

Ndejje University Journal

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University**

**Illuminating New Frontiers of
Knowledge in the 21st Century**

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About Ndejje University Journal

Ndejje University Journal was set up specifically to provide a platform for Ndejje University academics and students to publicise the knowledge produced in and by the university in a given academic year. As such, it is an annual publication that coincides with a given year's graduation ceremony. This is a deliberate symbolic gesture towards the journal's role as a mid-wife to knowledge production in the university and the country after a gestation period of an academic year. While the initial conceptualisation of the journal was to enact a platform for Ndejje University academic community to showcase its scholarly production, it currently publishes articles and essays that address Ugandan and regional critical issues from scholars and the public nationally and/or regionally. It also publishes topical articles from the public and industry. Its philosophy is to link teaching to research and theory to praxis. It intends to achieve this by availing industry and society knowledge that is produced by the university in order to improve the quality of life of Ugandans.

The journal is peer-reviewed and aims to shape theory and praxis on the research topics that students and staff of Ndejje University as well as scholars from other universities and the public are engaged. The authors are Ugandan and regional scholars who are researching and debating the region's pressing problems in the twenty first century. The editorial board consists of regional and Ugandan scholars (see the editorial and advisory boards) who are experts in their fields of specialisation. Submissions are sought from both established and new researchers of Ndejje University and other institutions of higher learning in the region to use *Ndejje University Journal* as a medium to reach a wide audience.

Ndejje University Journal acknowledges that the world of knowledge production has dramatically changed since its inception in 2006. The penetration of the Internet in Uganda particularly, and Africa generally was not at the current levels when the journal was started. That in the last 10 years we have witnessed an explosion in information and communication technologies that have largely and revolutionarily simplified the way faculty conduct and disseminate research output, inevitably requires changes in how knowledge is disseminated. Cognisant of this reality, the Editorial Board of *Ndejje University Journal* proposes a simultaneous publication in hardcopy and online in order to reach as many people as possible effective this edition.

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Editorial

We at *Ndejje University Journal* are glad to present to you the 6th issue of the journal. That this issue comes two years late is an indictment on the editorial team, even if the factors that caused this delay were beyond our control. However, having made a compact with you the reader, that *Ndejje University Journal* would be an annual publication that would coincide with the October graduation, we take full responsibility for this delay. Perhaps there were other avenues we should have explored to ensure the regularity of publication that we did not. This is why going forward we are proposing a dual publication platform. First, we shall continue with our hardcopy publication tradition. Second, starting with volume 6 of *Ndejje University Journal*, we are going to have an online publication that our readers can access for a fee (heavily subsidized) or for free, if we get sponsorship. Efforts are already underway to create a dedicate page at <http://www.ndejjeuniversity.ac.ug/ndejjeuniversityjournal> that will act as an alternative publication outlet of the journal. We pray that these plans come to fruition.

Under its mantra of illuminating new frontiers of knowledge in the 21st century and its interdisciplinary focus, *Ndejje University Journal* Volume 6 presents eight insightful articles on subjects as diverse as audit practices in Local Governments across the country, the value of university education, utilisation of e-resources in university libraries to mention but a few. Therefore, we take this opportunity to thank the authors who have trusted us with their research to be published in the 6th volume of *Ndejje University Journal*. Special thanks go to Dr Henry Buwule Musoke, Dr Milly Kwagala, Dr Rebecca Nyonyintono, Mr Rick Mayanja, Mr Brain Muchake, Mr Vanence Kamanyire, Ms Olivia Harriet Makumbi, Ms Joyce Nansubuga, Dr Peter Nabende, Dr Florence Tushabe, Mr Jude Namukangula, Mr Enos Baluku, Mr Marvin Mwabaze, and Mr Robert Jackrot Ssentongo for trusting *Ndejje University Journal* with your articles for publication. Thank you very much. We also extend our special thanks to the selfless scholars who peer-reviewed our papers at such short notice. Special thanks go to Dr Trynos Gumbo, Dr Kononsoang Sobane, Dr Fred Musisi, Dr John Paul Kasujja, Dr Muhamed Sendagi, Dr Ronald Kyagulanyi, Dr Rovincer Najjuma, Ms Rebecca Mukebezi, Dr Rebecca Nambi, Prof Moses Tenywa, Dr Michael Owor, Dr Jonas Wyk, Dr Martha Lynn and Dr Mwangi Mario for your service above the call of duty you exhibit in your timely review of the articles to published in this issue.

As it is a tradition at *Ndejje University Journal*, this issue has an eclectic selection of articles ranging from language automation customer care in Microfinance Institutions. In between are articles on education, library use and microfinance and auditing. This is a rich menu, which we hope every reader will enjoy. This issue is broadly organised around three clusters of articles. There is a cluster that explores business and economic challenges that the country is facing in the post-recovery dispensation. Another set of articles discusses the challenges

of higher education. Noting that following the Structural Adjustment Policies of the 1990s, which authorised the government to divesture itself from higher education, this sector has experienced many challenges related to quality and financing of the sector. The last batch of article explores the intersection between science/technology and the quality of life among Ugandans.

It can be argued that all the articles published in this edition of the *Ndejje University Journal* significantly contribute to important areas that have a tremendous impact of the quality of life not only in Uganda, but also the wider Eastern African region. A special article explores how science can be utilised to improve on the quality of lives of Ugandans. Olivia Makumbi and Rebecca Nyonyintono study Vernonia — a local and abundantly growing plant in the country — to explicate the preparation and dosage of this plant’s leaves in the treatment of malaria. This is also a timely scholarly intervention that seeks to answer one of the perennial problems in the country: the negative impact of malaria on the quality of life for many Ugandans. The huge economical and morbidity impact of malaria on the Ugandan population that their article explores seeks to rationalise how and why local ingredients should be utilised in combating Ugandan health and medical problems like malaria.

In the business/economics cluster, we have Dr Buwule’s article, which examines the recently important phenomenon of microfinance industry in Uganda. He asks whether service quality ensures profitability of these institutions in Uganda and consequently continued provision of services to Ugandans who cannot access credit or saving products in the mainstream banking industry. Enos Bakulu, Godfrey Kyobe and Milly Kwagala explore how customer care service indicators can contribute to client retention in enterprises. This is timely given the negative reputation that front desk and customer relations’ officers in Uganda are known for. Marvin Mwebaze, Milly Kwagala and Godfrey Kyobe et al tackle the issues of marketing in commercial banks arguing that relationship marketing is a panacea for client retention. Robert J Ssentongo and Milly Kwagala investigate why most local governments in Uganda have continually received qualified audits. This is recommended reading for all those interested in corruption and public finance challenges in the country currently.

Another set of articles explores the quality of university education in Uganda. With over 30 private universities and 8 public universities, the quality of education is an important issue for managers of these institutions. This is because the sector does not suffer from the handicaps of access. It is rather the quality of education that is a critical issue, especially after the 2011 Inter University Council for East Africa Report that noted that many graduates from Eastern Africa universities lack the basic requisite skills to perform in the professions they have trained. While Joyce Nansubuga explores whether students are satisfied with the education they get at university, Vanance Kamanyire examines whether universities equip their

learners with the requisite knowledge and skills needed in the job market. This is particularly pertinent given the unemployment challenge in the country that is often blamed on unemployable graduates that are churned out of Ugandan universities annually. Rick Mayanja and Milly Kwagala continue with the theme of university education, but from a different tangent. Their research asks whether the interface between technology and library service can be productive, and/or can be effectively leveraged in research and teaching at Ugandan universities. Their article argues that specialised training in ICT utilisation can have a tremendous impact on the use of e-resources by the stakeholders like lecturers and students in a university. Brian Muchake et al apply rules of bilingual parallel corpora to examine the feasibility of designing a programme that can automate Lusoga-English translations and possibly act a template for translation automation of other Ugandan languages.

Notes on Contributors

Dr Henry Buwule Musoke is currently a Senior Lecturer at Ndejje University. He holds a Doctorate in Business Management, Master of Science Accounting and Finance, PGD in Pedagogy, Bachelor of Business Administration, Diploma in Cooperative Business Administration and Certificate in Leadership for change (LFC). Before joining teaching, he also served as a Senior Cooperative officer in the Ministry of Trade, Tourism and Cooperatives. He has widely published in the area of Accounting, Finance and Cooperatives, especially in Microfinance Institutions. He is a member of the African Finance Association (AFA) and Institute of Corporate Governance of Uganda (ICGU).

Dr Milly Kwagala Oidu has a Bachelor of Business Administration (Accounting), Masters of Business Administration (Accounting and Finance) and PhD in Business Management from Nelson Mandela Metropolitan University in South Africa. She is currently a Senior Lecturer and Dean Faculty of Business Administration and Management at Ndejje University. She also acts as an Internal and External Supervisor of Postgraduate and Undergraduate Research at Ndejje, Kyambogo and Nkumba Universities respectively in Business Administration, Accounting, Finance, Management and Research. She is involved in Curriculum Review and Development and Quality Assurance in the Faculty of Business Administration and Management, Ndejje University. She has participated in several conferences and workshops both Locally and Internationally and she is an advocate for gender balance and fair treatment of the girl child/women and an organizer of an International Business Ethics Network in Africa. She was part of the organisation of an International Conference that took place in Uganda (Entebbe) October 2012 at which she conducted a poster presentation on the ethical orientation of microfinance managers in Uganda. She was the convenor of the First Ndejje University International Conference on Waste Management at Hotel Africana Kampala 2016.

Joyce Nansubuga is a Ugandan aged 34 years. She holds a B.A with Education in English Language and Literature and M.A with Education in Curriculum Studies from Makerere University. This article derived from her M.Ed dissertation, sought to find out whether university education satisfies student's needs such as equipping them with skills relevant to the job market. Her work is focused on guiding formulation of policy that can aid efficiency of university education in producing quality manpower. This is possible if teaching and learning encourage students to have full autonomy over their lives and wellbeing. This is when they can construct desirable knowledge, acquire values and skills relevant to the job market.

Dr Rebecca Mirembe Nyonyintono holds a PhD from State University of New York at Buffalo, specialising in Sociology and Social Psychology. She is currently Director, Directorate of Research and Innovations at Ndejje University. While her teaching interests are in Sociology of Education and Social Psychology, her research

and consultancy interest focus on young children, adolescents and family issues and in recent years, on sustainable development. Her concern is that, in spite of massive expenditure on education both at family and national level, children are leaving school prematurely i.e. dropping out without tangible vocational skills. This in turn, makes them vulnerable adults with little or no capacity for meaningful contribution to sustainable development. There is a lot that needs to be done and can be done to change the educational system to create children and adults who can drive sustainable development.

Olivia Makumbi holds a Master of Agriculture Degree from Makerere University and is currently a Lecturer in the Faculty of Environment and Agricultural Sciences at Ndejje University. Her teaching interests are in Sustainable Horticultural Production and Crops Entomology with an emphasis on the use of sustainable technologies to bring about water-smart production of the crops. Her research interests evolve around climate change, its effect on Agricultural Production and the coping mechanisms that smallholder farmers use to make a living. Her main concern is to explore how aspects of Indigenous Knowledge can be used to enable sustainable livelihoods development in the community, specifically, how society can use available indigenous plants to control debilitating diseases like malaria. She feels this would go a long way in creating a healthy community that can carry out income generating agricultural production.

Brian Muchake is currently a PhD candidate in the Department of IT Makerere University. He holds a M.Sc. and Bsc. in Information Technology from Makerere University. He also holds an MBA in International Business and a PGD in Information Technology from Amity University-India. He is currently a lecturer, consultant and an active researcher in computing and Business management. His research interests are in computational linguistics, data mining and analytics, intelligent computing, E-Government and innovative concepts in ICT4D.

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Venance Kamanyire has a Masters degree in Organizational psychology of Makerere University and he is current a PhD student of Psychology of Makerere University. He also holds a First class in BA (SS) Psychology and Second class Diploma Secondary (ITEK). He is currently a Lecturer in the Faculty of Education, Ndejje University. He is the coordinator for research in the Faculty of Education, Ndejje University and Bachelor of Technical teacher Education (BTTE) — a Government of Uganda and Ndejje University partnership under the skilling Uganda policy framework. While his teaching interests are in counselling Children (development life span from infancy to adulthood), his research interest is in psychosocial dimensions of vulnerable groups, stress related issues, organizational psychology, positive psychology, emotional intelligence and its implications to relationships, work, human sexuality. His most recent research is focused on competence-based explorations in relation to work, stress and conflict at workplace, skilling policy and psychosocial wellness of people.

Baluku Moses works as a planner with the Ugandan Ministry of Works and Transport. He holds an MBA in Transport Economics and Logistics Management of ESSAMI Arusha in Tanzania. He also holds an MBA in Business Administration of Ndejje University Uganda and a Bachelor of Statistics Makerere University Uganda in which he specialised in Development Planning. He also has a Certificate in Integrated Urban Transport Planning of the World Bank and a Certificate in Management of Transport Supply and Demand of the University of Cape Town as well as a Certificate in Public Transport and Policy Regulation of the University of Cape Town. He has previously worked with the Banking Sector and Telecommunication Sectors: specializing in Transport Planning and Economics, Transport Appraisal, Transport logistics and Management and Non-motorised Transport systems.

Mwebaze Marvin Baguma is a marketing specialist. He holds a Bachelors

Degree in Business Administration specializing in the field of marketing (BBA Marketing) and a Master of Business Administration also specializing in marketing (MBA Marketing) both from Ndejje University in Uganda. Marvin has over four years of experience in sales and marketing for companies in the telecom and banking sectors in Uganda. Currently he is a graduate assistant at Ndejje University in the faculty of business administration and management.

Use of Vernonia Plant for Home-Based Malaria - Treatment in Rural Uganda: The Case of Nyimbwa Sub-County, Luweero District.

Ms Olivia Harriet Makumbi and Dr Rebecca Mirembe Nyonyintono

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Use of Vernonia Plant for Home-Based Malaria - Treatment in Rural Uganda: The Case of Nyimbwa Sub-County, Luweero District

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Abstract

The study investigated the use of Vernonia plant for home-based treatment of malaria. Malaria caused by Plasmodium and transmitted by Anopheles mosquito, is a common debilitating ailment throughout Uganda and a major hindrance to development. Despite anti-mosquito and anti-plasmodium control measures, the disease is still a big threat. Given that Ugandans usually use local herbs before seeking pharmaceutical drugs in clinics and hospitals, the study's objectives were to assess the availability of Vernonia (Vernonia amygdalina) in the locality and people's attitudes towards its use for malaria control, find out the most used parts of vernonia plant and the volume of raw material used for the preparation of the concoction for malaria control and treatment, identify the methods of preparation, dosage and frequency of taking vernonia concoction in the treatment of malaria and find out the possibilities for domestication and propagation of Vernonia in the home garden and/or the farming system of the study area. A cross-section survey and observation methods were used to collect data from key informants who included researchers in the Ethno botanical laboratories of the Ministry of Health, and Departments of Botany and Pharmacology at Makerere University and residents of Nyimbwa Sub-country in Luwero District who used this plant as an anti-malaria therapy. Findings reveal that Vernonia plant was abundantly and wildly growing in the study area and it was frequently used as an anti-malarial medicine in the study area. However, the mode of preparation and dosage varied from user to user. Therefore, the study recommends that its preparation and dosage as malaria therapy should be regulated.

Key words: Malaria, vernonia, home based treatment, Uganda

Introduction

This was an exploratory study focusing on the use of Vernonia plant (Vernonia amygdalina) — whose common English name is 'Bitter leaf', but also known as 'Mululuza' in Luganda (Katende et al 1995) — for home-based treatment of malaria. It concentrated on the various methods for preparation, dosage and

frequency of taking the plant extracts in the treatment of malaria in Nyimbwa Sub-county Luwero District. Malaria, a disease caused by the Plasmodium protozoa and transmitted by Anopheles mosquito, is the highest killer disease in Uganda, killing an average of 300 people per day, especially pregnant women and children (Monik 2006). There is currently a lot of Government effort to control malaria using mainly anti-anopheles and anti-plasmodia methods. Despite these efforts, malaria still ranks among the 3 top killer diseases in Uganda, tuberculosis and HIV/AIDS being the other two (Monik 2006). Although development programmes like Poverty Eradication Action Plan (PEAP), Plan for Modernization of Agriculture (PMA) and National Agricultural Advisory Service (NAADS) have been put in place to help in the effort to alleviate household poverty, it is difficult to realise the goals of these plans when Ugandans, or the key workers continually suffer and are weakened by this debilitating disease and cannot effectively participate in poverty eradication projects.

Anti-anopheles mosquito control include cultural methods like slashing bushes or removing stagnant water found next to homes, while physical methods include sleeping under mosquito-nets and blocking entry by putting wire-nets in windows and ventilators. These methods might be effective while in doors but majority of Ugandans cannot access netting and also stay outdoors early in the morning and late at night. This means that they get stung by the mosquitoes; rendering current preventive methods inadequate in the control of both the vector and the disease (Plantlife 2008). Chemical control methods like use of DDT as indoor residual sprays (IRS) are environmentally dangerous and mosquitoes can develop resistance against such chemicals. Anti-plasmodia methods are based on using pharmaceutical drugs and these have failed because majority of Ugandans cannot afford regular full doze of the drugs. This causes the plasmodia to develop resistance against such drugs and compounds the malaria epidemic even further. Furthermore, the ratio of Western Trained Practitioners to the Ugandan population is 1:25,000 compared to that of traditional healers, which is 1: 290 (WHO 2002). This figures makes traditional healing methods much more accessible to the ordinary Ugandan than trained medical practice.

Hundreds of natural plants in Uganda, Vernonia (*Vernonia amygdalina*) inclusive have been reported to have anti-plasmodial properties and have been effectively used in the treatment and control of malaria for decades (Protabase 2010). Vernonia is commonly used as traditional medicine in Benin, Cameroon, Gabon and DR Congo, whereby leaf concoctions are used to treat fever, malaria, diarrhoea, dysentery, hepatitis, cough and as a laxative and fertility inducer. Vernonia, which belongs to family composite, is a single-stemmed wooden shrub, which grows up to 10m high and has pale grey rough bark. It grows in sub-humid wooded Savannah areas of Africa, especially as a secondary shrub, though it can also invade cultivated area, forest edges, and thickets. The leaves are ovate, can be

10cm long, tapering at both ends and widely toothed. It has whitish green flowers, each only 6mm across, and sweetly scented in the evening. Seeds are tiny with white hairs (Katende et al 1995).

The bitterness in Vernonia is due to sesquiterpene lactones, vernodalin, vernolapin, vernomygdin and steroid glucosides (vernoniosides). It should be noted that it is these compounds that have the anti parasitic activity, especially vernodalin and vernoniosides BI. Vernodalin and vernomygdin have cytotoxic activity (Protabase 2010). The same source indicates that the leaves, roots and bark of vernonia showed anti-plasmodial activity against Plasmodium berghei and Plasmodium falciparum, both causal organisms of malaria.

Pharmacological research has been done at Mulago school of Phamacology using extracts of vernonia on Plasmodium faciparum and found that only the lipophilic extracts of the plant showed activity against the plasmodium (Onegi (2002). However, no research has been done on Vernonia to identify the various preparation methods, dosage and frequency of taking the plant extracts for malarial control. Therefore, the study problem of this paper is to examine how this plant can be used as the first treatment of malaria given that Ugandans usually use local herbs before seeking pharmaceutical drugs in clinics and hospitals (Monik 2006). Fresh or boiled juice from crushed leaves, bark or roots of Vernonia are drunk to cure malaria. However, the quantity of the fresh material to crush in order to have curative dosages is not known and there has been no research on the various methods of preparation of the drug, frequency of intake, dosage and the effect this could have on the active ingredients. Unhygienic and differing methods of preparation, incorrect doses and wrong frequency of administration of this herb might affect the efficacy of the concoction and pose a danger to people who use it. In some cases, the pathogen might even develop resistance to the drug. In addition, traditional knowledge about local medicines is rapidly disappearing with the demise of the elderly who knew it (Lambert et al 1997), coupled with the fact that modern thinking and some religions rarely value or encourage use of local medicines. At the same time, medicinal plants are also facing extinction due to unsustainable harvesting and intensive development of rural areas into housing estates and other non-farm uses causing extensive clearance and destruction of vegetation including Vernonia (Lambert et al 1997).

The study focused on use of Vernonia plant for home-based treatment of malaria and concentrated on four parameters, namely, the availability of the plant, the various methods of its preparation for oral intake, the dosage and frequency of taking the concoction. Consequently, the study objectives were to assess the availability of Vernonia (*Vernonia amygdalina*) in the locality and people's attitudes towards its use for malaria control, find out the most used parts of vernonia plant and the volume of raw material used for the preparation of the concoction for malaria control, identify the methods of its preparation, dosage and frequency

of taking vernonia concoction as a malaria therapy and find out the possibilities for domestication and propagation of Vernonia in the home garden and farming systems of the study area for purposes of malaria treatment.

Research Methodology

The study was exploratory and was carried out in Nyimbwa sub-county, Luwero District in Uganda. Secondary data was obtained from literature search from Makerere University library, while primary data was obtained from key informants through the use of interviews, field observations, and questionnaires. Key informant interviews were carried out with traditional herbalists in the study area, researchers in the Ethno botanical laboratories at the Ministry of Health at Wandegeya and those from the Departments of Botany and Pharmacology at Makerere University. The researcher also carried out observations of the availability and growth of vernonia plants in the area of study. Three sites in each village were selected, condoned off and numbers of vernonia plants were counted and recorded. Average numbers of vernonia in each of the 3 villages and the parishes were calculated. A questionnaire was administered to each of the 180 respondents randomly selected from Nyimbwa sub-county.

The sample of the study was made up of respondents from 6 parishes of Nyimbwa sub-county. Three villages per parish and 10 homesteads per village were randomly selected to make a total of 180 respondents. A visit to the Sub-county Chief, Nyimbwa Sub-county was made in order to get the names of the six (6) Parishes in the sub-county and the names of the Local Council 1s. Thereof, the selection was done per Parish, namely, three (3) villages per Parish were selected using a blindfolded approach. The procedure was repeated for every one of the 18 parishes. A visit was then made to each village Chairman of the selected village because these had good knowledge of the residents in the village. The Chairman helped to identify and select homes with at least a bit of wasteland or forest where Vernonia might be growing. These formed a new list, with numbering 1 to N where N was the total number of households with wasteland or forest growing Vernonia. A selection interval (I) was established according to Casley and Kuwar (1992) for systematic sampling selection interval I represented as $N/n = 1$ where:

N = total number of households with wasteland and / or forest

n = number of households desired in the sample (10 in this case)

I – selection interval

This was followed by first choosing a random number (P) between 1 (one) and I (the number obtained from the calculation of the interval). In this study this was a 2. The household listed as number 2 became respondent number 1 (one) from that village. The second respondent was obtained by adding P to the selection interval I (P+I), until P+N, which gave the 10th household to be interviewed in the village.

This was done for all 18 villages yielding a total of 180 homes for the study sample.

Empirical Findings

One of the major findings of the study was in regards to the availability of Vernonia (*Vernonia amygdalina*) in the locality and people's attitudes towards its use for malaria control. Vernonia was found abundantly growing in the wild in the study area. Photo 1 shows a young vernonia plant growing in some wasteland behind a homestead.

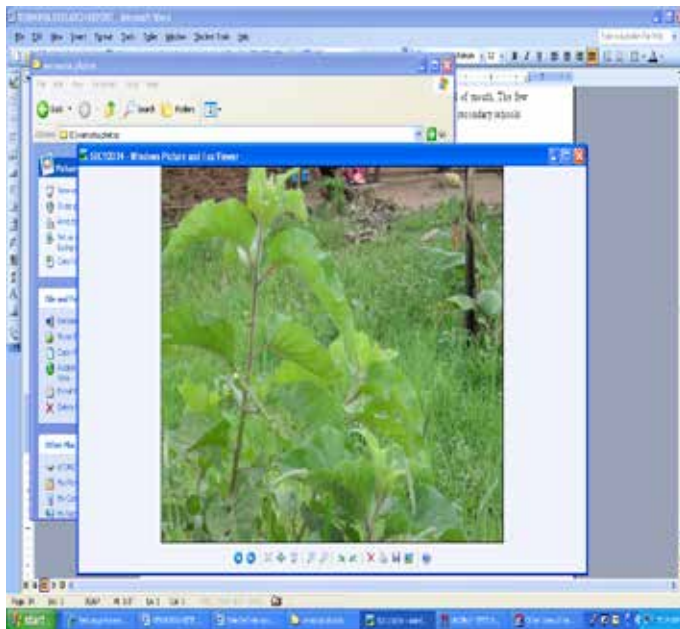


Photo 1: Broad-leaved Vernonia plant

It was found that Bajjo and Buvuma Parishes had the highest numbers of vernonia plants, followed by Kalule Parish. The other three parishes, namely, Ssambwe, Nakatonya had relatively fewer plants, while Kiyanda Parish had very few vernonia plants.

When it came to the question of people's attitude about the use of a local plant as a medicine, the study findings showed interesting conclusions. On the whole people's attitude towards local medicine was positive. Table 1 shows that majority of respondents (87%) regarded local medicines as 'helping those who can't afford factory-made drugs. Some (9%) believed that local medicine could save people from bad effects of the factory made drugs. Others (2%) regarded local medicines as generally revitalizing to the body and protecting it from a number of diseases especially if taken regularly even when somebody has not yet fallen sick

(as a prophylactic measure). Given the high level of poverty, especially in the rural areas of Uganda, these responses were not surprising because many people use local herbs to treat disease and only resort to modern medicine when herbs fail to provide a cure.

Table 1: Respondents’ Attitude about Use of Local Medicines

Opinion	Frequency	Valid %
Satanic	2	1
For old people	3	2
Helps those who can’t afford factory drugs	142	87
Saves from bad effects of factory drugs	14	9
Revitalizing and prophylactic	3	2
Total	164	100

From Table 1 above, only 3% of the respondents showed negative attitude towards the use of local plants in the treatment of diseases because they stated that local medicines were for old people and even satanic. Regarding local herbal medicine as “satanic” reflects the influence of Western religion on the Ugandan psyche. The conflict between local practices, including use of local herbs has been discouraged because many Ugandans associate it with negative practices like witchcraft. This is perhaps why some of the respondents regard local medicinal plants “satanic.” However, old people who are familiar with the healing power of local herbs continue to use them today. This perhaps explains why such medicines are associated with old people (2%).

The findings also reveal that there is no specific amount or quantity used to prepare the medicine and that people mix either single or a mixture of leaves, roots and bark to prepare the malaria concoction. A respondent who was a traditional herbalist was of the opinion that there were some diseases that could not be cured by factory-made drugs. In such a case, one had to use local medicines.

The other area of concern was to find out the most used parts of vernonia plant and the volume of raw material used in the preparation of concoction for malaria control. Most respondents (55%) said that leaves were the most frequently harvested parts of vernonia for medicinal use. However, 31% cited the use of roots, although they said that roots were added to leaves during preparation of the concoction. Use of the bark of vernonia to prepare medicine was mentioned by only 11% of the respondents. There were a lot of divergent answers as to the amount of leaves picked for treatment of the sick. Most respondents (76%) indicated that they picked all leaves from a few selected branches on the plant, as shown in table 2. Such a method might cause the plant to wither and dry especially if carried out during a drought.

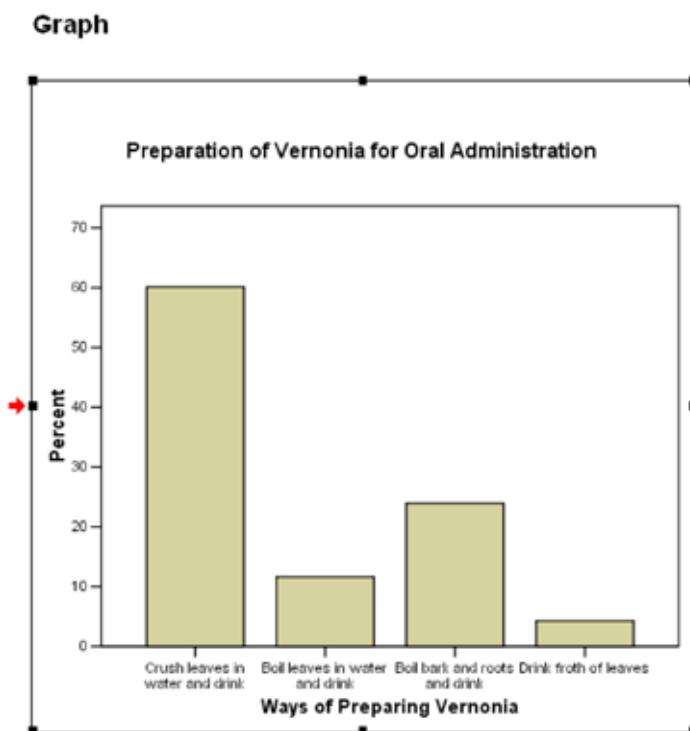
Table 2: Number of Leaves Harvested

How harvested	Frequency	Valid %
Break branch and remove a few leaves	16	10
Pick all leaves from some branches on the plant	124	76
Uproot the young plant and remove the leaves I need	8	5
Estimated handful (4-6) leaves	14	9
Picked enough to fill small basin	1	0.6
Total	163	100

The data from Table 2 above shows that very few (10%) used plant destructive methods of breaking off branches from which they picked the leaves or uprooting a young plant and removing the needed leaves (5%). Some respondents (9%) said that they just estimated a handful of vernonia leaves consisting of 4 – 6 leaves depending on their size of the leaves. One of the key informants, a herbalist, said she estimated the amount of leaves that she ‘felt’ would be enough for medicinal purposes. Yet another said she picked enough leaves to fill up a small basin ‘akataasa’, which would be equivalent to about 40 mature leaves, while another said that she picks 15 – 20 leaves. One respondent believed that no one could over doze on local herbs and she therefore picked any amount of leaves for the preparation of the concoction. All this is indicative of the guesswork used during the gathering of leaves to be used in the preparation of the concoction for malaria control. Therefore, there is a danger of not picking enough leaves to provide the needed active ingredient to kill the malaria plasmodium in the blood.

The third major finding of the study was in the respect of methods for preparation, dosage and frequency of taking vernonia concoction in the treatment of malaria. There were widely divergent methods of preparation, dosage and frequency of taking vernonia concoction for oral administration according to the data collected. In terms of preparation of vernonia for administration majority of respondents (60%) said they crushed vernonia leaves in water before orally taking it, while 12% said that they boiled the leaves in water for oral administration because as one observed; this would lessen the bitterness of vernonia. However, some respondents (24%) said that they boiled the bark and roots of vernonia. A few of the respondents (4%) crushed the leaves and administered the unadulterated froth to very young sick children who can’t take large volumes of the bitter extract.

Fig. 1: Preparation of Vernonia for Oral Administration

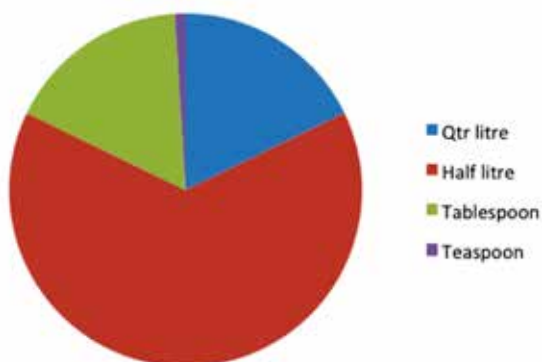


Preparation of vernonia for surface administration was mainly done by crushing the leaves in water and washing the whole body of the sick person, according to 79% of the respondents who also added that this reduced the high temperature of the patient. Others (15%) stated that they crushed vernonia leaves in water and repeatedly poured the solution over the aching head. Other respondents (6%) gave an additional use of crushed vernonia leaves in water to children suffering from measles. If the froth is smeared over the patient’s body, they said it helped to “bring” out the measles. One traditional herbalist recommended that if a cloth dipped in warmed vernonia concoction is repeatedly passed over the body of person suffering from malaria it would help to reduce the dangerously high temperature and save the patient from body convulsions.

There is concern over the hygiene during preparation of Vernonia for oral administration as most respondents (83%) indicated that they never boiled the water in which they crushed vernonia leaves for oral administration, neither did they wash the leaves and roots first. The roots were usually just scraped to remove the soil and then boiled. Such hygienic omissions might introduce harmful bacteria to a patient who is already suffering from malaria. Some traditional herbalists were of the view that boiling vernonia leaves in water might destroy the active ingredients in the plant and adversely affect the efficacy of the drug.

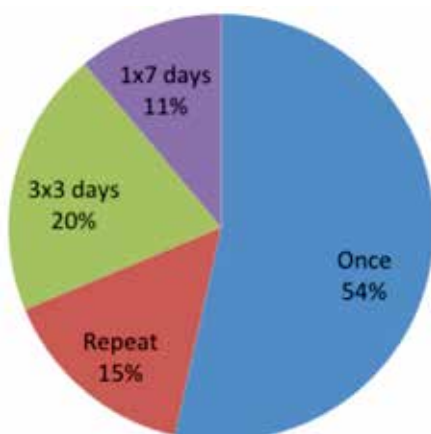
In terms of dosage for treatment of malaria, there was also inconsistency in dosage for the treatment of malaria with most respondents (65%) drinking one mug (half litre) of vernonia concoction as shown in figure 2. while 18% indicated they would take 1 cup of quarter a litre. Another 17% indicated they took 1 tablespoonful of the concoction and only 1% took one teaspoonful of the drug.

Figure 2: Dosage of Vernonia for Treatment of Malaria



The other concern was over the frequency of administration of Vernonia for treatment of malaria. Frequency of administration tended to depend on the decision of individuals, with the majority (54 %) taking the bitter concoctions only once and only repeating the doze if fever re-occurred. The findings are shown in figure 3.

Figure 3: Frequency of Taking the Prepared Vernonia Concoction



The figure above shows that 20% of the respondents indicated that they would take the medicine 3 times a day for three days, and 15% indicated they repeat the doze if fever comes back. Only 11% indicated they would take the concoction once a day

for 7 days. The fact that dosage and frequency of intake were inconsistent among the respondents, with most of them deciding according to their convenience, means that there is need to ascertain the correct dosage and frequency of intake for effective control of malaria. Taking the drug only once might not provide the required amount of active ingredient for the control of plasmodium in the blood. It might also be true that varying dosage and frequency of taking the drugs might affect its efficacy. There might also be the danger of dangerous body reactions as a sick person first takes a 'dose' of vernonia and then later takes conventional drugs like quinine or Artemesia. This is especially so when we consider that Ugandans always use traditional drugs as first aid before going to the hospital and are closer and more likely to get help from traditional healers in the village rather than a properly Western trained doctor.

The fourth finding of the study was the possibilities for domestication and propagation of Vernonia in the home garden or farming systems of the study area. About 60% of the respondents indicated they would be willing to raise vernonia in the nursery and to grow them for medicinal purposes, especially if there was a need and a possibility of income generation from the venture. However, a medicine woman from Kiyanda Parish observed that there were some herbal plants that had to grow in the wild for the required active ingredients to be present in such a plant; and that if such plants were domesticated then the ingredients would be absent!

The fact that vernonia is still abundantly growing in the rural community and that it can be easily propagated makes it easier for encouraging people to domesticate it for medicinal purposes. The fact that it can be grown in the compound as an ornamental plant, planted as a fence around the homestead or established as a woodlot, augurs well for its rapid adoption for planting in the homestead as was done by Mr. Oduki of Ggunda in Kiyanda parish, Nyimbwa sub-county, who has developed an effective fence of vernonia around his banana garden. With the rampant sale of land for other uses like construction of buildings, there is danger of rapid disappearance of vernonia from the rural community. This means that its domestication might be one of the ways of preserving it.

Conclusion

The study found that Vernonia plants that grow abundantly and wildly in the rural areas is frequently used as anti-malarial drug in the home. The study also noted that there is wide recognition and acceptance of its use, especially among the elderly and those who are unable to pay for modern medicine. It was further observed that there are challenges with its preparation and use. The amount used to prepare the dose, the method of preparation and hygiene during preparation and use still remain simple and there is not much known about the potency or even side effects of the current methods of use. Lack of a standard to ensure adequate intake renders vernonia use less effective for home-based treatment of malaria.

Recommendations

The study suggests three recommendations. First, there should be an awareness drive to encourage people to plant *Vernonia* in the home garden so as to conserve it and render it easily available whenever it is needed for malaria control. This is especially important now that land has become more valuable and property development takes priority over other land use ventures like preserving medicinal plants. Second, there is urgent need for a more systematic approach by the locals with the help of knowledgeable scientists to help improve the use of this herbal medicine, especially since it is readily available and affordable to majority of communities in Uganda. Third, phytochemical and pharmacological research in collaboration with Mulago Hospital should be carried out to find out the effect of variations in preparations, dosage and frequency of administration of *vernonia* on the active ingredients of the plant and its efficacy as a malaria control measure in order to come up with correct methods of preparation, dosage and frequency of administration of the drug for the treatment of malaria.

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Service Quality and Profitability Performance of Microfinance Institutions in Wakiso District, Uganda

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Service Quality and Profitability Performance of Microfinance Institutions In Wakiso District, Uganda

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Abstract

The provision of high quality services to customers in the Microfinance industry has become an essential issue for boards and managers of such institutions. This is mainly because by ensuring the provision of services, Microfinance Institutions can not only remain profitable, but can also attract more customers. Since the issues of service quality play a critical role for the Savings and Credit Cooperatives (the member owned Microfinance Institutions), evaluating the relationship between these features, can help managers to serve their clients better than competitors within the industry. The study evaluates the relationship between service quality and profitability performance of Savings and Credit Cooperatives with specific focus on the activities of these organisations in Wakiso District, in Central Uganda. A correlational cross-sectional survey design was used. Questionnaires and interviews were used to collect data from 10 SACCOs selected from the district. Data were collated from a sample of SACCO members, board of directors, audit committee members and staff of selected SACCOs. Documentary analysis was also done to enrich conceptualisation of the problem and interpretation of data. The study revealed that service quality aspects are explanatory factors of profitability performance of SACCOs in Wakiso District. The study concluded that service quality is significantly related to profitability performance of SACCOs in Wakiso District. The study recommends that SACCOs in Wakiso District must provide the best services which can be comparable to service indicators and that service quality should be emphasized for long survival of these institutions.

Key words:

Microfinance institutions, service quality, profitability, performance, Uganda

Introduction

Microfinance is the provision of small-scale financial services to low income or unbanked people (Hartarska, 2005). It is about provision of a broad range of financial services such as deposits, loans, payment services, money transfers and insurance to the poor as well as low-income households and enterprises in both urban and rural areas. Their services are also extended to low cadre employees

in the public and private sectors as well as the self-employed (Robinson, 2003; Mwenda and Muuka, 2004). Microfinance Institutions are considered as a tool for poverty alleviation through improving access to finance and financial services. Microfinance Institutions complement effectively the formal banking sector in providing financial services to the poor (Basu et al., 2004). Microfinance Institutions have been expected to reduce poverty, which is considered as the most important development objective in international development frameworks. However, the above mentioned benefits of Microfinance Institutions on the social and economic welfare of the poor can only be realised, if the institutions register good financial performance, that is, if they are profitable and can serve the poor for a long time.

The focus on profitability is based on the reason that only profitable Microfinance Institutions can survive and reward their owners with a large return on investment. Profitability refers to the amount received relative to the amount invested. It answers the question of whether one is making enough money for the efforts exerted and allows for the strengths and weaknesses of a particular organisation to be identified (Nabaasa, 2000). Profitability is the business's ability to generate earnings compared to costs incurred. Profits are the most important measure of the firm's performance. It is also a major issue to shareholders, who are interested in seeing how their resources are used (Pandey, 1996). Profitability is the primary goal of all business ventures. Without profitability, the business will not survive in the long run. Measuring current and past profitability and projecting future profitability is very important. It shows whether the entity is recording profitability for the past period or projecting profitability for the coming period. This is because it is an accepted rule of business practice that the success or failure of a business entity is measured by its profitability. A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on investment.

Several studies exist on the relationship between various factors and profitability performance of Microfinance Institutions. These are mainly from large and well-developed Microfinance Institutions in different countries. However, the significance of these factors varies with studies in respect to particular Microfinance Institutions in different countries or economies. Given that limited studies have been carried out on savings and credit cooperatives in Uganda in regards to the relationship between service quality and profitability performance, and yet service quality is urged to be an increasingly important weapon in business survival (Zeithaml et al., 2006), it is important that this question is addressed from a particularly Ugandan perspective. Therefore, this study aims to fill this knowledge gap by assessing the relationship between service quality and profitability performance of Savings and Credit Cooperatives (SACCOs) in Wakiso District, in Uganda. Thus, this empirical study should answer the following question. Is there a statistically significant relationship between service quality and profitability performance of

SACCOs in Wakiso District? To answer the above question, the study hypothesizes that: H_1 : There is a statistically significant relationship between service quality and profitability performance of SACCOs in Wakiso District. The research hypothesis above is operationalized as a null hypothesis: H_0 : There is no statistically significant relationship between service quality and profitability performance of SACCOs in Wakiso district.

The research question and hypothesis highlighted above are anchored on the available literature on the relationship between service quality and profitability of Microfinance Institutions. A savings and credit cooperative (SACCO), is one form of cooperative society and a member owned Microfinance Institution, whose business is to provide financial services to its members. A SACCO is owned and governed by members who have the same common bond and who seek to improve their social and economic wellbeing. Members agree to save their money together in a SACCO and make loans to one another at reasonable but market based interest rates (Ahimbisibwe, 2007). The major aim of SACCOs is to build a financial base from which members can borrow for their needs. SACCOs make it possible for the poor to access reasonably priced credit and at terms and conditions that are favourable to them. Most of the low and medium income groups, who have no land titles/security to offer to the formal financial institutions, would find it difficult to access credit in absence of SACCOs. Without access to credit and other financial service, such groups would be condemned to a life of poverty. However, for SACCOs to play the role cited above, they should take into consideration Kyobutungi's (2011) observation about the need for performance control tools. She points out that for SACCOs to achieve their objectives of eradicating poverty and empowering members economically, they must have in place controls to boost performance, especially profitability performance, so that they can survive in the competitive environment.

Controls, as Drury (2006), observe encompasses all methods and procedures that direct employees towards achieving the organisation-s objectives. One such control in organisations and in SACCOs inclusive is service quality. Service quality in this study is perceived quality. It is different from objective or actual quality. It is a judgement usually made by customers. In this study, it is measured as suggested in recent literature that it should be measured through industry specific scales that capture perceived performance of the service providers (Ekinei et al., 2008). Although a growing number of studies suggest that quality goods and services will result in higher profitability and business growth, (Hasan and Kerr, 2003; Duncan and Elliott, 2002; Kimes, 2001; Raju and Lonial, 2002 and Zhang, 2000), a substantial number of studies aver that it is quality improvement efforts that best explain the relationship between customer perceptions of quality and financial outcomes (Babakus, Bienstock and Scotter, 2004). For example, Zeithaml (2000) argues that the relationship between service quality and organisational

profitability is indirect and mediated by various complex variables such as customer satisfaction, customer retention, perceived value, operations costs, revenue, and market share. Furthermore, others scholars claim that the relationship between quality and profitability is either weak or negative because when offering high quality, production costs may be increased and will, therefore, have an adverse effect on organisational profitability.

The examination of the relationship between service quality and profitability in the microfinance sector, contributes to the on-going debate as to whether service quality is significantly related to business performance. It is also a response to the call for further research by earlier researchers. For example, Zeithaml (2000) argues that research on the direct relationship between service quality and profitability has shown both positive effects in a limited number of studies and no effects in other studies. Despite the numerous studies on the relationship between service quality and profitability, its exact nature is still being debated. Youness, et al., (2011) argue that some of the past studies advocate that service quality has a direct effect on a range of business performance indicators (see Zhang, 2000; Raju and Lonial, 2002 and Hasan and Kerr, 2003). Others, for example Adam, (1994) suggests that the direct influence of service quality on profitability is weak and can be negative in some situation because offering high quality product and services increases the cost of production.

Service quality is defined as the difference between service expectations and perceived standards or delivery. Quality can only be defined by customers and occurs where an organisation supplies products or services to a specification that satisfies their needs. Many analyses of service quality have attempted to distinguish between objective measures of quality and those, which are based on more subjective perceptions of customers. During the past few years, service quality has become a major area of attention to practitioners, managers and researchers owing to its strong impact on business performance, lower costs, customer satisfaction, customer loyalty and profitability (Leonard and Sasser, 1982, Newman, 2001, Guru, 2003, etc.). Service quality is what clients actually receive as a result of their interaction with the service firm. In order for a firm to compete successfully, it must have an understanding of client perception of the quality and the way service quality is influenced. As many industry sectors mature, competitive advantage through high quality service is an increasingly important weapon of business survival. The microfinance industry in Uganda has certainly not been exempted from increased competition or rising clients expectation of quality.

Performance of SACCOs in this study is measured in terms of profitability. Profitability refers to the amount of profits received relative to the amount invested, often measured by a rate of profit or rate of return on investment. It answers the question of whether one is making enough money for the efforts invested in the enterprise (Nabaasa 2009). Profitability is the business's ability to generate earnings

as compared to its expenses /costs incurred. Pandey (1996) notes that profits are the most important measure of the firm's performance. It is also the major issue, which is important to shareholders because most shareholders are interested in seeing how their resources are used. This is possible by looking at the profits made at the end of the business accounting period. Profitability is the primary goal of all business ventures. Without profitability, the business will not survive in the long run. Therefore, measuring current, past and projecting future profitability is very important business reporting issue. Whether you are recording profitability for the past period or projecting profitability for the coming period, measuring it is the most important measure of the success of the business. A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on investment.

Research Methodology

The paper is based on a positivistic research methodology, which was used in the collection and analysis of quantitative data. Using mainly a self-administered questionnaire, based on Likert response scale running from a minimum of 1 (for strongly disagree) to a maximum of 5 (for strongly agree) as outlined by Trochin (2006), data were collected from 10 Savings and Credit Cooperative Organisations (not named because of confidentiality concerns). The sample size attained was 86 or (84%) of respondents, including members/ share holders, board members, audit committee members and staff of the SACCO. The unit of analysis in this study was a SACCO. The research adopted a correlational cross-sectional survey design. This was intended to test the hypothesis (Blumberg, Cooper and Schindler, 2005) and for the collection of data from different categories (Sekaran, 2000). This research design was also chosen because the data required could be collected at one point in time and from large number of respondents. The methods used to analyse data included descriptive analysis, factor analysis, correlation and linear regression analysis as suggested by Amin (2005). Factor analysis was used to reduce on the dimensionality of the variables. Correlation analysis was used to test whether a significant relationship existed between the variables (service quality and profitability performance) and linear regression analysis was used to establish whether service quality had predictive relationship with profitability performance of SACCOs in Wakiso District.

Empirical Findings

The objective of the paper was to evaluate the relationship between service quality and profitability performance of SACCOs in Wakiso District. The findings are organised and presented according to the research question and hypothesis stated in the introduction. The presentation starts by looking at descriptive statistics in regards to service quality. Service quality in this study is operationalized by such

variables as SACCOs having competent staff who listen and are responsive to members needs, SACCOs giving adequate loan sizes, and giving other services other than savings and loans, management of SACCOs communicating effectively with all stakeholders and SACCOs having speedy delivery systems. Similarly, performance is measured in terms of profitability, specifically, collecting ever-increasing revenue and efficiency in conducting SACCOs’ core activities. In regards to performance and services variables of the study, the descriptive statistics results indicate that, respondents rated themselves high on all aspects of service quality at 0.01 significance level and (mean = 3.58, S.D = 0.567, t = 6.314). This suggests that these aspects were in place and possibly practiced. Furthermore, descriptive statistics revealed that respondents rated themselves moderate (mean = 2.88, S.D= 0.629, t=4.575) on overall aspects of profitability. The standard deviations are numerically small, suggesting low dispersion in the stakeholders’ description on average.

The descriptive data disapproves the null hypothesis, which is stated in the introductory part of this paper. This hypothesis was tested using the bivariate Pearson Alpha Coefficient method, using service quality components and SACCOs’ performance indicators, generated from factor analysis. The findings from correlation analysis of the relationship between service quality and profitability performance of SACCOs are presented in Table 1.

Table 1: Relationship between Service Quality and Profitability Performance of SACCOs.

		Profitability performance
Service quality	Pearson correlation	0.406(**)
	N	86

** Correlation is significant at 0.01, critical level

Table 1 shows that there is a correlation between service quality and profitability performance of SACCOs in Wakiso District. This correlation is substantially (high) , positive and significant at 0.01 significance level, (r=0.406). The positive relationship suggests that when service quality increases in SACCOs in Wakiso District, profitability performance will also surge. However, it was also necessary to establish whether the relationship is predictive or not. This necessitated running a linear regression analysis. Results of the linear regression analysis of the relationship between service quality and profitability performance are presented in Table 2 below.

Table 2: Regression Results of Service Quality and Profitability Performance**a) ANOVA Table**

Model	Sums of Square	df	Mean square	F_c	F_t	Interpretation
Regression	3.693	4	0.923	2.587	2.490	Significant
Residual	27.478	77	0.357			
Total	31.171	81				

R= 0.344, Adjusted R square = 0.073.

(b) Coefficients

					Unstandardized coefficients	Standardized Coefficient	..t	Interpretation	
					B	Std error	Beta		
Constant					1.603	0.449		3.573	
SACCO gives adequate sizes of loans					0.075	0.068	0.135	1.101	Not Significant
SACCO gives other services other than savings and loans					0.058	0.068	0.136	1.247	Not Significant
Management of SACCO communicates effectively with stakeholders					0.103	0.070	0.178	1.473	Not Significant
SACCOs has speedy delivery systems					0.094	0.090	0.114	1.053	Not Significant

Table 2, shows that service quality factors are collectively explanatory variables of profitability performance of SACCOs in Wakiso District. F computed (F_c) = 2.587 is greater than the tabulated F ($f_{4, 77; 0.05} = 2.490$). The obtained F ratio is likely to occur by chance with a $P < 0.05$. The causal relationship is significant when the computed F (F_c) is equal to or greater than the tabulated F (F_t) at the given significance level.

Therefore, basing on the data reported above, the hypothesis that there is no significant influence of service quality on profitability performance of SACCOs in Wakiso District was rejected. However, it was noted that service quality only explains 7% of variations in profitability performance in SACCOs (adjusted R square = 0.073). This was also supported by the regression value of 3.693, compared to the residual value of 27.478. This means that there are other factors that strongly predict profitability performance of SACCOs, other than service quality of SACCOs in

Wakiso District. Furthermore, according to the t-values in Table 2 (b), all components of service quality namely: giving adequate sizes of loans ($t=1.101$); SACCOs giving other services other than savings and loans ($t=1.247$); management of SACCOs communicating effectively with all stakeholders ($t =1.473$) and SACCOs having speedy delivery systems ($t=1.053$) were not individually and significantly influential factors on the profitability performance of the sampled SACCOs in Wakiso District. This means that these individual service quality factors (giving adequate sizes of loans, giving other services other than savings and credit, management of SACCOs, communicating effectively with all stakeholders and SACCOs having speedy delivery systems) are necessary factors of service quality but not significantly related to profitability performance of SACCOs in Wakiso District.

Conclusion and Recommendations

The purpose of the study was to investigate the relationship between service quality and profitability performance of SACCOs in Wakiso District. The conclusion of this study is that service quality aspects are significantly related to profitability performance of SACCOs in Wakiso District. Service quality stimulates performance because it leads to increased market share and profit. Service quality is an increasingly important weapon in business survival because it is related to profitability and without profitability the business will not survive in the long run (Pandey, 1996). Profitability is the primary goal of all business ventures. The competitive environment in the microfinance industry requires every practitioner to seek to make a profit to reward his shareholders and service quality proves to be instrumental in achieving this aspiration. SACCOs in Wakiso District can compete by nurturing a service culture that attracts quality in the microfinance industry to attract best performance in terms of profitability. The SACCOs must provide the best services which can be comparable to service quality indicators. This is because service quality is significantly related to profitability performance of SACCOs in Wakiso District and therefore should be emphasized for long survival of these institutions.

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Effect of Relationship Marketing Strategy on Customer Loyalty in Commercial Banks in Uganda: A Case of a Selected Ugandan Commercial Bank

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Effect of Relationship Marketing Strategy on Customer Loyalty in Commercial Banks in Uganda: A Case Of a Selected Ugandan Commercial Bank

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Abstract

This paper discusses the effect of relationship marketing strategy on customer loyalty in Commercial banks in Uganda, using a case of a selected commercial Bank. Although there are various aspects of relationship marketing such as communication, commitment, complaints' handling and trust, this paper specifically focuses on the communication aspect of relationship marketing and it examines its influence on customer loyalty in commercial banks in Uganda. The study conducted a comprehensive literature review in which the works of principal authors such as Berry, Sheth, Parvatiyar, Grönroos and Ndubisi were reviewed. The researcher employed a cross sectional survey research design, with self-administered questionnaires used to collect data from a sample of 150 respondents. The data collected was analysed using the statistical package for social scientists (SPSS). The study results show that there is a strong positive correlation between communication and customer loyalty (0.924) thereby concluding that, effective communication enables service providers to understand the needs of their customers thereby leading to customer satisfaction, retention and loyalty. It is from this that the researcher recommends creation and provision of more communication channels coupled with regular probing and market intelligence to enable service providers to keep up with the dynamic nature of customers thus enabling the service provider to produce products that meet customer needs.

Keywords: Relationship Marketing Strategy, Communication, and Customer Loyalty

Introduction

Currently, there are twenty-five commercial banks operating in Uganda. The products offered by these banks are largely homogeneous and this has created very stiff competition in the banking industry. Worse still, the introduction of mobile banking services which are characterized by more flexible working hours, no queues, and wider geographical scope has left commercial banks in desperate need of strategies to retain their customers. One such strategy is relationship marketing,

which focuses on the identification, establishment, maintenance, enhancement and modification of relationships with customers to create value for customers and profit for organizations. A relationship marketing strategy is defined as a set of activities and programs designed to foster customer interaction and long-term engagement in an effort to create customer satisfaction and loyalty. This study is based on a case of a selected commercial bank, one of the top ten commercial banks in Uganda. The data used in this study was obtained from the main branch of the selected commercial bank in Kampala.

Berry, (1983) formally introduced the concept of relationship marketing and defined it as attracting, maintaining, and enhancing customer relationships. Other scholars such as Sheth and Parvatiyar, (2000) defined relationship marketing as the ongoing process of engaging in cooperative and collaborative activities and programs with immediate and end-user customers to create or enhance mutual economic value at reduced cost. In this study, relationship-marketing strategy is defined as a set of activities and programs designed to foster customer interaction and long-term engagement in an effort to create customer satisfaction and loyalty.

Researchers argue that RM represents a “paradigm shift in marketing” from its previous focus on “transactions,” in which firms use the “4P model” to manage marketing-mix variables (Grönroos 1994: 4, Sheth and Parvatiyar 2000). Consumers desire the trust and confidence of a relational- based exchange to transact in this global bazaar (Sheth and Parvatiyar 1995). In addition, advances in IT and communications provide sellers with the tools to target, implement, and evaluate their specific RM programs rather than rely solely on a mass marketing approach. Similarly, increases in global competition and customer churn rates, especially for commodity products and services, in markets that make prices from many manufacturers in many countries transparent to consumers drive firms to concentrate on customer retention and loyalty programs. Sellers require non-price-based strategies to increase customer loyalty and thus potentially support premium prices or at least minimize price erosion. Moreover, analyses that identify higher costs associated with acquiring versus retaining customers reinforce loyalty-building strategies, and RM programmes have become primary tools to support such goals.

Relationship Marketing focuses on the identification, establishment, maintenance, enhancement, modification and termination of relationships with customers to create value for customers and profit for organizations. It has various aspects namely: communication, commitment, complaints’ handling and trust. However, this article specifically focuses on communications strategy of the commercial banks because ineffective communication channels hinder service providers from keeping track of the dynamic needs of their customers hence the provision of unsatisfactory service which leads to customer dissatisfaction which results in customer defection as evidenced by the continuous increase in the

number of dormant accounts and closed accounts in some commercial banks in Uganda. Clients' switch from one bank to another and decline in customers' profile has persisted thereby affecting customer loyalty. This article examines the effect of Relationship Marketing Strategy on Customer Loyalty among selected commercial banks in Uganda with specific focus on the communication aspect of relationship marketing. To achieve this objective, data were collected through a survey using a structured questionnaire administered to the Branch Managers, Customer Service Officers, Accounts Relationship Managers and their clients.

Customer loyalty is an essential ingredient of almost all kinds of businesses. Studies have found that it is expensive to acquire new customers and new customers usually buy less. Retaining existing customers, however, is much cheaper and easier (Ahmad and Buttle, 2002). It is against this background that this paper attempts to establish the influence of relationship marketing on Customer Loyalty in commercial banks in Uganda. Although there are various aspects of relationship marketing such as communication, complaints handling, commitment and trust, this paper specifically focuses on communication in an effort to ascertain its effect on Customer Loyalty in commercial banks in Uganda. This is done by asking tailor-made questions to help establish how banks communicate with their clients, how their clients communicate with them, the frequency and timeliness of this communication versus the satisfaction of the customers and their willingness to continue consuming the bank's services. Probing of this nature is expected to help better understand what influence communication has on Customer Loyalty in commercial banks in Uganda.

The above and related questions rose from the assessment of the literature around this topic structural operating framework for effective communication, interaction and long-term gainful engagement with in the banking industry. The general objective of the study was to examine the effect of Relationship Marketing Strategy on customer loyalty in Commercial Banks in Uganda. The specific objective of the study was to examine the effect of communication on customer loyalty in the selected commercial bank. The objective of this paper is to contribute to the understanding of drivers of customer loyalty by exploring the dynamics of customer-brand relationships and the role played for the creation and management of management of customer loyalty in the commercial banking industry. The particular relevance of this paper arises from the intensification of competition in the banking industry and the extensive consolidation that is expected to accompany it.

These market challenges make the satisfaction and retention of valuable customers an essential prerequisite for the achievement of a sustainable competitive advantage, which is one of the measures that have to be taken by commercial banks if they are to retain their overall success. The above-mentioned objectives are rooted in marketing and relationship marketing theory stem from economics. This study is underpinned by the exchange theory, which is based on

the institutional economics view that exchanges are driven by value maximization and market efficiency. This view was extended by Wroe Alderson (1958: 27-28), who argued that because people are involved, marketing thought must include the sociological factors of “power structure” and “two-way exchange of commitments,” as well as the social psychological factors of “communication” and “emotional reactions.”

Scholars such as Bagozzi (1975: 32) further refined marketing’s focus by applying “exchange theory” to what he considers the two key questions of marketing theory: “(1) Why do people and organizations engage in exchange relationships? (2) How are exchanges created, resolved, or avoided?” Consistent with the emergence of middlemen in business exchanges, channel researchers employed the power-dependence framework from social exchange theory, developed in sociology, to understand relationships between channel partners (Emerson, 1962). Specifically, early channel researchers proposed a positive effect of dependence on performance because the dependent partner wanted to maintain the relationship to achieve its goals rather than undertake the difficulty or cost of finding a replacement partner (El-Ansary 1975, Frazier 1983). Empirical research generally supports the positive role of interdependence among exchange partners, in that it enhances cooperation and performance, whereas asymmetric dependence (dependence imbalance) can generate conflict and undermine cooperation (Hibbard, Kumar, and Stern 2001).

The available literature highlights the importance of establishing the influence of communication on Customer Loyalty in commercial banks in Uganda. Auh, Bell, McLeod, and Shih (2007) defines communication as the formal and informal sharing of meaningful and timely information between a client and advisor in an empathetic manner. Several relationship-marketing studies have highlighted the importance of information exchanges in business relationships. The depth or value of communication is likely to influence the clients’ perceptions of the firm and the relationships they build with this firm, which will subsequently determine the extent of loyalty of the clients. A number of firms are increasingly encouraging their clients by communicating with them and receiving feedback as a means of maintaining regular contact and encouraging dialogue. Different methods of communicating have been used to develop customer loyalty. These include: word of mouth, on phone, in writing, by email and through the Internet (Woods and Hebron, 2001).

Communication is the basic component of business relationship initiation and development. Besides, it is a variable that is frequently measured in order to estimate relationship development (Andersen, 2001). In the context of relationship marketing, communication implies maintaining relationship with valuable clients, supplying timely and reliable information on services provided or planned changes and alterations of services as well as proactive collaboration when problems occur. The goal of communication is formation of mutual understanding in early phases

of relationships, development of client loyalty and encouragement of desired client decisions (Ndubisi and Chan, 2005). Clients should feel that the company demonstrates genuine interest in them as well as in their demands, requirements and value systems. This should be reflected in the persuasive way the company introduces goods, services or any other elements of general offer. Furthermore, they should apparently see that company appreciates feedback and makes adequate decisions to address the issues raised in the feedback (Grönroos, 1994).

Newman, Lings and Lee, (2005) state that communication efficiency increases commitment in respect to a company-client relationship. This is justified by Morgan and Hunt's (1994) proposition that ensuring easy communication flow is an important feature of strong company-customer relationship. Therefore, efficient communication between an institution and clients determine better relationship and client loyalty (Ndubisi 2007). Communication in relationship marketing means providing information that can be trusted to address problems when they occur. Communication is the ability to provide timely and trustworthy information. It is the communicator's task to build awareness, build customer preference by promoting quality in order to keep customers loyal and satisfied. Customer satisfaction is the client's evaluation of the product or service to ascertain if it met his/her needs and expectations. Failure by organisations to meet the expectation of customers will lead to dissatisfaction with the product or service, as customer loyalty flows from customer satisfaction (Zeithaml, Bitner and Gremler, 2006:110).

Sin, Tse, Yau, Lee, and Chow, (2002) define communication as the formal, as well as informal exchanging and sharing of meaningful information between buyers and sellers. They argue that timely communication fosters trust by assisting in solving disputes and aligning perceptions and expectations, which subsequently creates loyalty among clients. Effective and timely communication helps in the formation of cooperation and trust between the company and its client, which in turn acts as the glue that binds clients to an organisation (Sin et al, 2002). Therefore, the effectiveness of communication between the service provider and the consumer is very essential in influencing the trust that clients develop in the firm, their satisfaction with that firm and subsequently their loyalty to the firm. In addition, it improves partners' ability to align their expectations and perceptions in regards to the services and goods they consume from a given company. Communication is an indispensable attribute in successful alliance building and has, thus, been described as a core competence in alliance construction (Rule and Keown, 1998).

Loyalty is developed over a period of time from a consistent record of meeting, and sometimes even exceeding customer expectations (Teich, 2007). Kotler, Ang, Leong, and Tan, (2009) states the cost of attracting a new customer may be five times the cost of keeping a current customer happy. Gremler & Brown, (2005) offers one definition of customer loyalty that is related to our purpose in this study: the degree to which a customer exhibits repeat purchasing behaviour from a service

provider, possesses a positive attitudinal disposition toward the provider, and considers using only this provider when a need for this service exists. According to Bloemer & Kasper, (2005), loyalty is interpreted as true loyalty rather than repeat purchasing behaviour, which is the actual re-buying of a brand, regardless of commitment. Zeithaml et al. (2006) states loyalty is a multi-dimensional construct and includes both positive and negative responses. However, a loyal customer may not necessarily be a satisfied customer.

Customer loyalty is an important objective for strategic marketing planning and represents an important basis for developing a sustainable competitive advantage. Some researchers state that a positive relationship exists between loyalty of customers and performance of companies. Customer loyalty leads to increase business value and keeps business costs low as well. Increase in value and saving money mean lower time when companies seek for new customers. Many definitions about loyalty have two points in common: that is, behavioural aspect and attitudinal aspect Oliver, (1998). Behavioural loyalty is customer's repeated transaction and researches usually measure this aspect by observational techniques. Attitudinal loyalty has both positive effect on the relationship continuance, and the tendency to continue to remain in the relationship Morgan and Hunt, (1994). Loyalty is a dedication on the part of the buyer to maintain a relationship and a devotion to buy the product or service repeatedly. Loyalty thus has a behavioural component, which suggests a repurchase intention but also includes an attitudinal component, which is based on preferences and impression of the partner. Trust can create benefits for the customers by decreasing transaction cost ultimately fostering customer loyalty to the relationship Garbarino and Johnson, (2009). Loyalty has been defined as "a deeply held commitment to rebuy or re-patronize a preferred product/service consistently in the future."

Research Methodology

The study employed both secondary and primary sources of data. Primary data was collected using self-administered questionnaires comprising of both open and close-ended questions from a sample of 150 respondents — including clients, employees and managers. The study utilized both probabilistic and non-probabilistic sampling techniques: that is, managers and administrators were selected using purposive sampling because they were considered as the key informants, employees of commercial banks were selected using simple random sampling and clients were selected using convenience sampling. The targeted employees included front desk officers, tellers, marketing officers, and complaint handling officers. The data was then analysed quantitatively using SPSS to obtain frequencies, standard deviation, mean, correlations and regression. The breakdown of the various respondents who participated in this study is as follows: 15 (10%) managers and administrators, 35 (23.3%) employees and 100 (66.7%) clients.

In order to establish data quality and analysis, a content validity index was used to check for clarity, simplicity, ambiguity and relevance of the instruments. Experts in the field were consulted about the content of the instruments, ambiguity of question items and their relevancy. Thereafter, the instrument was given to raters who rated the relevancy of each item and a content validity index was computed. The results were as follows:

Table 1: Content Validity Index for administered questionnaire.

Raters	Total number of questions rated	Relevant Questions	Score
Rater 1	17	12	0.707
Rater 2	17	15	0.882
Rater 3	17	14	0.824
Average CVI			0.804

The minimum CVI recommended in the survey studies is 0.7 (Amin, 2005: 288). The ACVI of 0.804 renders the questionnaire valid and therefore reliable to collect data for the study.

In this study, reliability of the measurement items was completed by running a reliability analysis utilizing SPSS v22 (Statistical Package for the Social Sciences) in order to obtain the Cronbach Alpha for each scale and checking the item to total correlations. The research questionnaire was checked for item consistence basing on Cronbach's alpha test. The results are displayed in the table below.

Table 2: Cronbach Alpha coefficient

Item	Chronbach's Alpha
Communication	0.955
Customer Loyalty	0.949
Average	0.952

According to Amin (2005) if the reliability is 0.7 and above, then the questionnaire is reliable. The instrument was deemed reliable since it scored 0.952

Empirical Findings

The parameters that were highlighted during the analysis of the collected data were twofold, namely, whether commercial banks communicated to their employees and management and also whether commercial banks did communicate regularly and effectively with their clients. These parameters were key in unravelling whether commercial banks in Uganda engaged in effective relationship marketing, given that

communication was at the centre of brand differentiation and customer loyalty. The findings reveal that commercial banks have utilized various communication channels in order to send information to their customers and obtain feedback from them. The study results show that commercial banks are moving away from dependence on suggestion boxes to more aggressive platforms such as email, service evaluation forms, and direct interviews, in addition to social media, radio, television and brochures based forms of communication.

From the study findings, it is clear that commercial banks deliver information to their clients in a timely manner and immediately communicate any changes in their services (mean = 4.29), this enables the clients to make quicker and more informed decisions which improves their service experience, laying a foundation for customer satisfaction and loyalty. The mean of 3.76 reveals that commercial banks design messages in languages their customers understand (mean = 3.76), this enables more effective communication by reducing noise and therefore enables commercial banks to not only send information to their customers but also allows customers to complain and air out their grievances. This enables commercial banks to provide better service to their customers reducing customer defection due to dissatisfaction.

The study findings also reveal that the information provided by the bank is always accurate (mean = 3.82), this enhances customer trust and confidence in the service provider resulting in long-term engagements with the service provider. It is also quite clear that commercial banks always fulfill promises made to their customers (mean = 3.80). This helps boost customers' confidence and trust in the service provider. From the study findings, it can confidently be concluded that communication greatly influences customer loyalty. This implies that commercial banks should carefully design their messages and avail various mediums of communication so as to ensure more effective communication. This in turn influences customer loyalty by enabling commercial banks to know and understand the needs and expectations of their customers thereby creating customer satisfaction, a necessary ingredient if customer loyalty is to be attained.

In an effort to find out the basic relationship between communication and customer loyalty, the researcher carried out a correlation analysis and the results were as follows:

Table 3: Correlation between Communication and Customer Loyalty

	Communication	Customer Loyalty
Communication Pearson Correlation	1	.924**
Sig. (2-tailed) N	150	150
Customer Loyalty Pearson Correlation	.924**	1
Sig. (2-tailed) N	150	150

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 above shows results from a Pearson correlation analysis between communication and customer loyalty. It reveals that the correlation between communication and customer loyalty is significant .000 implying that there is a 99% confidence in the study results. The Pearson correlation coefficient of $r = 0.924$ implies a significant positive correlation between communication and customer loyalty. Therefore, if commercial banks increased improved the effectiveness of their communication and increased contact with their customers, the customer loyalty would also be expected to increase significantly.

A regression analysis was carried out to examine the relationship between communication and customer loyalty. The findings were as presented in tables 4, 5 and 6 below. Findings from table 4 below indicate that there was a very significant positive relationship between communication and customer loyalty in Commercial banks in Uganda. Adjusted R Square = 0.850 indicates that sample data explained 85% of the variance in the dependent variable of Customer Loyalty of commercial banks.

Table 4: Model Summary- Communication and Customer Loyalty

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.924 ^a	.853	.850	.53881

In terms of predictors, in the study framed as a constant communication, the findings basing on the Analysis of Variance (ANOVA) table 5 below indicate that there was a very significant relationship between communication and customer loyalty with the sig- value = .000. The table also gives regression value of 72.494 compared to residual value of 12.484 out of a total of 84.978. The regression value is 85.31% of the total so it can be concluded that communication positively impacts on customer loyalty in commercial Banks in Uganda. The F value of 249.703 is significant at 0.000 and this reflects that the equation is statistically significant.

Table 5: ANOVA Communication and Customer Loyalty

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	72.494	1	72.494	249.703	.000 ^b
Residual Total	12.484	148	.290		
	84.978	149			

In terms of the dependent variable, namely, Customer Loyalty, the predictor was also constant communication whose beta value of 0.924 in table F below implies that communication is a good predictor of customer loyalty.

Table 6: Coefficients^a - Communication and Customer Loyalty

Mean Square	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.723	.221		3.270	.002
Communication	.888	.056	.924	15.802	.000

a. Dependent Variable: Customer Loyalty

Conclusions and Recommendations

From the study findings, it can confidently be concluded that communication greatly influences customer loyalty (mean = 4.71). This implies that commercial banks should make effective communication a priority by carefully designing their messages and availing various mediums of communication so as to ensure more effective communication. This in turn influences customer loyalty by enabling commercial banks to know and understand the needs and expectations of their customers thereby creating customer satisfaction, a necessary ingredient if customer loyalty is to be attained.

It should be noted that communication alone cannot ensure customer loyalty, however, in a market like Uganda’s where the products offered by commercial banks are largely homogeneous, one cannot rely on factors such as price alone. Communication makes a great difference as far as knowing, understanding and providing products that meet customer needs. In fact, effective communication could give commercial banks a competitive edge over their rivals because it is effective communication that enables service providers to send and receive information to and from customers. It is therefore effective communication that enables service providers to keep up with the dynamic nature of customers and know the changes they like to be made to the current product in order to have their needs met and satisfaction acquired.

The study findings also indicate that some customers are reserved and are not willing to complain. The researcher recommends the need for a revolutionary change in the communication strategies of banks from passive strategies like use of suggestion boxes and waiting for customers to complain to more aggressive platforms such as email, service evaluation forms, and direct interviews. Also, the importance of social media should not be under looked since majority of clients subscribe to social media.

The reliability, accuracy and timeliness of information greatly affect customer satisfaction and loyalty (mean = 3.82). This implies that there is need for commercial banks to report changes in service in time. This contributes to customer loyalty by reducing customer dissatisfaction, which would lead to customer defection. Commercial banks need to empower their employees by ensuring seamless flow of information and regularly updating then employees about changes in the products offered. This would instil trust and confidence in the employees and enable them serve and advise the customers better.

For communication to be effective, there is need for commercial banks to design messages in languages their customers understand (mean = 3.76). Commercial banks should therefore translate their literature in several commonly spoken local languages like Luganda and Runyakitara to enable the illiterate customers better understand their messages.

There is need to obtain regular market intelligence by using tools such as a marketing information system which avails both market research and market intelligence. This will enable commercial banks to keep updated on the changes in customer tastes and preferences enabling commercial banks to meet the needs of their customers.

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Customer Care Services Indicators and Client Retention in Uganda: A Case of A Selected Microfinance Institution in the Central Region – Kampala

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Customer Care Services Indicators and Client Retention in Uganda: A Case of A Selected Microfinance Institution in the Central Region – Kampala

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Abstract

The article assessed the relationship between customer care services indicators and client retention in Uganda, with reference to a selected Microfinance Institution located in the Central Region of Uganda. The study that informed this article was based on the selected Microfinance Institution Annual Financial Report (2010-12), which reported that the number of clients had dropped by 4% in 2010. Therefore, the specific objectives of the study were to establish how reliability, customer communication and staff competence influenced client retention in a selected Microfinance Institution's Microfinance Department. These objectives were majorly guided by scholarly work such as Financial Governance Authority (2009), Juranin (1980), Gronroos (1992) and George (2008). Using a correlation survey design, deploying both qualitative and quantitative research methods, the article established that reliability, communication and staff competence influenced client retention in a selected Microfinance Institution's Microfinance Department. Therefore, it was concluded that quality of financial services reliability, communication and staff-competence have a positive influence on client retention in a financial institution. It was recommended that there is a need for financial institutions such as a selected Microfinance Institution's Microfinance Department to watch closely the above-mentioned parameters in order to ensure customer satisfaction and retention.

Key Words: Microfinance Institutions, Customer Care Services (customer communication, reliability and staff competence), Client Retention

Introduction

Globally, the history for better financial management of the sector dates back to 1970s in the United States, a time when the financial services industry was divided into three separate entities with well-defined mandates. While some financial institutions specialised in providing personal savings, loans, checking accounts and

mortgages, others concentrated on credit facilitation such as issuing consumer credit. Yet others such as Merrill Lynch concentrated on providing investment financial services in the stocks, bonds, and mutual funds fields. This categorisation makes addressing all relevant issues of financial governance in a systematic way a daunting task (Mayer, 1984). It is not different in developing nations where financial reforms are aimed at developing quality financial services and economic stabilization, which calls for a wide range of financial governance protocols. Although there are many styles of financial governance measures, these vary from one economic system to another such as the United States, Europe, Asia and the Third World. In spite of the different types of financial governance styles, there is a convergence among all systems on the provision of quality financial services to consumers if the financial institutions are to remain attractive (Cheffins, 2009).

In Uganda, various efforts to enhance financial governance have been made by many institutions including Bank of Uganda (BOU), The Institute of Financial Governance of Uganda, and the Capital Markets Authority (CMA). The Capital Markets Authority developed guidelines in February 2003 that were envisaged to act as minimum standards for good financial governance practices by private financial institutions in Uganda (CMA, 2003). The Capital Markets Authority guidelines on financial governance are anchored on the need for quality financial services, accountability, transparency, and ethical conduct between management teams and the clients. Furthermore, international standards and guidelines on financial governance have been established by locally based financial institutions such as the Microfinance Institutions in an effort to improve institutional and regulatory framework for enhancing the quality of finance services in institutions such as banks and other financial markets related business (Kibirango, 2002).

The selected Microfinance Institution was selected during a study whose data is reported in this article because it is one of the oldest microfinance institutions in Uganda, having started its operations in 1984. The company is licensed and regulated by Bank of Uganda as a Micro Deposit Taking Institution (MDI) and is recognized as a key player and part of Uganda's formal finance sector. The company has one of the largest branch networks in Uganda with 28 interconnected branches strategically positioned all over the country and serves over 140,000 customers with a variety of savings and loan products including business loans, salary loans, school fees loans, savings accounts, fixed deposits, electronic banking services and a money transfer service through Western Union Money Transfer, mobile money services. However, the institution is worried by the reduction of its clients in some branches in Uganda.

The selected Microfinance Institution is currently reformed to a fully operating commercial Bank in Uganda courtesy to the institution's size and the financial services that it provides to its customers. This means that customer care services that are reliable can improve customer satisfaction. These are all done in

the name of increasing customer satisfaction. However, this seems not to be the case. According to its central region Annual Reports (2010-11), it was reported that the number of its clients had reduced by 4% in 2010, 2.9% in 2011 and 1.3% in 2012 compared to the 14062 clients it had in 2008. This has had a severe impact on its revenue. Therefore, using the quality trilogy model, this article sought to explore three objectives, namely, the impact of reliability of customer care service, communication and staff competence on client retention in the selected Microfinance Institution in the central region of Uganda. These objectives were operationalized as research questions — what is the impact of reliability of customer care service on client retention in Microfinance Institutions, to what extent does communication impact on client retention in MFI and what is the impact of staff competence on client retention in Microfinance Institutions in the central region of Uganda?

To explore how service quality might be an explanation of why this is losing its clients, the article was guided by the quality trilogy theory, which predisposes that quality in service delivery means that a product meets customer needs leading to customer satisfaction, and all the activities in which a business engages in to ensure that the product meet customer needs. The perceived service quality model which ascertains that customer's perception of the overall quality or superiority of a product or service and what they get determines so much their satisfaction. The third theory was the expectancy disconfirmation theory, which predisposes that the customer loyalty comes as a result of meeting his/her expectations (Gronroos, 1992). The three theories were used during the study whose results are reported in this article.

Quality Trilogy Theory underpinned the exploration of the above-listed objectives and research questions. Juranin (1980) predisposes that quality in service delivery means that a product meets customer needs leading to customer satisfaction, and quality also means all the activities in which a business engages in to ensure that the product meets customer needs like customer care service which includes reliability, communication and staff competence. Juranin (1980) took a holistic approach to quality and his concept of quality revolves around what is called a quality trilogy. He looks at quality as made of three things, which an organization can do to realize customer satisfaction and retention. In the first place, the organization must invest in quality planning, customer communication and staff competence. Here, it must identify its customers and their needs and design goods and services that meet those needs as well as establish quality and costs goals. Secondly, it must mind about quality control. This is the part of quality process where the organization sets the quality standards, which involves identifying the elements of quality and determining how to measure them. Here, you want to make sure that the organization clearly defines what quality is for each product and develops a way to effectively compare the products produced against the quality

standard. In other words, it is comparing actual performance against the quality goals. Lastly, the organization must find a way to ensure quality improvement. According to Juranin (1980), quality is a journey, not a destination. The organization must continually monitor production and identify areas in the production process that can improve not only the quality of the product but also the quality of the process used to make the product.

For purposes of this article, this theory directly points out what an organization like the selected Microfinance Institution needs to consistently do to ensure that quality improvement is realized. This would involve actions that bolster customer cares services that are reliable, competent and those that continually communicated to the clients. This can lead to client satisfaction in terms of increasing referrals, multiple borrowing, commitment and trust to the organization. This is because perceived service quality model asserts that customer's perception of the overall quality or superiority of a product or service and what they get determines so much their satisfaction. Juranin (1980) looks at service quality in form of actual or objective quality: the extent to which the product or service delivers superior service. Product-based quality: the nature and quantity of ingredients, features, or services included and manufacturing quality: conformance to specification, the "zero defect" goal.

The perceived service quality cannot necessarily be objectively determined, in part because it is a perception and also because judgments about what is important to customers are involved. For example, an evaluation of washing machines by a Consumer Report expert may be competent and unbiased, but it must make judgments about the relative importance of features, cleaning action, types of clothes to be washed, and so on that may not match those of all customers. After all, customers differ sharply in their personalities, needs, and preferences. Perceived quality is an intangible, overall feeling about a brand. However, it usually will be based on underlying dimensions, which include characteristics of the products to which the brand is attached such as reliability and performance.

Thus, the theorists argue that performance worse than expected results in dissatisfaction (negative disconfirmation). Providing services customers prefer is a starting point for meeting customer loyalty. A relatively easy way to determine what services customers prefer is simply to ask them. Gilbert and Horsnell (1988) advocate for customer comment cards (CCCs) as a tool most commonly used for determining finance service satisfaction. Customer care has been viewed as a significant issue in the banking industry, since banking services are generally characterized with undifferentiated products. It becomes imperative for banks to strive for improved service quality if they want to distinguish themselves from the competition. Roth and Van Der Velde (1991) and Bennet (1992) advocate for positive relationship between high levels of service quality and improved finance performance.

Similarly, Bowen and Hedges (1993) show how improvement in quality of service is related to expansion of market share. In the current marketing literature, much attention on the issue of service quality as related to customers' attitudes towards services is focused on the relationship between customer expectations of a service and the perceptions of the quality of provision. Gronroos (1992) introduced the concept known as perceived service quality. Gronroos suggested that the perceived quality of a given service is the result of an evaluation process since consumers make comparison between the services they expect with perceptions of the services they receive. He concluded that the quality of service is dependent on two variables: expected service and perceived service. This is because a customer's assessment of overall service quality depends on the gap between the expected and perceived service. Thus, the key to managing perceived service quality is to minimize this gap.

Much of the research in customer retention and customer exit investigates the processes separately without linking the two processes together (Colgate and Norris, 2001). Gan et al. (2006) argue that most banks in the financial service sector choose not to engage in price but rather make use of service as an effective competitive tool. In this light, Colgate and Varki (2001) argue that nothing can replace quality service. Quality service as perceived by the customer has an effect on the perceived value of the service rendered (Gan et al., 2006). Once customers are satisfied with the service of a particular organization, the propensity to stay and lure other potential customers is high. Customers normally set objectives in respect to the measured desired value (Spreng et al., 1996). Indeed, it was found that service organization employees form particularly close relationship with customers and employees often work together in the creation of many services. This is common where services are produced by employees and consumed by customers simultaneously. In addition, because of the intangibility of services, customers often rely on employee's behaviours in forming opinion about the service being offered (Gronroos, 1992). As a result, employees actually became part of the service in the customers' eyes.

Yeji (2012) says that service attitude of the employees play a critical role in maximizing customer satisfaction. Therefore, the employee's ability to solve problems efficiently and accurately is the most important factor in maintaining customer satisfaction level. Carson Research Consulting (2013) suggests that companies, including hotel establishments, needed to provide customers with the tools to be heard, because their concerns will be used to avoid recurrence of similar experience to other clients. Similarly, bank employees need to accept, apologize to the client, and then attend to the faults at the earliest time possible but not to argue with the customer if customers are to be retained. This stimulates and strengthens customer relations through word of mouth when customer complaints are politely handled. This can turn a client into a supporter who will tell others the good experience offered.

However, in spite of the fact that the literature reviewed on this section is too rich in establishing the effect of customer care services to client satisfaction, most of it falls short of specificity. Most of these studies were conducted in other parts of the world and they seem to ignore the local microfinance perspective. This is why this article seeks to explore how customer care affects client satisfaction and retention with specific reference to a selected Microfinance Institution in Uganda.

Research Methodology

The investigation was anchored on three hypotheses, namely, that reliability in service delivery does not have a significant relationship with client retention in Microfinance Institutions, that there is no relationship between customer communication and client retention in Microfinance Institutions and that there is no relationship between staff competence and client retention in Microfinance Institutions in the central region of Uganda. In order to collect the data to test the above-mentioned hypotheses, the article employed the following methods. A case study and correlation survey design, which was descriptive in nature, was used (0.05 correlation level of significance). This design was chosen because it was important to find out the opinion of a cross-section of the population about a subject under investigation in a particular period of time using a particular part of an organisation (Sekaran, 2003). In this article, numerical figures and descriptive information was obtained, giving it both a quantitative and qualitative research dimension.

At data collection stage, qualitative design involved administering open-ended interview and questionnaire questions to the respondents, whilst the quantitative design involved administering closed ended interview and questionnaire questions to respondents of the study. This article targeted various categories of people involved in developing various financial services to improve the performance of microfinance institutions. The interviews and questionnaires were administered to 58 respondents drawn from a selected Microfinance Institution in Uganda as broken down below: MFI Managers (2) and Heads of Product Development (2) and Customer Care Managers (2). The questionnaires were distributed to the banking officers (21), and the clients (30). The reason for selecting these categories of people was that they were charged with responsibility of keeping the financial institution afloat, mobilization of clients and attending to the specific needs of clients.

Three methods of data collection that is the questionnaire, interview and documentary analysis were employed to collect both primary and secondary data. Primary data was obtained by using open and closed questionnaires that were given to the banking officers and the clients and interviews that was conducted with head of development, bank managers and customer care managers. Secondary data was obtained by use of a documentary review checklist. A questionnaire was also used to collect primary data from clients and Bank officers, and, it involved use of semi-structured, self-administered/guided questionnaires. The interview method was

used to collect primary data from head of product development, Bank managers and customer care managers and it involved use of a semi-structured interview.

Documentary review was used to collect secondary data and was guided by a documentary review checklist. Documents from MFI, public and private libraries with literature relevant to the research topic were analysed as secondary sources of data to supplement primary data from survey and interviews (Amin, 2005). The data collected using the above methods were analysed using tables and descriptive statistics. Thereafter, the data was subject to statistical measure — specifically the Pearson Correlation Coefficient in order to establish if there was a relationship between customer care services and microfinance client retention in a selected Microfinance Institution using a three-pronged trajectory.

Empirical Findings

The correlation between Reliability and Client Retention at a selected Microfinance Institution was calculated and is presented in table 1 below.

Table 1: Correlation between Reliability and Client Retention in MFI

		Reliability	Client Retention
Reliability	Pearson Correlation	1	0.418**
	Sig. (1-tailed)		0.02
	N	21	21
Client Retention	Pearson Correlation	0.418**	1
	Sig. (1-tailed)	0.02	
	N	21	21

** . Correlation is significant at the 0.05 level (1-tailed).

Source: Primary Data Collections MFI 2014

Table 1 above shows the Pearson Correlation Coefficient value of ($r = .418$). According to Critical Values of the Pearson Product-Moment Correlation Coefficient, when using the critical value table, the absolute value of .418 indicates a substantial relationship ($.020 < .05$) between reliability and microfinance client retention in Microfinance Institutions. Therefore, it can be concluded that the null hypothesis was rejected and the alternative hypothesis was accepted showing a significant relationship between reliability in customer service and client retention in Microfinance Institutions.

In relation to the second hypothesis of the article, namely, that there is no relationship between communication and microfinance client retention, the calculated values are presented in Table 2 below.

Table 2: Correlation between Customer communication and Client Retention in MFI

		Communication	Client Retention
Communication	Pearson Correlation	1	0.333**
	Sig. (1-tailed)		0.020
	N	21	21
Client Retention	Pearson Correlation	0.333**	1
	Sig. (1-tailed)	0.000	
	N	21	21

** . Correlation is significant at the 0.05 level (1-tailed).

Source: Primary Data Collections MFI 2014

Table 2 shows a Pearson Correlation Coefficient value of ($r = .333$). According to Critical Values of the Pearson Product-Moment Correlation Coefficient, when using the critical value table, the absolute value of .333 indicates a positive, strong and significant relationship ($.000 < .05$) between communication and microfinance client retention in MFI. Therefore, it can be reached that the null hypothesis was rejected and the alternative hypothesis was accepted

In respect to the third hypothesis, namely, that there is no relationship between staff competence and microfinance client retention, the calculated Pearson Correlation value is presented in Table 3 below.

Table 3: Correlation between Staff Competence and Client Retention in MFI

		Staff competence	Client Retention
Staff competence	Pearson Correlation	1	0.451**
	Sig. (1-tailed)		0.000
	N	21	21
Client Retention	Pearson Correlation	0.451**	1
	Sig. (1-tailed)	0.000	
	N	21	21

** . Correlation is significant at the 0.05 level (1-tailed).

Source: Primary Data Collections MFI 2014

Table 3 above shows a Pearson Correlation Coefficient value of ($r = .451$). According to Critical Values of the Pearson Product-Moment Correlation Coefficient, when using the critical value table, the absolute value of .451 indicates a positive, strong and significant relationship ($.000 < .05$) between staff competence and microfinance client retention in MFI. Therefore, the null hypothesis was rejected and the alternative hypothesis was accepted.

Conclusions and Recommendations

The calculated Pearson Correlation Coefficient presented in Tables 1, 2 and

3 above indicated that customer care services indicators had a significant relationship on microfinance client retention. All three hypotheses tested were verified and accepted that there was a significant relationship between reliability, communication, staff competence and microfinance client retention at a selected Microfinance Institution. This means that all three Null hypotheses were rejected. Therefore, there is a need for the selected Microfinance Institution to continually educate their employees on customer care services their customers expect of the organisation.

It has also been established that reliability, communication and staff competence has much to do with client satisfaction in microfinance services. The article shows that improvement of customer satisfaction calls for improved communication with the bank's clients on issues such as loan quality. This can be achieved through carrying out regular reviews of its customer care services: for instance constant reviews of the objectives of the microfinance department in the organisation in regards to its customer care services. It might also entail reviewing and communicating to its customers interest rates for loans in the portfolio, reviewing loan portfolio performance reports and ensuring that loans are properly graded to minimize default.

The article also discovered that compliance with regulatory requirements involves microfinance abiding by the rules and regulations as provided by Bank of Uganda as well as its internal rules and regulations as regards to customer care and service quality policies and portfolio management is very important in ensuring customer retention by the selected Microfinance Institution. The article revealed that regulatory requirements at Microfinance Institutions were adequately followed and this was instrumental in ensuring that interest rate risk (client Retention) is adequately controlled under the guise of the Central Bank.

The article revealed that working out problem loans is one step towards loan recovery. It requires giving clients facing difficulty in repaying their loans periods of extension of credit repayment to enable them pay their bills. This further involves credit rescheduling and pursuing guarantors to help pay the defaulted credit. However, the article revealed that the major cause of default in credit recovery emanates from the weak internal control systems exhibited by indigenous banks coupled with the unrealistic returns expected from their loan portfolios which forces them to hike interest rates making it very hard for the customers to repay their credit.

Furthermore, the bank should develop an operating procedure for notifying branches of a customer problem borrower status and preapproval of how to apply payments should be forwarded to relevant branches by the officer handling the problem loan, otherwise all operating transactions, including application of overpayments, should be referred to the Recovery officer.

In conclusion, I suggest that further studies are conducted to replicate the

findings by employing multidisciplinary methods to assess the quality of financial services in relation to wider coverage of client retention. This is because it is likely that quality of financial services in Microfinance Institutions fare badly against such dimensions and indicators of client retention. There is also a need for further investigation of other areas of client retention in Microfinance institutions to ascertain the similarity and differences in the findings of the current article.

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Student Satisfaction with University Education: A Case Study of Selected Programmes of Ndejje University, Kampala- Uganda

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Student Satisfaction with University Education: A Case Study of Selected Programmes of Ndejje University, Kampala- Uganda

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Abstract

The data reported in this article was derived from a study that sought to investigate the role of university education in satisfying students' needs. The researcher used self-administered questionnaire and interview method to assess the acquisition of desirable knowledge, socialization values and soft skills relevant to the job market at Ndejje University. The data to answer the above parameters was sought from university administrators such as the academic registrar, academic staff, students and education officials from Ministry of Education and Sports and National Council for Higher Education. The findings reported in this article reveal that university education does contribute to students' construction of knowledge, equips students with values like socialization and individualism and endows students with soft skills needed in the labour market. It concludes that knowledge construction, values and skills development are all geared towards satisfying students' needs. Consequently, it recommends that lecturers and university administrators should make education better for the students by integrating new and better teaching styles like online reading and finally, encouraging students to take internship seriously and practice all that they have learnt at the university when searching for jobs.

Key Words: University education, student satisfaction, knowledge construction, skills development

Introduction

University Education in Africa is responsible for promoting lifelong learning that enables individual participants to develop and participate in national decision-making processes. It is also associated with the imparting of knowledge, values and skills to individual participants with the aim of empowering them to participate in the economic development and in the democratic process of their countries. Therefore, it is linked to, and can enhance economic development (Kasozi, 2003). The wealth of the nation is dependent on how it produces citizens with knowledge and those who are prepared for the challenges of modernization and knowledge based competition in a globalised market (Asmal, Nakayiwa& Hayward, 2004). In Uganda, university education has been described as what is hoped for to drive

economic development. Thus, universities in Uganda are expected to produce students equipped with high-level knowledge, skills and attitudes needed in the world of work. It is also expected that students will be useful members of their communities and the nation at large who participate in community service through extension of activities to their communities (Kajubi, 1989).

Despite the important role that universities play in the Ugandan economy, there are a number of constraints, which appear to impact on their emergence and growth. Ndejje University has faced challenges like a rigid curriculum and examination system, content based teaching that encourages rote learning and memorization, which eventually impact on the quality of the services offered in the universities. This may be a challenge impacting most of university educational institutions in the developing world and specifically in Uganda, as they need to understand the dynamics of satisfying student's needs alongside providing educational services.

There are many studies that explore the relationship between university education and economic development such as (Punddy, 2010) that have attempted to unravel how universities can ensure quality university education and the support needed to achieve student satisfaction in many African countries. Scholars like (Mugagga, 2006) have explored the philosophical implications of the liberalization of university education in Uganda, while (Ssegawa, 2007) has investigated the management of liberalization of university education and its implications on quality of university education in Uganda. However, there is limited research on student satisfaction with university education.

Uganda's tertiary education system has its origins in the early 1920s with the founding of Makerere as a technical college to serve students from the British East African territories of Kenya, Tanganyika and Uganda. In 1970, the University of East Africa, of which Makerere College had been a constituent college since 1963, dissolved into three fully-fledged independent universities, namely, Makerere University in Uganda, University of Nairobi in Kenya and University of Dar es Salaam in Tanzania. Makerere University like other national development initiatives was to remain a public undertaking — financed and supported from public sources.

Since then, the tertiary education sector in Uganda comprises of two tiers, namely degree awarding universities and 'other tertiary institutions' commonly referred to as the technical sub-sector, which offer diplomas and certificates. Universities are further categorized into public and private. While an Act of parliament establishes public or state-funded institutions, private universities are established under the Tertiary Act of Parliament that is vested with powers to charter and license such institutions. Thus, university education in Uganda can be categorized as public and private (Musisi et al 2003).

National Council of University Education (2005) data shows that there were 152 university education institutions. Of these 51 were public and 101 were private.

The university tier had 28 institutions, of which 8 were public and 13 chartered and licensed private (Kasozi, 2003). However, there were about 10 unlicensed private universities operating in Uganda. It is also important to note that out of the 124 other tertiary institutions operating in Uganda, only 46 are public owned (Amin, 2005). The dominant institutions amongst public tertiary institutions are national teacher colleges, health training institutions and theological institutions. Private tertiary institutions mainly comprise colleges of commerce and management institutions.

Three public tertiary institutions that do not fall in either category are the Uganda Management Institute which is a degree-awarding institution mainly at the postgraduate level, the Law Development Centre, which is a diploma-awarding institution mainly for postgraduate law students from the various universities and the Makerere University Business School which offers degree programmes of Makerere University and has independent diploma and certificate programmes (Nakayiwa et al 2004).

It should be noted that Uganda faces a grave challenge in the provision of university education given the growing demands reflected in its population, which had by 2006 reached 29.9 million (Kasozi, 2003). Other factors such as improved security especially in Northern region, restoration of macroeconomic stability and improvement in terms of trade are likely to put pressure on institutions of higher learning (Musisi, 2003). With the country's high population growth and the introduction of universal primary education and more recently universal secondary education, the demand for university education is likely to continue growing. In addition, the demand for university education in Uganda is likely to increase as a result of such factors as the increase in household incomes; the growing recognition of the role of university education in national development and the expected high private returns to university education. The response to the unprecedented growth in demand for university education has seen an expansion in service providers, particularly the number of private institutions. Despite the increase in numbers of students, Ministry of Education and Sports Annual Report (2007) asserts that private universities enrolment by 2004/05 was around 21500 representing only 32% of the total university enrolment. Although there is increased private participation through private ownership, most of the institutions are relatively small accommodating only a limited number of students.

Interestingly, only 25% of Ugandan students are enrolled in the private universities, 70% of students enrolled in Ugandan universities are international students (Hayward, 2004). This large percentage of international students is a pointer to the nature of private institutions, which have tended to have a more aggressive marketing strategy outside the country, especially within the East Africa region, compared to the public institutions. Moreover, both private and public universities charge international students slightly more fees than they charge

Ugandan students. Additionally, there is a tendency that Ugandan students prefer education in the public institutions and will, in many cases, go to private institutions only after failure to gain admission to public institutions (Kneller, 1971).

Ndejje University is one of the private Christian founded universities in Uganda licensed by Ministry of Education and Sports to offer graduate and undergraduate programmes. It began with demand driven courses in education and business studies offered on full time basis. However, in a bid to accommodate the growing demand from the population, the University in 1997 introduced evening, weekend and in-service programmes. The University's mission is to contribute to university education in a bid to meet student needs, namely, to offer excellent, innovative and cost effective programmes through sound scholarship, research and preparing God fearing students for their future careers while promoting Christian principles and values. Ndejje University is phasing out the teacher centred mode of instruction to meet the standards of National Council for Higher Education (NCHE) which requires them to embrace learner centred mode of instruction andragogy for the postgraduate courses with the aim to stimulate creative, critical and independent thinking among the students. It is assumed that such processes and reforms will enable the University produce graduates with skills necessary for the labour market (Ndejje University Annual Report, 2010).

Burton (1978) asserts that an enterprising university evolves a strong steering core at the heart of its interdisciplinary activities such as; teaching, research and training is reflected in Ndejje University's practices. This paper focuses on the academic core of the university, namely, how the academic degree programmes are administered. This is because there is a strong relationship between university education and society. If a university is able to develop and strengthen its academic core activities, then, it can easily defend its institutional identity and integrity against internal and external threats.

It is against the above background that this article takes the concept of University Education (UE) as its independent variable, while Satisfaction of Student Needs (SN) as its dependent variable. In other words, the paper answers the question intended whether university education has a bearing on satisfying student needs in a university setting. University education was viewed in terms of its academic core with reference to the teaching and learning practices. The paper treats university education as an educational level after high school. It is normally taken to include undergraduate and post graduate courses. Matiru (1995) urges that teaching is a process of transmission of information to the learner through use of methods, which fully describe the instructional process of what is taught and how students use it, interacts with it, receives guidance and is given feedback. However, there are many constraints, which affect the choice such as the type and level of learning, facilities and size of the class. University education should be more student-centred teaching requiring less teacher talk so that students can exchange views rather

than remaining in passive listening role. This is when university education can be called independent.

Student Needs (SN) are defined as the student's willingness to find information, read it critically, assess evidence from the past, write with precision and be able to tell stories that analyze and narrate the past effectively (Ssekamwa, 1997). It is also the desire and compulsion to participate in and be useful in the learning process through promoting student autonomy, increase in academic performance and mastery of challenging material. Student needs were perceived in terms of ability to socialize, having sense of belonging, self-confidence and cooperation. However, the article perceives students' needs in terms of ability to socialize which typically refers to the process of learning social skills, skills development which is the intended output of education and training efforts and it should be an enabler for growth and employment opportunities defined as access to jobs, benefits and services in the work place (Kneller, 1971). These are implied reasons as to why students enroll for university education. Since teaching and learning are continuous processes, they broaden their understanding of knowledge gotten from high school, they acquire basic skills like use of information telecommunication gadgets for example computers and are hoping for good employment on completion of the course. These were generated from distribution of an SAQ requesting learners to fill in the reasons as to why they enrol for university education (Burton, 1978).

Three theories were adopted to guide the study and these included Kolb's (1984)'s learning style theory, Brunner's (1966) constructivist theory and Gardener's (1989) multiple intelligence theory. Kolb's Learning Styles theory (1984) was found to be more relevant to the study as it reflected on learning practices, which this study focused on keenly. It sets out four distinct learning styles, which are based on a four-stage learning cycle, also known as a training cycle. Kolb's theory is particularly elegant, since it offers both a way to understand individual students' different learning styles, and also an explanation of a cycle of experiential learning that applies to us all.

Kolb asserts that ideally the learning process represents a learning cycle or spiral where the learner 'touches all the bases', that is to say, a cycle of experiencing, reflecting, thinking, and acting. Immediate or concrete experiences (CE) lead to reflective observations (RO). These reflections are then assimilated into abstract concepts (AC) with implications for actions for which the student can do active experimentation (AE), which in turn enables the creation/learning of new experiences, knowledge, skills and values. Kolb explains that different people naturally prefer a certain single different learning style. Various factors influence each person's preferred style notably in his Experiential Learning Theory Model (ELT).

Kolb defined the three stages of a person's development, and suggests that our propensity to reconcile and successfully integrate the four different learning

styles improves as we mature through our development stages. Since Kolb's theory is relevant to the broader spectrum of human learning and knowledge acquisition as well as perception, I applied its underlying rationales to other contexts such as Ndejje University students who engage in learning. On the other hand Bruner's (1966) constructivist theory is of the view that learners build personal interpretation of the world based on experiences and interactions. Brunner asserts that instruction is a process of supporting knowledge construction rather than communicating knowledge. Therefore, learning activities should be authentic and should centre on the problem as perceived by the learner. Howard Gardener's (1989) theory of multiple intelligence was also reflected on in the proposed study. It asserts that there are eight types of learning styles, which include: verbal, spatial, rhythmic, kinaesthetic, interpersonal, intrapersonal, and natural. He is of the view that the teaching style should facilitate multiple of these learning modes.

Therefore, the researcher adopted the above three theories because they directly impact on university education and student needs. University education in this case involves teaching and learning however autonomous learning is emphasized with David Kolb's learning style theory of (1984). Brunner's (1966) constructivist theory provides the practicability of learning by showing that students make better meaning of what they study at this stage by reflecting on their earlier stages and experiences in the previous cycle of education. Gardner's view of students possession of multiple intelligences is also important as it enables the researcher distinguish individual learners using the (MI) theory.

Research Methodology

The data reported in this article was collected using a descriptive case study research design. Best and Khan (1998) are of the view that a case study is concerned with everything that is significant in the history or development of a case, which is relevant to the study. The history of university education was traced to guide the study. Thereafter, data from a sample of selected programmes of Ndejje University students was analysed out of the large population.

This design was used because it is the simplest method through which data can be collected from a large population. The data reported in this article was got from 100 students at the university, 50 lecturers from all faculties as earlier mentioned in the study and four National Council for Higher Education officials, giving a total of 154 as the sampled population. These were selected on basis of their availability and assumed awareness of how a university enables students construct knowledge. The study used both open interviews and questionnaires to obtain information from the different subjects such as university education officials (the commissioner of education, the minister in charge of university education, director of NCHC), Ndejje University academic registrar, Faculty Deans, Heads of Departments, Subject Coordinators and students as regards their perception of

how university education can empower learners to acquire knowledge, values, skills, and beliefs.

To ensure the quality of the data collected, the study subjected all data to quality control measures. To ensure the validity of the data, the study was informed by Keeves (1998) assertion that valid measurement is essential to successful scientific activity. It is widely accepted among science methodologists, theoreticians, researchers and philosophers. Hence philosophers are making it relevant for the researcher to ensure validity of the research instruments. Therefore, the questions in the SAQs were subjected to face validity by the supervisor. Two experts from the university education sector validated the questions appropriateness. The Content Validity Index (CVI) of the questionnaire was then computed using the formula below. $CVI = \frac{\text{Number of items rated as relevant}}{\text{Total number of items in the questionnaire}}$. On the other hand, the reliability of the research instruments was conducted in view of Amin's (2005) definition of reliability as the degree to which an instrument consistently measures whatever it is measuring.

Reliability of the instruments was carried out by use of a pre-test taken from ten respondents whose response was subjected to spearman's r correlation. When an item scores 1, it is considered reliable. The score 0 will simply mean there is no relationship and -1 was adjusted. Therefore, the formula below was used.

$$r = 2r \frac{1}{2}$$

$$1 + r \frac{1}{2}$$

Where r is the split half reliability coefficient & $r \frac{1}{2}$ correlations between the two halves. The CVI was found to be 0.93, which was considered high enough to provide the required data to adopt instrument in question.

Empirical Findings

This article answers the question as to whether the education offered to students at Ndejje University enabled them to construct desirable knowledge. The answer to this question was derived from University administrators, academic staff, and students, university education officials from the Ministry of Education and Sports and National Council for Higher Education. The opinions of the lecturers on whether Ndejje University equipped students with desirable knowledge were in the affirmative. The lecturers outlined the several ways through which a lecturer can enable a student construct desirable knowledge which include: assigning group tasks, giving them project work from the course outline, and encouraging them to use online resources to enrich their knowledge. However, in regard to encouraging them to use online resources majority of them revealed that they do not.

The students were also asked to give their opinion on whether Ndejje University equips them with desirable knowledge and their responses were also in the affirmative of about 70% respondents. The students confessed that they are

encouraged to construct knowledge through group work, project assignments from the course outline and search for subjected related knowledge online. However majority of the students acknowledged their inadequacy in using the computers in place indicated by their failure to send their assignments to the lecturers online. Similarly, many of the University Administrators such as Deans of the Faculties and Heads of Departments stated that they equipped students with resource books, electronic resources and wireless Internet to enhance their knowledge construction. For example, one of the respondents stated that the Ndejje University facilitated easy access to knowledge through guiding students on how to access information from the Internet and engaging them in use of projectors during some lectures.

The university education officials were also asked to comment on the knowledge aspects a student in a university should possess in which the first respondent was of the view that: "students must be able to think and as well have basic knowledge on which to build" The second respondent was of the view that: "students should have technical knowledge to use the gadgets like computer. S/he should be versatile and must have basic knowledge on which he builds". Another respondent was of the view that: "knowledge should be viewed in terms of cognitive, affective and psychomotor skills. Students should be empowered to reason better, be able to work independently and become competent in the Knowledge area."

The next question was to examine the role university education played in enabling students construct desirable knowledge. The findings of the study revealed that university education facilitates knowledge construction through various pedagogical ways like course work assignments and research projects. Students engage in critical thinking so as to acquire new concepts and manage the changing trends of the curriculum. These findings are supported by the work of scholars such as Ssegawa (2007), who argues that knowledge aspect be catered for in terms of it being capable, of managing the required curricula changes and hence enabling the education sector produce students who are useful to themselves and the nation at large. This is because Uganda needs a versatile, re- trainable and well informed graduate who can operate in both the local and global market, with capacity for lifelong education, sound morals and specialized work skills built on a bedrock of a broad knowledge of his/her physiological, philosophical and sociological self.

There is an argument that the wealth of any nation is dependent on the knowledge possessed by its citizens as they manifest it in the work they are engaged in. This implies that the teaching and learning of facts, concepts and theories should be done carefully so that knowledge acquired is easily disseminated into the field of work. These revelations concur with the work of (Asmal 2004, Nakayiwa et al 2004 and Hayward 2004), who argue that the wealth of nations is increasingly becoming dependent on possession of knowledge produced by tertiary educated citizens. This is only possible if they are prepared to face challenges of modernization and knowledge-based economic competition in a globalised market. Equipping

students with the ability to construct desirable knowledge is meant to enable them have capability to conduct research and produce high-level manpower for the nation at large. This argument is apparent in the work of (MOES 2004, Kasozi 2003, Government White Paper 1992 and Kajubi report 1989). All these documents and scholars argue that university education is a driver of development with the specific mandate of teaching to produce high-level manpower equipped with knowledge, skills and attitudes they need to join the world of work as useful members of their communities and the nation at large. This is often exhibited in their ability to conduct research such as applied community service through extension of services.

Mugaga (2006) in line with the above findings argues that knowledge acquisition involves also the regulating of the quality of university education, equating of university qualifications and to advise government on university education issues. It is unsurprising that Mugaga's argument are contained in the Ndejje University examination handbook in which are courses that have been accredited by national council for university education. To ensure that they equip the students with knowledge relevant to the nation and to the students' needs as well. Many of the courses offered have been approved as reported in one of the Faculty of Education meetings. However, Kasozi (2009) notes that enhancement of quality of university education in Uganda needs to be done simultaneously. As it still exhibits colonial legacy reflected in the subject matter covered hence students find it difficult to reflect on it in terms of their own contexts. Mugenyi (2009) and Mugagga (2006) concur by reflecting on the aspect of knowledge in reference to quality of university education.

The two scholars are of the view that as long as we continue to encourage the education that is farfetched from our cultural identity, we shall continue to nurture clever devils. This means that the quality of education offered matters a lot. This article is in agreement with their view. This is because the education content seems to be alien to the students hence need to incorporate elements closer to their own settings and cultural roots. Ndejje University has tried to incorporate the cultural values through basic core subjects like Christian Ethics done by every student in year one in which themes like ethical conduct, HIV/AIDS, land tenure, labour laws are covered.

Kantor (1990) in regard to knowledge construction reflects on the role of the teacher to motivate and facilitate learning. He is of the view that teaching and inquiry should respect the interplay between practical and theoretical knowledge. This can be achieved through invitation of learners to discuss and share experiences in specific topics. In this respect, Kantor concurs with Brunner's (1966) constructivist theory, which asserts that learner's best construct meaning from their personal experiences. Kantor further argues that learners can read about and research for topics by means of observation, interviews, journals or portfolios as a way of tapping into the knowledge and opinions of others. In support of Kantor,

Kirkby and Kuykendal (1991) emphasize the importance of cooperative learning in the 21st century, where problems are too complex for solo solutions. This makes collaborative thinking today's reality as well as tomorrow's hope.

Kantor, Kirkby and Kuykendal (1991) quote Sternberg that learners should be taught to think for themselves, be independent problem solvers and actively involve themselves in their own learning. This calls upon lecturers to reflect on the transformational curriculum based on students' construction and application of knowledge to real life situations. However, there is always a challenge associated with helping students develop valued areas of knowledge, skills and values. This challenge means that several pedagogies should be embraced to aid learners' construction of knowledge because it is better to teach in two ways than in one way through making use of other human or digital resources. This is in agreement with (Charles, 2011 and Jones, 2011) argument that advocates for teachers' use of a variety of classroom management styles as an aid to enabling students construct desirable knowledge.

The findings revealed that knowledge construction in a university setting is based on the way lecturers teach their students. By embracing a variety of classroom management styles like neglectful teaching style, authoritarian or permissiveness, lecturers influence students' construction of knowledge. However, in regard to the qualitative section of the student' self-administered questionnaire, many students could not state the knowledge aspects acquired from the university implying that there is need to remind students of how knowledge is linked from their first year of study to the last year in their respective fields of study. This could help them value what they are learning which is later reflected in their career development through putting into practice what they have learnt. Students were taught how to search for knowledge. However, as much as knowledge helps students to attain white-collar jobs easily with the help of a transcript, some students have acquired jobs even without finishing university studies or even applying the knowledge they attained in class.

The paper further reveals that students' appreciation and love for the institution depends on the values and beliefs of the institution. Ndejje University, which is known as a Christian university and whose values are reflected in its motto (The fear of God brings Knowledge and Wisdom), is seen by many students as an institution that upholds its status. Ndejje University is particularly evidenced to have a core foundation of Christian ethics in sports and the equipment of students with institutional values, which is done by every student in year one. However, the values should be classified and brought out clearly such that a student is equipped with material, social, personal and religious values so as to fully appreciate university education. This will enable them stand on their own, account for their actions as well as adapt to problematic situations they encounter accordingly.

Skills are part and parcel of learning hence they play a significant role in university education as individual students develop study and practical skills as part of the course when they set out for field training. Here, the students engage in hands on learning and in the process they acquire the requisite skills. However, there is a challenge in as far as life skills are concerned. This is because most life skills are rather implied within the courses than clearly spelled out. It is important that these skills are brought out clearly so that the university outputs do not go to waste in case they fail to fit into the white-collar jobs. Students should as well be equipped with the social skills such as assertiveness, politeness, being articulate and respectful as way of facilitating their interaction and communication with others. Students should as well be equipped with the soft skills like; communication, teamwork, adaptability and conflict resolution as a way of enabling them fit in society.

Conclusions and Recommendations

Based on the discussion of the findings above, the following recommendations can be drawn. The university administrators and lecturers should actively involve the students in knowledge construction through giving a learning style inventory to help students find out about themselves. They should also show students how to handle learning in large classes and impersonal situations, hand out supplemental study aids. The students should be shown how to handle learning in large classes. Second, that there is need to define the role of university education so that the students understand it well.

University education should cater for the spiritual and social needs of the students through the academic and non-academic programmes, which instill in the student an analytical view towards life. Therefore, the university should enlighten students in technical ways of constructing knowledge and equip them with ability to deal with the emerging trends in education. This requires a self-reliant student who can act independently. Therefore, the university should strive to educate rather than merely teach. This will be possible if curriculum reviews to cater for the new trends in the education system are instituted.

Third, values and beliefs should become part and parcel of human development that university education aspires for. This means that the university should endeavour to equip the students with institutional values like Christianity, the university mission and motto as well as personal values like trustworthiness and having integrity should as well be catered for in teaching so that students are fully prepared for the world of work. Lecturers and students should be well conversant with the mission and vision of their university.

The university should further help students fit in society because the university is a microcosm of society. It should equip students with other values like socialization and individualism. As regards skills development, students are still lacking practical skills of operating computers. Although there is a challenge that

many students have a few hours assigned to practical use of the computer a fact that probably explains their poor computing skills the lecturers should assigned course work tasks that require students to use computers. This will ensure that students can acquire the skill through engaging in hands on practice. Students should be equipped with social skills to facilitate their interaction and communication with others. There should be inter-university cooperation in both academic and non-academic programmes to help students collaborate and share experiences, which guide their personal lives. Skills like friendliness, leadership, good communication, ability to listen, assertiveness and being articulate should be catered for in a university setting. The soft skills like team work, collaboration, adaptability, critical observation and conflict resolution should be at the pivot of university education as a technique for preparing students for the external environment outside school.

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Library User Training and the Utilization of E-Library Resources in Ugandan University Libraries: A Case of A Selected Private University

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Library User Training and the Utilization of E-Library Resources in Ugandan University Libraries: A Case of A Selected Private University

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Abstract

Universities in Uganda have put much effort in e-library resources to supplement the hardcopy and manual library resources that have existed since their inception. The purpose of integrating ICT-related resources in university libraries is to improve the utilization of information by students, academics and administrative staff. The purpose of this study was to ascertain the relationship between library user training and utilization of e-library resources. The study used a cross-sectional survey correlation research design, which was descriptive in nature, with a population of 301 staff and 8000 students. Purposive, convenience and simple random sampling techniques were used. Instruments and methods for collecting data included interviews and questionnaires. The data revealed that e-library resources are not being utilized effectively, given that only 5% of the target group access e-library resources in terms of e-journals, e-books and online databases. The underutilization of e-library resources was due to inadequate forms of training of the users and access to Internet resources and services; given the positive relationship ($r=0.982$; $sig=0.000$ and $r=0.615$; $sig=0.000$) between forms of user training and effective utilization of e-library resources. Hence, the researcher recommended that computer training should be extended to staff and students in Ugandan universities in order to facilitate their utilisation of the available e-library resources.

Key Words: Library User Training, Utilization of Electronic Library Resources

Introduction

The increasing importance of training digital resources usage and application in all professions, especially in the academic industry is becoming paramount. Prakash, (2004) argues that it is inevitable that academic libraries have to respond to this need by providing instruction and training in use of e-library resources, of which he described as “any kind of action taken to impart and improve the employee’s attitudes, skills and knowledge”.

Monday and Noe (2005) states that training is designed as activities for

providing learning with the knowledge and skills needed for (employees) present jobs. However, in developing countries like Uganda, both IT and the use of the e-library are still at an embryonic stage. It was further opined by Shamin Renwick, (2005) and Okerulu, (2003) that the limits of the tradition library and the increasing popularity of IT have caused the use of e-library to grow rapidly because people no longer need to go to a building for some kinds of information. However, they still need help to locate the information they want through different forms of training in order to access e-resources effectively.

According to Ullah (2014) locating information from an e-library requires training, given that there are standards, which an information literate person must meet. This is so important because without skills one cannot locate information. Therefore, the purpose of this study whose results are reported in this article was to determine how training skills, especially among students and staff of tertiary institutions affects the utilization of e-library resources. This is because e-resources are usually put in place to improve the efficiency and effectiveness in terms of adequate utilization of up-to-date e-library information (Sukula, 2010). In the same vein, universities have put much effort in e-library resources besides the manual library that had existed since their inception in order to improve on information utilization by students, academics and administrative staff. The worry that cripples universities is that e-library resources are underutilized. It should be noted that the underutilization of e-library resources in universities may be due to inadequate user training as regards to forms of training the users go through. Therefore, it is upon this background that the researcher had to carry out an empirical study to come up with a practical understanding of how user training affect use of e-resources in Ugandan universities.

Therefore, the objective of the study was to embark on a speculative examination into various forms of library user training, and the possible suggestions and recommendations on effective utilization of e-library resources in institutions of higher learning, using a selected private University as a case study. This objective was informed by the literature reviewed around this topic. It should be noted that infrastructure and training programs are essential for better use of electronic resources campus-wide (Larnikanra, 2003). However, the author did not address what kind of trainings is so essential for better use of e-resources. It was further suggested by Majal (2012) that in order to improve the facilities and services for effective use of electronic library resources in the universities, a number of plans could be implemented by the university management.

According to Kumar, Shailendra and Sanaman, (2013) user training is essential for the better use of electronic resources in the library since a good number of users are searching electronic literature on their own, and computer-based training in form of personal computers are very effective media and instrument of traditional/ conventional "distance education. Gyasi, (2008) finds that, besides transferring

course material, personal computers can facilitate the acquisition of knowledge by offering access to databases. Such facilities can help users to access e-library resources wherever they are but still Internet connection has to be available.

According to Letchumanan and Tarmizi (2010) online training is based on an activated and operation ready-communication network which is used to link two or more computers. In this regard, network users are able to share files, and other resources, send electronic message, and run program on other computers. Demonstrations as one of the training methods is particularly encouraged in e-library training because of its ability to grab the attention of the trainees (Julien, 2002). It is deemed an excellent way to teach employees to use new equipment or to teach the steps in a new process (Titley, 2006). It is also an effective teaching skill because it combines the opportunity to ask questions and get answers in an engaging manner with safety of using ICT (Damilola, 2013).

According to Constable (2007) law academics believe that ICT-based training is crucial in the legal field, and it is recommended that practical, in-service training focusing on improving legal electronic skills or legal research should be conducted for those who enter the legal academic field. He further contends that self-instruction manuals as forms of training forms involves trainers preparing manuals that are simple to use, and whose content is easy to read. However, Issa, (2013) contended that, videocassette is another format for e-library training that is common in practice because it can reach quite a number of users, but it must be copyrighted. He further emphasises that training done by means of a videocassette, in which the trainer explains every step of the training process is important but still library user training on effective utilisation of e-library resources was not addressed in his study. Therefore, this study identified that gap. Students that rarely or never utilized electronic information resources should be encouraged to do so and an enabling environment should be created for the use of e-resources (Blessing, 2009).

The literature above clearly illustrates that there is an effect in utilisation of e-resources if the training forms if they are conducted well. However, the forms of training mentioned are not compatible with universities in Uganda. This study notes that if the trainers undertake these trainings, there is likely to be a positive impact on how they organize the training for effective utilization of e-library resources.

Methodology

This study used a cross-sectional survey correlation research design that was descriptive in nature for the collection of data. The correlation design was used to test the relationship between the variables, because it allowed for data collection to be conducted across participants at a point in time and was intended to pick only some representative sample elements of the cross-section of the population. The study used both qualitative and quantitative research approaches, in which

qualitative approach aimed at seeking opinions and attitudes of respondents that are designed to provide the researcher with perspectives of target audience members through immersion in a culture or situation and direct interaction with the people under study. The quantitative approach was used for statistical analysis in terms of generating tables.

The study used purposive, convenience and simple random sampling techniques. Purposive sampling was used to collect information from Librarians because they are information providers. The academic, administrative, ICT staff and students were conveniently and simple randomly sampled respectively. Consequently, the study used a population of 301 staff and 8000 students from different levels and departments. The study chose a sample of 180 members of staff respondents to whom a same number of questionnaires were issued using Krejcie Morgan (1970) sample determination table. Out of the 180 questionnaires sent out, only 160 were returned implying an 88.8% rate of return. Similarly, out of 367 student respondents, 260 questionnaires distributed, only 153 were returned implying a 70.8% rate of return. Therefore, the response rate was positive for both staff and students. Data was analysed using computer Statistical Packages for Social Scientists (SPSS) in the generation of correlations and regressions tables simply because this method is useful in summarizing small amounts of data.

Empirical Findings

The study set out to establish the relationship between forms of training and utilization of e-library resources among staff. After computing correlation analysis, the study came up with a strong positive relationship and significance as presented in table 1 below.

		Forms of Training
Forms of Training	Pearson Correlation	1
	Sig. (2-tailed)	
	N	160
Effective utilization e-library resources	Pearson Correlation	.982**
	Sig. (2-tailed)	.000
	N	160

Table 1: Correlation Analysis Staff Training and Utilization of E-Library Resources

** . Correlation is significant at the 0.01 level (2-tailed).

The table above shows a strong relationship between the forms of training and utilization of e-library resources among staff. After establishing a strong positive relationship between training and utilisation of e-resources by academic and

administrative staff, the article sought to establish the relationship between forms of training and utilization of e-library resources among students. After computing correlation analysis, the data revealed a weak positive relationship and significance between training and utilisation of e-resources by students as presented in table 2 below.

Table 2: Correlation Analysis of Student's Training and Utilization of E-Library Resources

		Forms of user Training
Forms of library user Training	Pearson Correlation	1
	Sig. (2-tailed)	
	N	260
Effective utilization of e-library resources	Pearson Correlation	.615**
	Sig. (2-tailed)	.000
	N	260

** . Correlation is significant at the 0.01 level (2-tailed).

The results from the tables above clearly illustrate that with staff there is a strong positive relationship and a significance between forms of training and utilization of e-library resources of 0.982 which is significant at $0.000 < 0.05$. This indicates that there is a direct relationship between forms of training and a positively and statistically significant influence on utilization of e-library resources.

However, among students, there is a weak positive relationship but significant between forms of training and utilization of e-library resources of 0.615 which is significant at $0.000 < 0.05$. This means that if universities use different types of training, there will be an increase in effective utilization of e-library resources. However, if universities do not use the specified forms of training, there will be ineffective utilization of e-library resources. The positive significance is in line with Lockhart and Majal (2012) who assert that staff component consistently exposed to relevant training and development interventions should not be underestimated.

The conclusions drawn according to the correlation of the co-efficiency between forms of training of staff and students in as far as utilisation of e-library resources were concerned was subjected to a regression analysis of both staff and students data as they related to utilisation of e-library resources. The simple regression result of model summary among staff between forms of training and utilization of e-library resources is presented as table 3 below. Similarly, a simple regression result of model summary of students is also presented as table 4 below.

Table 3: Model Summary for staff (a)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982 ^a	.964	.963	4.45954

- a. Predictors: (Constant), Forms of Training
- b. Predicted: Utilization of e-library resources.

Table 4: Model Summary for students (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.615 ^a	.378	.376	10.31054

- a. Predictors: (Constant), Forms of Training
- b. Predicted: Utilization of e-library resources

This article notes that the adjusted R Square value of 0.963 for staff indicates that forms of training contribute approximately 96.3% in influencing effective utilization e-library resources. This also means that 3.7% of effective utilization of e-library resources is caused by other factors. Similarly, the adjusted R Square value 0.376 for students show that forms training contributes 37.6% in influencing effective utilization e-library resources. This also means that 62.4% of effective utilization of e-library resources is caused by other factors. This implies that members of staff had had some training and were knowledgeable about e-library resources compared to students. These results were subjected to an ANOVA^b analysis. A simple regression result calculated from the ANOVA^b amongst staff between forms of training and utilization of e-library resources in table 5.

Table 5: Staff: ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83282.872	1	83282.872	4.188E3	.000a
	Residual	3142.228	158	19.888		
	Total	86425.100	159			
a. Predictors: (Constant), Forms of Training						
b. Dependent Variable: utilization of e-library resources						

The F values of 4.188E3 for staff and 156.899 for students are significant (p value of 0.000 that is less than 0.05): implying that forms of training really influence utilization of e- library resources. Therefore, the study concludes that there is a relationship between the two variables. This is in support by (Gyasi, 2008) who asserts that user education is one of the important services of the library for new entrants into the university.

The same test was applied to the results of students' scores. A simple regression result from ANOVA^b was calculated amongst students to establish the correlation between forms of training and utilization of e-library resources and the analysis is presented in table 6 below.

Table 6: Students: ANOVA^b

Model		Sum of Squares	df.	Mean Square	F	Sig.
1	Regression	16679.542	1	16679.542	156.899	.000 ^a
	Residual	27427.269	258	106.307		
	Total	44106.812	259			

a. Predictors: (Constant), Forms of Training

b. Dependent Variable: Utilization of e-library resources

A study established the ANOVA^b values for staff and students, the study examined a simple regression result from Coefficients^a amongst staff between forms of training and utilization of e-library resources that the analysis is shown in table 7. Thus, a simple regression result from Coefficients^a was calculated amongst students to establish the relationship between forms of training and utilization of e-library resources and the analysis is shown in table 8.

Table 7: Staff: Coefficients^a

Model	B	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	6.936	.883		7.855	.000
	Forms of training	2.383	.037	.982	64.712	.000

a. Dependent Variable: utilization of E-library Resources

Table 8: Students: Coefficients^a

Model	B	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	35.352	2.003		17.651	.000
	Forms of training	1.147	.092	.615	12.526	.000

Dependent Variable: utilization of E-library Resources

The standard coefficients for staff and students implies that one unit increase in utilization of e-library resources is caused by 0.982 and 0.615 units increase in forms of training basing on the equation $Y=\beta X+C$, where Y=utilization of e-library resources (dependent variable), X=Forms of training (independent variable), $\beta=0.982$ and 0.615 and C is the Constant. Therefore, the equation of utilization of e-library resources = $0.0.982$ forms of training + constant. (Staff) and equation of utilization of e-library resources= 0.165 forms of training + constant (Students) respectively.

Conclusions and Recommendations

A correlation was run basing on Pearson correlation significant sig. (2-tailed) analysis using 160 and 260 response, $r=.982$ and $r=.615$ for both staff and students which led to achieving speculative examination into the various forms of training. The data reveals that there exists a relationship for both staff and students between forms of training and utilization of e-library resources. An increase in one variable, that is to say, an increase in forms of training will result in an increase in utilization of e-library resources. In the same vein, if universities decrease the forms of training; utilization of e-library resources will decrease significantly.

This means that there is a positive but significant associative relationship between forms of training and utilization of e-library resources. An increase in forms of training leads to an increase in utilization of e-library resources and the decrease in forms of training also leads to a decrease in effective utilization of e-library resources. In conclusion, the objective of embarking on a speculative examination into the various forms of training was achieved. This is because the data generated shows that creating different forms of training in Ugandan universities is critical and important as far as utilization of e-library resources is concerned. This would lead to acquiring research knowledge among staff and students in different disciplines.

The researcher recommends that users should have practical knowledge on how to use computer applications. This will create more use and effective utilization of e-library resources. The researcher recommends that staff and students who

are computer illiterate use should be trained in searching skills using the search engines and databases, which have different e-resources. The researcher further recommends better forms of training that can suit universities in Uganda in relation with good infrastructure like Internet that facilitate the utilization of e-library resources effectively. The researcher recommends that forms of training like practical approaches should be included in the study curriculum for students in universities.

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The Application of the Lusoga-English Bilingual Parallel Corpus Framework

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The Application of the Lusoga-English Bilingual Parallel Corpus Framework

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Abstract

Bilingual Parallel corpora can be used as key resources for cross lingual information processing, language research and teaching, contrastive linguistics, translation studies, and bilingual lexicography. Unfortunately, Bilingual Parallel corpora are not available for many African languages. In this study, we describe the construction of a Lusoga-English parallel corpus upon which several information processing applications can be realized such as machine translation, information retrieval, and bilingual lexicography, Concordancing, among others. For this study, we specifically contribute a parallel concordancer that uses the Lusoga-English parallel corpus. To implement the corpus, parallel text collection, transformation, annotation, and mark-up were undertaken based on three key factors of size, balance and representativeness. Parallel text collection was carried out based on document reviews of secondary data collection method and interviews a primary data collection method from a variety of domains. A set of rules were formulated based on a standard score entry domain embedded in the decision-making tool constructed in open source scripting languages and Mysql database as a backend. Furthermore, in this study three types of annotations were considered, namely, global textual attributes, monolingual textual structural and parallel alignment annotations. For accuracy of annotations the decision making tool was used for standard measure. Text mark-up was undertaken to structure corpus text and make it application-independent and easier to use over the Internet. An XML based framework was developed and used to encode annotated texts. CSS was used to enhance text presentation. As an application of the Lusoga-English parallel corpus, a parallel concordancer was used. Therefore, based on the success of the Concordancer tool, we recommend application of the Lusoga-English Bilingual Parallel Corpus Framework to other language resources such as machine translation, information retrieval, bilingual lexicography among others.

Keywords: Bilingual; Concordancer; Parallel Corpus; Language Resources

Introduction

Language is defined as a framework of words and their usage procedures relative to a particular group of people, country, culture and geographical area (Koegler, 2010; Santorini and Kroch, 2007; Steiner; 1998). It is a mode of communication that utilizes arbitrary signals, such as use of gestures, use of written symbols, and use of voice sounds to communicate messages or meanings (Alansary et al., 2011). Language is a key component used in conveying messages during the communication process (Alansary et al., 2011). Unfortunately, in a multilingual world, there exists a problem of language barrier whereby people from a specific setting cannot communicate with another group of people from a different ethnic setting due to differences in languages (Osborn, 2010). According to Alansary et al. (2011) words are considered the main conveyors of meaning in a sentence during communication. Therefore, it is necessary that language phonemes, syntax, and semantics must be known to both communicating parties to bridge the communication barrier.

This perhaps explains why parallel language corpora remain key resources for cross lingual information processing, language research and teaching, contrastive linguistics, translation studies, and bilingual lexicography (Baobao, 2004). There has been a tremendous growth in interest and activity in the area of corpus building and analysis (Xiaojing, Baobao, Weidong, 2002). Existing studies (Frankenberg-Garcia, 2002; Moore, 2002; Sun and Yang, 2009; Xiaojing et al., 2002) indicate that corpus based research is a key infrastructural component in the development of advanced language processing resources such as machine translations and knowledge engineering resources. Substantial efforts have been made in corpus development for Lusoga language as discussed by Nabirye (2009). Unfortunately, these have focused on monolingual corpus design based on Lusoga language alone. This shows a knowledge gap in Parallel Corpora for Lusoga language. Parallel corpora refer to a collection of texts, each with text positioned along with its translation (King, 2001; Troyan and Hades, 2011).

Bhattacharyya et al. (2009) defines corpus as an assemblage of texts in electronic form used for linguistic research. Language corpus is the primary source of information that forms the basis for description of word meanings and their syntactically and collocationally combination (Aston, 2001). According to Frankenberg-Garcia (2002) a corpus is a large but principled collection of naturally occurring, authentic texts stored in digital format. Corpus linguistics is the critical review of lingual tokens represented as samples of lingual texts (Khurshid and Rogers, 2001). Furthermore, a parallel corpora is a combination of at least two sub-corpora consisting of source texts in one language and their translations into another target language are represented (Frankenberg-Garcia, 2002). Parallel corpora can be unidirectional, bidirectional or a combination of both (Bhattacharyya et al., 2009; Frankenberg-Garcia, 2002). The unidirectional configuration is the simplest parallel corpora, with source texts in the source language and their translations

into the target language (Bhattacharyya et al., 2009; Frankenberg-Garcia, 2002). A bidirectional corpus contains source texts in two different languages (source and target) aligned with their reciprocal translations into target and source (Bhattacharyya et al., 2009; Frankenberg-Garcia, 2002).

Lingual corpora are fundamental resources for language information processing, language research and teaching and lexicography (Baobao, 2004). According to Bhattacharyya et al. (2009), the versatility in technological development, along with the translations available in various languages has led to the use of corpus for machine learning resources as well as various automatic translation applications. Unfortunately, many resource constrained languages lack a well-structured electronic corpus that can be key in machine learning resources (Osborn, 2010). Language corpus is the electronic presentation of source data to be processed for linguistic investigators or natural language processing resources (Ghayoomi et al., 2010). Corpora are thus a linguistic terminology that entails a collection of linguistic data used for linguistic research (Bhattacharyya et al., 2009). Lingual corpora are important in the training and evaluation of linguistic resources (Steinberger et al., 2006).

Research in both parallel language corpora and concordance tools continue to be undertaken in the growing scientific community, so as to facilitate cross lingual information processing, language research and teaching, contrastive linguistics, translation studies, and bilingual lexicography as exhibited in existing studies by scholars such as Baobao (2004); Barlow (2003); Christodouloupoulos and Steedman (2014); Kaiser and Miksch (2005); Koehn et al (2003); Moropa (2007) and Tian et al. (2015). These studies underscore the fact that in parallel corpus developments, a number of steps must be followed and these include Textual Corpus Collection and Transformation, Corpus Annotation and Corpus Markup (Kaiser and Miksch, 2005).

A concordance is a listing of every instance of each word with its immediate context (Barlow, 2003; Moropa, 2007). For a bilingual concordance, the concordance is based on an aligned parallel text (Barlow, 2003). Parallel concordancer tools have been developed to facilitate research using parallel corpus in the field of bilingual dictionary compilation, language teaching and contrastive language study across the languages under study (Baobao, 2004). According to existing studies (Baobao, 2004; Barlow, 2003; Moropa, 2007), concordances are frequently used in linguistics.

Although a number of African languages like Lusoga lack language resources, a number of parallel corpora for specific languages on the globe have been implemented. The existing studies by scholars such as Baobao (2004); Koehn (2005); Barlow (2003); Christodouloupoulos and Steedman (2014); Moropa (2007) and Benjamins (2010) who have variously demonstrated the use of this technique in the translation of the Bible in 100 Languages justify this argument. Similarly, the English-Xhosa Parallel Corpus, Semantic-Oriented Cross-Lingual Ontology, Chinese-English Parallel Concordance Tool, MULINEX, the UM-Corpus, Russian Learner

Parallel Corpus are some examples that show the viability of this method of linguistic analysis (Barlow, 2003; Christodouloupoulos & Steedman, 2014; Moropa, 2007; Benjamins, 2010).

Therefore, to facilitate the building of the study parallel corpus that shows how a bilingual parallel corpus can be constructed in the Lusoga-English nexus, a workflow model was designed based on the entire procedure of constructing a language corpus. Figure 1 is an illustration describing the workflow process. Parallel text collection covers the acquisition of text from various data sources. Noise removal includes all text cleaning processes to remove dirty data from the acquired text. Domain tagging covers text tagging and alignment of the parallel language text. Human validation of alignment results covers evaluating the confidence levels of text aligned by the language experts used in the study. Text mark-up entails the XML encoding of the verified texts. Segmentation and POS tagging of the Lusoga texts covers the tagging of nouns and verbs. Corpus Indexing includes assigning corpus text numeric identification numbers.

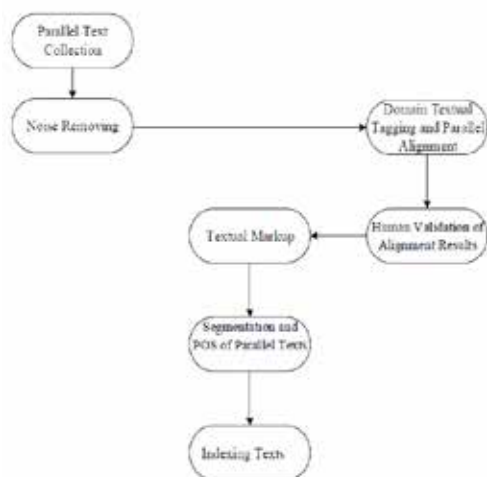


Fig 1: An Illustration of the Workflow for Lusoga-English Parallel Corpora Construction (Primary Source)

For this study, cross lingual words and phrases were collected from different domain and genres with focus on the three factors of conforming to a well-balanced corpus, namely size, balance and representativeness. Therefore, 10960 words and 1000 phrases of Lusoga and their corresponding English texts were collected. The language texts were collected using both the document review and interview data collection methods. Words and phrases to be used in the corpus were collected from various domains such as newspaper articles, technical articles, text books, audio and movie transcriptions and society language users based on age and duration of stay in Busoga region.

Parallel Text Cleaning involved the removal of noise from the collected parallel texts so as to acquire clean data strings. A team of five linguistic experts with varying experience carried out the cleaning. The cleaning process was a laborious phase, which entailed manual cleaning of data by checking for textual misspellings, matching and solving multiword meanings and resolving domain conflicts. In case of a disagreement among the human annotators, the correct string was identified based on the scores of annotators. Thus, this means that for a string to be accepted, it had to have higher scores of annotators so that the average weighting score of experts had to be above 6.0. Below is the formula for agreement measure. AM is agreement measure, AVWSX average weighting score of experts and TnX total number of experts in the cleaning progress. In this study, TnX=5 given the lingual experts used.

$$A_m = AvWsX$$

Given that,

$$AvWsX = \frac{\text{Sum}(x1:x2:x3:x4:x5)}{5}$$

Procedure.....(1)

For this study, words that had a score of 0.6 and above were the only ones selected to be used in corpus design and information extraction. Words with AM of $0 \leq 0.5$ were ignored whereas words with Am of $0.6 \leq 1$ were selected for this study. To resolve expert conflicts, a decision-making (DM) was developed based on the decision-making procedure. Following the experts' scores, a simple algorithm was designed to help with decision-making (DM)

In this transformation phase, parallel text alignment was also performed. In this study of cross-lingual information extraction, both direct alignment techniques which focus on the relationship between the source language and target language (Fawcet, 1997) and oblique alignment techniques which include changes in the context of meaning, grammar and style elements of the target languages (Gabriela, 2012) were used in this study as shown in Figure 2 below.

DM: Procedure 2: Resolve expert conflicts

Input: X = {Low, High} # a set containing

weighting, W is weighting score

if (W==Low) then

move on

else if (W==High) then

select Word

END

Procedure(2)

For corpus annotation, the manual alignment annotation, part of speech (POS) tagging approach was adopted. In this study, corpus annotation was undertaken based on three types of annotations, namely, global textual attributes, monolingual textual structural and parallel alignment annotations so as to enhance its utility. In this study, a word expresses an action, existence, or occurrence of an event. In Lusoga, verbs take on the prefix KU or KW. When O is placed before this prefix they become gerunds or a verbal noun ending in –ing kulya- to eat and okulya- eating.

For global textual attributes, features were used to specify the domain of the texts (written or spoken), author of the text, the genre or category, translator of the text, time period when the text was authored, title of the text, token source description, token target alignment and token identification number. In monolingual textual structural annotation, the researcher worked on annotations with text units of different levels. In this study, we focused on annotation of word boundaries (segmentation) of Lusoga texts. For parallel annotation the researcher focused on establishing the correspondence between the language units of the source texts to their target translations. For text alignment accuracy the Procedure.....(1) approach was used.

To help reduce the complexity and costs in terms of time and money, a decision-making tool was implemented. This tool makes the decision based on the average of the five experts given to a specific word or matched words. The tool was implemented using technologies such as PHP for scripting procedures, HTML a Markup language for display input elements in a browser and MySQL database to store words and the weighting score. The tool interface is divided into three sections, namely, register word to decision on, decision making section and the view decisions section as shown in Fig 2 below.

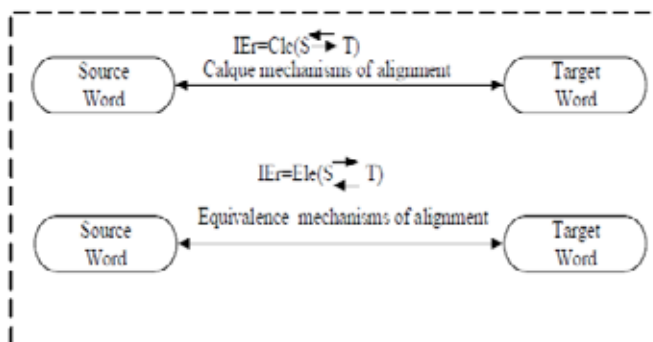


Fig 2: Representation of Direct and Oblique Alignment Mechanism: Adapted from Gabriela (2012) and Vinay and Darbelnet (1995). (Secondary Source)

Text mark-up was carried out to structure corpus text and make it application-independent and easier to use. XML elements used in the study were defined in the document type definition (DTD). In this study, XML was used to structure and annotate the parallel Lusoga-English text. In order to improve on the presentation of the structured content, cascading style sheets (CSS) were used. The segmentation and POS tagged results for Lusoga texts were verified by human domain experts. This process was too laborious and time consuming given the extensive domain of textual strings in Lusoga to be verified. Corpus indexing was done to make the searching of frequently used words easier and faster process. This data is presented in figures 3 and 4 below. While Figure 3 presents the DTD for the Lusoga-English Corpus and Figure 4 shows the XML elements declared on the document type definition as used in the XML document representing the Lusoga-English language corpus.

```

<!-- Lusoga-English.dtd - a document type definition for
      Lusoga-English.xml document, which the structure of Lusoga-
      English Corpus-->
<!ELEMENT tM-corp (TokenDetails*)>
<!ELEMENT TokenDetails (ColYear, Genre, GenreDesc, LangSource,
LangsrcSample, LangTarget, LangtargetSample, EnglishDesc, LusogaDesc,
Tokenid)>
<!ELEMENT ColYear (#PCDATA)>
<!ELEMENT Genre (#PCDATA)>
<!ELEMENT GenreDesc (#PCDATA)>
<!ELEMENT LangSource (#PCDATA)>
<!ELEMENT LangsrcSample (#PCDATA)>
<!ELEMENT LangTarget (#PCDATA)>
<!ELEMENT LangtargetSample (#PCDATA)>
<!ELEMENT EnglishDesc (#PCDATA)>
<!ELEMENT LusogaDesc (#PCDATA)>
<!ELEMENT Tokenid (#PCDATA)>

```

Fig 3: DTD for the Lusoga-English Corpus. (Primary Source)

```

<!--Cross Lingual Corpus Created by Muchake Brian-->
<?DOCTYPE tM-corp SYSTEM "Lusoga-English.dtd"?>
<?xml-stylesheet type = "text/css" href = "Lusoga-English-css-
corpus.css"?>
<tM-corp>
<TokenDetails>
  <ColYear>2011</ColYear>
  <Genre>Traditional Stories</Genre>
  <GenreDesc>Agakuba Omughafu</GenreDesc>
  <LangSource>Musisi</LangSource>
  <LangsrcSample>Musisi eyabise olwaido ya yonoine
ebintu</LangsrcSample>
  <LangTarget>Earth Quake</LangTarget>
  <LangtargetSample>The earth quake that passed yesterday was
destructive</LangtargetSample>
  <EnglishDesc>A sudden violent shaking of the ground as a
result of movements within the earths crust</EnglishDesc>
  <LusogaDesc>okuyuga kweitaka okuva mu kwekyusa
kwensi</LusogaDesc>
  <Tokenid>01</Tokenid>
</TokenDetails>
    
```

Fig 4: Sample XML Code for both Word and Phrase in the Corpus: (Primary Source)

The DTD and XML codes are operationalised by the calculation of the frequency bitext list. This information is shown in table 3 below.

Table 3: The frequency Lists for Bitext Words and Phrases used in the Lusoga-English Language Corpus. (Primary Source)

Lusoga Word	Frequency	English Word	Frequency
Ku	8980	the	7952
a-	5672	it	2265
e-	4999	are	2446
o-	5816	never	1906
aba	2841	and	1378
nda	2256	to	2211
nga	4346	of	1343
kye	5445	a	1245
gha	2113	is	1023
ghe	4213	we	1352
gho	1243	in	1103
baa	2134	people	1617
ira	1325	should	1914
Bi	3214	may	1564
bu	9831	not	998
bw'o	1324	one	964

Concordancing Lusoga-English

For this study, a Lusoga-English concordance tool was implemented as an application of the Lusoga-English parallel corpus. The simple exact match search option was adopted based on a word index search approach, which allows the search for a specific string query (word or phrase) within a pre-indexed list of all words in the corpus. Structured query language (SQL) based on the MySQL database was used to implement the database having imported XML data. XML was used to prepare the corpus text. PHP (hypertext pre-processor) and AJAX (Asynchronous JavaScript and XML) were used for text parsing. HTML a Markup language was used for display input elements for query capturing and output query results.

Given that corpus searching tends to be a complex task as stated by Baobao (2004), the Lusoga-English corpus was indexed to allow corpus search. This index was used in the concordance tool to allow incrementing on the corpus since a corpus continues to grow in size. Therefore, this means that text can easily be added to the XML based corpus. The developed Lusoga-English concordance tool facilitates corpus searching. The searching is either monolingual or bilingual based on exact match or fuzzy match search for a word. This is shown in Fig 5 below.

The following are search results for **Abakazi bakaza ghaka, abasaadha, bazimba nhumba**

Id 10
Year 2011

Genre	Ensabo dhabasoga	Traditional Stories
Target	Abakazi bakaza ghaka, abasaadha, bazimba nhumba	The women stay in the home, men build houses
Description	Mu maka bulyomu alina okuba nikyakola	In a family there should be distinct role for each
	Mwana wanone. Abakazi bakaza ghaka.	Mv child. women stay in the home.

Fig 5: System Output that Shows Output for a Bilingual Search for a Phrase. (Primary Source)

The constructed Concordance tool was subjected to critical analysis to check for errors. The tool was tested using unit testing, integration and system testing to check for any system errors. In unit testing, individual units of source code, were tested to determine whether they are fit for use. Integration testing helped detect inconsistencies between the software units that were assembled together. In

system testing, the behaviour of the entire concordance tool was tested so as to verify that the system to be delivered met the specification for its purpose. An XML based file of 530 words and 120 phrases were imported to the concordance tool to check whether the developed corpus could be used in linguistic analysis.

Empirical Finding

The study of parallel corpora for Lusoga and English languages has unravelled the following contributions to the industry, academia and community in general. First, it made a contribution to the literature in terms of parallel corpora for low resourced languages. Thus, the study builds on the existing knowledge of parallel corpora. Furthermore, the availability of a Parallel Corpora for Lusoga-English languages will facilitate language learning and thus contribute to the preservation of the language. The study also provided an approach for Parallel Corpora development for Lusoga-English languages. Lastly, the corpus in this study can be used as a translation memory for machine aided translation systems given that it provides translation examples for machine translation systems. The above-listed significance of the study is demonstrated in Table 4 below.

Table 4: Sample of Text Representation. (Secondary Source)

Year	Genre	Description	No. Words	Words%
2011	Traditional Stories	<i>Agakuba Omughafu, Ababita Ababiri.</i>	1075	9.808394161
2012	Transliteration out of English Excerpts	<i>Media Excerpts</i>	2393	21.83394161
2012	Busoga Kingdom Reports	<i>National Medical Records Entebbe-Busoga Kingdom</i>	1589	14.49817518
2013	Religious Documents	<i>New testament</i>	1206	11.00364964
2013	Transcribed Recordings	<i>Songs, Traditional ceremonies, Speeches, Sermons, Interviews, Radio broadcasts</i>	3224	29.41605839
2010	Newspapers	<i>Ndiwulira, Kodh'eyo</i>	1473	13.43978102
Total			10960	100

However, the study outlined serious limitations that further investigations

should put into consideration. That is to say, in spite of its advantages listed above, the current study was faced with a number of shortcomings in respect to its set objectives. Some of these challenges included the fact that the study required a lot of time and effort to collect language strings, build the corpus, and construct the concordance. Activities such as text annotations and corpus structuring were laborious activities that took a lot of time thus stretching research costs and schedules. For annotations, developing agreement measure tools to help eliminate the problem of text representation and alignment solved this challenge.

Second, there was limited documentation of the target language. Lusoga language being one of the indigenous languages previously not taught in schools has little documentation due to the lack of language technocrats. This is more evident with the very few books written in Lusoga language. The lack of documentation of the language forced the researcher to search for language texts and phrases from the indigenous language users — an activity which was tiring and costly in terms of resources. Further still, illiteracy of the indigenous respondents who did not know how to write the information they gave to the researcher was a bottleneck to the study.

Another challenge was multi-word meaning in Lusoga, a situation where a particular word in a Lusoga language had different equivalent words with similar meaning and often used missing-string characters strings from the computer keyboard. An example of a multi-word meaning instance in Lusoga language is an English word ‘understanding’, which could point or refer to more than one Lusoga language namely ‘oku.manh.a’, ‘oku.tegeel.a’ among others. Also missing-string characters on the key board, for example the ‘nga’ character string is not present on the computer key board set up yet quite often used in most native Bantu African languages like Lusoga, Luganda among others.

Conclusion

The study set out to undertake research on parallel corpora for Lusoga and English Languages. In order to achieve this goal, specific research objectives were laid out as guidelines to the research study. In objective one, an approach for parallel corpora for Lusoga-English languages was proposed for this study based on techniques and methods identified during document reviews. For objective two, corpus data was collected based on document reviews and interviews. In objective three, the parallel corpora were constructed. In the implementation of the parallel corpora an XML based framework was used to encode annotated texts for both Lusoga and English languages used in the corpus. CSS was used to improve on the presentation of corpus data in a browser. For objective four, a parallel concordance tool for Lusoga-English was developed based on the Lusoga-English parallel corpus to facilitate both monolingual and bilingual text search. Among the conclusions drawn from the study is the fact that Lusoga-English parallel corpus is certainly an

important resource for cross-lingual analysis given that language corpus facilitates language analysis, research and bilingual lexicography.

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University Knowledge, Skills Acquisition and Work Place Competence of Ndejje University Teacher Graduates in Kampala and Wakiso Districts

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University Knowledge, Skills Acquisition and Work Place Competence of Ndejje University Teacher Graduates in Kampala and Wakiso Districts

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Abstract

The paper examines whether knowledge and skills university students acquire during their studies match the work competences required of them in the field. This question was informed by the work of Purcell and Elias (2004) who have raised questions about whether graduates obtain jobs in which they are competent to perform effectively. Purcell and Elias's question is also noted by Brennan (2008) who has stated that a shift from tradition studying single subject to more thematic and inter-disciplinary areas of study might have brought in multi-knowledge and skills versatile for job competences in the world of work today. Using a survey research design, the study purposively sampled 300 professionally trained teachers from the Faculty of Education of Ndejje University working in 113 schools in Kampala and Wakiso Districts. The analysis used included Chi Square, Pearson Correlation Coefficient and Regression Analysis using Factor Analysis to establish the relationship between graduates' knowledge, skills and work competences. The results indicated a positive significant matching between knowledge and competence indicators at work in their teaching. However, there is need to enrich the curriculum of Ndejje University in which products of this faculty currently perform exceptional badly in the real world such as in guidance and counselling, analytical and patriotic skills.

Key words: University education, competence, retention at work, performance, graduate teachers

Introduction

Universities are viewed as having a responsibility for providing a satisfying learning experience as well as fundamental workplace competences that contributes to the graduate's achievement of short and long term career goals (Barrie, 2002). In this study, knowledge as a concept means what an individual must know or understand in order to undergo a specific experience productively and theoretical information acquired about any subject that can be learned. Skills are practical application of the knowledge acquired about a subject. It is the application and transfer of knowledge and theory into practice in order to get expected results. It is putting knowledge into action (skill). Skills are necessary for getting, keeping, and doing well on a job. They enhance workers to make sound, critical decisions. Skills can be made tangible by

applying them in context of getting desired results. Competence is a demonstrated ability (outcome) to apply knowledge, skills and attitudes for achieving observable results (core context). Competences are holistic concepts; skills are precise and definite abilities, either hard technical. They are behaviours or actions performed within a particular content that generally accepted as needed to succeed on the job. Competence includes knowledge, skills, attitudes and experiences, which has to be acquired by the targeted category of a professional educator. It is actually the ability to perform or carry out defined tasks in a particular context, at a high level of excellence.

In this study, teacher's competences can be grouped in several categories such as special professional competence; general educational competence; didactic and psycho-didactic competence; diagnostic and interventional competence; psychosocial and communicative competence; managerial and normative competence; professional and personality cultivating competences. Skills and knowledge are the driving forces of economic growth and social development for any country. Lack of skills and shortage of suitable employability, including soft skills, are some of the key reasons in finding a suitable candidate for available jobs in the country. Uganda lags far behind in imparting skill training as compared to other countries in Africa. Only 10% of the total workforce in the country receives some kind of skill training (2% with formal training and 8% with informal training). Furthermore, 80% of the entrants into the workforce do not have the opportunity for skill training (Okinyal (20015).

However, the rapid expansion of university education and liberalization of higher institutions of higher learning have not moved with the times. Many have concentrated on functional subject areas at the expense of interpersonal skills. Meyer (1992) proposed that the key competences made explicit in curriculum contribute to students' work place competences through appropriate curriculum, teaching and learning processes and work related experiences. Barrie (2002) noted that there is a difference in academic understanding of the concept of generic competences and the process by which graduates develop such competences. Competences and abilities based on work tasks are similar to role definitions as they specify the contents of the job. However, in most times, what is acquired during the training may not perfectly match with competences at work place due to dynamic working environment in the area.

Scholars such as Sawardekar (2002) have linked work competences and university education. Sawardekar argues that teacher's competences dictate the quality of the teaching-learning process. Therefore, some universities have reacted positively to this reality by emphasising a more hands-on practice of their training processes. However, other scholars such as Leveson (2000) have concluded that identification of skills developed by graduates needs to be understood and articulated by the individual graduate and his or her potential employers. This puts

responsibility on the individual graduate to explain their skills to employers. This may provide a basis for over all competence outcomes but may require additional skills needed specifically for the job demands as experience reveals. Therefore, a student's employability prospects may be more affected by "where" he or she studied from than by "what" has been studied. This is because employers are consequently unable to assume a common knowledge base among their graduates.

For example at primary and sometimes secondary levels many students leave school without having mastered required levels of literacy, numeracy and other soft skills for employability in the market place. Above all, there is limited access to education for marginalized groups including children with disabilities in vocational schools, most of the instructors do not have the skills of handling them with generic, technical and soft skills needed at work place. Learning technical skills is not enough. Soft skills that make people employable are equally critical. Consequently, during recruitment, emphasis is placed upon "on-job training" and "induction" within employment. The implication of the knowledge economy and the need for greater number of graduates is that graduates get jobs because of the content and level of knowledge they acquired in university, which was articulated through the award of a degree.

It is necessary to consider both supply and demand factors in the field of education that other factors may come in and give a wrong picture than what is on the ground. It also calls upon employers to adopt their recruitment practices to the characteristics of the supply of new graduates from universities, by emphasising employment readiness and transferable of theoretical competences into practical organisational productivity. This would be a timely response to the outcry from employers about a general decline in organization productivity and compromised work performance of graduates despite the hiring of people in possession of necessary qualifications for the jobs complemented with employers advocated on-job training, (Mazrui 2009). This perhaps explains why employers have doubted graduates' knowledge and skills acquired while at university and opted for on-job training to equip graduates with necessary knowledge and skills for work competence (Munene, 2004).

Furthermore, in spite of the proliferation of tertiary institutions — Uganda now has over 33 Universities — the profile links between university education, and utilization of practical skills seems to leave too much to be desired. In December 2011, Cabinet approved the new 10 year Strategic Plan (2012/13-2021/22) for Business Technical Vocational Education and Training (BTvet) under the name skilling Uganda, which was launched 2nd October 2012 at Jinja Vocational Training Institute. The plan denotes a paradigm shift for skills development in Uganda away from supply- led to a demand – led skills development system. It is based on a comprehensive analysis of the BTvet sub-sector in terms of relevancy, equity, quality, organizational effectiveness and internal efficiency aimed at overhauling

the current system of education system in the country to match university graduates with work competences in Uganda.

The original objective of universities serving as centres for generating innovative knowledge for practical skills for work competences tends to be compromised. Most of university graduates possess theoretical knowledge and miss practical skills for work competences (Ministry of Gender Labour and Social Development 2010). Therefore, there is need for further inquiry into the graduates' knowledge and skills in relation to work competency. This article examines the relationship between the knowledge and skills Ndejje University teacher graduates gained and the competencies required of them at the work place to see the level of fit and the gaps that need to be addressed. Its central question is whether graduates' knowledge acquired during university training match with work competences. It also seeks to establish whether graduates' skills acquired during university training match their present work competences as well as identify necessary knowledge and skills that could be missing for enhancing graduates' work competences and employability.

The central question of whether university graduates' knowledge, skills and competences were reflected in their accomplishment in the real work environment was underlined by the work of Brennam (2008) and Elias (2004), who suggested a generic form of subject content to have a comprehensive knowledge for variety of jobs and varied competences. The question of whether graduates possessed the knowledge required to competently execute their duties resonates with Brennan's (2008) argument that a shift from a tradition of studying single subject to more thematic and inter-disciplinary areas of study offer graduates a multi-knowledge versatile job competences in the dynamic world of work.

The shift from public to private employment of graduate trainee teachers in 1989 raised concerns for graduates' knowledge, capability in relation to work competence for competitive advantages. Many employers constantly questioned the suitability of the graduates to perform tasks assigned to them. This new focus clearly shows the extent of the match between graduates' skills acquired through training influences their work competences in the real world of work.

Given that stakeholders view universities as having the responsibility of providing the job market with a competent workforce, it is perhaps reasonable to agree with Mayer's (1994) proposal that key competences should be made explicit in the curriculum. The competence/employability debate has added pressure on universities to develop curriculum that included the teaching of essential behavioural skills and general or core competences addressing work place needs. Leveson (2000), noted that identification of skills developed by graduates need to be understood and articulated by individual graduate and be understood by employers too so as to establish which graduate is likely to be meaningful to their work demands. However, what seems to be taught in the institutional setting is

not what immediately the work or job requires urgently. Many employers are questioning the quality of education offered, if the absorbed graduates cannot change into firms for increased niche in the global market. Furthermore, Hall and Torrington (1998), recommends that competence training should be directed towards developing the ability of the individual to perform specific tasks directly related to the job he or she is doing. This is because competences represent a dynamic combination of knowledge, skills and abilities. Fostering competences is the object of educational programs for competitive advantages in the dynamic global market.

The mismatch between training and skills acquisition among graduates is perhaps the reason why employers seem to be losing trust in the qualifications held by university graduates. Others hold views, that what is given to them is not what they want (Al-Samaria and Reilly 2003). Scholars have put out different theories on the matching of university education and the employment system at work. Normative theorists tend to focus on what should be a typical match between university education and world of work requirements (Levin 1995). They are concerned with the “ideal” or what ought to be. They hold views that university education provides job related knowledge, skills for pre-selection of students for future job competences, (Brennan et al 1995). This may not be true in most cases depending on the dynamics of the job requirements and innovations that arises at a particular time. The critics of normative theorists argues that, this kind of education system where university excessively structure education in utilitarian terms has ideological dangers of mismatch between what is offered at school and what the world of work requires (Teicher (1995). This is due to a simplistic view, biased to selfish interests of employers and their perceptions of how subjects taught at university can serve the work place.

The matching of graduates’ skills, knowledge and the work competence has always been a concern for many stakeholders in the employment sector. Work demands constantly change, and as a result, skills and knowledge required to match competences at work equally change (Brennan et al 1995). The curriculum content in the university education assumed to inculcate graduates with knowledge and skills for competences required at work can never be an end in itself. Curriculum needs to be reviewed upward basing on what the community demands. However, the protocol involved in revisiting the curriculum may be slower to recommend additional skills and knowledge for competence development needed at work. However, with rapid proliferation of university education, many universities have started producing graduates without substantial resources to match with their enrolment. This has led to problems of overcrowding within a few available resources. This greatly influences the quality of education and definitely the competences, knowledge and skills of graduates vis-à-vis the required competences expected of them at work place.

Research Methodology

A survey research design was used to collect data from 300 respondents from a population of 3000 according to the records in the Academic Registrar's Office Ndejje University (Amin, 2005). This sample/population selection matched with what Fisher et al (2003), recommend for scientific generalization. The sampled subjects were selected from 113 schools in Kampala and Wakiso districts using purposive selection because the study aimed to trace the teacher graduates who trained from Ndejje University and worked in the teaching profession to address the key question of the study.

Thereafter, a structured questionnaire with several sections such as bio-data, teacher graduate's knowledge and work place competences teacher graduates' skills and competences at work and necessary knowledge and skills needed be incorporated in curricula for enhancing work competences in the dynamic global market for competitive advantages was used in data collection. This instrument was subsequently checked for validity and reliability using the content validity index (CVI) and Cronbach's α total test. Chi Square, Pearson Correlation Coefficient and Regression Analysis using Factor Analysis were used analysis to establish the relationship between graduates' knowledge, skills and work competences.

The validity of instruments was ascertained using a four point Likert scale 1= Not knowledgeable; 2= Somehow knowledgeable; 3= Well knowledgeable; 4= Highly Knowledgeable to establish the knowledge indicators of teacher graduates in relation to competences at work. This Likert scale was replaced with corresponding content validity index (CVI) of 1=Not relevant, 2=somehow relevant, 3=quite relevant ; 4=very relevant. The content validity index (CVI) of the instruments was calculated using the formulae below

$$CVI = \frac{\text{Proportion sum of items rated QR or VR by both rates}}{\text{Total number of items in the questionnaire}} \times 100\%$$

The items that were used under the knowledge indicators were 75 items, competence indicators were 96 items, and skill exhibited indicators were 103 items. For knowledge indicators CVI was calculated and the items found to be QR or VR were 64 items of 75. The validity index was calculated to be 0.85. The items for skills exhibited indicators found to be either QR or VR were 93 of the 103 and the validity index calculated to be 0.90. The items in the competence indicators found to be QR or VR were 89 of the 96 total items developed. The validity index was calculated to be 0.92 above 0.70 standard validity measure index. The study measures were taken to be most valid. The questionnaire was piloted among 30 sample respondents, a 10% of the total sample size that was selected.

The reliability of instruments was established using the split half methods items on; tracer study, and Cronbach's alpha coefficient to estimate coefficient for

variables of the study. The formulae for Cronbach's r total test = $\frac{K(SD^2) - c(K-c)}{(SD^2)(K-1)}$. Where K = the number of items in the test, SD = the standard deviation of the score, c = the mean of the scores. Scores was ascertained and scores were established to be 0.84. Since the standard reliability index suggests a reliability index of 0.70 to be accepted as a reliable instrument. The instruments the study was higher than the standard measure of the reliability index as suggested by Cronbach's Alpha Coefficient and was considered reliable.

Empirical Findings

The results indicated that there was a positively significant relationship between knowledge indicators of graduate teachers acquired from Ndejje University and competence indicators at work in their teaching profession. The total competence indicators (TCI) were run against their total knowledge (TKI) indicators and results showed $r = .753$, $p = .00$ ($n = 179$, items correlated against each other), then $p < 0.01$ (2-tailed). Since $p < 0.05$ (2-tailed). Total graduate teacher knowledge indicators significantly relate with total competence indicators at work by 55.7%.

It has been noted that competence indicators of a particular variable against its own variable on knowledge indicators was found to be highly significant than total corresponding scores. For example, competence concerning planning for instruction and curriculum implementation had factor loading above 0.531 and was picked by KMO, Barlet test of sphericity plus inspection method and considered significant. Results showed that personality cultivating graduate teacher knowledge indicators had the highest significant level of 72.1% with corresponding competence indicators at work. Special professional competences exhibited at work explained by 69.3% of teacher graduate knowledge acquired from university training. It was also noted that, the least teacher graduate competence exhibited at work was competence of psychosocial and communicative skills which were scored at 0.544 at $p = 0.002$ less than $\text{sig} = 0.05$ accepted error. This score indicated a limited knowledge indicators acquired from university training by some of the respondents. This means that graduates knowledge indicators account for moderate competence at work.

Regression Analysis of the results indicated that R^2 of 0.567. Graduate knowledge indicators at work was scored at 56.7% of the variations in total competences exhibited at work by university teacher graduates with the standard Error of 8.604 which is above 1 and above the KMO in line with the Barlet sphericity measure of sampling accuracy for critical value of 0.531(53.1%). Analysis of variance was run between teacher graduate knowledge indicators and total competence indicators at work. The resultant model was significant and the level of significance was 0.001 meaning that there was a significant relationship between knowledge indicators and total competence indicators exhibited by university teacher graduates at work. Total teacher graduate knowledge indicators regressed against competences required at work, explained by R^2 of 0.567. This means that 56.7% of the total competences exhibited at work by university teacher

graduates (Total Competences) statistically arose out of graduates' knowledge at a standard estimated Error of 8.604, which is above 1.

Another measurement that was used was Factor Analysis. This was used to get detailed information and loading of items matched against the data accruing from the main variables. Principal component analysis (missing values replaced by the mean) and varimax rotation procedures were used. The Eigen values greater than 1 and loading weight cut off point of 0.531 for the items were used as criteria to extract the factors. This was in accordance with the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) and the Barlet Test of sphericity plus inspection method. Thus, the factor analysis gave a KMO of 0.78 of sampling adequacy of total seven-factor modelled from eleven teacher competence measures required at work. A Barlet test of sphericity was significant (Chi-square 6054.57, df= 6956, sig=0.01. These values are adequately large and the chi-square was significant, indicating that the factor analysis output was dependable. The results show that factor loading of knowledge indicators on special professional competence of teacher graduate with Eigen =9.543, variance of 5.67; $r=0.707$ and knowledge indicator loading at Eigen values= 8.345, knowledgeable indicators (variance=7.431; $r= .69$ as by Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) and the Barlet Test of sphericity factor analysis of 0.78.

This was crosschecked using the principal component analysis (missing values replaced by the mean) and varimax rotation procedures. The Eigen values greater than 1 and loading weight cut off point of 0.531 for the items were used as criteria to extract the factors of special profession competence measured by content knowledge based appropriate with a total 8 competence indicator items and competence measure of planning for instruction and curriculum implementation with 11 competence measure indicators. The Eigen values greater than 1 and loading weight cut off point of 0.531 for the items used to extract the factors for significant values reflecting special professional competence identified. Special professional competence concerns mastery of a systematic body of knowledge of a specialization in appropriate scope and depth and application of practical experience in the specialization to the educational content of the subject of study and ability to transform knowledge of the respective scientific and technical disciplines into the educational content of the subject of study and integrates interdisciplinary knowledge with the subjects of study and create inter-subject links.

In addition, the factor loading for general educational teacher competence too was done using KMO, Barlet test of sphericity plus inspection method in the factor loading of cut off of 0.531. General educational teacher competence concerns the mastery of processes and conditions of education at secondary and vocational level on both theoretical and practical levels. This is combined with a deep knowledge of psychological, social and multicultural aspects that are needed at such a level of education. It is measured on items concerning collaborative

relationships that focus on understanding the role of the community in education, developing relationship with colleagues, parents, guardians and the support of students' learning. The knowledge indicators on competence of general educational teacher had factor loading above 0.531 and were picked by KMO, Barlet test of sphericity plus inspection method, items 1,4 and 6 had factor loading below 0.531 and considered insignificant but were all above 0.47 on factor loading. Eigen were established and values were found to be 7.873, variance at 6.31 and $r = .58$ of knowledge indicators. This means indicators are significant.

Factor analysis of inspection using screen plot reducing from eleven competences to seven interpretable factors (special profession competence, didactic and psycho-didactic, psychosocial and communicative, managerial and normative, general educational competence, diagnostic and interventional and personality cultivating competence accounting 38.4% of the variance for the teacher competences condensed from 171 total items from eleven teacher competences as divided as 96 competence indicator items and 75 knowledge indicators into significant factors above 0.531 as suggested by Kaiser-Meyer-olkin measure of scientific sampling adequacy.

Of the competence indicator that had highest Eigen loading was under the competence of planning for appropriate instruction and implementation: incorporating teachers' experiences into instructional practices that relate to the students' current life experiences and to future career and work experiences at loading of .903 Eigen values. The data collected to establish whether the skills acquired by graduate teachers from their training matched the competences needed at work for efficiency and continuous employability focused on eight skills levels of teacher standards, with 101 items measuring the skill levels of teacher graduates at their work. Factor loading was computed to establish the skill level of teacher graduates at their work and then correlate with teacher competences for competitive advantages over others in the global economy. It was sought important to detail these findings for scientific conclusions.

Principal component analysis and varimax rotation procedures were used. Eigen values greater than one and loading weight cut off point of .531 for items were used as criteria to extract the factors. The Kaiser-Meyer-olkin measure of sampling adequacy (KMO) and the Barlet test of sphericity supported this criterion. The results gave 0.70 of sampling adequacy, Barlet test for sphericity was significant (chi-square 3078.46, $df=101$, $sig=0.00$). These values were adequately large and the chi-square was significant: indicating that the factor analysis output was dependable. The teacher graduate skill in caring, enthusiasm and interaction with students using KMO, Barlet test of sphericity plus inspection method of the fourteen items for skill was scored at less than 0.531 and were not considered but were all above 0.49 on factor loading. Given that Eigen values were at 9.873, variance =4.72; $r = .78$ the study concluded that the findings were significant.

In terms of whether skills in creation, maintenance of learning-teaching climate, holding positive attitudes about life were acquired from university, the results revealed using KMO, Barlet test of sphericity plus inspection method of the fifteen items for skill in planning, designing, curriculum and implementation of instruction measure. With a factor loading of less than 0.531, which was above the 0.500 on factor loading cut-off point correlated with the Eigen values of 7.123, variance =4.89; $r = .68$ it could be concluded that skill indicators in planning, designing; curriculum and implementation of instruction are significant and matched with graduate competence at work place.

Another area that was measured using factor loading was in terms of assessment methods appropriate for instructional decisions. The factor loading of less than 0.531 with an Eigen values of 8.782; variance =5.08; $r = .73$, lead the study to conclude that graduates were skilled in administering, scoring and interpreting assessment tools at their places of work. In addition, factor loading for skills in communication and assessment of results to all stakeholders in a school was computed. Analysis results of factor loading using KMO, Barlet test of sphericity plus inspection method of the fifteen items for skill in communication and assessment of results to all stakeholders' measure. With the exception of three items that factor loaded at less than 0.531 and were not considered, the Eigen values were 6.684; variance =3.931; $r = .591$ meant that indicators of communication and assessment of results to all stakeholders' are significant. This meant that graduates were competent at work in line with average or standard measure in regard to assessment. Finally, factor analysis results revealed that only two items of this measure scored at less than 0.531. This meant that with factor loading above 0.531 and an Eigen values of 6.678; variance =4.233; $r = 0.65$ the graduates were competent in as far as completing their task was concerned. This was at significant indicator of 0.65 above average. In final analysis, the inspection using the Scree plot eight interpretable factors of graduate teacher skills accounting for 53.32% of the variance, with the lowest variance of 39.31% in communication and assessment of results to all stakeholders.

Other skills including caring, enthusiasm and interaction with students' at work accounted for a 61.38% variance in data reporting. Skills in creation, maintenance of learning-teaching climate, holding positive attitudes about life accounted for a 51.44% variance. Skills in classroom management and organization accounted for a 52.16% variance. Planning, designing, curriculum, lesson and implementation of instruction accounted for a 55.12% variance. Skills in choosing assessment methods appropriate for instructional decisions accounted a 53.04% variance. Skills in administering, scoring and interpreting the results of both externally produced and teacher-produced assessment methods accounted for a 54.24% variance. Skills in collaborating with colleagues/parents/others when completing teaching task 53.42% of variance. The results indicated a high level for 101 items

used to measure the skill level matched teacher graduates skills at their work and were significant at above 0.5311 as suggested by Kaiser-Meyer-olkin measure of scientific sampling adequacy.

The results did not differ much from average total variance score of 53.32% as the screen plot suggested and thus it can be argued that the skills identified matched well with what the teacher graduates were exhibiting at work. The factor component that had the highest of the Eigen loading was carefully linking learning objectives and activities and focusing time on teaching and learning out comes at 0.901 Eigen loading under the skill of planning, designing curriculum content in line with the content and the use exemplary teaching strategies and techniques met the needs of individual students, groups and/or classes of students in a highly responsive and inclusive manner under the skill of caring, enthusiasm towards learners. Furthermore, Chi-Square results for significant variables of skills exhibited by graduate teachers matching against their corresponding competences at work for continuous employability were positive. The results revealed that skills by teacher graduates were significantly associated with competences exhibited at work for continuous employability. Only significant independent variables matching with competences were entered into regression analysis.

On the significant independent skills including total skills levels, planning, designing curriculum and lesson implementation, caring and enthusiasm to learners, creation and maintenance of conducive environment, classroom management and organization, choosing appropriate methods, administering, scoring, interpreting results, communication and assessment, collaborating with others were converted into as predictors of competence variables. On the dependent variable list, total competences included special profession competence, didactive and psycho-didactive, psychosocial and communicative, managerial and normative, general educational competences, diagnostic and interventional and personality cultivating competences.

The matching of skill predictors for competences at work were entered in equation included: (i) planning, designing curriculum and lesson implementation, (ii) caring and enthusiasm to learners, (iii) creation and maintenance of conducive environment, (iv) classroom management and organization, (v) choosing appropriate methods, (vi) administering, scoring, interpreting results, (vii) communication and assessment, (viii) collaborating with others. The dependent variable was total competences exhibited at work. The results indicated that R^2 of 0.729. This means that 72.93% of the variations in total competences exhibited at work by university graduate teachers (Total Competences) are statistically explained by skills possessed by the teachers at work. Analysis of variance was run between matching skills of teacher graduates with total competences and results revealed that the model was significant and the level of significance was 0.000. This means, there is a significant skills matching relationship with total competences exhibited by university teacher

graduates at their place of work.

The objective to establish the necessary knowledge and skills that the Ndejje University teacher graduates could have missed, but still needed in order to do the work competently in this global economy was analysed. It was however thought necessary to separate the two and have knowledge and skills examined independently. The summary of results showed that there was possible missing knowledge necessary for competence development at job by university graduate teachers. The most serious issues concerning knowledge that was missed but necessary in order to understand the relationships between societal demands, problems, emerging issues at work and what the university could offer accounted for (54.3%). The need to have general knowledge of all subjects accounted for (51.7%). The idea is that a teacher cannot be an expert in all fields. Knowledge is always constructed rather than instructed. It can be constructed as a result of new changes that may come in.

Another crucial skill that university graduates could have missed from training but was necessary at work for exhibiting high competences for employability were lifelong skills related to logical and coherent thinking that was scored at (69.0%). Similarly, the counselling knowledge given at their training did not substantially equip them with the necessary counselling skills to address the most pressing problems at varied levels in a school setting. It was also noted, that there is a need for computer and technical skills training in designing, developing digital-age learning experiences and assessments (64.3.0%). The main concern was that, the world had gone global and e learning and computer skills and technical skills were the way to go. They also noted that entrepreneurship orientation thinking, financial planning and management of finances skills for better future (59.3%). This is because people need to master business tips in order to survive with meagre resources.

Conclusions and Recommendations

The results indicated that there is significant relationship between knowledge indicators of graduate teachers and competence indicators at work. The regression model indicate that $R=0.853$, $R^2=0.567$. The knowledge indicators explain that 56.7% of competences exhibited at work on the overall basis were acquired at university. This correlates with what Sawardekar (2002) noted about the relationship between teacher competences and the quality of teaching-learning process. Sawardekar's argument is echoed by Mayer's (1994) observation that key competences should be made explicit in the curriculum. The competence/employability debate added pressure on universities to develop curriculum that included the teaching of essential behavioural skills and general or core competences addressing work place needs.

Results indicated that educational counselling skills training to address school, community and societal issues accounted for (69.0%). This means that

counselling knowledge given at their training may not have substantially equipped them with necessary counselling skills to address the most pressing problems at varied levels in a school setting and beyond. This was important because there was need for teachers to work with the community in order to ensure the wellbeing of their students. University graduates also noted a high need for computer and technical skills training at (64.3%) because they were working in a digital world. They also sought for skills in managing harassment and violence at different levels of interaction reported at (59.3%). Entrepreneurship and financial planning/management was another skill, which at (59.3%) was needed by the graduate teachers.

The following recommendations are drawn from the conclusions. There is need to equip graduates with knowledge, skills or competencies that solve community-pressing problems. Such skills will most likely be achieved if the courses taught at university are multidisciplinary. There is need to include counselling as a teaching subject in addition to other subjects to address life skill training for the most pressing issues and problems in schools, community and society. When counselling skills and knowledge is provided, it enhances the graduate's ability to counsel students, staff, parents and the administration as well. There is also a need for computer and technical skills training in designing, developing digital-age learning experiences. E-learning strategy should be emphasized to staff and students. Staff should be trained on how to use digital platforms through annual refresher trainings coupled with a mentorship scheme to enhance their digital skills. Furthermore, there is need to provide teachers with computer hardware so that they can translate theoretical knowledge into hands on practice. There is need to orient in new ways of approaching the needs of society to suit the changing needs like entrepreneurial orientation and thinking as well as financial planning and management for better future, through continuous pedagogical skills training and key lifelong learning skills, vocational training for logical and coherent thinking for personal growth and development to cope and adopt with new changes. The university trainer needs to include multicultural-diversity and patriotism skills teaching to enrich the trainees with cultural differences, ideologies and how to adopt and cope with differences to avoid cultural shock, diffusion and ethnocentrism consequences since globalization has taken over.

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