100 and alphabets a - z.
6. Ability to handle schoolroom activities.

The test items used for end of term and session examinations were scrutinized to confirm the claims by the School Heads. It was found that the schools examined the children at the levels stated above. If children are able to learn all these at the pre-primary stage education, then they have a good foundation for primary education. They will not be deficient in the cognitive and affective domains and the fact is that they have already acquired part of the knowledge required of them at the first stage of primary education as designed in the nation’s curriculum for primary schools, gives them added advantage. They may indeed be able to accelerate learning and cover the curriculum for primary education i.e. middle basic education, earlier. This may be part of the reason some of the products of private nursery/primary institutions proceed to secondary school at the end of their primary five or even earlier instead of the normal primary six class which marks the end of primary education.

**Conclusion and Recommendations**

This study covered only three of the eight objectives of pre-primary education stated in the National Policy on Education (2004). Result indicates that there is discrepancy between the set objective of age of commencement of pre-primary education and what is practiced by the Nursery schools studied. It was found that the Nursery schools selected for this study have structures which to some extent facilitate home-school transition and contribute significantly to the preparation of
children for primary education. It was also found that Children were exposed to rudiments of literacy and numeracy which have the tendency of giving advantage at the primary education level.

The schools should acquire more educational toys, games and other materials to facilitate effective learning and home-school transition. This will motivate the children and engage their attention to the extent that when they are in school, they will hardly remember home or parents and other siblings until someone comes for him/her. There is need for planners, policymakers and evaluators to ensure that attempts to undermine the recommended commencement age for primary education are controlled.

It is recommended that Teacher and Parent interaction should be encouraged for a midterm review of learners’ acquisition of copying skill and adjustment to school environment. Also, further studies should cover all the eight objectives enumerated in the National Policy. The scope of such studies should also be expanded to cover the whole of Kwara State or Nigeria.

References


Implications of Scientific Literacy for Secondary Schools in Uganda

Kedrace Turyagyenda

The revolutionary changes in the practice and culture of today's science and technology calls for major changes in science education and the definition of scientific literacy. It calls for a lived curriculum in which the major instructional standards and intellectual skills enable individuals to cope with changes in science and technology, society and human welfare. Such curriculum would recognize the socialization of science and its relevance to how science impacts on culture, our lives and the course of our democracy. It empowers the students to be involved in their own development and to recognize that they can use what they learn. This article analyses the nation of scientific literacy which uses the lived out curriculum. It also analyses the science education in Uganda where the science curriculum is descriptive, focused on laws, theories and concepts of discrete disciplines. It recommends a paradigm shift in science education. This will entail the change in science curriculum and content, methodologies and assessment; and the need to re-tool the science teachers in order to equip them with needed skills so as to produce scientific literate citizens.

Keywords: Scientific literacy, Curriculum reform, Education for development

Introduction

Science education is incomplete if it does not involve students in preparation for and taking action on matters of social and political importance. Miller (1993) characterized this position as transformational education which produces scientifically literate citizens. Hodson (2003) claims that the knowledge, skills and attitudes embodied in the notion of scientific literacy are important to everyone and not just those labelled as scientists. The goal of science education is to equip students with the capacity and commitment to much rigorous, analytical, sceptical, open-minded and reflective approach to science education so that they can take appropriate, responsible and effective action on matters of social, economic and moral-ethical concerns (Hodson, 1999; 2003).

Since early 1990’s the most prominent slogan that has had impact on classroom practice is the call for scientific literacy. According to UNESCO (1990), the World declaration on Education for All (EFA), urged governments to review educational provision for achieving Scientific and technological literacy for all. The quotation from which the above statement has been paraphrased reads: “In a world where everyone aspect of life is increasingly dependent upon scientific and technological progress...Education in Science and Technology is
indispensable for all nationals, to create a scientifically and technologically literate citizenry …” (UNESCO, 1990).

The notion of scientific literacy has since assumed centre-stage in science education debate in several parts of the world. Governments and organizations such as the American Association for Advancement of Science (ASSS, 1993), the Council of Ministries of Education Canada (CMEC, 1997) and UNESCO (1993) have used it to frame major efforts to reform the science curriculum. Scientific literacy has become an increasingly common term in articles and reports on school science education, and the science curriculum. For example, National Science Education Standards (USA) reported “a marked significant milestone in the continuous journey towards achieving scientific literacy for all Americans” (Collins, 1995). The report on “Beyond 2000” (UK) highlighted enhanced scientific literacy (Miller and Osborne, 1998) while the report on “Science in Australia Schools” indicated that the purpose of science education is to develop scientific literacy, which is a priority for all (Goodrum, Hackling and Rennie, 2001). Three important questions need to be answered: What is scientific literacy? Why do we need it? What is its implication to schools in Uganda?

**Concept of Scientific Literacy**

Although attainment of scientific literacy has been welcomed as a desirable goal for science education, there is still little clarity about its meaning. Scientific literacy is a term that has been used since the 1950s to describe a desired familiarity with science on the part of the public (DeBoer, 2000). Laugksch (2000) argues that the science teachers, science educators, and curriculum developers regard scientific literacy as a kind of code for goals of science education and a frame for their discussion in terms of curriculum content, pedagogy and assessment/evaluation procedures. He further argues that those with responsibility of developing science policy are more concerned with public perception of and support for, the scientific enterprise. Others are concerned with the nature of control and priority setting for science, access to science, or keeping up to date on significant scientific development via media, zoos and museums. The thinking is that all students regardless of gender, ethnicity, religion, geographical location, current attainment levels, can achieve a measure of scientific literacy (Hodson, 2008). From the above discussion, scientific literacy stands for what the general public ought to know about science (Durant, 1993). Therefore, to speak of scientific literacy is simply to speak of science education itself (De Boer, 2000).
Scientific literacy can be categorized as functional, civil, cultural and practical knowledge necessary to solve life’s everyday problems (Shamos, 1995; Bybee, 1997).

According to National Science Educational Standards (USA, 1996), scientific literacy means that a person can ask, find or determine answers to questions derived from curiosity about everyday experience. It further implies that such a person is able to read with understanding in a popular press and engage in social conversation about the validity of the conclusions. Scientific Literacy implies that the person can identify scientific issues underlying national and local decisions and express positions that are scientifically informed. Scientific literacy also implies the capacity to pose and evaluate arguments based on evidence and to apply conclusions from such arguments appropriately for personal decision-making and participation in civic and cultural affairs, and economic productivity. Hence, a scientifically literate citizen should be able to evaluate the quality of scientific information on the basis of the source and the methods used to generate it.

Scientific literacy presupposes a reasonable level of literacy in its fundamental sense (Wellington and Osborne, 2001; Fancy, 2005) in order to engage in science, contribute to debate about science and access science education. Science knowledge cannot be articulated and communicated except through text and transfer of understanding from one context to another. Thus it involves analysis, interpretation and evaluation. Despite the often considerable substantive content and the highly specialized language of science, the abilities required to extract meaning from any text are the very ones needed to understand science.

A study on the relationship between student scores on traditional measures of attainment and the ability to interpret media reports on scientific matters conducted by Norris and Philips (2003) concluded that understanding science texts reside in the capacity to determine when something is an inference, a hypothesis, a conclusion or an assumption. It also requires the capacity to distinguish between an explanation and the evidence for it, and to recognize when the author is asserting a claim to “scientific truth”, expressing doubt or engaging in speculation. Without this level of interpretation, the reader will fail to grasp the essential scientific meaning because it is not just a matter of recognizing the words and using them appropriately but also the ability to comprehend, evaluate and construct arguments that link evidence to ideas and theories. Thus teaching about the language of Science and its use in scientific arguments should be a key element in science education at all levels. This augment is supported by Hodson (2008) and Treagent (2006). These authors seem to suggest a science education very different
from the traditional uncritical and unquestioning approach that presents science as dogmatic, fixed and certain. Their argument is that science should be looked at more holistically using general knowledge acquired in education.

**Benefits of Scientific Literacy**

Promoting science literacy has a number of benefits to science itself, the individuals and society as a whole. The benefits of Science itself include; increased number of recruits in science fields, greater support for scientific research and more realistic public expectations of science (Hodson, 2008).

**Individual Benefits of Scientific Literacy**

In many countries the number of school children studying science and the number of graduates teaching sciences have been falling. The subject is often seen as ‘boring’, or ‘too hard’ or both. Scientific literacy would minimize such bias and increase the benefits at individual level.

In addition, individuals benefit from scientific literacy irrespective of educational and social background, because everybody in society needs application of science and technology in order to cope with challenges of modern world and live a meaningful productive life. Scientifically literate individuals have access to wide range of employment opportunities, are well positioned to respond positively and productively to the introduction of new technologies, and to make beneficial personal decisions about science-based choices.

According to National Research Council (1996: 2) “more and more jobs demand advanced skills, a requirement that people be able to learn, reason, think creatively, make decisions and solve problems. An understanding of science contributes in an essential way to those skills”. Hodson (2008) further argues that those who are scientifically literate are better able to cope with demands of everyday life in an increasingly technology-dominated society, better positioned to evaluate and respond approximately to the supposed “scientific evidence” used in advertising agencies, and better equipped to make important decisions that affect their health, security and economic well-being.

Scientific literacy helps people to understand scientific information discussed and debated in the public media. For example newspapers are full of headlines on global warming and the associated economic threats, cloning, fossils in meteorites, genetically engineered foods, exotics materials, medical advances, DNA evidence and new drugs. All
these deal with issues that directly affect people’s lives. As a consumer, business professional, and as a citizen, a person will have to form opinions about these and other science-based issues if one is to participate fully in modern society. Personal decisions, for example on diet, smoking, vaccination, screening programs or safety in the home and at work will be facilitated by some understanding of the underlying science. The Royal Society (1985) revealed that an uninformed public is very vulnerable to misleading ideas on, for example, diet or alternative medicine.

Understanding Science enriches people’s appreciation of everyday activities. Scientific knowledge helps people to appreciate the order in the universe, the beauty of creation; all animals and vegetation around them. As Dawkins (1998) noted, science is progressively revealing the order and beauty of the universe from elementary particles up through the atom, the molecule, the cell, man, the earth with all its teeming life, solar system, meta galaxy and the vastness of the universe itself. All those contribute to the feeling of awe and wonder that science can give humanity.

**Societal Benefits of Scientific Literacy**

Scientific literacy also benefits society in general. It increases economic development, enriches the intellectual life and cultural health of nations in general, promotes responsible citizenship and enhances democracy. A great deal of financial support for fundamental scientific research is got from public funds. Shorthand (1988) argues that confidence in scientists and the public support for science depends on at least a minimum level of general knowledge about what scientists do. However increased scientific control does not necessarily translate into increased support for scientific research, rather it may make the public more critical of what scientists do. This in itself is positive because it will continually encourage scientists to do an excellent work in their research and publications. Therefore (Hodson 2008) argues that what is required is the scientific literacy that is allied to political literacy and a commitment to socio-political environment that will necessitate a curriculum oriented towards citizens action (Hodson, 2003).

Scientific literacy is regarded as a form of human capital that sustains and develops the economic well-being of a nation (Hodson, 2008). It is common knowledge that continued economic development brought by enhanced competitiveness in international market depends on science-based research and development, technological innovation and steady supply of scientists, engineers and technicians. All of this ultimately
depends on public support for state-funded science and technology education in schools. American Association for Advancement of Science (1989) noted that the potential of Science and Technology (S&T) cannot be realized unless the public in general comes to understand Science, Mathematics and Technology and to acquire scientific habits of mind. Without a scientifically literate population, the outlook for a better world is not promising.

Hurd (1998) established a link between school science education and a culture of life-long learning as the key to the country’s prosperity. The government of Canada (1991) declared that “Our future prosperity will depend on our ability to respond creatively to the opportunities and challenges posed by rapid change in fields such as Information Technology (IT), new materials, biotechnologies and telecommunication. To meet the challenges of technologically driven economy, we must not only upgrade the skills of our workplace, we must also foster a lifelong learning culture to encourage the continuous learning culture needed in an environment of constant change”. The issues raised in his declaration are real and must be confronted by every nation if such a nation is to remain competitive in this globalised world.

Hodson (2008) argued that democracy is strengthened when all citizens are equipped to evaluate socio scientific issues and make informed decisions on matters of personal and public concern regardless of whether they are lawyers, parliamentarians, business people, journalists, civil servants, teachers, police officers and any other category. Scientific literacy will also help scientists to make better decisions because their judgment will focus more attention on economic, social, cultural, political and moral-ethical dimensions of their work rather than just the technical issues. This seems to suggest that scientific literacy for active citizenship, economic development and social reconstruction lies more on science literacy rather than it does in learning science per se. It is worth noting that science required for solving the problems of everyday life such as raising a child born with Down syndrome or managing a domestic energy budget with low or fixed income (Layton et al, 1993; Jerkins, 1999) is very different from the science presented in school curriculum. This argument was reinforced by studies conducted by in science –based industries by Law (2002), Chin et al (2004) and Duggan and Aikenhead (2005). They all concluded that most of the necessary science used by workers in science-based industries was learnt on-the-job rather than in school.

Chin et al (2004) and Aikenhead (2005) further noted that school science is focused predominately on declarative knowledge (knowing what) or learning facts while workplace knowledge (knowing how) is
focused on application. These studies raise important questions about the purpose of scientific literacy and its implication to schools. No school curriculum can equip citizens with thorough first-hand knowledge of all the science underlying important issues. Moreover much of the science knowledge learnt in school especially biological sciences will be out of date within a few years of leaving school. However, science education can enable students to understand the significant knowledge presented by others and to evaluate the validity and reliability of that knowledge. If students acquire good learning habits and attitudes towards science during the school years, it will be relatively easy for them to acquire additional scientific knowledge later on as and when need arises, provided that they have also acquired the language and skills to access and evaluate relevant information from diverse sources.

Responses to Scientific Literacy

If scientific literacy is to be achieved and effectively utilized by all citizens, each country has to put in place specific strategies. These will have implications to the science curriculum, methods of teaching and assessment systems. A summary of the responses by the United Kingdom (UK), Netherlands and United States of America is highlighted below.

UK Response to Scientific Literacy

A science course known as “Twenty First Century course” with an emphasis on scientific literacy was developed and piloted tested in 78 schools from September, 2003. This course targeted 15-16 years old. The curriculum and teaching materials were developed by the Twenty First Century Science Project in which Nuffield Curriculum centre played a key role. By September 2006, around 1000 schools had chosen to do that course for their General Certificate Secondary Education (GCSE), an indication that more and more schools had appreciated it. The main aim of the course was to provide students with a ‘toolkit’ for accessing, interpreting and responding to Science as they encounter it in everyday life such as health, medicine, environment, risk and risk factor, issues that involve other kinds of knowledge and values. An evaluation of this program revealed that students’ attitude to science and teachers’ classroom practices and teaching approaches had improved.
Netherlands Response to Scientific Literacy

A new subject called “Algemene Natuurwestern schpffen”(ANW) was introduced for all students in senior secondary education in 1998. Its main aim was public understanding of science. The emphasis was on providing knowledge and skills for assessing, interpreting and responding to science as it is encountered in everyday life. This was reflected through the curriculum and emphasis on scientific literacy, and the methods of teaching. The content areas included a lot about health, environment risks and risk factors, issues that involve science and technology and other key issues (De Vos & Reiding, 1999; Eijkelhoff & Kapteijn, 2000).

In both UK and the Netherlands, the main challenge has been the designing of a science course with scientific literacy emphasis and at the same time providing adequate depth for students who wish to follow science careers. As a result, different models have been developed and are being tried out. Similarly, teachers have faced the challenge of the shift from disaggregated factors as previously provided in separate science subjects to the integration of science knowledge to make sense in everyday life. This has had impact on the pedagogy and assessment of science. Therefore teacher’s continuous professional developed has been adjusted to meet the new challenge faced by the teachers.

United States of America (USA) Response to Scientific Literacy

Science for all Americans was launched. It was based on the belief that all citizens need to live interesting, responsible and productive lives in a culture shaped by science and technology (American Association for Advancement of Science, 1997). It was also believed that the science literate person is one who is aware that science, mathematics and technology are interdependent human enterprises. Such a person understands key concepts and principles of science, is familiar with the natural world and recognizes both its diversity and unity, and uses scientific ways of thinking for individual and social purposes (American Association for the Advancement of Science, 1990). Consequently the National Science Education Standards (NSES) were established. The standards apply to all students regardless of age, gender, cultural or ethnic background, disability, aspirations or interests and motivation in science. It was envisaged that all students can develop the knowledge and skills described in the standards, even though some may go well beyond those levels.
Situation Analysis of Science Education in Ugandan Schools

The current education system in Uganda can be described as a 7-4-2-3 system. There are seven years of basic primary education under Universal Primary Education (UPE), four years of lower or Ordinary level (‘O’ level) secondary education under Universal Secondary Education (USE), two years of Advanced (‘A’ level) secondary education and a minimum of three years of University undergraduate education. However, there are alternative education programs in Technical, Vocational and Teacher education training which can be accessed after each school level. Science education is compulsory for all learners at primary and lower secondary levels. Although science at primary level is integrated, science education at secondary school level is disintegrated into specific disciplines under Biology, Chemistry and Physics. The curriculum used by all schools is developed by the National Curriculum Development Centre (NCDC) and the national examinations at the end of each school level are conducted by the Uganda National Examinations Board (UNEB). At the end of Primary and Lower Secondary levels learners sit Primary Leaving Examinations (PLE) and Uganda Certificate of Education (UCE) respectively. The outcome of these examinations is used as a measure of competence acquired by the learner in specific disciplines at each level. Does the science education provided in Uganda result in scientifically literate citizens?

Performance at Secondary

The analysis based on performance in national examinations reveal that science and mathematics at lower secondary has been unsatisfactory as demonstrated by the tables below. The period 2005-2009 was selected for lower secondary because the policy of compulsory science for lower secondary started in 2005.

<table>
<thead>
<tr>
<th>Subject</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>1.1</td>
<td>1.8</td>
<td>1.9</td>
<td>1.9</td>
<td>3.2</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3.9</td>
<td>2.5</td>
<td>0.4</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Physics</td>
<td>2.1</td>
<td>1.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Biology</td>
<td>1.0</td>
<td>0.2</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

From Table 1, the average percentage pass from 2005 to 2009 was 2% in Mathematics, 1.6% in Physics, 1.4% in Chemistry and 0.6% in Biology.
This analysis indicates that performance of learners at distinction level in science and mathematics subjects at the end of lower secondary is poor in all the science subjects especially Biology.

Table 2: Percentage Failure (F) Rate in UCE Science Subjects (2005-2009)

<table>
<thead>
<tr>
<th>Subject</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>33.8</td>
<td>26.0</td>
<td>33.0</td>
<td>17.6</td>
<td>26.6</td>
</tr>
<tr>
<td>Physics</td>
<td>30.8</td>
<td>37.3</td>
<td>58.1</td>
<td>58.7</td>
<td>58.1</td>
</tr>
<tr>
<td>Chemistry</td>
<td>50.3</td>
<td>50.0</td>
<td>66.8</td>
<td>70.6</td>
<td>60.1</td>
</tr>
<tr>
<td>Biology</td>
<td>38.2</td>
<td>48.0</td>
<td>37.6</td>
<td>40.6</td>
<td>46.8</td>
</tr>
</tbody>
</table>

The average failure rate over the period 2005-2009 was 27.4% in Mathematics, 48.6% in Physics, 59.6% in chemistry and 42.2% in Biology. The failure rate especially in Physics and Chemistry (physical sciences) seem to have progressively increased over the period under analysis. The analysis above shows a high failure rate in science and mathematics at the end of lower secondary education.

The level of proficiency in Biology (science) has also been low even at senior two level. Uganda has been conducting National Assessment of Progress in Education (NAPE) in secondary schools at senior two level since 2008. The assessment covers the subject areas of English Language, Mathematics and Biology. The achievement of a student is a subject is rated proficient if he/she demonstrates competence with minimum performance level that was desired of the student. Table 2 below gives the performance for the years 2008-2010.

Table 2: Students Rated Proficient in NAPE (2008-2010) (%)

<table>
<thead>
<tr>
<th>Subject/Year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng. Language</td>
<td>81.9</td>
<td>76.0</td>
<td>67.5</td>
</tr>
<tr>
<td>Mathematics</td>
<td>69.4</td>
<td>58.8</td>
<td>49.7</td>
</tr>
<tr>
<td>Biology</td>
<td>36.7</td>
<td>36.3</td>
<td>30.4</td>
</tr>
</tbody>
</table>

From Table 2, it is evident that the highest proficiency rates have been in English Language and the lowest has been in Biology (science) although there has been a general decrease in all the three subjects over the years. The consistently low level of proficiency in Biology at senior two is consistent with the achievement at senior four (end of cycle). This implies that students go through lower secondary without acquiring the necessary knowledge and skills in Biology. It further implies low levels of scientific literacy.

The Government of Uganda has made efforts to improve science education in order to produce a science literate population that can contribute towards national development (Government White paper on
education, 1992 and Uganda Vision 2025). The efforts of government have translated into policies and programmes intended to improve science knowledge and skills such as the launching of the policy (2005); rehabilitation and construction of school science laboratories and provision of science kits; recruitment of more science teachers, in-service training for secondary science and mathematics teachers (SESEMAT), introduction of e-learning; and affirmative action on financing science courses in government universities and tertiary institutions (Ministry of Education and Sports, MoES, 2006). However, the analysis above reveals that those efforts have not yet translated into good performance by the students. Would the focus on science literacy rather than subject-based science improve the situation?

Implications of Science Literacy to Schools in Uganda

If science literacy is to be achieved, special strategies have to be adopted by schools. These will have implications to the science curriculum, methods of teaching and assessment, and teacher training and continuous professional development.

Implications to the Science Curriculum

The current curriculum presents science subjects in disaggregated form as separate disciplines. Science is structured through the curriculum content into topics and sub-topics and communicated through restricted models mainly confined in a laboratory/classroom. To achieve scientific literacy, the curriculum has to be reviewed so that it provides a framework for the science course with scientific literacy emphasized. This will enable the learners to acquire ideas and skills useful for accessing, understanding, interpreting, explaining and responding to the science they encounter in everyday life. The curriculum content should be revised to include but not limited to understanding science itself, the nature of scientific knowledge, the methods of scientific inquiry and how science and society inter-relate.

Implications for Pedagogy and Assessment

The findings of a qualitative study conducted by the Ministry of Education and Sports (MoES) and Kyambogo University in 2003 revealed that the teaching practices were largely teacher-centred, theory oriented (talk and chalk) and dominated by factual materials and dictation of notes. Therefore, science is perceived as abstract and hard.
To overcome this secondary science and mathematics teachers (SESEMAT) programme was introduced by the Ministry of Education and Sports (MoES) with technical assistance from the Government of Japan through Japan International Corporation Agency (JICA) in August 2005. The programme focused on promoting pedagogical shift, which involves changing from theoretical content-based instruction to activity experiment-based, from teacher-centred to learner-centred; bias to encouragement; large scale experiments to appropriate experiments involving improvisation. Although a formal evaluation of the SESEMAT programme has not yet been done, it is not likely to achieve the intended paradigm shift because the same old content is being taught and examined summatively.

The teacher training methods will have to be adjusted so that there is proper management of small groups and whole class of discussions; making use of the news media and other informal sources to keep up to date; drawing out an idea about science from a case study and helping students to see how to apply it to other cases. Teaching for scientific literacy should include the world outside the classroom so that the learner interacts with compound, garden, at home, museum, zoo, and industry. This enhances investigative teaching and learning; engages the learners; portrays science as exciting; stimulates further learning, personal development, responsibility and socialization; and generates positive learning outcomes among students (Nuridy, 1999).

Assessment in education is the process of determining the extent to which a student has achieved the objective in the curriculum the teacher has set out to achieve. From the assessment score, inference can be made about the student knowledge or understanding that is not directly observable (Pellegrimo, Chudowsky & Glaser, 2001). The current assessment system at primary and secondary school is summative in nature and mainly paper-and-pencil semi-structured and essay questions done at the end of the course. The students’ performance is in the examination, in a subject, is judged by the score obtained in the examination. The results have mainly been used to serve the summative function of assessment such as certification (grading), classification and selection purposes as admission criteria to the next level of education.

Several criticisms have been raised against the current summative system. The examination is a ‘one-shot’ examination that comes at the end of the course; it does not test all the student knows, has learnt or can do; does not provide feedback that can improve teaching and learning; and does not take into account the performance of the student during the course of instruction. Summative assessment generally tests
the knowledge of science. Consequently, the students and teachers see the examination as an end in itself and not a means of improving the teaching, learning and performance.

However, assessment for scientific literacy will involve testing the knowledge of science and the “knowledge about science”. Knowledge of science refers to knowledge of natural world across the major fields of physical sciences, biological sciences and space science and science-based technology. Knowledge about science refers to the knowledge of the means (scientific inquiry) and goals (scientific explanations) of science (Osborne 2006). Continuous assessment would be a more appropriate system. Continuous assessment is a systematic, objective and comprehensive process of collecting information about the student learning during the course of study through periodic testing to determine the extent of learning the objectives set out to in the teaching course (Bajah, 1990; Nitko, 1996). Continuous assessment can, therefore, be both formative and summative in nature based on the formal school curriculum. Through the formative assessment scientific inquiry and scientific explanation skills will be tested.

Implications for Teacher Training

In Uganda, primary teachers do a course of two years at Teacher training colleges after Lower Secondary. They study a wide range of subjects which they subsequently teach in primary schools. They follow structured curriculum. Secondary school teachers train for two years at National Teachers training colleges or three years at university after ‘A’ level. They study two specialized teaching subjects. Currently, primary teachers under take in-service training through the Centre Coordinating Tutor(CCT) system within Teacher Development Management System(TDMS). The secondary school science and mathematics teachers under take in-service trainings through SESEMAT (referred to above).

While primary science is an integrated course of study, secondary school science is studied in separate subject of Biology, Chemistry, Physics, Mathematics and other science application subject such as Agriculture, Technical Drawing and Computer studies. The science teachers also train and teach those specialized subjects according to the curriculum. Their teaching is basically driven by the examination oriented nature of the education system. Therefore, the science teachers may not adequately guide the learners to acquire holistic and integrated scientific knowledge and skills. Therefore, there need to review courses at the training colleges and universities and to re-orient the teachers already is schools through In-service Education and Training (INSETS)
so that the teachers’ scientific literacy training needs are identified and addressed through regular Continuous Professional Development (CPD) seminars and workshops and be given consistent support supervision. As the select committee of the House of Lords Science and Technology (2001) observed, “… the content knowledge required to teach today’s science, rather than yesterday’s changes much faster than the content knowledge of most other subjects.” Therefore, science teacher need to continuously be updated through CPDs. This will necessitate the reviving of Teacher’s Resource (TRC’s) and constructing more so that science teachers regularly get time away from the everyday pressures of school life for professional development, exchanging experiences, updating their subject knowledge and giving feedback to the trainer’s especially contemporary science and controversial science issues that appear in the public press (Holman, 2006).

**Conclusion**

Scientific literacy has assumed centre stage in the science education debate. It is generally acknowledged that everyone needs some level of scientific literacy in order to cope with the present world that is driven by science and technology developments. Scientific literate citizens will contribute to the civic, social and political debates on issues related to health, diet, climatic and environmental changes and make reasonable personal decisions on such issues. Since scientific literacy is important for all people and not just the scientists, it has implications to school science education globally, Uganda inclusive. It will need review of the curriculum content, teaching methodologies, assessment systems and teacher training approaches that emphasize scientific literacy.

**References**


Private and Public Secondary School Chemistry Teachers’ Instructional and Evaluative Competencies

Opateye Johnson Ayodele
School of Education, National Open University of Nigeria, Lagos, Nigeria.

The purpose of this study was to examine the classroom instructional and evaluative competencies (CIEC) of private and public high school chemistry teachers. The investigation used a descriptive survey research design. Seven hundred and fifty chemistry teachers were randomly selected from six states in South Western Nigeria. A questionnaire was developed and validated yielding reliability coefficient of 0.81 using KR-20. Data were analysed using t-test statistics. Significant differences were established between private and public school chemistry teachers’ instructional competence based on their lesson note preparation, use of chemistry textbooks, relevant qualifications, practical demonstrations and drawing chemistry diagrams instructional competencies. It was also observed that the two groups differ in evaluative competence in relation to chemistry item generation, marking guide preparation, giving of assignment, teachers’ response to students’ questions and continuous assessment record keeping. Generally, private high school teachers exhibited greater competencies in both instructional delivery and evaluation of their students. It is essential for public school chemistry teachers to be orientated for improvement in both their instructional and evaluative competence through in-service trainings, workshops and supervision and monitoring.

Keywords: Instructional Competence, Evaluative competence, Science education

Introduction

The Nigerian educational system is dynamic from every facet of life. In terms of ownership, most states allowed private participation in education development by giving licences to operate private schools. Government placed the supervision of such schools under various ministries of education at both federal and state levels. Such monitoring procedures are meant to inculcate quality in the school system whether private or government (public). The core activities in the school system are instructional delivery to students and evaluation of same to ascertain the attainment of the goals of the schools. Classroom is the engine room of education where all organs of the system work together for effective implementation of the curriculum. What goes on in the classroom is the pivot of attraction to all agencies for through it the efficiency of teachers is measured. Teachers then directly pilot everything that happens within the classroom.

Chemistry occupies a central position to man’s survival. It is that aspect of science that deals with the nature of matter, its properties and changes. Ezeliora (2009) posited that the power of chemistry is what creates as a whole of enabling infrastructure that delivers food, medicine and materials which are the hallmark of modern life.
Chemistry is concerned with structure and changes which accompany them (Ibole, 2009). He further described chemistry as the bride of the sciences for the important role it plays in understanding the nature and properties of the universe. Chemistry is an experimental subject which can be effectively taught and learnt by exposing learners in experimentation. A professionally qualified chemistry teacher no matter how well trained, would be unable to put his ideas into practice if the school setting lack the equipment and materials necessary to translate his/her competence to reality (Ezeliora, 1999). Success of chemistry instructional competence depends on practical activities in teaching and learning which has motivational effects on students (Kempa, 1990).

The performance of secondary school students in science-based subjects (including Chemistry) in Nigeria has not been encouraging in spite of the government efforts to boast the trends. The results of chemistry students in WAEC and NECO in the recent times showed low and fluctuating performance as revealed in Tables 1 and 2.

From Tables 1 and 2 students’ performance in SSCE Chemistry over the six years reviewed has been low from the WAEC results where the percentages of those that D7 to E8 and Failure grades were higher than those who obtained A1 to C6 grades. From the NECO result, students’ performance seemed to be better than WAEC but fluctuating in which the best NECO result was obtained in 2008. The inconsistency in
performance trends might be due to learning styles of the students or academic learning time that is available for the students.

Jong, Acampo and Verdock (2006) concluded that teachers’ scientific expertise is an important source of difficulties when teaching oxidation-reduction reactions. They suggested that there must be an improvement of current chemistry classroom practice and content-related teaching through trainings. Research has also revealed that many difficulties in learning chemistry are caused by viewing chemistry instruction that is oriented primarily as academic and not related to the chemistry of everyday life (Treagust, Duit & Fraser, 1996). Umoren (1998) suggested that it is necessary to provide students with an accurate picture of requirements and opportunities involved in the multitude of careers available in chemistry education. Chemistry is a link to all other scientifically based fields such as medicine, pharmacy, engineering, agriculture, and metallurgy, geology pure and biological sciences. Chemistry lessons should therefore evolve creative ways of integrating process, practicals and skills into instructional delivery involving models of learning as a challenge to help teachers think about teaching and learning for reliance.

Roberts and Dyer (2004) posited that teachers’ effectively plan for instruction, evaluate students, recognise achievement, determine students’ needs, use variety of teaching strategies and have excellent knowledge of subject matter which make them relevant in the classroom. Teachers’ responsibilities are categorised into five sections which include planning of instruction, execution of instruction, evaluation of instruction, guidance and management as reported by Shippy (1981). Execution of instruction involves giving assignment in clear and concise manner; reinforce learning and direct students in applying problem-solving techniques. Current studies such as Roberts, Dooley, Harlin and Murphey (2006) posited that instructional knowledge of teachers should include content specialisation and broad knowledge of the subject, instructional skills in form of teaching/facilitation skills and instructional attributes of recognising individual differences, multi-tasking, mentoring and conflict resolution skills. In addition to this, Rice (2003) categorised attributes of teachers into five as experience, preparation programmes and degrees, type of certification, course taken in preparation for the profession and teachers’ own tested scores. Wayne and Young (2003) also investigated the characteristics and qualities of effective teachers and concluded that students learn more from teachers with certain characteristics which are reflections of their competences. Berry (2002) corroborated this by
emphasising that teacher qualities are indeed important and teachers should have focus on content knowledge.

Research studies in recent past decades supported the key behaviours that contribute to effective classroom instructions. Brophy (2002), Marzano, Pickering and Pullock (2004) and Willis (2006) identified five key behaviours and five helping behaviours of a good teacher. The five key behaviours include lesson clarity, instructional variety, teacher task orientation, engagement in the learning process and student success rate. These behaviours (competencies) are essential for effective instructional delivery in chemistry classrooms. Instructional variety refers to teachers’ variability or flexibility during the presentation of a lesson. Lessons should be planned to lessen the amount of disruptive behaviours but have more varied activities and materials (Emmer & Everton, 2009). Borich (2011) buttressed this point when emphasising that a teacher plans instruction based upon knowledge of subject matter, students, the community and curriculum goals. Teacher is also a reflective practitioner who evaluates the effects of his or her instructions on students and provides learning opportunities that support learners’ intellectual, social and personal development.

Teachers instructional task orientation involves diagnosing how much time to spend in planning to get students to learn and the time to present lesson, ask questions, encourage students to think independently and the time to assess learners’ performance. Effective teacher that is instructionally competent provides a warm and encouraging classroom climate by letting learners know that help is available from him. Therefore, a good teacher needs to show excitement, enthusiasm, voice reflection and facial experience to be to coordinate the learners in the classroom (Cabello & Terrel, 1994; Tiscler, 2005). Effective instructional practice inculcates the orchestration and integration of behaviours into meaning patterns to create effective teaching through questioning. Effective questions are those for which students actively compose responses and thereby engaged in learning processes (Chuska, 2003; Irvine, 2001). Such questions depend on more than words but word choice, voice reflection, word emphasis and the context in which they are asked. Questions are asked in the classroom to get interest, attention, diagnose, check, recall, manage and structure learning.

Weinert (2001) referred to competence to depict a roughly specialised system of abilities, proficiencies, or skills that are necessary or sufficient to reach a specific goal. He described competencies in seven ways: general competences as cognitive ability; specialised cognitive competence in a particular skill area; competence performance model;
modifications of competence performance model which relates competence to performance; cognitive competence and motivational action tendencies; objectivity and subjective competence concepts differentiating between performance and performance dispositions and action competence including all those cognitive, motivational and social prerequisites necessary for successful action and learning. For science teachers generally competence levels can be measured using cognitive, motivational and social instructional competencies in the classrooms and laboratories.

To Eraut (1994), competence is seen in a normative concepts rather than a descriptive form. He viewed competence from the behaviouristic perspective focussing more on qualifications (competence-based training), generic perspective which is based on impact, self-confidence or perceptual objectivity from managers and cognitive competence tradition. Straka (2004) summarised these two assertions to conclude that the term ‘competence’ has the function of an umbrella for divergent research strands in human capacity development and its assessment. It is essential to recognise that the influence of teacher’ instruction and evaluation of students goes a long way to determine learning outcomes. What teachers are influence what teachers do which also affects what and how much students learn (UNESCO, 2004). Effective teachers must possess knowledge and skills required to obtain educational goals, and must be able to use that knowledge and skills appropriately if these goals are to be achieved. The possession of knowledge and skills falls under teachers’ competence in the classroom. According to Babalola (2011), a professional teacher is expected to display 5CS, conscientiousness, critical thinking, competence, community spirit and commitment to professional standards and best practice. These are also essential for chemistry teachers in order to create involving classroom where each learner is given equal opportunity to learner chemical concepts.

Evaluation is central to the process of learning. How it occurs is a very powerful factor in the effectiveness of the whole process of classroom instruction. Formative evaluation assists students become aware of what they are supposed to be acquiring in the classroom and how well they are acquiring. Summative evaluation takes place to ascertain cumulative attainment of knowledge and skills a learner has acquired at the end of a course of study. Teachers need to work with students in a way that self evaluation becomes part of students’ own learning process. Effective evaluation implies effective assessment (performance assessment) which allows students to ask questions to performance real-world tasks that demonstrates meaningful application
of essential scientific knowledge and skills. Beatty and Grace (2009) suggested technology-enhanced formative assessment (TEFA) as a research based pedagogy for response system in classroom instruction and based on four principles: question-driven instruction to motivate students, dialogical discourse to develop students’ understanding and scientific fluency, formative assessment which informs and adjusts learning and teaching and meta-level communication that helps students develop meta-cognitive skills and cooperate in the learning process. Putting these principles in mind, evaluative competence of chemistry teachers must involve setting of chemistry questions, giving of assignments and class exercises, response to students’ questions and continuous assessment record keeping.

Teachers’ evaluative competence involves harnessing the events of classroom instruction to cause measurable changes in learners. Assessing the lesson outcomes therefore ascertains learners’ performance using tests, homework and extended assignments and projects. Teachers’ demonstration of these skills provides opportunities for learners to exhibit cognitive changes which have taken place within the walls of classroom. When teachers provide feedback to learners’ questions, it informs learner the accuracy of his/her attainment in elicited response. Hearne (1992) suggested some steps schools could take to evaluate students. Such involve teachers to decide what skills cluster to evaluate and how to use existing scoring guides to measure the tasks. In students involved classroom evaluation, Stiggins (2001) discussed types of assessment methods that are matched with the assessment targets. He further suggested that selected response, essay, performance assessment and personal communication. When chemistry teachers utilise these evaluative strategies, students are moved from fact-recall-knowledge mastery to observation or skills acquire through making students to perform chemistry tasks.

The Problem

The step for allowing private proprietorship in Nigerian education system had gone a long way to alleviate the problems faced in giving admissions to secondary age school children. More children now have opportunities to go to either government (public) or private (sole-proprietorship or missionaries) schools where they could obtain overall development as good and productive citizens in the future. The dichotomy of private and public high schools brought a lot of discrepancies in the approaches of teaching employed by teachers in general and chemistry teachers in particular even though the same
curricula are being implemented by both. Due to the differences in direct supervisions of public and private schools teachers by the government, the instructional and evaluation competencies of these teachers are likely to be at par. Chemistry results over the years showed an unstable picture as it fluctuated between average and mostly below average total students’ performance. One then wonders why the result was not improved upon in spite of government effort to develop science by supplying materials, employing teachers to her schools and also mandating the private schools owners to equip their laboratories and employ competent teachers to teach science subjects. In view of these, the study focused on comparing classroom instructional and evaluative competencies of private and public high schools’ chemistry teachers.

Null Hypotheses

The following null hypotheses were tested at 0.05 significance level:

1) There is no significant difference in instructional competence (IC) between private and public school chemistry teachers in relation to (i) content mastery (ii) preparation of lesson notes (iii) use of chemistry textbooks (iv) relevance of qualification (v) Practical demonstration (vi) use of chemistry materials/apparatuses (vii) Chemistry diagrams drawing.

2) There is no significant difference in evaluative competence (EC) between private and public school chemistry teachers in relation to (i) Chemistry item generation (ii) chemistry marking guide preparation (iii) chemistry assignments (iv) chemistry class exercises (v) answering students’ questions (vi) continuous assessment record keeping.

Methodology

The study employed a survey design in which data were gathered using questionnaires. The population for the study comprise all chemistry teachers from six (6) states from South West geopolitical zone, Nigeria. Each of the states has three (3) senatorial districts. Forty (40) chemistry teachers were randomly selected from each of the senatorial districts in Oyo, Ogun, Osun, Ekiti and Ondo states to make 600. Fifty (50) teachers were randomly selected from each of the three Lagos state senatorial districts in view of high chemistry teachers’ population to make 150. A total of seven hundred and fifty (750) chemistry teachers from private and public secondary schools of states were used as sample for the study.
A validated 20-item Chemistry Teachers’ Instructional and Evaluative Competencies Questionnaire (CTIEQ) was developed by the researcher to collect data. The instrument had two sections A and B. Section A requested the teachers to give their personal background. Section B contained the chemistry teachers’ instructional and evaluative competencies items requesting the teachers to respond ‘Yes’ or ‘No’. The instrument was subjected to validation by three (3) chemistry and evaluation experts who scrutinised the original 30 items for modification and improvement and this reduced the items to twenty (20). The reliability of the instrument was calculated from the outcome of pilot testing by using KR-20 for dichotomous response items. The coefficient of the reliability of the questionnaire was found to be 0.81. The sampled chemistry teachers were asked to tick only one response for each item of the questionnaire. In order to test the hypotheses, the responses were subjected to t-test statistics to ascertain the significant differences at 0.05 level of significance.

Results and Discussion

The findings on the Chemistry teachers’ instructional and evaluative competence are summarised in tables 3 and 4.

Table 3: Chemistry Teachers’ Instructional Competence

<table>
<thead>
<tr>
<th>Instructional Competence</th>
<th>School Type</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev.</th>
<th>Std Error</th>
<th>t</th>
<th>Df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>I display mastery of subject matter</td>
<td>Private</td>
<td>334</td>
<td>0.60</td>
<td>.490</td>
<td>.027</td>
<td>0.968</td>
<td>748</td>
<td>.333</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.57</td>
<td>.496</td>
<td>.024</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I prepare lesson notes before teaching</td>
<td>Private</td>
<td>334</td>
<td>0.74</td>
<td>.438</td>
<td>.024</td>
<td>1.725</td>
<td>748</td>
<td>.045*</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.69</td>
<td>.465</td>
<td>.023</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I depend more on Chemistry textbooks when teaching</td>
<td>Private</td>
<td>334</td>
<td>0.53</td>
<td>.500</td>
<td>.027</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.50</td>
<td>.501</td>
<td>.025</td>
<td>0.831</td>
<td>748</td>
<td>.406</td>
</tr>
<tr>
<td>My qualification is not relevant to teaching Chemistry</td>
<td>Private</td>
<td>334</td>
<td>0.40</td>
<td>.490</td>
<td>.027</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.35</td>
<td>.476</td>
<td>.023</td>
<td>1.468</td>
<td>748</td>
<td>.014*</td>
</tr>
<tr>
<td>I engage students in practical activities</td>
<td>Private</td>
<td>334</td>
<td>0.51</td>
<td>.501</td>
<td>.027</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.42</td>
<td>.494</td>
<td>.024</td>
<td>2.418</td>
<td>748</td>
<td>.016*</td>
</tr>
<tr>
<td>I can manipulate apparatus to demonstrate concepts</td>
<td>Private</td>
<td>334</td>
<td>0.65</td>
<td>.478</td>
<td>.026</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.57</td>
<td>.496</td>
<td>.024</td>
<td>2.241</td>
<td>748</td>
<td>.026*</td>
</tr>
<tr>
<td>I illustrate with relevant diagrams</td>
<td>Private</td>
<td>334</td>
<td>0.60</td>
<td>.490</td>
<td>.027</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.52</td>
<td>.500</td>
<td>.025</td>
<td>2.332</td>
<td>748</td>
<td>.020*</td>
</tr>
</tbody>
</table>

* = Significant at .05 level

Table 3 showed teachers instructional competence on related classroom activities between private and public schools’ teachers. It was deduced from the table that there was no significant difference (t(748)=0.968, P>0.05) in private and public high school chemistry teachers in the
mastery of chemistry subject matters though the private school chemistry teachers displayed slight higher content mastery competence than their public counterparts. On the ability to prepare lesson notes before delivery chemistry lessons, private high school chemistry showed more appreciable competence than the public school teachers and the difference in their competencies for lesson note preparation was significant \(t(748)=1.725, P<0.05\). Private school teachers depended more on the use of textbooks to teach chemistry than the public school teachers implying that the public school teachers had greater competence to teach chemistry without the use of textbooks though there is no significant different \(t(748)=0.831, P>0.05\) in their competences for this ability.

Public school chemistry teachers had relevant qualifications because more of the private school teachers consented that their qualifications were not relevant to teach chemistry and there was a significant difference \(t(748)=1.468, P<0.05\) in qualifications to teach chemistry between the two groups. Private school teachers' engagements in practical activities with the students were higher than their public school counterparts and there was a significant difference \(t(748)=2.214, P<0.05\) in practical demonstration competence between the two groups. Private teachers had greater chemistry apparatus/materials manipulation competence than the public school teachers with a significant difference \(t(748)=2.232, P<0.05\) in their competencies in this regard. Also, public school teachers had lower competence in drawing chemistry related diagrams during lessons and practical classes than private counterparts who found it easy to draw diagrams to draw and the difference in their chemistry diagram drawing competencies was significant \(t(748)=2.332, P<0.05\).

Both public and private chemistry teachers had no significant difference in mastery of high school chemistry content. This finding corroborated the report of Shippy (1981) that when teachers undergo the same educational process to gain teaching skills, the mastery level of their subject should not exhibits serious discrepancies. The significant differences shown by public and private schools teachers in lesson note preparation, use of textbooks, relevant qualification, practical demonstration, apparatus / material manipulations and competence in diagram drawing emanated due to the effective supervision of private school chemistry teachers by their proprietors who also aims at engendering academic excellence to give name to the schools among foremost reputable ones. Due to lack of materials and students’ over population in most of the public schools, chemistry teachers found it difficult to demonstrate their competencies to the fullest contrary to
what obtain among private schools where parents buy textbooks to their children and materials are available for chemistry practical.

Table 4: Chemistry Teachers’ Evaluative Competence

<table>
<thead>
<tr>
<th>Evaluative Competence</th>
<th>School Type</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev.</th>
<th>Std. Error</th>
<th>t</th>
<th>Df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find generation of question items difficult</td>
<td>Private</td>
<td>334</td>
<td>0.37</td>
<td>.484</td>
<td>.026</td>
<td>3.77</td>
<td>748</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.25</td>
<td>.431</td>
<td>.021</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find preparation of Chemistry marking guide is very difficult</td>
<td>Private</td>
<td>334</td>
<td>0.29</td>
<td>.453</td>
<td>.025</td>
<td>3.20</td>
<td>748</td>
<td>.001*</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.40</td>
<td>.490</td>
<td>.024</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am often confused of appropriate class exercises to administer</td>
<td>Private</td>
<td>334</td>
<td>0.49</td>
<td>.501</td>
<td>.027</td>
<td>-</td>
<td>748</td>
<td>.361</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.52</td>
<td>.500</td>
<td>.025</td>
<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I regularly administer Chemistry assignments</td>
<td>Private</td>
<td>334</td>
<td>0.59</td>
<td>.492</td>
<td>.027</td>
<td>1.49</td>
<td>748</td>
<td>.036*</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.46</td>
<td>.499</td>
<td>.024</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find it easy to respond to students’ questions</td>
<td>Private</td>
<td>334</td>
<td>0.74</td>
<td>.441</td>
<td>.024</td>
<td>1.33</td>
<td>748</td>
<td>.014*</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.69</td>
<td>.462</td>
<td>.023</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I keep continuous assessment records</td>
<td>Private</td>
<td>334</td>
<td>0.77</td>
<td>.424</td>
<td>.023</td>
<td>5.01</td>
<td>748</td>
<td>.044*</td>
</tr>
<tr>
<td></td>
<td>Public</td>
<td>416</td>
<td>0.60</td>
<td>.491</td>
<td>.024</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = Significant at .05 level

From Table 2, public school chemistry teachers found setting of Chemistry questions (item generation) easier than the private school teachers. This implied that public school teachers were more competent in setting chemistry questions than private school teachers and the difference in their competence in this area was significant (t(748)=3.770, P<0.05). In preparation of chemistry marking guide, private school teachers proved to be more competent than public schools chemistry teachers and the difference was also significant (t(748)=0.3204, P<0.05). In administration of chemistry class exercises, public school teachers were more confused of nature of chemistry class exercises to give to students though the difference in their administration of class exercise competence was not significant (t(748)=0.9814, P>0.05). Private school teachers found giving of regular chemistry assignments to students more convenient than the public school teachers and there was a significant difference (t(748)=1.492, P<0.05) in the rate at which the two groups give assignment to students. Teachers giving of feedback by responding to students questions was more appreciable among the private school teachers than their public counterparts and the difference in exercising this competence was significant (t(748)=1.329, P<0.05). Public teachers had lower competence in keeping continuous assessment records than the private school teachers who exercise efficiency in keeping such records and there exited a significant difference (t(748)=5.013, P<0.05) in continuous assessment record keeping competence between the two groups.
Private school teachers also showed more competence in evaluating their students than their public school counterparts. Due to overpopulated class size in the public schools, teachers in these schools tend to rationalise the number of tests, assignments and class exercises to give the students. They found the scoring of students’ performance in these assessment modes difficult to do. Unlike the private schools where teachers have less students to deal with and can give as many tests, exercises and assignments as much as possible. Also, since the private schools are under the administration of most proprietors, close monitoring and regular checks of teachers’ continuous assessment records of students are routinely done, such teachers often sit tight to make their records intact and update. The public school teachers feel that they and their administrators are civil servants employed by the government and so administrators have no absolute power to discipline or sack them. So they could evaluate their students using any convenient means for them.

**Conclusion and Recommendations**

It is evident from the findings of this study that there exist variations in the instructional and evaluative competencies of private and public chemistry teachers. The differences were exhibited in lesson note preparation, use of chemistry text books, relevant qualifications, practical demonstration, material and apparatus manipulation and chemistry related diagrams competencies but no difference was noticed in their mastery of chemistry concepts. Private school chemistry teachers are more competent in most of these areas except that public school chemistry teachers are more qualified than those in private schools. On evaluative competence, variations exist in chemistry item generation, chemistry marking guide preparation, giving of assignments, response to students’ questions and keeping of continuous assessment records. No significant difference was noticed in their class exercise administration competence. Private school chemistry teachers showed greater evaluative competence than the public teachers.

In view of the findings, there is a need for education authorities to carry out close supervision and inspection of chemistry teachers in order to increase their instructional and evaluative competences. Schools need to train teachers on how to write lesson notes using more experienced ones. Public school chemistry teachers should be exposed to seminars and workshops to update their knowledge and competencies in lesson note writing, use of textbooks to support instructional delivery, practical demonstrations, apparatus / material
manipulation and chemistry diagram dexterity. Teacher training institutions should enhance their course materials to beef up the instructional and evaluative competence of the would-be teachers in order to meet up with high students population, Information Communication Technology (ICT) and modern-day emphasis on learners’ centred instructions.

References
Berry, B. (3003). *What it means to be a “highly qualified teacher”*. Southeast Centre for Teaching Quality.


Change Agents, Training and Age as Correlates of Use of Computers among Masters Students in Makerere University School of Education

Bakkabulindi, F. E. K.
East African School of Higher Education Studies and Development, Makerere University

Kabasiita, J.
Mountains of the Moon University

The purpose of the study was to establish the relationship between each of (i) change agents (ii) training and (iii) age and use of computers among Masters students in School of Education, Makerere University. The study was a correlational and cross-sectional survey biased to the quantitative approach, involving 69 respondents. Primary data were collected using a self-administered questionnaire, and their validity and reliability ascertained using Factor Analysis and Cronbach Alpha respectively. Means were used for descriptive data analysis, while t test, Analysis of Variance helped with preliminary test of hypotheses at bivariate level. Correlation was used to test for absence of multicollinearity among independent variables, while Regression Analysis helped with confirmatory test of hypotheses at multivariate level. The study found that while (i) interaction with ICT change agents and (ii) ICT training were insignificant correlates of use of computers; (iii) age was a significantly negative correlate of the same. Appropriate conclusions and recommendations were made, including the recommendation that to improve use of computers among Masters students in the School of Education, Makerere University, stakeholders such as Dean, deputy deans and heads of department should give extra encouragement and/or assistance with respect to ICT to the aged and ageing students.

Keywords: ICT, Innovation adoption, Rogers’ Theory

Introduction

Organizations wishing to survive have to foster adoption of innovations among their members (Mullins, 2010). One innovation that is particularly important for organizational survival these days are computers and/or ICT, given their innumerable benefits such as raising efficiency of those who use them, by for example making them work faster and with increased accuracy. Computers have raised productivity of their users by for example making them (users) more versatile, that is able to do more than one job, say by allowing a computer user to be an own secretary and filing clerk. Unfortunately however, use of computers and/or ICT by students in Makerere University has consistently been reported to be very low. For example Asiimwe (2011, April 18 – 24) in the East African newspaper of that week, quoted the then Vice Chancellor of the University as decrying the non-use of online library services by students, thus

Professor Baryamureeba says [that] students rarely use... [online] publications and some of the publishers are raising queries about this.
He says [that] Makerere subscribes to 10,000 e-books and e-journals, which students have access to as long as they are within Makerere Campus. However, only a few students use them.

This failure by students to make optimal use of ICT in the University leads to several undesirable outcomes such as wastage of funds the University and donors have sank on underutilized or even unutilized facilities. For example the Makerere University ICT Policy and Master Plan (Makerere University, 2001) reports that the University had planned to disburse as much as $10.7 million on ICT related projects for the period from 2000 to 2004. Meanwhile, the University’s ICT Policy and Phase II of the Master Plan (Makerere University, 2004) reported that donors and Makerere itself had actually mobilized $8.47 million for ICT projects for the period from the same period, 2000 to 2004. These are staggering sums by standards of an institution in a young country. It is therefore appropriate to isolate the reasons why students in Makerere University are slow to embrace use of ICT.

Theory
On the theoretical/conceptual side, the study considered computers as an innovation and basing on Rogers’ Innovation Diffusion Theory (IDT), built a conceptual framework that explained adoption of computers as dependent on interaction with ICT change agents, ICT training and age. According to Rogers (2003), IDT was proposed by Rogers himself in 1958 after his doctoral studies (1953-1955) on adoption of agricultural innovations in Iowa State University, US. The theory stipulates that an individual’s propensity to adopt or use any innovation such as computers, depends on the individual characteristics of that person. Such individual characteristics according to the Theory include the extent to which that person interacts with change agents of relevance to the innovation in question; the level of training of relevance to the innovation the person has received; and how old the person is. If the person interacts much with change agents of relevance to the innovation in question, then that person will have high propensity to use the innovation. If the person has a high level of training of relevance to the innovation, then that person will have high propensity to use the innovation. The older a person becomes, the less that individual will be attracted to use innovations. On the basis of that Theory, this study proposes that use of computers (an innovation) by a student, could be related to individual characteristics of that student, namely interaction with ICT change agents, level of ICT training and age.
Related Literature

Interaction with Change Agents and Use of Innovations

Rogers (2003) defines a change agent or champion as an “individual who influences clients’ innovation-decisions in a direction deemed desirable by a change agency” (p. 366). Rogers (2003) goes on to observe that many different occupations fit that definition of change agent: teachers, consultants, public health workers, agricultural extension agents, development workers, and sales people. “All these change agents provide a communication link between a resource system with some kind of expertise and a client system” (p. 368). On the importance of change agents and/or champions in a change effort, Rogers (2003) asserts that “earlier adopters have more contact with change agents than do later adopters” (p. 291). However, Rogers (2003) cautions that, the mere presence of a change agent is not a guarantee for the success of a change effort, suggesting some twelve conditions for the success of a change agent, namely: (i) being hard working (ii) being client-oriented rather than change agency-oriented (iii) being compatible with client needs (iv) being empathetic with clients (v) having homophile with clients (vi) having to work through opinion leaders (vii) being credible in the clients’ eyes (viii) trying to increase client ability to evaluate innovations (ix) having a high social status among clients (x) allowing high social participation (xi) having high education and literacy and (xii) being cosmopolitan.

Studies relating interaction with change agents or champions and use of innovations can be found. For example, Drent and Meelissen (2008) in their mixed-method (i.e. both quantitative and qualitative) study of teacher educators in Netherlands, came to the finding that teacher educators who used ICT innovatively in the learning process (i.e. going beyond simple applications such as word processing to using a variety of ICT applications to facilitate student learning) were characterized by being “willing to keep extensive contacts with colleagues and experts in the area of ICT for the sake of... own professional development” (p. 197). Colleagues and experts in the area of ICT contacted are presumed to be ICT change agents. El-Gayar, Moran and Hawkes (2011) in their study of students’ acceptance of tablet PCs (TPC) and implications for educational institutions at a Midwestern public university in US, used Structural Equation Modelling to show that;

social influence ha[d]... proven to be a significant [of TPC acceptance]. Consistent with hypothesis..., the degree by which a
student perceived the importance of how significant others (such as peers and faculty perceive him or her using the technology, positively influence[d] his or her... acceptance of TPC (p. 66).

The said peers and faculty are presumed in this paper to be “change agents or champions” positively influencing acceptance of TPC. Jaidee and Beaumont (2005) in their qualitative study of factors affecting small to medium manufacturing enterprises (SMMEs) in adopting business-to-business electronic commerce (B2BEC) in Thailand, found that influence of trading partners, presumably change agents, positively influenced the decision of owners/managers to adopt B2BEC. Theoretical and empirical support for “change agents or champions” as a positive correlate of adoption of innovations is thus overwhelming. Hence in this paper, it is being hypothesized that interaction with ICT change agents is a positive correlate of use of computers.

Training and Use of Innovations

Buckley and Caple (2000) define “training” as a planned and systematic effort to modify or develop knowledge, skills or attitude through learning experience, to achieve effective performance in an activity. Thus, training in a work situation is concerned with extending and developing employees’ capabilities and enabling them perform better in their jobs. Buabeng-Andoh (2012) on his part, observes that teachers’ professional development is a key factor to successful integration of computers into classroom teaching. They cite several studies as having revealed that whether beginner or experienced, ICT-related training programs develop teachers’ competencies in computer use, influence teachers’ attitudes towards computers as well as assisting teachers reorganize the task of technology and how new technology tools are significant in student learning. Several researchers (e.g. Garcia-Valcarel & Tejedor, 2009; Hung, Hung, Tsai & Jiang, 2010; Stuart, Mills & Remus, 2009) established training to be a positive correlate of adoption of innovations.

For example Garcia-Valcarel and Tejedor (2009) in their study of training demands of lecturers related to use of ICT among staff of University of Salamanca, Spain established ICT training as a positive correlate of adoption of ICT. For example from their interviews of teachers, they established that “lecturers who do not use them [ICT] in teaching included among their reasons lack of... knowledge” (p. 179). Hung et al (2010) in their study of critical factors of hospital adoption of Customer Relationship Management (CRM) in Taiwan, used
Discriminant Analysis to establish that information system capabilities of staff, which only come through training, had significant influence on the adoption of CRM. Stuart et al (2009) in their quantitative study of primary school leaders in New Zealand used Partial least Squares (PLS), a form of Structural Equation Modelling (SEM) to show that “ICT use was significantly linked to ICT knowledge... and ICT experience” (p. 739), which knowledge and experience comes from ICT training. Thus Stuart et al (2009) established ICT training to be a positive correlate of adoption of ICT. From the literature, it is being proposed that ICT training is a positive correlate of use of computers.

**Age and Use of Innovations**

Schiffman and Kanuk (2004) observe that age of the consumer innovator is related to the specific product category in which the consumer innovates, with consumer innovators tending to be younger than either late adopters or innovators because many of the products selected for research attention such as fashion and automobiles, are particularly attractive to young consumers. Kok, Kee, Ping, Khalid and Yu (2011) while quoting relevant studies propose that “youthful managers are more appealing to fresh and unique ideas, and more willing take risks than older managers. The older managers are slow to adopt new technology unless they believe that there is an advantage in adopting the new technology” (p. 303). Several studies have established age to be a negative correlate of adoption of innovations.

For example, Kok et al (2011) used Multiple Regression to identify determinants of internet adoption in Malaysian audit firms, and established that “age of audit partners are significantly [negatively] associated with internet adoption” (p. 302). Some studies have established age to be only an indirect correlate of adoption of innovations. For example, Sim, Tan, Ooi and Lee (2011) in a study exploring individual characteristics on adoption of broadband using the largest private university in Malaysia, used Multiple Regression to establish that age was an indirect correlate of adoption by mediating each of perceived usefulness (PU) and perceived case of use (PEU), each of which in turn, significantly related to behavioural intention (BI) to use broadband. However some studies did not find age to correlate with use of innovations.

For example, Educause Centre for Applied Research, ECAR (2010) in their mixed (i.e. quantitative and qualitative) study of technology adoption and ownership of IT among undergraduates in the US, reported finding “no meaningful difference between freshmen and
senior respondents regarding their ownership of desktops…” (p. 44). On adoption of mobile Internet, they said “we found no common demographic or other characteristic of... non-users, including... age…”(p. 49). However some studies have found age to actually be a positive correlate of adoption of innovations. For example Billon, Marco and Lera-Lopez (2009) in their study of disparities in ICT adoption, used Canonical Correlation to establish that “in developing countries, population age... positively associated with... ICT adoption” (p. 596). Thus as Rogers (2003) observes, “there is inconsistent evidence about the relationship of age and innovativeness” (p. 288), that is readiness to adopt of innovations. Nevertheless, because of overwhelming empirical support, it is still being hypothesized that age is an inverse correlate of use of computers.

Method

Design

The study took the quantitative approach or paradigm in that it was based on variables measured with numbers and analysed with statistical procedures. In particular the study was a correlational, cross-sectional survey. It was correlational in that it was interested in relating each of three numerical independent variables (interaction with ICT change agents, ICT training and age) to an equally numerical dependent variable (use of computers). The study was a survey in that it involved a relatively large number of respondents, and cross-sectional in so far as pertinent data were collected from all respondents once and for all to reduce on time and costs involved.

Sample

The target population in the study was constituted by all Masters students in School of Education, Makerere University, in a recent academic year. However because of constraints, the accessible population was constituted by only those Masters students in their first year who were all doing their Research Methods paper who numbered about 100. However given the relatively small population, and given that not all respondents would return the instruments given to them, all first year Masters students were included in the targeted study sample. Unfortunately, only 69 of the students responded, giving an overall response rate of about 69%.
Instrument and Procedures
Data were collected using a self-administered questionnaire (see Appendix) with items on course of study, age, sex and income level. It had a question on whether or not a respondent had any ICT change agents in their department; a question on whether or not a respondent had any ICT qualification; five items on use of computer hardware; eight items on use computer applications software; and 11 items on use of ICT communication facilities. In terms of procedure, the “captive audience” method was used in that respondents were asked before one of their Research Methods lectures to answer the questionnaire and return it there and then, thus minimizing non-response.

Data Management
The data collected were processed and then analysed. The data on returned questionnaires were edited, coded and entered into computer using the Statistical Package for Social Sciences (SPSS). Validity and reliability of data collected were ascertained using Factor Analysis and Cronbach Alpha respectively. Means were used for descriptive data analysis, while t test, Analysis of Variance helped with preliminary test of hypotheses at bivariate level. Correlation was used to test for absence of multicollinearity among independent variables, while Regression Analysis helped with confirmatory test of hypotheses at multivariate level.

Results

Profile of Respondents
Details on background characteristics of the sample of 69 Masters students, are given in Table 1, which suggests that the typical respondent was doing a Masters in Education (55%), aged between 25 and 40 years (81%), male (55%), and of medium income (over 66%).
Table 1: Descriptive statistics for personal information of the respondents

<table>
<thead>
<tr>
<th>Description</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>M Ed *</td>
<td>38</td>
<td>55.1</td>
</tr>
<tr>
<td></td>
<td>M Ed ICT</td>
<td>3</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>M A Educ Mgt</td>
<td>19</td>
<td>27.5</td>
</tr>
<tr>
<td></td>
<td>M A Educ Policy &amp; Planning</td>
<td>5</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>M Sc Human Resource Mgt</td>
<td>4</td>
<td>5.8</td>
</tr>
<tr>
<td>Age group in years</td>
<td>Up to 25</td>
<td>7</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>25 but below 40</td>
<td>54</td>
<td>80.6</td>
</tr>
<tr>
<td></td>
<td>40 and above</td>
<td>6</td>
<td>9.0</td>
</tr>
<tr>
<td>Sex</td>
<td>Female</td>
<td>31</td>
<td>44.9</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>38</td>
<td>55.1</td>
</tr>
<tr>
<td>Income level</td>
<td>Low</td>
<td>22</td>
<td>32.4</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>45</td>
<td>66.2</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>1</td>
<td>1.5</td>
</tr>
</tbody>
</table>

*Curriculum, Teaching & Media; Foundations; Language & Literature; Psychology; Science; Social Science & Arts

Dependent Variable: Use of Computers

Use of computers was conceptualized in terms of use of hardware (five items), applications software (eight items), and communication facilities (11 items) respectively. Each item was scaled in such a way that 1 = Very rarely or never, including never heard of it; 2 = Rarely use; 3 = Neither rarely nor regularly; 4 = Regularly; and 5 = Very regularly.

Use of Hardware

Table 2 presents the study items for the first aspect of the dependent variable (DV₁) in the study, namely “use of hardware” (H), their means, factor loadings and Cronbach alphas. Means on items in Table 2 were at most “3” which on the rating scale used corresponded to “fair”, meaning that most items of hardware recorded rare and hence, poor levels of use. To establish construct validity, Factor Analysis was used to extract one component from the five items on DV₁, having an eigenvalue of 2.958 and explaining over 59% of variance in the construct. Considering factor loadings above 0.5 as being high (Foster, 1998), it is apparent that the component loaded highly on all items of use of hardware (H), meaning that all five items were valid. Cronbach alpha had already been computed as 0.8261, which was high since it exceeded 0.7 (Hair, Anderson, Tathan & Black, 1998), suggesting that the five items (H₁ through H₅) were reliable measures of the construct. An overall average index “Hardware” on the five items, had a mean of 2.19, which was about “2” which on the rating scale used, corresponded
to “rare” and hence poor levels of use. Thus the hardware aspect of use of computers was rated “poor”.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Mean</th>
<th>Component *</th>
<th>Cronbach α</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>H1</td>
<td>3.06</td>
<td>0.863</td>
<td>0.8261</td>
</tr>
<tr>
<td></td>
<td>H2</td>
<td>2.64</td>
<td>0.873</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H3</td>
<td>1.64</td>
<td>0.728</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H4</td>
<td>2.12</td>
<td>0.785</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H5</td>
<td>1.48</td>
<td>0.550</td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalue 2.958
% variance 59.153

* Only factor loadings above 0.5 reflected (as per Foster, 1998).

Use of Applications Software

Table 3 presents the study items for the second aspect of the dependent variable (DV₂) in the study, namely “use of applications software” (S), their means, factor loadings and Cronbach alphas. Except for items H1 (Operating systems) and H3 (Word processing) which attained fair ratings of use, means on all other items in Table 2 were at most “2” which on the rating scale used corresponded to “rare”, and hence, poor levels of use of applications software. To establish construct validity, Factor Analysis was used to extract two components from the eight items on DV₂, with the first having an eigenvalue of 3.816 against 1.375 for the second. The first component explained almost 48% of variance in the construct while the second explained only slightly over 17%.

Considering factor loadings above 0.5 as being high (Foster, 1998), it is apparent that while the first component loaded highly on all items of applications software (S), the second component highly loaded only on the third item (S3, that is, word processing). Such an item as S3 loading highly on more than one component is said to be complex (Moore & Benbasat, 1991, p. 207), and ought to be dropped from analysis. Thus all other items except S3 were considered valid. Having dropped S3, Cronbach alpha originally 0.8254, which was high since it exceeded 0.7 (Hair et al, 1998), was recomputed yielding 0.8067, meaning that dropping the third item (S3) made the measure less reliable, though more valid. An overall average index “Software” on all items on “Software” (S), except S3, had a mean of 1.97, which was about “2” which on the rating scale used, corresponded to “rare” and hence poor levels of use. Thus the applications aspect of use of computers was rated “poor”.
Table 3  Means, Validity and Reliability Analyses on Use of Applications Software

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Mean</th>
<th>Component *</th>
<th>Cronbach, α</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>S1</td>
<td>2.99</td>
<td>0.644</td>
<td>0.8254 **</td>
</tr>
<tr>
<td></td>
<td>S2</td>
<td>2.36</td>
<td>0.646</td>
<td>0.8067 ***</td>
</tr>
<tr>
<td></td>
<td>S3*</td>
<td>3.36</td>
<td>0.629</td>
<td>0.518</td>
</tr>
<tr>
<td></td>
<td>S4</td>
<td>2.16</td>
<td>0.736</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S5</td>
<td>1.61</td>
<td>0.718</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S6</td>
<td>1.74</td>
<td>0.779</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S7</td>
<td>1.51</td>
<td>0.675</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S8</td>
<td>1.41</td>
<td>0.684</td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalue 3.816 1.375
% variance 47.695 17.193

* Only factor loadings above 0.5 reflected (as per Foster, 1998).
* Dropped from analysis due to complexity
** Before dropping complex item
*** After dropping complex item

Use of ICT Communication Facilities

Table 4 presents the study items for the third aspect of the dependent variable (DV₃) in the study, namely “use of communication facilities” (C), their means, factor loadings and Cronbach alphas. Except for items C4 (Email) and C5 (Web surfing) which attained fair ratings of use, means on all other items in Table 2 were at most “2” which on the rating scale used corresponded to “rare”, and hence, poor levels of use of ICT communication facilities. To establish construct validity, Factor Analysis was used to extract three components from the 11 items on DV₃, with the first having an eigenvalue of 3.858 against 2.13 and 1.317 for the second and third components. The first component explained over 35% of variance in the construct while the second and third explained only slightly over 19% and almost 12% respectively of the variance.

Considering factor loadings above 0.5 as being high (Foster, 1998), it is apparent that while the first component loaded highly on all items of ICT communication facilities (C) except the first (C1) and third (C3). The second component highly loaded on only five items (C3 to C5, C7 and C8), while the third component loaded highly on only three items (C1 and C2). Thus complex items loading highly on more than one component (Moore & Benbasat, 1991, p. 207), namely C2, C4, C5, C7 and C8 were dropped from analysis. Also items C1 and C3 were dropped because they did not load highly on the main component. Thus only the remaining items (C6, C9 to C11) were considered valid. Having dropped items, Cronbach alpha originally 0.7959, which was high since it exceeded 0.7 (Hair et al, 1998), was recomputed yielding 0.7845, meaning that dropping items made the measure less reliable, though
more valid. An overall average index “Comm” on remaining four items on “use of ICT communication facilities” (C), had a mean of 1.73, which was about “2” which on the rating scale used, corresponded to “rare” and hence poor levels of use. Thus the ICT communication aspect of use of computers was rated “poor”.

Table 4 Means, Validity and Reliability analyses on use of ICT communication facilities

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Mean</th>
<th>Component *</th>
<th>Cronbach α</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>C1#</td>
<td>2.29</td>
<td>0.715</td>
<td>0.7959 **</td>
</tr>
<tr>
<td></td>
<td>C2*</td>
<td>2.20</td>
<td>0.594</td>
<td>0.715</td>
</tr>
<tr>
<td></td>
<td>C3#</td>
<td>1.28</td>
<td>0.587</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C4*</td>
<td>3.36</td>
<td>0.555</td>
<td>-0.639</td>
</tr>
<tr>
<td></td>
<td>C5*</td>
<td>3.45</td>
<td>0.571</td>
<td>-0.585</td>
</tr>
<tr>
<td></td>
<td>C6</td>
<td>1.64</td>
<td>0.682</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C7*</td>
<td>1.23</td>
<td>0.56453</td>
<td>0.695</td>
</tr>
<tr>
<td></td>
<td>C8*</td>
<td>1.23</td>
<td>0.528</td>
<td>0.680</td>
</tr>
<tr>
<td></td>
<td>C9</td>
<td>1.80</td>
<td>0.762</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C10</td>
<td>1.61</td>
<td>0.659</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C11</td>
<td>1.88</td>
<td>0.728</td>
<td></td>
</tr>
</tbody>
</table>

| Eigenvalue | 3.858 | 2.13 | 1.317 |
| % variance  | 35.072 | 19.364 | 11.972 |

* Only factor loadings above 0.5 reflected (as per Foster, 1998).
# Dropped from analysis due to low load on main component
* Dropped from analysis due to complexity
** Before dropping complex items
*** After dropping complex items

Index on Use of Computers

To get an overall picture of how respondents rated themselves on use of computers, an average index “Computer” was computed from the three indices (Hardware, Software and Comm) from Tables 2, 3 and 4, and found to have a mean = 1.96, which as per the used scale was suggesting that overall, the majority of respondents rarely used computers.

Bivariate Analyses

Interaction with ICT Change Agents and Use of Computers

The first hypothesis (H1) in the study was that interaction with ICT change agents positively correlated with use of computers. Respondents were thus prompted to state whether or not, in their observation, their department had an ICT change agent(s), that is, a person(s) promoting
the cause of ICT. Table 5 gives pertinent summary statistics and Fisher’s ANOVA, where the three sample means suggest that use of computers did not significantly change with interaction with ICT change agents (F is small given that its significance level is small, p > 0.05). Thus ANOVA is suggesting that the first research hypothesis, H1 be rejected at the five percent level of significance (p > 0.05).

Table 5: Statistics and ANOVA results on use of computers by interaction with ICT change agents

<table>
<thead>
<tr>
<th>Any interaction with ICT change agents?</th>
<th>Count</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>17</td>
<td>1.96</td>
<td>0.81</td>
<td>0.155</td>
<td>0.857</td>
</tr>
<tr>
<td>Yes</td>
<td>46</td>
<td>1.98</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not observant</td>
<td>6</td>
<td>1.81</td>
<td>0.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
<td>1.96</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ICT Training and Use of Computers

The second hypothesis (H2) in the study was that ICT training positively related to use of computers. Respondents were thus prompted using one item to rate themselves on level of ICT training, by stating whether they had any ICT qualification or not. Pertinent summary statistics and t test results are given in Table 6, where the two sample means suggest that holders of an ICT qualification were better users of computers than those who did not. However, the small value of t (p > 0.05) suggests that H2 be rejected at the five percent level of significance (p > 0.05).

Table 6: Summary statistics and t-test results on use of computers by ICT training

<table>
<thead>
<tr>
<th>Hold any ICT qualification?</th>
<th>Count</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>39</td>
<td>1.86</td>
<td>0.70</td>
<td>-1.444</td>
<td>0.153</td>
</tr>
<tr>
<td>Yes</td>
<td>30</td>
<td>2.10</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Age and Use of Computers

The third hypothesis (H3) in the study was that age was inversely related to use of computers. Respondents were thus prompted to state their ages in years. Pearson’s Linear Co-relation Coefficient was used to correlate the two numerical variables, namely age and use of computers (“Computer”), yielding r = -0.372, suggesting acceptance H3 at the one percent level of significance (p < 0.01).
Multivariate Analysis

Bivariate analyses in Section 6.0 suggested that only age seemed a potential correlate of use of computers. However to establish the real correlates, use was made of a more powerful multivariate tool, Multiple Regression Analysis, which took into account simultaneous relationships of the many variables thus documenting collective effects and accounting for potentially spurious factors (Sweet & Grace-Martin, 2003).

Creation of Dummies

But before fitting the multiple regression model, independent variables were treated as follows: Because of its categorical nature, a dummy was created from Table 5 for interaction with ICT change agents (0 = none or not observant; 1 = yes). Similarly, a dummy was created from Table 6 for possession of an ICT qualification (0 = none; 1 = yes). Being a continuous variable, age was used in the model as given by the respondents with no modification.

Test for Multicollinearity

To check whether the independent variables were not highly related, that is suffering multi-collinearity, in which case they would distort multiple regression results (Sweet & Grace-Martin, 2003), correlations were run using Karl Pearson’s linear correlation as shown in Table 8. The resultant correlation matrix, suggested that none of the pairs of IVs was highly correlated. For example the correlation between “change agent dummy” and “ICT qualification dummy” (r = -0.062) was insignificant (p > 0.05). Similarly, the correlation between “change agent dummy” and age (r = -0.048) was insignificant (p > 0.05). So was the correlation between “ICT qualification dummy” and age (r = -0.016; p > 0.05). Thus the three independent variables were free from multicollinearity.

Table 8: Correlation Matrix for independent variables

<table>
<thead>
<tr>
<th></th>
<th>IV1</th>
<th>IV2</th>
<th>IV3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change agent dummy (IV1)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICT qualification dummy (IV2)</td>
<td>-0.062</td>
<td>1 (0.613)</td>
<td></td>
</tr>
<tr>
<td>Age (IV3)</td>
<td></td>
<td>-0.048 (0.702)</td>
<td>-0.016 (0.896)</td>
</tr>
</tbody>
</table>

p values are bracketed, while r values are not
Table 9 gives the multiple regression analysis of the dependent variable, DV (average index on use of computers, Computer) on the three individual characteristics. The significance level (F = 4.666) suggested that the relationship between DV and the three IVs was significant at the one percent level of significance (p < 0.01), with the adjusted R square (R^2 = 0.143) indicating that slightly over 14% of the variation in the DV could be attributed to those three IVs. Significance (p) values suggested that of the three IVs, only age (Beta, β = -0.369; p < 0.01) was a significant negative (r < 0) correlate of the DV. In other words, Multiple Linear Regression confirmed what was suggested by Correlation Analysis to the effect that H1 and H2 be rejected, while H3 is accepted.

Table 7: Regression Results of Use of Computers on Individual Characteristics

<table>
<thead>
<tr>
<th>Individual characteristic</th>
<th>β</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT change agent dummy</td>
<td>-0.007</td>
<td>0.952</td>
</tr>
<tr>
<td>ICT training dummy</td>
<td>0.207</td>
<td>0.074</td>
</tr>
<tr>
<td>Age of respondent (yrs)</td>
<td>-0.369</td>
<td>0.002</td>
</tr>
</tbody>
</table>

F = 4.666 (p = 0.005); Adjusted R square = 0.143

Discussion

Interaction with ICT Change Agents and Use of Computers

The first hypothesis (H1) in the study namely that interaction with ICT change agents positively correlated with use of computers, was not supported by the findings, which was also inconsistent with findings of earlier studies (e.g. Drent & Meelissen, 2008; El-Gayar et al, 2011; Jaidee & Beaumont, 2005). The findings are thus challenging theoretical assertions such as that by Rogers (2003) to the effect that a potential adopter who has more contacts with a change agent is more likely to benefit from the technological or technical knowledge of the agent and therefore to be more innovative than those with fewer contacts. This lack of significance of ICT change agents might be in support of Rogers’ (2003) assertion that mere presence of change agents is not adequate unless they are hard working, compatible with client needs, credible in the eyes of clients and allowing social participation; may be Makerere ICT change agents are not doing these. The finding leads to one major recommendation namely that, ICT change agents in the School be more hard working, compatible with client needs, credible in the eyes of clients and allowing social participation on ICT matters.
ICT Training and Use of Computers

The study set out to test whether ICT training positively correlated with use of computers, which hypothesis was not supported by the findings. This was not in congruence with past studies such as Garcia-Valcarel and Tejedor (2009), Hung et al (2010) and Stuart et al (2009). This finding is contradicting with theoretical assertions to the effect that training is directed at changing people’s attitudes, enabling employees to be more adaptable and as technological advances continue, enabling employees to cope with change (Buckley & Caple, 2000; Buabeng-Andoh, 2012). May be the anomalous finding is suggesting that certificates held by Masters students in the School surveyed are so elementary that they cannot positively tilt the use of computers scale in favour of those who hold them. To find out the nature of certificates held could be food for thought for future researchers. Meanwhile the study led to the conclusion all Masters students in the School be offered same encouragement and/ or assistance with regard to ICT without due regard to their earlier ICT qualifications.

Age and Use of Computers

The study findings agreed with the initial hypothesis that age is negatively related to use of computers, consistent with several past studies (e.g. Kok et al, 2011; Sim et al, 2011). The finding concurs with theoreticians such as Schiffman and Kanuk (2004) who observe that age is an important correlate of use of innovations, with consumer innovators tending to be younger than late adopters or innovators. It is thus recommended that to improve use of computers among Masters students in the School, stakeholders such as Dean, deputy deans and heads of department should give extra encouragement and/ or assistance to the aged and ageing students.

Conclusion

Use of computers and/ or ICT has innumerable benefits such as raising student efficiency by for example making a student work faster and with increased accuracy. Computers have raised productivity of students by for example making them more versatile, that is able to do more than one job, say in the case of a computer which allows a student to be an own secretary and filing clerk. Unfortunately however, use of computers and/ or ICT by students in Makerere University has consistently been reported to be very low. Thus studies geared towards isolating factors positively relating with use of computers are important.
This paper reports on a survey on use of computers in School of Education, Makerere University carried out with the purpose of linking use of computers to interaction with ICT change agents, ICT training and age. In so doing the study closed several gaps. For example, the study was among the few done in the area of use of computers in Makerere University to those three correlates. The main findings of the study were that while interaction with ICT change agents and ICT training were not correlates of use of computers, age was a significant negative correlate of the same. These findings especially the third one, have practical significance to ICT change agents in Makerere University and comparable institutions of higher learning. In particular the finding that there was significant negative correlation between age and use of computers, implies that stakeholders such as the Dean of School need to give preferential ICT support to aged and ageing Masters students if they are to effectively use computers.

However, despite its contribution, this study is not without limitations. For example the study used only three independent variables, yet there are other variables that could potentially relate to use of computers. Future studies should integrate more of these independent variables. The study was based on data collected from only one group of Masters students, from one school of the University. Thus the study left out a sizeable portion of Masters students and indeed graduate students in the University. Thus generalization of research findings to all Masters and graduate students in the University should be done with caution! Further, the study was quantitative, which prompts the proposition that future studies may at least combine the quantitative paradigm with the qualitative one to get a more full picture of the phenomenon. However despite the above shortcomings, the study has contributed to the debate on factors related to use of computers.

References


Directorate of ICT Support.


**Appendix**

**Study Questionnaire**

*Background Variables (BV)*

Please help us classify your responses by supplying the following facts about yourself:

**BV1** Your course of study

1. Master of Education (Curriculum, Teaching & Media; Foundations; Language & Literature; Psychology; Science; or Social science & Arts)
2. Master of Education (ICT)
3. Master of Arts (Education Management)
4. Master of Arts (Education Policy & Planning)
5. Master of Science (Human Resource Management in Education)

**BV2** How old are you (to the nearest whole year)? ……………………..

**BV3** What is your sex?  
1. Female  
2. Male

**BV4** How would you rate your income level?  
1. Low  
2. Medium  
3. High

*Independent Variable One, IV1: Interaction with ICT Change Agents*

According to your observation, does your Department have any ICT change agent or agents, that is a person or persons promoting the sauce of ICT?  
1. No  
2. Yes  
3. Not observant

*Independent Variable Two, IV2: Possession of ICT Qualification*

Do you hold any ICT qualification?  
1. No  
2. Yes
**Dependent Variable: Use of ICT**

Please indicate how often you use a given computer facility using a scale where 1= Very rarely or never, including never heard of it; 2= Rarely; 3= Neither rarely nor rarely; 4= Regularly; and 5= Very regularly

**Dependent Variable One, DV1: Hardware (H)**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC in general</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>PC printer</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>PC scanner</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>PC CD-RM and other multimedia components</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>PC zip drive</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

**Dependent Variable Two, DV2: Applications Software (S)**

<table>
<thead>
<tr>
<th>Software</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system software (e.g. DOS, Windows)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Utility software (e.g. anti-virus, disk defragmenters)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Word processing software (e.g. MS-Word, WordPerfect)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Spreadsheet software (e.g. MS-Excel, Lotus)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Database management software (e.g. MS-Access, dBase)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Graphics software (e.g. CorelDraw)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Desktop publishing software (e.g. PageMaker, Ventura)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Statistical or data research analysis software (e.g. SPSS)</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

**Dependent Variable Three, DV3: ICT Communication Facilities (C)**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Area Network (LAN) in your School</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Wide Area Network (WAN) in Makerere University</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>African Virtual University (AVU)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Email (sending or receiving messages)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>World wide web (surfing)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Bulletin board services, mailing lists, discussion groups</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Computer conferencing systems</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Video conferencing systems</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Electronics journals, newsletters (e.g. in Main Library)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Electronic data base (e.g. in Main Library)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>On-line library catalogs (e.g. in the Library)</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
The Career Development Industry in Uganda

Norman Nsereko
School of Education, Humanities and Sciences, Nkumba University

In this paper a description of the status of knowledge and practice related to career development in Uganda is given. A candid critique of the status quo of the industry, touching on the gaps, strengths and opportunities in/for the industry, is offered and the possibilities for transformation and change that promote the optimal career development are suggested. In particular, the paper calls for capital investments in human and financial resources in career guidance activities that will realize integral human resource development and successful global market competition and lifelong career planning and adaptability to changing workforce demands.

Keywords: Career guidance, Youth unemployment, Education reform

Introduction

The background to the discussion is rooted in President Museveni’s remarks on the apparent lack of effective career guidance in schools to influence proper work decisions among the youth. The president’s remarks are made 50 years after Uganda got independence reflecting similar sentiments about the poor state of guidance counselling services in our schools that were echoed by Ejulun in 1973 just eleven years after Uganda’s independence! Isn’t it time now to address this endemic and cyclic situation? The president’s remarks initiate a debate that is aimed at addressing the career development industry in Uganda.

The president’s perception of career guidance reflects the traditional views of vocational guidance which were aimed at facilitating the transition from school to the labour market, at preventing poor matches between employee and position, and at keeping employment rates high (Watts & Fretwell in McWhirter & McWhirter, 2012). This position has been since then out dated but revisited and enriched to mitigate the challenges in the ever changing world of work.

Today career development is part and parcel of human resource development and successful global market competition and lifelong career planning and adaptability to rumbling and changing workforce demands. This implies that career guidance efforts must be planned, train personnel, and ensure that quantity and quality of educational and career related information is available to the public. There must be a well developed public policy on career which informs the provision of services that involves multiple stakeholders, spelling out the roles of government and non-government counterparts, the utilization of
technology, and developing of an evidence base of demand, cost, and impact of services (Watts & Fretwell in McWhirter & McWhirter, 2012)

The discussion will show that government itself has not invested enough in developing the career industry. So the ball goes back to the president to sit on the drawing board to invest handsomely in career development so that what he has observed in schools and the unemployment rate among the youths are addressed once and for all.

Definitions

Career counselling

Career counselling is the process of helping a person to develop and accept an integrated and adequate picture of him/herself and of his/her role in the world of work, to test this concept against reality and to convert it into a reality with satisfaction to him/herself and benefit to society (Super, in Maree & Beck, 2004)

Career development industry

It conceptualized in this paper as the efforts/services initiated by different stakeholders in the transformation of Uganda society through offering career counselling services to the public.

Career

The term career is defined by Super (in Gladding, 2006) as the course of events that constitutes a life; the sequence of occupations and other life roles which combine to express one’s commitment to work in his or her total pattern of self development; the series of remunerated positions occupied by a person from adolescence through retirement, of which occupation is only one. A career includes work-related roles such as those of student, employee, and pensioner together with complementary vocational, familial, and civic roles. Careers exist only as people pursue them; they are person centred. (p.346)

Stimulus for Attention to Career Guidance in Uganda

Rumbling influences on world labour markets and social structures are greatly impacting low- and middle-income countries (Hansen, 2006). Among these include the changing job demands and pressures arising from imagined or actual international competition; plant closures
leading to mass layoffs; workforce changes like downsizing of the work force and unemployment; new technologies (Fouad et al. 2012). The rapid technological changes demand that the worker force in Uganda may have to update continually its knowledge, skills, and abilities or risk becoming outdated. This is a fertile ground for career guidance.

There is a big question mark regarding Ugandans’ motivation and attitudes (values) toward work and the organizational climate of career development which factors can contribute to choices regarding career development (Sterns & Dosertt, 1994).

The quagmire in the labour market in Uganda has been reflected in President Museveni’s call for effective career guidance activities in the Ugandan society. He blamed Uganda’s unemployment on poor career guidance in schools to young people who fail to take better study careers that can earn them favourable competition in the labour market (Uganda News Channel, 2012).

The government’s promise to allocate billions of shillings to youths as an economic incentive (UGpulse (a), 2012), all the eye brawl raising over jobs by the youth Members of Parliament (The Monitor, 2012) and the youth contemplation of mass demonstration for failure of government to deliver money (UGPulse (b), 2012) on the Ugandan youths’ silver plates are an indication of the neglect of the career guidance development services in Uganda. Government is giving a fish to the hungry youths who are readily awaiting an emergency but which cannot guarantee tomorrow’s survival.

What government should endeavour to do is to invest heavily in the career development industry in the country. The most evident outcome of this project would be that the youths in and out of school, the semi employed, semi-skilled and non skilled, dislocated individuals, the retiring professors and civil servants will gain the basic skills to find where they can fit in the ever changing world of work.

The profession of career guidance / guidance counselling is relatively young in Uganda (Nsereko, 2012), and its practice is largely confined within the school system. McWhirter & McWhirter (2012) have observed that what happens in the education system has the greatest effects on, and the greatest potential for improving, adolescent career development outcomes. However in countries like Uganda where there are massive numbers of unschooled or school drop outs other effective channels of career development activities should be looked into.

Career guidance outcomes are an important milestone in the consideration of the overarching debate on career development. Hansen (2006) quoting Watts & Sultana (2004) has summarized the Career guidance outcomes under three goals.
1) Lifelong learning goals: Combating early school leaving and ensuring an adequate knowledge and skills base to meet the challenges in creating knowledge-based societies in the context of economic globalization, and promoting adequate linkages between education, training and the world of work.

2) Labour market outcomes: Reducing mismatches between supply and demand for labour, dealing with unemployment and improving labour mobility.

3) Social equity and social inclusion goals: Promoting reintegration of marginalized and at risk groups into education, training and employment and mainstreaming of excluded groups into general training programs and labour market services

Such influences have provided added stimulus for attention to career guidance debate in Uganda.

**Documented Information about Career Guidance Services in Uganda**

The most available documented information about career guidance services in Uganda are from resource materials of the Ministry of Education in particular, other Ministries, independent stakeholders in career outcomes and the defunct East African Community reports of various departments. For instance the Ministry of Education published “Choosing a Career-May, 1965”, “Careers Newsletter-May 1965”, Signpost-January and May, 1966; May 1968; September, 1969; January and June, 1970, Vocational Rehabilitation in Uganda-February, 1969 (Ministry of Culture and Community Development, Shaping the Future-(East African Posts and Telecommunications Corporation), Careers with East African Airways- October, 1969 (East African Airways). These sources and many others offer theoretical approaches and information to clients and counsellors on issues of career guidance. The materials were prepared by personnel well versed in the field of guidance. However since by the time of writing the materials, there was no formal training of counsellors in Uganda it is more plausible that these authors might have been trained overseas.

The career guidance services in Uganda were started in 1965 under the Ministry of Education. The majority of those who were working as career personnel in schools obtained the skills from seminars organized by the Ministry of education and not from a university program in Uganda for training career guidance counsellors (Ministry of Education, 1973). The Ministry, organized materials for use in career guidance, e.g.

Ejulun, E. in her paper to the school participants in a seminar on Careers and Guidance organized by the Ministry of Education in 1973 made the following remarks. “that there is lack of a sufficient number of trained personnel [guidance counsellors] and funds to carry out these services [in schools]” (Ministry of Education, 1973, p. 42). She continues to note that teachers and administrators in schools should stand in for guidance counsellors because of the lack of enough trained counsellors to carry out the counselling duties.

In his speech the Permanent Secretary in the Ministry of Education, Mr. A.B. Adimola while opening the “Careers and Guidance Seminar” in 1973 said, “I notice from previous records that many of you have been interested in career guidance for quite a long time. You have been attending meetings like this one to gain the basic tools and ideas on how to go about guiding the young people in your care since 1965” (Ministry of Education, 1973).

There is little evidence to suggest that the participants implemented such good ideas like career teachers knowing what jobs most of the students in senior four and senior six are interested in or, accessing occupational information since the information itself was limited or whether career teachers followed up the school leavers from their schools (Ministry of Education, 1973). The most common career activities in schools were and are still confined to providing forms for candidate classes to fill for the next level of education and to invite guest speakers to address candidate classes or to hold single career days for specific classes. From such career guidance practices it seems that career guidance activities/training were by far and large left in the seminar rooms organized by the Ministry.

Formal Training in Guidance and Counselling

Makerere University started a formal training for guidance counsellors in 1994 at Masters Level with the purpose of creating resource people in guidance issues for schools. Those who were recruited for the program were teachers in secondary schools sponsored by government. The program was scrapped shortly afterwards in favour of the clinical psychology program.

With the opening of private universities from 1988 we see the introduction of the guidance and counselling programs in some public and private universities. Among these we have Kyambogo University; Nkumba University which started counselling courses at both the
undergraduate and postgraduate levels. Mbarara University of Science and Technology also started a diploma of science in counselling. Other post secondary institutions have since then started training programs in counselling (Nsereko, 2012).

**Department of Guidance and Counselling**

To date the Ministry of Education and Sports has a Department of Guidance and Counselling at the headquarters. Leadership in the field of Career guidance principally rests with government under the Ministry of Education and Sports. The Department of Guidance and Counselling is not for profit entity, providing a voice for the career industry and a focal point for the government of Uganda in promoting a career development culture in Uganda. It has recently launched a guidance and counselling journal to disseminate information about its activities and other useful guidance information. It has started to send some limited career information to schools as well. In its current operations it is mainly engaged in placement services for students entering tertiary and university education. And most of its operations are embedded in the more traditional approach of education placement and occupation choice services, single-handedly which practices have already undergone elsewhere a career approach metamorphosis in order to engage the new challenges in career counselling.

However it should be noted that “career guidance is not a narrowly defined, easily categorized function or set of activities that can be compartmentalized in a single profession and overseen by a single government authority; it is a function provided by practitioners with a variety of training and credentials in a variety of organizational settings” (Hansen 2006, p.15). The implication for Uganda is that viable career services must embrace an array of players, those in the public domain e.g. Government, (Ministries, Uganda Revenue Authority, Immigration Department and other parastatals), those in the private sectors e.g. service providers in education etc., business community, individual initiatives, Non Government Organizations etc.

**Challenges to Career Development in Uganda**

The career development situation in Uganda and the life experiences of many young people in society somehow resemble what was happening in America and Europe more than 100 years ago. What was happening?
There was stagnation and wastage for those who were in schools and those outside schools because of lack of guidance services especially in schools.

Stagnation arose because some learners could not be helped to choose the right courses appropriate to their ability e.g. someone could do a course in technology but because there was no readily available guidance he would end up doing what was familiar with him in his locality. There was rampant student underachievement in schools that was reflected in large numbers of ungraded candidates. There were significant learning problems e.g. retardation, truancy, youth delinquency, hand capped children, school leaving youth and disorientated, redundant ex service men from world war, unemployed out of school youth and the challenges in the choice of vocations etc. (Rao, 2006; Nsereko, 2012).

Unlike the Ugandan situation, in the USA one Frank Parsons being moved by the scenario of the career needs among the youths in general and learners in particular started a vocational guidance movement in 1908. It offered educational, vocational and placement services and later on counselling services to all sorts of youths including war veterans in an effort to reorient them in society and gain survival skills including joining university (Nsereko, 2012).

In spite of the widely acclaimed Kajubi Education Review Commission of 1987 which among other things recommended the establishment of guidance services in all schools, guidance counselling and career counselling in particular is still a myth in Uganda.

Even in higher institutions of learning where incidentally guidance and counselling courses are being offered, career guidance services to their own students are in total slumber in those institutions. The reasons to explain this scenario are a myriad. However it can be speculated that there is a low literacy level of career services conceptualization among stakeholders given their past lack of these services in their school time etc.

The Department of Guidance and Counselling which is the overseer of the career guidance activities in the country under the Ministry of Education and Sports is faced with a number of challenges in the provision of career services. In the first place it lacks effective public policies that facilitate large scale career service provision; it lacks human resource to brace up with the technical and professional demands of carrying out career activities. This situation affects the necessary commanding influence to see to the implementation of viable career services down to the schools and other environments where individuals should be assisted to integrate and apply an understanding of self and
the environment to make the most appropriate career decisions and adjustments.

There exist limited professional training programs specializing in career guidance. Those who have training in guidance activities may not necessarily have specialized in career guidance or being facilitated to ensure proper career activities are done in schools. And besides, they may or not be members of the Uganda Counselling Association. In any case they have no professional allegiance to the Guidance and Counselling Department in the Ministry. Coupled with the inherent problems facing the young Uganda Counselling Association, the members doing guidance work in schools and elsewhere lack the mandatory supervision to ensure professional competence.

The failure to command a membership that carries out career activities on the ground is a serious omission. Consequently the Department of Guidance and Counselling may not ensure professional expediency among those doing a semblance of career activities. Quite often those in charge of such activities are handpicked by the head teacher for whatever consideration to do career guidance in schools. They usually have nothing in terms of professional preparation.

Professional career guidance activities in schools are almost nonexistent. This can be evidenced from the present practices in schools, the school budget allocations, the actual reimbursement on the career activities and the absence of the required tools for assessment of clients to enhance informed guidance. School administrators are often not too keen to facilitate the career program activities. And besides, practically in all the schools in Uganda there are no assigned/appointed guidance counsellors let alone career specialists on the ground. It must be an uphill task for the Department of Guidance and Counselling to initiate career counselling services in schools without the equitable resource persons available.

In the dispensation of career activities, the application of psychometric tools or instruments is a necessary procedural routine especially in western countries. These include among others: the Academic Self-Efficacy Scale, The Vocational Skills Self-Efficacy Scales, the Career Decision Outcome Expectations scales, the Perceptions of Educational Barriers Scale, the Career Aspirations Scale etc. The instruments have been proven for their efficacy in deriving desired results in career counselling. Unfortunately in the Ugandan situation not only do we lack Eurocentric instruments in our career services but also there are no developed culture specific instruments to assist in career services. This handicap demonstrates the existing paucity of
intervention and outcome research in the area of career guidance that should have informed best practices in Uganda.

Where limited career services are offered it is usually in urban and first world schools leaving the rural and remote schools and communities, the out of school youths, the culturally diverse groups with no option to these services. All these groups constitute a latent economic force for the country. Yet the missed opportunities to career development will end in inactive engagement in economic activities that suite their ability. This is a recipe for poor mental health aggravation, social discontent and poor contribution to the economic well being of the country.

The above mentioned challenges make career development considerations not viable yet in providing all the skills needed by young people; school drop outs due to various problems, retiring and retired professors, civil servants, retrenched and out of action ex service men, adult and mature age clients to fit in today’s world of work.

The poor structures and the most inadequate career services in Uganda have caused colossal damages in terms of human resource, economic development and compromised mental health and in other developmental ventures of the country and individuals in particular. The more vivid manifestations of these consequences are the brain drain phenomenon, the mismatch between skills acquisitions and actual employment status, the graduates looming the streets of Kampala from graduation day through endless graduation anniversaries in search of a job, the urban influx of young people from the rural bread baskets of the sprawling conurbations all over the country, the unbelievable phenomenon of young people being attracted to ‘boda boda’ cycling industry, the emotional outburst and frustrations among the youth and even members of parliament for handouts from the power that be, the ever growing mad investments in political leadership as a life or death affair by contenders. The list of self damaging compromised life occurrences is endless.

**Salient Features in establishing Effective Career Guidance Services**

**Felt Need for Career Services**

The road to effective career guidance service is still a long way. However as the Chinese intimate that a journey of 1000 miles is embarked on by single step so should the career guidance services in Uganda. This adage supports the fact that career guidance
improvement is not just a single day’s activity. It is a process involving distinct but interrelated elements and players.

In Uganda there is a felt need to plan career guidance improvements at the national level in order to reflect changing skill requirements in the labour market, education and training systems and the emerging oil economy. In order to develop career guidance services that are relevant, integrated and cost effective a number of influential factors are to be put in perspective.

**Evolution in Career Development Perspectives**

Presently career guidance has been evolving in two fundamental ways. First, career guidance is moving away from its focus on assisting individuals to make education, training, and occupational selection decisions at the beginning of a working life. It is moving toward a more flexible focus on the continuous construction of choices about working life over a lifetime (Hansen, 2006).

Second, the work/life choices individuals make are multifaceted. They are made not only in the context of labour market factors but of human growth and development factors throughout a lifetime. Today it is not only the school-to-work transition of youth considered important, but also transitions that take into account family formation and support, ageing, and disability accommodation which would encompass the whole political spectrum. In this perspective, individuals in every country make continuous choices about their working life, whether conscious or not. The range of freedom within which decisions can be made and the availability and accessibility of useful information upon which to base decisions are primary considerations (Hansen, 2006).

**Ugandan Contextual Factors and Career Guidance**

The country has embraced a market economy away from a planned (labour allocation) which embeds the following characteristics: divestiture of government control of means of production into private entrepreneurs, free enterprise and no market controls and it is profit motivated production and survivor of only those with competitive skills in the world of work.

Uganda is slowly making a transition to democracy which will reflect changes in its political and social patterns. This implies that individual rights are protected and guaranteed by government. This will include rights of the citizens, immigrants, disadvantaged groups etc. the rule of
law especially in the fight against the endemic culture of corruption and impunity.

Uganda is faced with brain drain of already trained professionals and other categories of potentially labour force to neighbouring and distant countries. Already there are immigrating labour forces to the country, some with dubious credentials that threaten the work opportunities of the indigenous work force in terms of poor remuneration or unfair market competitions. So the country is forced with a demand to come up with a policy that will assist its citizens to make appropriate work choices in unfamiliar circumstances, or to strive to retain its labour talent in the country or risk an aggravated brain drain and capital flight to favourable environments.

Uganda is transiting from traditional economic bases to mineral exploration. This new phenomenon has its implications either as a move to economic glory or the proverbial curse of African countries with oil wealth.

The contextual information about Uganda (Uganda Bureau of statistics, 2010) reflects what most Low Income Countries experience in terms of limited economic, educational and social choices. It has been observed that such limitations in choice lead to different attitudes toward change and adaptability. The often observed slow pace of economic, political and social change particularly in rural areas, often discourage personal initiative to evolve and progress (Hansen, 2006) leading to massive urban migrations. Survival among Ugandans would demand an ability to adapt to the somehow precarious conditions.

**Culture in Career Guidance**

Hansen (2006) states that the cultural values of a society towards work and the role of the individual in relation to work have a lot to tell about the success of the career development programs. Values motivate people and shape the institutions that form societies. They are also the filter through which individuals process information.

Language is the ultimate medium through which culture and its values are comprehended, internalized and expressed. The mother tongue is the epitome of self esteem, confidence building, a fine discrimination between values and a manifestation of independence.

One owns and appreciates what mother tongue has committed to the bones and mallows. That is why an individual cannot use vulgar language in mother tongue without feeling remorse or out of place yet in another language the level of culpability is just remote.
In Buganda tribesmen who intended to inflict harm and robbery would comfortably use the proverbial expressions such as “sit down on the floor’, open the door’ ‘bring money’ etc. in another language to camouflage culpability and ease of conscience which would not have been done with ease in one’s mother tongue.

Language serves as the stepping stone to learn other languages, internalize skills and translate them in effective end products. Technology and other developments abound mostly in those countries that teach, use indigenous languages than those who adopt foreign or second languages for acquiring knowledge and skills. When all variables are held constant those who study in a foreign language may not have superior comprehension of knowledge and skills as those who study in a mother tongue.

The importance of developing career aspirations via an indigenous language cannot be overemphasized. This calls for the promotion of local languages by encouraging their proficiency through study, teaching, writing, oral expression, research and doing and reporting scientific studies in them.

Ugandan Cultural Values have been known to be deeply rooted in the cultural and religious values of its people producing a rich and diverse cultural heritage of its sixty five indigenous communities with unique characteristics, different beliefs and traditions. Lamentably the New Age error (Modernization, globalization and social change) has compromised and led to a breakdown in traditional social systems and values in Uganda. The most vivid manifestation of this phenomenon include complaints of moral decadence, breakdown of moral standards, ethics and loss of the much cherished traditions and values especially among the youth. The sad story of high levels of moral decay, prevalence of unethical conducts and lack of integrity in the management of public and social affairs is partly attributed to the breakdown of traditional values (Uganda National Commission for UNESCO, 2012).

Twinoburyo (Twino Speaks, 2012) has said Uganda can be understood through its cultural dimensions because culture plays a vital role in the community. He says that Ugandans are known to have a strong belief in hierarchy orders instead of being independent initiators. They tend to be collectivistic in culture which sometimes runs counter to the individualist culture which stresses high aspirations for an individual in spite of his / her humble past. Thus Ugandans may not easily break away from what their surroundings offer. It is a truism to find that the majority of Ugandan families may have two or one or none
out of its eight children on average who have escaped the spiral home economic and educational miserable status.

He continues to see Ugandans on an index of short-term orientation which is characterized by personal steadiness and stability, protecting your ‘face’, and reciprocation of greetings, favours, and gifts. The implication of this index is that individuals may sustain the culture of being soft, lacking assertiveness on what ought to be, provided one tips you for anything say an economic favour, position of leadership and for “mere ya leero” attitude.

Notwithstanding the lack of evidence for methodological rigour in the conclusions about the changing cultural values of Ugandans deduced above, it suffices therefore in planning career guidance activities to take cognizance of the values that give direction to Ugandans. Shouldn’t the first step be the reorientation into the acceptable ontological values of truth, respect, justice, fair play, responsibility, magnanimity, staying unmerited and insatiable pleasures; and the promotion of just systems in an effort to build a solid base for career development in Uganda?

**Practical Steps in Evolving Career Development**

The evolving understanding of career development and other unique Ugandan local circumstances would imply that the major institutions of society and particularly public policy-makers in government should endeavour to institute a career guidance policy that reflects the central themes of pursuing democratic governess, social justice, promoting the welfare of its communities in general and disadvantaged groups in particular, promoting independent career decisions and altering the status quo of society especially the emerging moral decadency and poor work ethics, the higher school certificate syndrome, university syndrome, the Makerere Campus syndrome, the public university syndrome, the white collar job syndrome.

Optimum Career guidance in Uganda needs to see to the overhauling of the education curriculum to suit the endowments and opportunities and challenges of Uganda, the diversity of its peoples, the potentials of individual students, the changing global economy, or the advances in technology that shape the current situation.

In my opinion the curriculum should stress the technical and vocational skills acquisition. At ‘A’ level there should be introduced two concurrent areas of study of either humanistic/scientific or professional/technical education. Those who wish to do either or at ‘A’ level may find a better preparation for further training in post
secondary institutions. This scenario would assist greatly students who opt for an early professional study choice, those who find practical studies more appealing than the purely academic and those in less privileged schools who have to labour to pass the current humanistic/scientific studies at ‘A’ level in order to qualify for post secondary studies.

The current overseer of career development services -the Department of Guidance and Counselling- should as a matter of urgency embark on the a process of developing and dissemination of career information on institutions of learning, job opportunities, qualification requirements etc. to the public; the promotion of work choice, job search and maintenance skills development; develop organization capacity of service delivery; staff development to support service delivery; and improved governance and coordination in career services.

In particular the Department of Guidance and Counselling must introduce and enhance career guidance programs in the schools or institutions of learning. Liaise with institutions of learning in establishing counselling centres, set up career Information Centres which provide free career information and resource service at convenient sites in major centres, introduce career service programs on media.

The Ministry of Education and Sports should initiate collaboration with other ministries to promote long life learning and workforce preparation. This may include the expansion of apprenticeship training initiatives, increasing the technical and labour skills of the workforce including for ‘A’ level students, mature age workers and out of school youth. Very many youth and mature age workers lack competitive skills to fit in the ever changing world of work in Uganda. Some did not complete the school cycle of at least secondary level. Efforts should improvise secondary education to them.

The use of internet today should be exploited in offering education, job etc. information. For instance specific well designed websites proving information on transition to work and connecting prospective workers with open positions for a wide variety of occupations or further study should be initiated.

The Department of Guidance and Counselling should liaise with training institutions to start special training programs tailored to the needs of career development practitioners in a variety of professional settings.

The idea of having a class room teacher to combine guidance work with teaching prospective student clients is unprofessional and unethical in the field of counselling. It risks falling into dual relationship
issues that will jeopardize proper service delivery and utilization. What does this ask for? It calls for government to employ guidance counsellors directly and separately for guidance work in schools.

The Guidance and Counselling Department together with the National Council of Higher Education and the Uganda Counsellors Association should ensure that professional standards are held by career counsellors. This should include an appreciation of counsellor competence in the field of career guidance.

The Department of Guidance and Counselling should engage other interested parties to initiate career related services and training programs for career specialization in an effort to develop a more comprehensive career industry. Outsource competent resource personnel in developing the career industry. Otherwise the onus of providing career services for the country is too much on its plate.

And above all career guidance activities should embrace a more pragmatic move away from its focus on assisting individuals to make education, training, and occupational selection decisions at the beginning of a working life toward a more flexible focus on the continuous construction of choices about working life over a lifetime. And to include human growth and development factors unique to our society that impinge on individual choices throughout a lifetime.

The Department of Guidance and Counselling should come out with a kind of package to be included in the national curriculum that spells out key work and life skills (U.S. Department of Labour, 1991; World Health Organization [WHO], 2012). It should be time tabled and taught across all schools from upper primary classes through secondary school level by professional guidance counsellors. The content should include among other things: career interests and vocational guidance, physical and mental health, work and school behaviours and attitudes, social, citizenship and life skills. Citizenship skills include problem solving, critical thinking, and respect for differences, sex education, civic education communication, and leadership (McWhirter & McWhirter, 2012). The department should put in place mechanism for monitoring its quality, content, or implementation at the school level.

**Conclusion**

In conclusion, the prospects of career guidance for a cross section of Ugandans and the eventual placement in the meaningful labour market are still a myth unless the government through the Department of Guidance and Counselling spearheads leadership in this aspect. It will not be possible to fight unemployment in Uganda unless career
guidance is addressed in its entirety. This calls for capital investments in human and financial resources in career guidance activities that will realize integral human resource development and successful global market competition and lifelong career planning and adaptability to changing workforce demands.

The transformation of the political, economic and social realities of Uganda in the post 50th independence anniversary will greatly be determined by how much effort will be put in career development. The greatest gift Government can give the country as a commemoration of the independence anniversary would be the investment in career development.

References


Note to Contributors

Manuscripts for publication in *Nkumba Business Journal* are welcome from both scholars and practitioners in any area of business and related disciplines. The manuscripts should not exceed 25 pages for the articles and 10 pages for book reviews and conference reports. Every submitted manuscript should be accompanied by an abstract of no more than 200 words. Contributors should also provide a short autobiography of each of the authors of the manuscript. Citation and referencing should follow the guidelines provided in the *Publication Manual of the American Psychological Association, 6th edition*. So do not number your topic and sub-topics.

Submission of a manuscript to *Nkumba Business Journal* implies that: 1) the work being described, in whole or substantial part, is not concurrently being considered for publication elsewhere; 2) those submitting them are willing to transfer their copyright to the publisher, if the article is accepted; 3) those contributing the manuscripts accept the Editor's prerogative to effect changes to the manuscripts as may be deemed fit for purposes of quality assurance; and 4) in case of two or more authors, all the co-authors have endorsed the submission of the manuscript. Contributors must not use sexist language. Articles are published on the assumption that they are original and have not been published elsewhere. In the unlikely event that plagiarized materials are published, therefore, those submitting them, rather than the Journal, are to be held to account. All the articles published in *Nkumba Business Journal* are covered by copyright and may not be reproduced without the prior permission of the copyright owner. All the manuscripts submitted are subjected to careful screening by the Editor and, if found to be generally suitable for publication, subjected to blind review by at least two peers. Manuscripts that are found to be generally unsuitable for publication in the Journal will not be submitted for peer review; rather, their contributors may be requested to make major revisions and resubmit.