# KAMPALA UNIVERSITY
## "ORIGINAL"
## THE CAPITAL'S CHARTERED UNIVERSITY

## GRADUATE SCHOOL
## AND
## RESEARCH DIRECTORATE

ISSN 1813-3886
9970181340251

# KAMPALA UNIVERSITY SCIENTIFIC RESEARCH JOURNAL
# (KUSRJ)

VOLUME 5, ISSUE 1
7TH. MARCH, 2019

**ISSN 1813-4025**
**9970181340251**

# Word from Managing Editor

Research and Publication is a basis for lecturers' rise in academic ranks. However, most lecturers have not appreciated research and therefore, biased to respond to call for papers, as a result missing out on opportunities in their academic journey. Kampala University Scientific Research Journal (KUSRJ) is an annual publication of Kampala University, spearheaded by the Graduate School and Research Directorate. The Journal is an outcome of papers in various fields of academia, and provides an update on key findings resulting from surveys, case studies and empirical studies undertaken by a number of researchers. The production of selected research papers in the journal is a collaborative effort by lecturers and students from Kampala University. In maintaining this tradition, the 2019 KUSRJ, presents invaluable information to support data user needs by providing relevant, reliable and timely official information for future use in the academic world. Therefore, the management team appreciates the financial support from the University, staff and students who responded to the call and sent their papers in time to produce this valuable publication. It is our sincere hope that this publication meets the needs of our stakeholders, and is supportive and relevant to their requirements. We appreciate comments that are aimed at upholding the quality of the journal and the upcoming publications. I therefore, call upon all lecturers and researchers to respond to the call and forward their papers for future publications. Moving forward, we intend to make this an international journal with the aim of attracting researchers across the world from different universities in order to contribute to the United Nations Sustainable Development Goals.

Henry Stanley Mbowa

# Word from Director

I greet you in the name of God!

First and foremost, education is a key to success; it opens doors of opportunities and ensures accessibility to new knowledge generated through research and publication. Accordingly, Kampala University Graduate School and Research Directorate is publishing this journal with papers which provide information on the issues pertaining to the communities, drawing on the assessment of research across various fields of expertise. Research is a powerful way to inform policy makers and helps to identify, prioritizes problems and recommends solutions to overcome them. Thus, research should always be of good quality to produce new knowledge, implying that research and publication is a medium for research output. The quality of research publications provides a key measure of the research productivity of academic institutions and worldwide community. Publication also enhances students' learning, retention and prepares them for challenges in their career paths. Consequently, this publication is a result of efforts by the contributors and editors to enhance the reading culture, research and publication and disseminate the findings to ensure growth of new knowledge. Thus, the role of this publication is intended to promote research and publication in the world spheres of education among our students and other scholars. Therefore, I would like to encourage researchers to continue identifying virgin areas for research to fill the gaps present in our societies thereby increasing the body of new knowledge.

Dr. Binenwa Jean Bosco, PhD

Director,
Graduate School and Research Directorate

# Word from the Vice Chancellor

I greet you all in the name of Allah!

Ladies and Gentlemen, Kampala University is strategically tasked to produce human capital with the relevant skills that open the door to the world of work and the economy, alleviate poverty, serve the environment and improve the quality of life. As you may know, the purpose of research is to generate new knowledge and disseminate findings to increase global knowledge relevant to the community for human progress. Kampala University (KU) as an institution of higher learning provides concrete pillars for academic excellence through rebirth of knowledge resulting from teaching, research and publications. Hence, the adage, "publish or perish". Outstandingly, publication is one of the few methods at scholars' disposal to demonstrate academic talent. This brings together the scholars and their institutions to progress through a chosen field in the World of academia. Remarkably, publication bridges the knowledge gaps in the community through facilitating communication between individuals who work in isolation from each another. It serves as a center piece of scientific enterprise and a focal point for the description of scientific results which help scholars to develop hypothesis to provide foundation on which new scientific discoveries and inventions are built. Thus, KU encourages publication from scholars to stay abreast with the ever-cutting and competing academic environment. Note that, it takes courage to grow up and become whom you are. As professionals, you are implored to continue to set and fulfill goals in your academic endeavours. Thus, the contributors to the publication of Kampala University Scientific Research Journal have registered a significant contribution to the body of knowledge. I commend the contributors and the editorial board for a mission well accomplished. I call upon the public to read the journal and disseminate the information to the Global village.

Viva Kampala University!

Owek. Amb. Al-Haj Prof. Emeritus Badru. D. Katerega
(National Hero)
Vice Chancellor, KU and Chief Advisor

# TABLE OF CONTENTS

## TABLE OF CONTENTS

## TABLE OF CONTENTS

# Social Behavior And Academic Achievement Of Students In Selected Public And Private Universities In Kampala

**Wakhungu Nathan (Rev, Canon) & Dr. Sumil Novembrieta**

**Abstract**

*This study investigated the relationship between the degrees of social Behavior and the levels of academic achievement of students in selected public and private universities and the following aspects were investigated (1) demographic characteristics of the respondents, (2) the degree of social behavior and difference between public and private Universities, (3) the level of academic achievement and differences between public and private universities, and (4) significant relationship between degree of social and levels of academic achievement. The retrospective-prospective descriptive comparative and co-relational design was analyzed. Two thousand 3rd year students in school of education and social sciences were randomly selected. Standardized instrument on social behavior and academic achievement were adopted for frequencies and percentage distributions, t-test levels, Pearson linear correction co-efficient and analyzing of variables were used to analyze data. Majority were from public (51.8%) and education (53.5%) there were(51.8%) difference in the degree of public and private in terms of social behavior and 48.2% difference in levels of academic achievement between public and private universities. The findings revealed that there is a significant relationship between the degree of social behavior and levels of academic achievement. It was concluded that the null hypotheses of significant correlation was rejected , the social behavior theory (SBT) and academic achievement model (AAM) were Reinstated recommending that social behavior have a significant relationship on academic achievement.*

***Key words: Academic achievement, retrospective study, social behavior***

## 1. Introduction

Generally, in educational instructions, agents of education put much emphasis on the discipline and conduct which is core of social behavior in order for effective learning to take place. Social behavior has a direct bearing on academic achievement, that is why discipline and conduct was the major emphasis f Aristotle for one to achieve a better future, which explain why most of the schools were initiated from religious places like homes, churches and mosques , Sekamwa (2001). Most universities also developed.

From the religious Philosophic background which had a lot to do with morality. Religious institutions placed a good deal of importance and social behavior as one of the key factors to contributes on ones' academic achievement, for example the United States (U.S) constitution does not mention educations except the 10th amendment that called the improvement of social media for their children to achieve academic success. The American constitution gives a state of freedom to their children, abolition of corporal punishment and introduction of dialogue with affected children; hence the American academic achievement levels are very high. Student's homes are the seed bed of social behavior that are developed and refined through educative processes in educational institutions. Similarly, Kigali (2007) contends that learning that leaning valves start from home as the first school, though psychologists refute it by advancing the womb as the first learning environment. The socialization and interaction children's personal characters are formed the cognitive (reasoning) mind is developed and the parental instructions take the center stage in building up the social behavior of the child.

Since social behavior and academic achievement are interrelated in education context, both of them are amenable to evaluation in order to ensure educative efficacy. In educational institutions positive social behavior is most desirable that is to say negative social behaviors for assessing student's social behavior, the main ones include the students demonstrating of responsibility, a spirit of respect for authorities and other persons' voluntary, and regularity in attending various curricular activities, a sense of fellow feeling, tolerance and cooperation. Some of the examples are cited. E.g. students evaluation at Kassel universities in Germany were expected to base academic achievement on research, continuous assessment, terminal examination, quizzes, practical work and projects. Matiru and Mwanji (20070 suggested that candidates with high scores did not need to sit final examination but the question remain on validity and reliability of the classroom achievements the argument is how expert the lecturer in determining the grades of students. Lecturers can suggest on competence, examinations moderating which generates into confrontation of focuses on pointing out rather than correcting their weaknesses do not help them to grow professionally.

Some Universities in Uganda, college of high degrees and research have adopted the comprehensive examination as the part of the measures of student's ability toward academic achievement. It is good because it allows a wider range of test techniques, the questions cover the entire syllabus, gives ability for details, accurate and precise feedback to students however, the challenge remains in the entire staff to roll out and adopt the cognitive domain (levels of learning and understanding have a lot to do with knowledge , comprehension and application analysis to evaluate academic achievement however other domains like effectiveness which deals with attitudes , values, interests and teachings are very important. The psychological domain which exploits a lot of physical skills is also an aspect that contributes a lot on academic achievement, hence universities that are coming up for business in building not meant for universities located in the middle of the city may face big challenges for evaluating academic achievement, (Ezenne, A 2010)

## 2. Review of related Literature

Categories of social behavior theory were measured basing on human theory of efficiency, self-actualization, needs hierarchy which usually affects achievements. Social psychology theory was measured on group theory, and the negative consequences in these categories were alcoholism, sexualities and additions which have negative influences on academic achievements, Goldstein (2006). Similarly the Harvard University PhD Students (2006) also developed amodel on which to base rating of student'sworks conflicts with lecturers, missing examination marks, suspension due to school fees. To Wanyango his negative impacts were drug abuse, teenage pregnancy beyond grade and end of semester marks. Wanyongo (2008) carried out a study on absenteeism constant sickness, and excuses for funeral involvements. Other factors researched on were gender and achievements, Bukokhe (2007) focused on cultural influences, beliefs, roles, responsibilities, allocation of resources by parents and community influence negatively on social achievements.

The social behavior studies were carried out by various scholars for example Galdine (2008) who analyzed how people (guests) use towels in hotels. He analyzed it basing on environmental conservation and concluded that most guests do not change towels per night. Human beings are social beings. Those with their opposite patterns freely share their towels which is a health hazard. Behavior modeling in training was developed from the young monkeys like attitudes, moody and preying. Bandaru (2006) investigated moral behavior among children. He focused on family reinforcement on children's learning and parental influence on their successes. The conclusion was that the approval or disapproval remains a big parental powerful reward or punishment thought their lives.

Bandaru (2006) did not examine peer role and influence among themselves. The negative implications were that as young ones grew, their learning perspectives moved away from parental influence to self-adoption (cognitive & pedagogy) approaches. Bandaru (2006) emphasized more on behavior based on intentions, attitudes and subjective norms and beliefs. Journal on social behavior published by Prentice Hal (1980) volume 278 reviewed Jan 2012 suggested that causes of social behavior or consumer behavior,(Ajzen M. Fisher 2009).

The hierarchical linear model HLM by Paul Peterson (2006) carried out a research on parent learning and parent education and argued that parents who are education tend to influence their children to have a positive attitudes towards learning which results in their good grades; whileilliterate parents have little or no contribution on the student's academic achievements except finances. "Peterson (2006) Wakhungu (2011) carried out a research on personality characteristics and academic achievement. She urged that personality traits are both inherent and adoptions. Families, thus have to check physical environments, discuss real life in homes, schools where children, go and relate it with how children's learning are either positively or negatively affected.

Theresa (2009) carried out another research on school context, students' attitude and behavior on academic achievement where she analyzed perceived academic competence, student'sself-motivation and school environment. Findings failed to bring out whether the lecturer support had any significant impact on students' academic achievements. Further research on academic achievement was carried out to assess the comparison between Distance Learning (DL) and traditional Face To Face (FTF) Learning, it was measured on Lecturer student ration, location of university and time management. Findings showed that students on distance learning scored higher grades compared to traditional face to face learners. Research has shown that students in the faculty and university environment, Yoram Neuman, (2010). According to Yoram, academic achievement is a combination of various factors like students cognitive and pedagogy, students' engagement and perceived competence.

## 3. Methodology

The study adopted the retrospective prospective and descriptive survey design, specifically the descriptive comparative. Descriptive studies in order to describe the personal characteristics of respondents. The study dealt with the Degree of social behavior as the independent variable. Using Sloven's formula, a minimum sample size of 2000 respondents was attained reflecting a 90% retrieval rate. The Cronbach Alpha was tested indicating that the questionnaire was 0.61% acceptable. The data was analyzed using summary statistics such as the mean and rank. The null hypothesis was tested using t- test, analysis of variance (ANOVA), Correlation Coefficient and regression analysis.

## 4. Results and Discussion

### 4.1. Social Behavior

The social behavior as per the study were related to family background and the author focused on the role of parents who were dead and guardians bore the responsibility and the results are indicated in Table 1 below:

**Table 1: Degree of Social Behavior (family Background)**

| **Items** | **Mean** | **Interpretation** | **Rank** |
|---|---|---|---|
| Parental advice to read | 2.82 | Satisfactory | 1 |
| Parental counsel on time management | 2.78 | Satisfactory | 2 |
| Parental counsel on your semester reports | 2.77 | Satisfactory | 3 |
| Parents give you joy in academics | 2.75 | Satisfactory | 4 |
| Parental visitation at campus | 2.74 | Satisfactory | 5 |
| Parental advice on finances | 2.73 | Satisfactory | 6 |
| Parents encourage neighbor interactions | 2.68 | Satisfactory | 7 |
| **Average mean** | **2.75** | **Satisfactory** | |

***Source: Field Data***

| **Mean range** | **Response mode** | **Interpretation** |
|---|---|---|
| 3.26-4.00 | Strong agree | Very satisfactory |
| 2.51-3.25 | Agree | Satisfactory |
| 1.76-2.50 | Disagree | Unsatisfactory |
| 1.00-1.75 | Strongly disagree | Very unsatisfactory |

Table 1 above shows how family background influences social behavior. Here in family background, the researcher focused on the role of parents were dead, guardians bear the responsibility. Statistics shows that most of the respondents confirmed that parents play a very vital role in encouraging them to read their books showing a highest mean of 2.82 which is ranked as satisfactory. Early research in literature review had revealed that according to social behavior theory (SBT) of Goldstein, (2009), who focused on students attitudes to parental role in their academics as negative at University level due to their age levels which all fall above 20 years as an age of maturity. Parents therefore, need to always endeavor to avail time to sit near their children carryout their homework assignment as a motivation to reading.

Similarly, Kacthlean Lynne (2008) carried out a research on students' emotional behavior and research revealed that academic achievement of the students decline with time because parents loose interest to encourage students to concentrate in their academic endeavors. Furthermore, research from Harvard in USA according to Lynne (2008) indicated that parents do not give enough time to focus on academic achievements due to various characters of families, some families are rude, and others are harsh while others are friendly. They therefore came up with big 5 personalities on performance but research showed that character and social behavior are a process from child birth, it is a journey of adoption as interactions increase. Malecki et al (2002) had argued that positive social behavior may result in improved competence, good grades and positive living. The scholar observed that most parents in families focus on conduct, discipline and rules on how the child grows other than on books. There is a relatively low encouragement on reading, counsel on time management and parental visits to their children at universities.

### 4.2. Degree of mean of Social Behavior in Terms of peer interaction

The results for the mean of social behavior in terms of peer interaction are presented in Table 2 below:

**Table 2: Degree of mean of Social Behavior in Terms of peer interaction**

| Items | Mean | Interpretation | Rank |
|---|---|---|---|
| Co-curricular activities other than academics | 2.78 | Satisfactory | 1 |
| Peer-mates motivate you to read | 2.77 | Satisfactory | 2 |
| Respect for university rules | 2.77 | Satisfactory | 3 |
| Peer encouragement on social leisure | 2.75 | Satisfactory | 4 |
| Enjoy where you stay with peers | 2.74 | Satisfactory | 5 |
| Self-respect for time management | 2.73 | Satisfactory | 6 |
| Friends give you academic support | 2.72 | Satisfactory | 7 |
| Respect for fellow students | 2.69 | Satisfactory | 8 |
| Involvement in alcohol | 2.67 | Satisfactory | 9 |
| Peers interests in academics | 2.65 | Satisfactory | 10 |
| **Average mean** | **2.73** | **Satisfactory** | |

***Source: Field Data***

| Mean range | Response mode | Interpretation |
|---|---|---|
| 3.26- 4.00 | Strongly agree | Very satisfactory |
| 2.51-3.25 | Agree | Satisfactory |
| 1.76-2.50 | Disagree | Unsatisfactory |
| 1.00-1.75 | Strongly disagree | Very unsatisfactory |

Table 2 above shows how social behavior in terms of peer interactions affects achievements of students. A total of 2000 respondents were asked specifically ten items to find out whether students at universities prefer staying with their parents or by their fellow peers. In compassion, the students response were average satisfactory with an arithmetic mean 2.74 as most of the students at 3rd year would prefer freedom and independence from their parents. On contrary, research reveal that most 3rd year student prefer privet accommodation away from their parents because they want to enjoy their leisure in other activities other than academics for example interaction with parents of opposite sex which revealed the highest average mean of 2.78. Majority of respondents' showed that students in private hostels were not to concentrate on their books but to enjoy leisure.

## 4.2. Comparison between Public and Private Universities in respect of academic achievement

The study carried out a comparison to assess whether academic achievement has a significant difference between public and private universities and the results are presented in Table 3 below:

**Table 3: Comparison between Public and Private Universities in respect of academic achievement (Level of significance = 0.05)**

| Category (profile) | F(ANOVE) | 2 Sampled t-test | Significant | Interpretation | Decision H0 |
|---|---|---|---|---|---|
| Type of university<br>Public<br>Private | | 2.307 | 0.021 | Significant | rejected |

***Source: Primary Data***

Table 3 was based on the comparison to assess whether academic achievement has a significant difference between public and private universities. Findings indicated that there is a significant difference since a T- test revealed 2.307 with a Sig. 0.021 value below the acceptable sig of 0.05.

Students in private universities tend to concentrate because of the full costs of education, unlike public university students who are taken up by pride and arrogance. Research in literature review had revealed that part time lectures tend to concentrate their effort and time of teaching more in private than public universities due to extra income in their struggles.

### 4.3. Relationship between Degree of Social Behavior and the level of Academic Achievement of Students in Selected Public and Private Universities in Kampala, Uganda

The study established a relationship between the Degree of Social Behavior and the level of Academic Achievement of Students in Selected Public and Private Universities in Kampala and the results are presented in Table 4 below:

**Table 4: Relationship in the Degree of Social Behavior and the level of Academic Achievement of Students in Selected Public and Private Universities (Level of Significance = 0.05)**

| No. | Variable correlated | Computer-Value | Sig | Interpretation of correlation | Decision on HO |
|---|---|---|---|---|---|
| **Degree of social Behavior Vs. Level of Academic Achievement** | | | | | |
| | Social behavior vs cognitive | 0.533 | 0.000 | Positive and significant | Rejected |
| | Social vs. administration | 0.475 | 0.000 | Positive and significant | Rejected |
| | Social behavior vs. Academic achievement (overall) | 0.570 | 0.000 | Positive and significant | rejected |

Results in Table 6 using a PLCC suggest that the degree of social behavior is significantly correlated with both aspects of academic achievement (all sigs< 0.05) and that the degree of social behavior is significantly correlated with academic achievement overall (r=0.57, sig=0.000). This leads to a conclusion that social behavior is important for academic achievement and these results are significant at 0.05 and 0.01significance level.

Scholars in literature had suggested that both parents and institutional administrations have to create an enabling environment to promote gender access to academic achievements. There is need to eliminate barriers to participate at stereotype roles that are gender hurting in order to create an opportunity for female students to enjoy their academic achievement. Social behavior (family and peer) with average mean of computed v-value 0.533 and significant P< 0.000 reveals that social behaviors in families have a positive significance value and contribution to students' academic achievement. However combining social behavior and academic achievement was found highest at computed (r-value= 0.570, sig = 0.000) which resulted in the conclusion that social behavior is important for academic achievement. Universities therefore, have to create positive student-lecturer relationship, enriching classrooms and compound learning environment, widening learning opportunities and expanding chances for all students especially females.

It is important therefore that parents focus on areas of leadership, social competence, aggression, social interactions, and peer acceptance in order to improve on the academic achievement of their children. If students have experienced negative challenges of disruptions and aggressions, they tend to have a low academic achievement whereas students who are positively motivated in learning tend to have higher academic achievement.

### 4.4. Regression Analysis between the Degree of Social Behavior and level of Academic Achievement

Regression analysis was used to rank the effect of two categories of social behavior on academic achievement with the view of identifying the most important category. Table 4.13 shows results of this test.

**Table 5: Regression Analysis between Degree of Social Behavior and Level of Academic Achievement (Level of significance = 0.05)**

| Variable regressed | Computer F-value | Adjusted $R^2$ | Sig | Interpretation of correlation | Decision on H0 |
|---|---|---|---|---|---|
| Degree of social behavior on academic achievement | 0.276 | 0.79 | 0.000 | Significant effect | Rejected |
| **Coefficients social behavior vs.** | **Standardized** | **T** | **Sig** | | |
| (constant) | | 33.67 | 0.000 | Significant effect | Rejected |
| Family history | 0.288 | 14.64 | 0.000 | Significant effect | Rejected |
| Peer interaction | 0.409 | 20.81 | 0.000 | Significant effect | Rejected |

The results in table 5 suggest that social behavior positively and significantly affect academic achievement (F.... 509.289,sig …0.000) The results indicate social behavior contribute 33.8% towards variations in academic achievement (……0.338) .considering the coefficients section of table 5 result indicate that while both aspects of social behavior take together significantly affect academic achievement , both do not contribute the same way. Results reveal that peer interaction has the greatest impact on academic achievement (beta 0. 409, T…20.813, sig...0.000). Literature (Salim, 2010) showed that academic achievement was associated with social f functioning of lectures and peers who concurrently contribute to the academic achievement of students.

The peer interaction with Beta 0.409 was related with much time students spent with their fellow peers from secondary to university level. It is therefore important children select right place of accommodation, right people to make friendship with and right universities to go to. Similarly, results reveal that children's social functioning like parental interaction should be paramount and part of the university education. In fact, children who have accepted in homes, who have a positive behavior in homes have a positive academic achievement compared to children who have been rejected in their families.

## 5. Conclusions

The null hypotheses (HO) of no significance differences and relationships were both rejected and the alternative hypotheses (H1) were reinstated that there is a significant difference between public and private universities in the levels of academic achievement in the sense that students from private universities tend to concentrate more on their academics because of the money costs involved in it and their lectures are more regular than in public whereas public university students are proud and relaxed. Therefore, it is important for both parents and institutions of higher learning establish strong counseling services at universities to enable girls to have a positive attitude toward their academic achievements. Family backgrounds greatly affect the academic achievement of students especially from families that do not support their students; they tend to have low achievement. Girls tend to have emotional challenges throughout their academics for example bodily changes, social emotions and self-reserved in terms of reasoning, all these tend to bring out differences in academic achievement of students.

## Recommendations

The study recommended that, there is a need to develop a Parent-Lecturer Association by the universities. Universities should identify and offer scholarships, bursaries and counseling services to orphans and females to reduce dropout from the university. Universities should set up serous and strict rules and regulations to ensure that they are observed and implemented while parents should endeavor to be positive to their children in terms of leadership, acceptance, discipline and respect in order to have a positive academic achievement.

## References

Badru. (2008). Social condut on academic success, Thomson Wadworthpublichers.

Bakokhe, W, Jennifer. (2008). Gender relations and fulfillment of child rights in Manafwa District, Uganda. MUK Printer.

Ezenne, Austin. (2010). Human Resource Management in Education; C&A Printery and Publishers.

Flay. (2006). The Social Behaviors and Practice, Oxford University Press.

Fisher. (2009). Factor Analysis on variation of social, academy, of educational management Journal, 33, pages 234-236

Goldstein, Robert. (2006). Social behavior theory and its implication on performance, McGraw Hill.

Galdine. (2008). The research on social behaviour on guest in hostel, New York publication.

Kasozi. (2005). End of year Report on National Council of Higher Education October (2005)

Katheleen Lynee. (2008). Delivering a paper on National Council of Higher Education, Makerere University Educational Journal.

Malechi *et al.* (2004). Behaviour, social skills and success. New Dehlhi; Vikas Publication House Ltd.

Matiru and Mwangi. (2007). Teach at your best. Nairobi University Press.

Mariam. (2011). Personality Characteristics and achievement. A journal on academic achievement vol. 66 pages 97-106

Nomoah Alfred. (2011). Academic Registrars' Report on 2009 Graduation at Makerere University, Unpublished.

Natolooka, Kephas and Nyiransabimana. (2010). Gender imbalance and social welfare in Rwanda, Kampala International University, Journal of November 2010.

Paul Peterson. (2006). Parental Motivation and academic Achievement, Educational Journal vol. 23 pages 556-567

Salami. (2010). Students performance systems in Ghana, Karachi: Izharsons Publishers.

Saudino. (2005). the Genetic Theory Perspective, Harvard University Publishers.

Sekamwa, J.C. (2001). Development and Administration of Education in Uganda; Kampala Foundation Publishers.

Theresa M. Akey. (2006). Research on school context, student's attitude and behavior and academic achievement MDVC Publication.

Wanyango. (2006). Research on absenteeism and academic achievement, unpublished.

Wakhungu Nathan. (2011). Prostitution and Academic

Achievement in Mbale Municipality

Yoram Neuman. (2010). Distance Learning and Traditional face to face Learning, Michigan University Press.

# Choice of Bilateral Tubal Ligation and Associated Factors among Grand Multi Parous Women Attending the Mulago Family Planning Clinics

**Nassuna Irene[1], Namutebi Miriam[2]**

**[1&2]Lecturer, Kampala University, School of nursing and health sciences, Email: nassunairene400@gmail.com**

## Abstract

*Grand multi parous women are highly predisposed to obstetric complications and therefore emergencies that consequently increase maternal mortality and morbidity ratio. Bilateral Tubal Ligation (BTL) is a safe and highly effective permanent method of contraception that is suitable for grand multi parous women; however, its acceptance is still low in Uganda. The aim of the study was to describe the factors associated with the choice of BTL among the grand multiparous women attending the family planning clinics in Mulago hospital. The study design was a descriptive cross-sectional study. Quantitative methods of data collection were used. The responses in the questionnaire were pre-coded and then entered and cleaned using EPI-DATA version 3.1. The data was then exported to SPSS version 16 for analysis. The means frequencies and standard deviations were presented in tables and pie charts. Bivariate and multivariate analyses were conducted to determine significant factors associated with the choice of BTL using the logistic regression model. Less than half of the women (40.2%) considered using BTL as a method of contraception. The factors that were statistically significant in determining the choice of BTL among GMP women included: the level of education of participant, parity, number of living children and spousal discussion on desired number of children. More information in form of health education on BTL use should be given to the women attending the Family Planning Clinics in Mulago in order to clear existing misconceptions about method.*

***Key Words: Bilateral Tubal Ligation, grand multi parous, family planning, maternal Morbidity, Task sharing***

## 1. Introduction

Bilateral Tubal Ligation, BTL is a sterilization procedure for women which may involve different methods of interrupting the continuity of both oviducts to prevent future contraception.

It is an effective, permanent and non-barrier method of family planning which eliminates fecundity although its efficacy varies with the ligation method, client's age, ethnicity and race (Bartz& Greenberg, 2008). BTL in the last four decades was mainly done to avoid the birth of handicapped children and therapeutic sterilization was carried out to avoid the risks of pregnancy among ill women (WHO, 2000). Today BTL is recommended for couples or individuals who are certain they want no more children as it is a permanent method of contraception. Women who voluntarily need it as a method of contraception after meeting their desired number of children, grand multi parous women included, have had counselling about its outcome and have consented to the procedure. There are no specific contraindications for voluntary sterilization (WHO/RHR and Johns Hopkins Bloomberg School of Public Health CCP, 2011) Family planning is one of the pillars of safe motherhood since one of its aims is protecting the health of women by reducing high-risk pregnancies. Day after day, 1600 women die from preventable complications during pregnancy and child birth. Almost 99% of these maternal deaths occur in the developing countries (WHO, 2012). The main causes of maternal deaths are; postpartum hemorrhage (PPH), obstructed labor, eclampsia and unsafe abortion which can all be prevented. Of these, unsafe abortion contributes 14% of all maternal deaths (WHO, 2012) and is very common among grand multi parous, GMP women who are more likely to terminate the unwanted pregnancies. Studies done in The Democratic Republic of Congo have shown that women who had unplanned pregnancies were more likely not to use antenatal care services and postnatal care services than those who had planned pregnancies (Ntambue, 2012) thus increasing the risk of unrecognized pregnancy related complications and sometimes unsafe abortions. The East and Middle African countries have the highest rates of unsafe abortions that is 36 in 1000 compared to South Africa which has 9 in 1000 (WHO, 2008). The strict abortion laws in sub-Saharan Africa compel the women to use unsafe abortion services (WHO, 2012) therefore increasing the risk of maternal morbidity and mortality. BTL would therefore play a major role in reducing maternal mortality and morbidity among the grand multi parous women caused by the above factors. Although task sharing and delegation needs have been met over the years concerning provision of BTL services and free services of BTL are offered in government hospitals and at a cheap price in private institutions, acceptance is still low. There is therefore a necessity to identify loop holes and barriers toward the acceptance of BTL as a choice of contraception among grand multi parous women in Uganda.

More than half of maternal deaths occur within 24 to 48 hours after delivery due to complications ranging from PPH to sepsis and hypertensive disorders, these are common in grand-multi paras in developing countries(Njeru, 2011; WHO, 2012). Despite the use of active management of the third stage of labor for all deliveries in Mulago hospital, GMP women are more likely to develop PPH compared to their multi parous counter parts (Njeru, 2011). In Uganda, the current maternal mortality ratio is 438 maternal deaths per 100,000 live births (UDHS, 20I2). This ratio is not significantly different from that reported in 2006 which was 137 deaths per 1000 live births (UDHS, 2007). BTL is a permanent method of contraception which is suitable for women who wish to terminate their child bearing ability and would thus reduce maternal morbidity and mortality among this group of women. The Uganda Demographic Health survey (UDHS) of 2012 shows that 39.5% of the women and 29% of men in Uganda declared that they do not want any more children and over 79% of women and 82% of men were knowledgeable about BTL. However, BTL use in Uganda was still as low as 2.9% compared to other methods of family planning. This shows that knowledge about the contraceptive method does not positively increase its acceptance. There is a need to study the factors related to BTL use and the barriers to the utilization of the method among GMP women attending the family planning clinics in Mulago National Referral Hospital due to the free contraceptive services provided to the women.

Grand multi-party is still a risk in developing countries where obstetric emergency services are difficult to access. A study done in Tanzania showed that grand multi-parity remains a risk in pregnancy and is associated with an increased prevalence of maternal and neonatal complications which include; malpresentation, fetal distress, placenta Previa and a low Apgar score (Mbugua, 2013). This increases the demand for obstetric emergency services that are already strained by the overwhelming number of deliveries conducted in major hospitals like Mulago hence increasing obstetric complications, neonatal morbidities, perinatal and maternal deaths. Reduction of maternal mortality rates worldwide has been achieved by providing effective family planning methods to all women who desire to limit or space their pregnancies (Bartz & Greenberg, 2008). In Uganda, the maternal mortality rates are still high that is 438 maternal deaths per100, 000 live births (UDHS, 20I2). Most of the deaths are due to preventable causes like pregnancy related complications. BTL is a contraceptive method that could reduce the magnitude of maternal mortality and pregnancy related risks among grand multi parous women. This service is free and available at the Mulago national referral and teaching hospital; however, very few women opt for it. Studies have explained the use of birth control among women in general but few studies have been done to determine the choice of BTL and its associated factors among grand multi parous women. Therefore, this study aimed at identifying the factors associated with the choice of BTL among grand multi parous women attending the family planning clinic in Mulago Hospital so as to highlight ways of increasing the level of voluntary BTLs among this population.

## 2. Literature Review

### 2.1. Regional trends of BTL use

The incidence of the most widely used method of contraception, BTL in Pakistan urban areas was 20.83% compared to other methods of family planning use in the same region in 2010 (Sajid, 2010). By 2009, BTL use in Kenya was at 5% compared to other methods of contraception(KDHS, 2010). A study in Nigeria reported an incidence of BTL at 3.15% in 2007(Aisien, 2007). In Uganda, there has been an increase in the use of BTL as a contraceptive method from 2.4% in 2006 to 2.9% in 2011 (UDHS, 20I2; UDHS,2007). This percentage of use is still low compared to BTL use in other countries mentioned above there was thus a need to identify the factors associated with the choice of BTL in our setting to increase its voluntary acceptance.

### 2.2. Factors associated with the choice of BTL as a contraceptive method

**Socio-demographic factors**

In urban Pakistan the average age of contraceptive use was 33 years(Sajid, 2010). In Nigeria, a retrospective study done over five years at Murkudi showed that the age of acceptors of BTL through mini laparotomy ranged from 27-43 years and the mean was 35.5 years (Swende, 2009). Another retrospective study done in a rural hospital in Nigeria showed that majority of the acceptors of BTL were above 35 years of age (Igberase, 2011). A study done in Kenya showed that 84% of clients who accepted BTL were over 30 years of age (Mbugua, 2013).

In Uganda the trends in current use of BTL by age shows that none of the women aged 15-24 years have opted for BTL as a choice of contraception, but 0.3% of women aged 25-29 years, 2.0% of women aged 30-34 years, 6.0% of women aged 35-39 years, 7.8% of women aged 40-44 years, and 7.4% of women aged 45-49 years opted for BTL in 2011 (UDHS,20I2). These findings clearly show that the choice of BTL as a method of contraception increases with age for all women. These trends are quite similar for married and unmarried women who are sexually active.

Generally, family planning use differs with age as younger men and women prefer to have fewer children than older men and women in Uganda according to the UDHS (2011) sterilization rates vary with education levels as 3.1% of women with no education at all, 3.2% of those who have had a primary level of education and 1.9% of those who have had a secondary level of education rely on BTL for contraception(UBOS, 20I2). However, it has been found that having at least a primary level of education in Pakistan increases the incidence of contraceptive use compared to no education at all (Sajid, 2010). Most of the acceptors of BTL in Nigeria had a formal education and very few acceptors had no education at all (Swende, 2009). A study done in Kenya showed that the relationship between the level of education and acceptance of BTL was not significant(Mbugua, 2013). Employment also plays a role in BTL use as reported by Mbugua, 2013. Sixty six point nine percent (66.9%) of the BTL acceptors were employed and 33.1% were unemployed (Mbugua, 2013). The UDHS of 2011 also shows that employed men and women are more likely to rely on family planning methods of contraception than unemployed men and women. This shows that the choice of BTL acceptance is increased in employed, wealthier women of high socio-economic status. However a study done in Nigeria reports that majority of the acceptors of BTL were of low socio economic status(Igberase, 2011).

According to the UDHS, 2011, BTL use is more in rural areas with 3.0% of women in rural areas compared 2.5% of women in urban areas. This is because women in rural areas achieve their desired number of children earlier than their urban counterparts. It could also be attributed to unavailability or low levels of family planning services and education in general in these rural areas compared to urban areas (UDHS, 20I2).

**Personal factors**

The number of children one has is an important factor associated with the choice of BTL. It has been reported that having four or more children in Pakistan increased the contraceptive prevalence rate, BTL inclusive. However, the desire to have more children among multi parous and GMP women was one of the factors that hindered acceptance of any form of contraception among these women(Sajid, 2010). In Nigeria, the acceptors of BTL had a parity ranging from 4 to 10 (Swende, 2009). Another study in Nigeria reported that grand multiparity was the most common indication for a BTL. This was followed by a previous caesarean scar and rapture uterus(Igberase, 2011). However, a quantitative study in Kenya reported that 70.3% of the acceptors of BTL had 3 or more pregnancies and only 4% of the acceptors of BTL had had only one pregnancy. In this same study, 64% of the women felt that 4-6 children were enough and 50.3% of husbands of the acceptors of BTL wanted 4-6 children compared to 45.2% of those that did not accept BTL(Mbugua, 2013).

Couple agreement on the number of children desired is another important factor in the choice of BTL use since the majority of users in the above study had agreed on the desired number and the minority of the couples who did not agree on the number of children did not accept BTL (Mbugua, 2013). It is reported that the desire to have a male child in Pakistan is one of the major reasons for not using contraception(Sajid, 2010).

Spousal support is an important determinant of the choice of BTL because 70.3% of the acceptors of BTL in a study done in Kenya had support from their husbands while 44.1% of those that did not accept BTL did not have support from their husbands (Mbugua, 2013). Lack of spousal support was reported among the major reasons for not accepting contraception among women in Pakistan due to the poor attitude toward contraception that is held by their husbands(Sajid, 2010).

### 2.3. Perceptions and misconceptions that are associated with BTL

Perception of side effects is a major factor in the choice of any method of contraception. Some women in Kenya refused to accept BTL because they were afraid of long term pain, loss of libido and fear of termination of current relationship. The fear of losing already existing children was also a major determinant toward the choice of BTL(Mbugua, 2013). The number of surviving children is a major determinant toward the acceptance of a BTL. It is reported that the number of surviving children of the acceptors in Nigeria ranged from 5 to 9 with an average of 6.7 children(Swende, 2009).

Inadequate knowledge about the effect of the use of permanent methods of contraception lead to the development of myths and beliefs that hinder the successful promotion and adoption of the services. Some men and women believe that Tubal Ligation has negative health effects like weakness and laziness in a woman, loss of her menstrual cycle and weight gain. These effects leave a woman unattractive, unfulfilled and incapable of performing her marital and familial duties (Kasedde, 2000).

Preference of large families to small ones in culture affect the choice of permanent methods for example children are considered as wealth and as an asset in Uganda and they contribute highly to the stability of most relationships both marital and non-marital. Children are also regarded as a means of immortality by their parents (Kasedde, 2000).

**Experiences of acceptors**

Knowledge of a woman who has ever had a BTL also determines the acceptance of BTL because majority of the accepters knew of another woman who had had BTL in a study done in Kenya (Mbugua, 2013)

There have been contradicting reports about the effects of a BTL. A qualitative study done on the psycho-social implications of tubal ligation in Congo reported somatic symptoms like chronic back ache, menstrual irregularities and a variety of other illnesses. The same study reported that some of the acceptors of BTL had feelings of guilt, regret and disappointment because they had disobeyed God. Some of the women stated that their sexual relationship with their husbands had become disrupted due to menstrual irregularities and loss of libido.

However, other women in this study reported peace and satisfaction after the BTL because they could now concentrate on taking care of a smaller number of children through focusing on their careers. Some women reported improvement in health status because they were free from the pregnancy related complications to which they were exposed before the BTL. For instance, post-partum anemia and being bed ridden throughout the whole pregnancy, others stated that certain illnesses like back ache and abdominal pains that contributed to stress had resolved after the BTL.

## 3. Methodology

The study design was a descriptive cross-sectional study. Quantitative methods of data collection were used. The study was conducted in Mulago National Referral and Teaching Hospital located in Kampala. It covered 480,000 outpatients annually including those attending the family planning clinics. There were three family planning clinics located in old Mulago hospital, two of which offer general family planning services and one offers strictly long term and permanent contraceptive methods. These clinics offer outpatient services and operate daily from 8am to 5pm except on Weekends and public holidays. The study participants included grand multi parous women attending the family planning clinics and had an average age of 34 years with 5 children as a mean number of children in old Mulago. This study excluded Grand multi parous women who did not consent to participate in the study. The sample size was determined using the Yamane formula (Yamane, 1967). The population was adopted from a study that included both grand multi parous women and multi parous women in Mulago hospital where 156 grand multi parous and multi parous women were recruited for the study. Data was collected using a structured interviewer administered questionnaire after obtaining informed consent from the study participants in a language that was best understood by them. The questionnaire was pretested among a similar study population. The responses in the questionnaire were coded and then entered and analyzed using Statistical Package for Social Sciences, SPSS version 21 for analysis. Data was stored in folders and external flash discs which were not accessible to any other people except the researcher. Data was analyzed for means, frequencies, standard deviations and associations. The results were presented in tables and pie charts.

## 4. Results

### 4.1. Demographic characteristics

The mean age of the participants was 34.0years, 53.57% were 34 years and below while 46.43% were above 34 years. Majority of the participants were Muslim (32.1%), 85.7% of the women were married and most had attained at least a primary level of education (36.6%). Majority of the participants lived at least 5km as the distance from the hospital (70.5%) as indicated in Table 1 below:

**Table 1: Socio-demographic characteristics of participants**

| Characteristics | Frequencies (N=112) | Percentages (%) |
|---|---|---|
| **Age** | | |
| 34 years and below | 60 | 53.57 |
| Above 34 years | 52 | 46.43 |
| **Religion** | | |
| Muslim | 36 | 32.1 |
| SDA | 6 | 5.4 |
| Roman Catholic | 24 | 21.4 |
| Protestant | 26 | 23.2 |
| Pentecost | 20 | 17.9 |
| **Occupation** | | |
| Employed | 62 | 55.4 |
| Unemployed | 50 | 44.6 |
| **Marital status** | | |
| Married | 96 | 85.7 |
| Single | 15 | 13.4 |
| Widowed | 1 | 0.9 |

| | | |
|---|---|---|
| **Education level** | | |
| No education | 8 | 7.1 |
| Primary | 60 | 53.8 |
| Secondary | 41 | 36.6 |
| Tertiary | 3 | 2.7 |
| **Distance from health center** | | |
| <1km | 8 | 7.1 |
| 1-3km | 5 | 4.5 |
| 4-5km | 20 | 17.9 |
| >5km | 79 | 70.5 |

***Source: Primary Data, 2017***

## 4.2. Factors associated with the choice of BTL

Respondents were asked to respond on the factors associated with the choice of BTL and the respondents are presented in Table 2 below:

**Table 2: Significantly associated factors for the choice of BTL**

| Determinant | P-value (0.05) | Fishers Exact | df |
|---|---|---|---|
| Level of education | 0.044 | 0.044 | 3 |
| Number of pregnancies | 0.035 | 0.032 | 2 |
| Number of living children | 0.019 | 0.013 | 3 |
| Spousal discussion on the desired number of children | 0.037 | 0.030 | 2 |

## 5. Discussion

The mean age of the participants was 34 years, 53.57% were 34 years and below. This implies that Ugandan women have their first child early.

### 5.1. The proportion of grand multi parous women choosing BTL as a method of family planning at the Mulago hospital family planning clinics

Less than half of the women (40.2%) considered using BTL as a method of contraception. There is a discrepancy between the proportion of women who would consider using BTL for contraception and the proportion of women who have used BTL for contraception which is 2.2% (UDHS, 20I2). The reasons for not considering BTL as a method of contraception (61.5%) in this study were; the ability to rely on other methods of contraception, the fact that it is a permanent form of contraception, inaccessibility and limited services, BTL is not accepted in my religion, having inadequate knowledge about the method, the fear of operations, the bad experience of acceptors while some did not desire it and others had never considered using BTL for contraception. The major reason for considering BTL for contraception (N=44,40.7%) in this study was reaching the desired number of children which was similar to studies made in Kenya and Nigeria (Mbugua, 2013;Swende T, 2009).

### 5.2. Factors associated with the choice of BTL among grand multi parous women attending the family planning clinics in Mulago

#### Socio-demographic factors

The level of education of the participants was significantly associated with the choice of BTL in this study (p=0.04). This trend is quite similar to that found in studies done in Pakistan and Nigeria where women who had some formal education were more likely to consider and choose BTL as a method of contraception compared to women with no formal education(Sajid, 2010)(Swende, 2009). However, a study done in Kenya showed that the relationship between the level of education and acceptance of BTL was not significant (Mbugua, 2013).

This study showed that age of the women was not a significant factor associated with the choice of BTL (p=0.14). This was contrary to findings of studies conducted in urban Pakistan and Nigeria which showed that age was a significant determinant of the choice of BTL(Sajid, 2010;Swende , 2009).

It was found that employment was not a significant factor associated with the choice of BTL in this study (p=0.3), however, the UDHS of 2011 also shows that employed men and women were more likely to rely on family planning methods of contraception than unemployed men and women. Findings of studies done in Kenya show that employment plays a role in BTL use as 66.9% of the BTL acceptors in Kenya were employed and 33.1% were unemployed (Mbugua, 2013). This shows that the choice of BTL acceptance is increased in employed, wealthier women of high socio-economic status. However a study done in Nigeria reports that majority of the acceptors of BTL were of low socio economic status(Igberase, 2011)

**Obstetric and personal factors**

The number of pregnancies had was a significant factor in the choice of BTL in this study (p=0.035) which was similar to findings in a study conducted in Kenya where majority of the acceptors had had 3 or more pregnancies. (Mbugua, 2013).

The number of living children one has was an important factor associated with the choice of BTL in this study (p=0.019) and this was quite similar to findings in Pakistan (Sajid, 2010). and Nigeria (Swende, 2009) where having 4 or more children increased the contraceptive prevalence rate, BTL included. Another study in Nigeria reported that grand multiparity was the most common indication for a BTL(Igberase, 2011).

However, the desire to have more children among GMP women was one of the factors that hindered acceptance of BTL. This was a similar finding in Pakistan where desire for more children by multi parous and GMP women hindered them from use of any form of contraception.(Sajid, 2010). In this study, some participants reported that there was a possibility of getting another husband who would want children, following a divorce or separation with their current spouses. One of the participants reported that she desired to have a child of different gender than the one she currently had. It is reported that the desire to have a male child in Pakistan is one of the major reasons for not using contraception (Sajid, 2010).

Couple agreement on the number of children desired was a significant factor in the choice of BTL use in this study (p=0.04). This was similar to a study where majority of acceptors in Kenya had agreed on the desired number (Mbugua, 2013). This may be because most of the participants (59.8%) in this study had had a discussion with their spouses about the desired number of children whereas minority of the participants did not discuss the issue of desired number of children with their spouses due to the absence of a spouse, poor communication between the couple whereas others considered it a personal choice.

**Knowledge about BTL in the community**

Knowledge about BTL was not a significant factor in the choice of BTL in this study (p=0.81). This is similar to previous studies done in Uganda which have shown that knowledge alone has not increased the choice of BTL among women in Uganda as only 2.2% of the married women in Uganda rely on BTL as a method of contraception (UDHS, 20I2). This may be due to the fact that although majority of the women (99.1%) mentioned BTL being a permanent method of contraception as an advantage, this knowledge might have been inadequate as some of the participants mentioned,

> "*When the uterus is inverted, you can give birth again." "BTL is only meant for women who have had so many pregnancies and illnesses like high blood pressure." "It is meant for old women." "It is done for ill women only." It saves you from a big stomach."* and *"It stops menstrual periods."*

However, a study in Kenya showed that the relationship between knowledge and acceptance of BTL was significant(Mbugua, 2013). A study done in urban Pakistan strained that inadequate knowledge about contraceptive use is one of the major barrier toward its acceptance(Sajid, 2010).

**Cultural and religious acceptability**

Religion was not a significant factor in the choice of BTL in this study (p=0.57). Majority of the participants of this study were Muslim and they reported that their religious beliefs did not affect their choice of contraception method. However, most of the women who did not accept BTL in Pakistan considered it against their religion (Sajid, 2010). Studies done in other parts of Africa show that BTL was more accepted among Christian women compared to Muslim women and majority of the acceptors of BTL in Nigeria were of the Christian faith (Igberase, 2011; Swende, 2009). Previous studies done in Uganda have shown that preference of large families to small ones in culture affect the choice of permanent methods for example children are considered as wealth and as an asset in Uganda and they contribute highly to the stability of most relationships both marital and non-marital (Kasedde, 2000). However in this study, culture (p=0.64) and number of preferred children (p=0.69) respectively were not significantly associated with the choice of BTL.

## 5.3. Perceptions and misconceptions associated with BTL

### Perceptions

Over 90% (111) of the women viewed BTL as advantageous by mentioning that it increased quality of life 11(9.9%), BTL is a permanent method of contraception 44(39.6%), has financial benefits 10(8.9%), and other advantages over other forms of contraception (6.3%). A study conducted in Congo reported improvement in health status because women were free from the pregnancy related complications to which they were exposed before the BTL (Lutalo, 2011).

Over 90%(N=111) of the women perceived BTL as having disadvantages such as; being ineffective in achieving sterility(N=9,8.1%), it being associated with a decreased quality of life (N=35,31.5%) and it being a permanent method of contraception (N=19,17.1%). Previous studies showed that some men and women believe that Tubal Ligation has negative health effects which decrease the quality of life of the women. These effects leave a woman unattractive, unfulfilled and incapable of performing her marital and familial duties (Kasedde, 2000).

### Misconceptions

Inadequate knowledge about the effect of the use of permanent methods of contraception lead to the development of myths and beliefs that hinder the successful promotion and adoption of the services. Therefore perception of side effects is a major factor in the choice of any method of contraception (Lutala, 2011).

Some women did not consider BTL use for contraception due to misconceptions like the decrease in quality of life of any acceptor for example some participants believed that BTL was associated to the development of cancer and other gynecological problems. Similarly, women in Kenya refused to accept BTL because they were afraid of decreased quality of life due to illnesses and (Mbugua, 2013).

**Experiences of acceptors**

Knowledge of a woman who has ever had a BTL was not a significantly associated to the choice of BTL in this study, however, it was significant in a study done in Kenya because majority of the accepters knew of another woman who had had BTL (Mbugua, 2013). A qualitative study conducted in Congo reported somatic symptoms like chronic back ache, menstrual irregularities and a variety of other illnesses. This had a similarity with this study as one of the participants reported,

> "*I can never opt for a BTL because my mother experienced a lot of pain and smelly discharge which never resolved until she died.*"

Other women mentioned that the acceptors they knew later developed illnesses or health problems like cancers, high blood pressure, severe abdominal pain, swelling of the legs, menstrual irregularities, excessive weight gain or weight loss and their strength reduced. However, women in another study reported peace and satisfaction after the BTL because they could now concentrate on taking care of a smaller number of children through concentrating on their careers (Lutala, 2011).

**5.4 Conclusion and Recommendations**

Over 40% of the participants considered choosing BTL for contraception and the associated factors to this choice were; the level of education of the women, number of pregnancies had number of living children, and spousal discussion on the desired number of children.

Mulago Hospitalshould provide health education to women attending Family Planning Clinics in Mulago in order to clear existing misconceptions about BTL use and Mulago Hospital should provide free counseling concerning BTL use to the women seeking contraceptive services.

## References

Aisien, O.A. (2007). Two decades of Minilaparotomy female sterilisation at the University of

Bartz, D., & Greenberg, J. A. (2008). Sterilization in the United States. Reviews in obstetrics and gynecology, 1(1), 23.

Igberase GO, E. P., Umeora OUJ, Abedi HO. (2011). Bilateral Tubal Ligation in a rural hospital in the Niger Delta, Nigeria. Nigerian Journal of Clinical Practice, 14(2), 137-139.

Kasedde, S. (2000). Long-term and permanent family planning methods in Uganda: a literature review.

Mbugua, K. K. (2013). Factors Influencing Uptake of Bilateral Tubal Ligation Among Women Who Have Completed Family Size In Central And Eastern Provinces., University of Nairobi.

Njeru, J. N. (2011). Maternal Outcomes Among Grand Multiparous And Multiparous Women In Mulago Hospital, Uganda. East African Medical Journal, 88(6), 198-202.

Sajid A, M. S. (2010). Knowledge, Attitude and Practice of Contraception Among Multiparous Women at Lady Aitchison Hospital, Lahore. 16 (4), 266-269.

Swende T, A. B. (2009). Minilaparotomy Female Sterilisation at a Nigerian Tertiary Health Centre The internet journal of gynecology and obstetrics, 13(1).

Uganda Demographic and Health Survey 2006. Calverton, Maryland, USA: UBOS and Macro International Inc.

WHO. (2000). Female Sterilization: Guidlines for the Development of Services. Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality in 2008. Geneva:

WHO. (2012). Addressing the challenges of Women's health in Africa, Report of the Commission on Women's Health in the African Region.

WHO/RHR and Johns Hopkins Bloomberg School of Public Health CCP, K. f. H. P. (2011). Family Planning: A Global Handbook for Providers. Baltimore and Geneva: CCP and WHO.

Yamane, T. (1967). Statistics an Introductory analysis (2 Ed.). New York: Harper and Row.

# Contract Documentation And Education Sector Service Delivery In Masaka District Local Government, Uganda

**Nduhura Twesigye[1], Muhire Kanyamasoro [2], Mark Kiiza[3]& Beatrice Juliet Nakalanzi[4]**

**[1, 3&4]Lecturer, Kampala University, Email: twesigyenduhura@gmail.com**

**[2]Director, Kampala University**

## Abstract

*This study explores the relationship between contract documentation and education sector service delivery in Masaka District Local Government. This was based on the hypothesis that contract documentation as a component of contract management has a significant association with and influence onto service delivery. The research was carried out in Masaka DLG. Out of the study population of 140 respondents, a sample of 103 was selected. A response rate of 85.4% was realized for generalization of the research results. The data was collected using self-administered questionnaires. Basing on the objective of the study, descriptive, correlation and regression analyses were carried out. The results indicated that the practice of contract documentation process is averagely existent in the operations of Masaka DLG procurement unit and is reported to have a very strong association with education service delivery at the district (r = 0.645) which is statistically significance (p ≤ 0.01). Additionally, the contract documentation process influences up to 41% of the changes in education service delivery at the district. The study recommended that contract documentation processes in Masaka DLG should be improved to enhance education service delivery.*

***Key Words: Contract, Contract documentation, Education, Service Delivery***

## 1. Background to the study

Global historical records tend to support that the Evolution of Contract management documentation has its roots as far back as Mesopotamia in 2250 BC with a simple type of contract law, which dealt with mainly the public and the governing ruler. The laws or contracts governed both public and private lives. Trade was prevalent thus leading to examples, which set the foundations of our modern day today Supply Chain Management functions (Eileen Byrne-Halczyn, 2004).

In the United States, since the alleged failure of many Great Society social programs in 1960s, contracting out has become a significant delivery alternative to enhance efficiency and flexibility, in addition to producing other strategic benefits for federal agencies. Due to the philosophy of smaller government, the desire to make better working government, increasing concerns over tight budgets and growing demands for public services, government contracts with private and nonprofit organizations have rapidly increased in volume and extended to various service areas (Ni and Bretschneider, 2007).

In India, Contract documentation has developed alongside the evolution of Indian business over the past two and half decades. Until recently, across all sectors and industries, it was handled by a variety of departments, from supply chain management, commercial, procurement, planning to legal. After the 1990s, it evolved into a broader role of enterprise risk management – but only recently Contract documentation has come to be viewed as a potential source of revenue **(**Anupam, 2015**)**.

In Africa, management of Contracts through documentation is an important activity in public procurement which covers all the activities performed by the Procuring Entity (PE) and the contractors upon signing the contract up to full discharge of the obligations. It is often an extremely controversial subject matter (Trepte, 2011). Regulation 121 of the Tanzania Public Procurement Act 2004 (PPDA 2004) requires PEs to be responsible for the effective management of any procurement contract for goods, services or works which is undertaking in accordance with the terms of each contract. Despite the legal requirements, the Controller and Auditor General (CAG) report of 2010 identified several weaknesses in the management of public procurement contracts for works in terms of improper documentation and signing of contracts, lack of important contract information, inadequate quality assurance plans.

In Uganda, contract management documentation has become a megatrend in many public entities especially as result of social accountability and increased demand for service delivery by citizens (Schiel, 2007). Successful contract management and completion is often defined, as procurement of the right item, in the right quantity, for the right price, at the right time, with the right quality, from the right source (Thai, 2004). He further contends that proper contract documentation and effective management helps to improve the quality of goods and services and reduces procurement costs thus achieving three broad goals: quality products and services, timely delivery of products and services, and cost effectiveness (within budget).

Focusing on Uganda and specifically Masaka District, education service delivery has not been the best. Basing on the analysis of the UPE and USE in Masaka District, the performance is ranked below 50%. This is an indication that the service delivery is below average. This is a challenge which needs to be adhered to at district level since that is where all government schools get assistance from (Uwezo, 2010). The people offering assistance enter into an agreement to provide the service. It has however not been clear of the impact that such contracts and agreements might have on the overall performance of these staff. This further affects the overall education service delivery leading to the below average performance. Basing on this therefore, it was found necessary to establish possible relationship (association) and hence influence that there might between contract documentation and education service delivery in Masaka District, Uganda.

## 2. Literature Review

### 2.1 Contact Documentation

According to Errigde and Mcllroy (2002), Contract Documentation is the process of combining all documents which, when combined, forms the basis of the contract, including all pre-tender, tender and contractual documentation. Contract documentation provides sufficient information to be able to complete the building works and meet the service delivery requirements.

Most of the problems of contract management are a result of some of the problems within the procurement process. According to Amagoh (2009), if contract documentation is not done right, then chances of choosing a poor contractor are very high. Amagoh (2009) further argues that contract documentation enhance vigilances on the past performance of a contractor, which helps in the sourcing of competent and financially stable contractors. This also helps to ensure quality of service delivery. Furthermore, Alexander (2009) argues that poor contract documentation may cause delays in funding the procurement disposal entities from local government, which may greatly affect the education sector service delivery.

Proper contract documentation involves signing of a contract that clearly shows the deliverables and the time scope when they should be delivered. In Uganda, the process of proper contract documentation is not well managed, this has resulted into many people signing contracts that they do not understand properly, hence failure to deliver as agreed in the contract as well as lack of quality services delivered at the end of the contract cycle (Basheka, 2008).

## 2.2 Education sector service delivery

Education Sector Service Delivery is the distribution of basic education services of high quality at the right time (Caseley, 2003). The Education Sector Service Delivery comprises establishments that provide instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. These establishments are not operated for profit, or they may be publicly owned and operated. They may also offer food and/or accommodation services to their students (Hanushek and Ludger, 2007).

According to Glewwe and Kremer, (2008), educational services are usually delivered by teachers or instructors, who explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home, and through diverse means, such as correspondence, television, the Internet, or other electronic and distance-learning methods. The training provided by these establishments may include the use of simulators and simulation methods.

Education sector service delivery outcomes are determined by the interplay of government, providers and citizens. In particular, education outcomes are the results of the interaction between various actors involved in the multi-step service delivery systems and depend on characteristics and behavior of individuals and households. While education service delivery quality is contingent foremost on what happens in consultation rooms and in classrooms, a combination of various basic elements have to be present in order for quality services to be accessible and produced by teachers at the frontline, which all depend on the overall service delivery system and supply chain. Adequate financing, infrastructure, human resources, material and equipment have to be available for service delivery at the frontline, as well as proper institutions and governance structure to provide adequate incentives to the service providers. The availability of these essential elements and institutions are a function of the efficiency of the entire service delivery system (Tessa *et al.,* 2010).

## 2.3 Contract Documentation and Education Sector Service Delivery

According to Brown & Potoski (2003a), effective contract documentation may involve document automation or document assembly. It basically involves design of systems and workflows that assist in the creation of electronic documents. This same position is emphasized by Palmer *et al.* (2000). Further to that, Palmer reveals that document automation is used to edit all conditional text, variable text and data contained within a set of documents. This helps to increases efficiency and effectiveness in records management. Eventually, effective monitoring of the different contents of the contract results leading to assurance of improved quality and effective service delivery.

Since document automation allows companies to minimize data entry, reduces time spent on proof reading as well as risks associated with human error, it is one of the most recommended ways of contract documentation in this modern era of ICT and improved technology. This method has a great benefit of reducing paper handling procedures, document loading and physical storage. Because of this, there is a significant reduction in the financial expenditure in relation to these items in an entity (Government of Republic of Kenya, 2007). This therefore helps in having overall improvement in service delivery in an organization.

Considering the importance and relevance of document automation in contract documentation, it is expected to be adopted in most government organizations in Uganda. However, in Uganda, contract documentation involves use of the old fashioned book keeping methods, the use of computer and modern software like automation only exist in a few companies (Basheka, 2008). This greatly affects the process of contract management.

Since contract management spans through all levels of the procurement process, proper documentation at all stages including the initial stages of planning and contract management can result into effective and quality service delivery (Cooper 2003). In public procurement, service delivery is concerned with meeting fully the deliverables that were agreed upon in the contract and the levels of performance per the contract. These two help to determine the quality in the implementation process.

According to Brown and Potoski (2003a), maintaining up to date contract documents is an important activity that helps to ensure efficiency in service delivery. Contracts are far from simple documents and contract management is no longer limited to managing documents but managing the life cycle of contracts with distinct phases and building blocks. This implies that proper documentation is one of the quality management control point if the organization is to achieve quality service delivery from the contractors.

The procurement department in Uganda's local government still has people who are not well versed with the different levels of procurement process and how proper documentation of each process may affect service delivery (PPDA 2014). Also, corruption is affecting the whole process of procurement mainly in government institutions. The effects of this also have a toll in the contract documentation process as well as the aspect of service delivery. The effects are however not quantifiable at this point.

In Uganda, there are very few records kept by the government entities regarding the contract management process (PPDA report 2010). Contract documentation between entities reduces errors in the contract. Without proper documents, contracts go on with insufficient grounds which results into poor service delivery (World Bank 2011). Poor contract documentation results into some payments being made with un-completed work since there is no supportive documentation. Payments are sometimes made without contracts or for no performance at all. This is mainly as a result of not having clear documentation in relation to things to check before making payment(s). This situation happens in many public and private institutions in Uganda.

According to Amagoh (2009), it is important to track critical elements throughout the life of the contract in order to improve effectiveness in delivery of services as well as ensuring contract monitoring. Brown and Potoski (2003a) state that use of traceability table ensures that the contract is being completed in a way that satisfies the needs of the organization. According to Errigde and Mcllroy (2002), organizations and public bodies should utilize a number of innovations that improve contract documentation in order to make the process of procurement management a success.

In cases of information asymmetry when agents (contractors) have more information about their activities and performance than the contracting organization does, the agent can inaccurately report high performance to the principal. When risks of agent opportunism are high, the contracting organization must engage in more pre-contract preparation and post-contract oversight, a condition that brings high transaction costs (Amagoh 2009).In competitive markets, proper contract documentation provides organizations with information about trade-offs among service quality, quantity and price in the initial and subsequent bidding processes (Errigde and Mcllroy 2002). In the absence of a proper documentation, a contracting organization may find it difficult to determine whether the prices and service quality offered by the agent are reasonable because it cannot weigh one bid against the other (Davison and Wright 2004). This means that absence of proper documentation is a key towards service delivery performance challenges.

Most of the studies reviewed have highlighted poor contract documentation in Uganda. This implies that contract documentation is not emphasized in the process of procurement and contract management which is assumed to have resulted into poor service delivery in public institutions and in some private institutions. If managers improve the documentation process, contract management and the quality of service delivery are likely to strongly improve. However, the literature does not clearly show how contract documentation may be done and how it may affect service delivery if poorly done. Basing on the above facts, the study examined contract documentation in Masaka, Uganda.

## 3. Methodology

The study employed a cross-sectional research design using both qualitative and quantitative data collection approaches. The study was conducted at Masaka district local government focusing on staff and political leaders. The district had a total of 89 staff members and included 7 heads of departments (Administration, Audit, Finance, Planning, Education, Production and

Marketing and Procurement) and 82 staff members (senior managers, managers and clerks). The political leaders consist of 3 district political heads (Chairman LCV, RDC and assistant RDC) and 48 Councilors (Human Resource Records, 2017). A sample size of 103 respondents was selected out the population of 140 using Morgan and Krejcie table as given by Amin, (2005). Data was collected through self-administered questionnaire which was found relevant due to large population and this tool enabled the researcher to get feedback in a short period of time. The qualitative data also gave narrative and descriptive information that explained and give deeper understanding and insight into a problem as suggested by Amin, (2005).The questionnaire was tested for validity of all the possible dimensions of the study. McMillan & Schumacher (2006) stated that validity refers to the degree of congruence between the explanations of the phenomena and the realities of the world. Validity is the extent to which the instrument gives the correct answer. Face validity was measured by showing the instruments to both supervisors and peer group to get their feedback of whether the measures were relevant in measuring what the researcher intended to measure. To measure content validity, the researcher contacted two research experts in order to understand whether the questionnaire was valid in a way of collecting information that was used to understand the research problem.

The collected data was organized for analysis through the activities of data cleaning, coding and data entry into the analysis tool. The data collected through questionnaires was analyzed using Statistical Package for Social Sciences (SPSS) because this was the most recommendable package for analyzing social sciences researcher data (Sekaran, 2003). The analysis of the interview responses was edited according to the themes developed in the objectives of the study.

## 4. Results and Discussion

### 4.1. Response rate

Though 103 questionnaires were issued out, only 88 questionnaires were returned. This represents a response rate of 85.4%. This was considered to be good enough to generalize the research findings

## 4.2 Contract documentation

**Table 1: Responses on contract documentation**

| Question item | Agree | Not sure | Disagree | Mean | S.D |
|---|---|---|---|---|---|
| All contract management activities are documented | 57.9 | 13.6 | 28.6 | 3.56 | 1.567 |
| The district documents all goods and services required at delivery | 51.1 | 21.6 | 27.3 | 3.35 | 1.431 |
| The district maintains proper contract schedules | 65.9 | 10.2 | 23.9 | 3.66 | 1.445 |
| The district retains copies of all the signed contracts. | 46.6 | 25 | 28.4 | 3.40 | 1.394 |
| The district possesses systems that assist in the creation of electronic documents | 47.8 | 11.2 | 41 | 3.10 | 1.494 |
| Contract documentation has enhanced vigilance on the past performance of a contractor | 64.8 | 10.2 | 25 | 3.70 | 1.448 |
| The district uses computers and modern software in documentation. | 62.5 | 11.4 | 26.1 | 3.48 | 1.330 |
| Proper contract documentation has enhanced funding of the procurement disposal entities from the district | 60.3 | 13.6 | 26.1 | 3.51 | 1.373 |
| Contract documentation at the district involves use of the old fashioned book keeping methods | 42.1 | 6.8 | 51.1 | 2.80 | 1.532 |

***Source: Primary Data, 2017***

Basing on the results in Table 1, the status of contract documentation in Masaka District Local Government is marginally good. This is based on the detailed results in the table.

The results indicate that all contract management activities are fairly documented (mean = 3.56). About 51.1% of the respondents also indicated that the district documents all goods and services required at delivery (mean = 3.35). The marginal performance in relation to contract documentation was also registered in the area of contract schedules. Findings indicate that the district marginally maintains proper contract schedules (mean = 3.66). Testing past performance of contractors indicated that contract documentation has fairly enhanced vigilance on the past performance of a contractor (mean = 3.70). Findings also indicate that proper contract documentation has fairly enhanced funding of the procurement and disposal entities from the district (mean = 3.51).

These findings are in agreement with Basheka (2008) in relation to the quality and or status of contract documentation in Uganda and Masaka District Local Government in particular. This is an indication of the challenging situation the local government is in as far as contract documentation is concerned.

**Table 2: Responses on Education Sector Service Delivery**

| | Response (%) | | | | | | |
|---|---|---|---|---|---|---|---|
| **Statements** | **Strongly Agree** | **Agree** | **Not sure** | **Disagree** | **Strongly Disagree** | **Mean** | **Standard deviation** |
| All Educational services are provided on time | 26(29.5) | 29(33.0) | 4(4.5) | 15(17.0) | 14(15.9) | 3.43 | 1.468 |
| Services provided to the sector are of high quality | 28(31.8) | 20(22.7) | 9(10.2) | 21(23.9) | 10(11.4) | 3.40 | 1.435 |
| There is sustainability of service provision | 13(14.8) | 27(30.7) | 10(11.4) | 30(34.1) | 8(9.1) | 3.08 | 1.271 |
| I am satisfied with the services provided to education by the district | 5(5.7) | 32(36.4) | 17(19.3) | 18(20.5) | 16(18.2) | 2.91 | 1.238 |
| Cost effective services are provided | 16(18.2) | 38(43.2) | 9(10.2) | 15(17.0) | 10(11.4) | 3.40 | 1.282 |
| Durability is considered in service provision | 21(23.9) | 23(26.1) | 21(23.9) | 9(10.2) | 14(15.9) | 3.32 | 1.369 |
| Proper contract management has improved education sector service delivery | 19(21.6) | 23(26.1) | 13(14.8) | 21(23.9) | 12(13.6) | 3.18 | 1.378 |
| The district has employed qualified staff to provide quality education services | 35(39.8) | 5(5.7) | 6(6.8) | 34(38.6) | 8(9.1) | 3.28 | 1.531 |
| Stakeholders are satisfied with services provided | 33(37.5) | 23(26.1) | 11(12.5) | 12(13.6) | 9(10.2) | 3.67 | 1.371 |

Findings regarding whether all educational services are provided on time indicated that; 14(15.9%) of the respondents strongly disagreed, 15(17.0%) disagreed, 4(4.5%) were not sure, 26(29.5%) strongly agreed and 29(33%) agreed. This means that that to a large extent, majority of the respondents agreed that all educational services are provided on time. This implies that consumers of education services are happy and satisfied because of timely delivery of their requirements. This was supported by one of the interviewee who narrated that;

*"Though we are faced with some challenges in service delivery in the education sector, much of our services are provided on time. Most schools have enough infrastructures, scholastic materials"*

On whether services provided to the sector are of high quality; 10(11.4%) of the respondents strongly disagreed, 21(23.9%) disagreed, 9(10.2%) were not sure, 28(31.8%) strongly agreed and 20(22.7%) agreed. The majority of the respondents agreed with the statement. This means that Masaka community is enjoying high quality products, an indication of satisfied consumers of education services. On finding out whether there is sustainability of service provision; 8(9.1%) of the respondents strongly disagreed, 30(34.1%) disagreed, 10(11.4%) were not sure, 13(14.8%) strongly agreed and 27(30.7%) agreed. The majority of the respondents gave a positive response. This means that educations services provided in Masaka take long time while they are still good to be used. However, 38(41.2%) disagreed that there is sustainability of service provision. This implies that some services do not take long time before they develop some unusable issues.

Regarding whether the respondents were satisfied with the services provided to education by the district; 16(18.2%) of the respondents strongly disagreed, 18(20.5%) disagreed, 17(19.3%) were not sure, 5(5.7%) strongly agreed and 32(36.4%) agreed. The majority of the respondents agreed that the respondents were satisfied with the services provided to education by the district. This means that contract management is carried out very well by the district. This was also supported by one of the respondents who narrated that;

> *"Most of the schools in this district have not faced the challenges of poor service delivery as a result of poor contract management. The challenges we face come as a result of limited funding from the central government".*

To whether cost effective services are provided; 10(11.4%) of the respondents strongly disagreed, 15(17.0%) disagreed, 9(10.2%) were not sure, 16(18.2%) strongly agreed and 38(43.2%) agreed. The majority of the respondents agreed. The findings are in line with Amagoh, (2009) who noted that, it is important to track critical elements throughout the life of the contract in order to improve effectiveness in delivery of services as well as ensuring contract monitoring.

Responses on whether durability is considered in service provision show that; 14(15.9%) of the respondents strongly disagreed, 9(10.2%) disagreed, 21(23.9%) were not sure, 21(23.9%) strongly agreed and 23(26.1%) agreed. The majority of the respondents agreed. This means that the district ensure proper evaluation and inspection in contract management.

Regarding whether proper contract management has improved education sector service delivery; 12(13.6%) of the respondents strongly disagreed, 21(23.9%) disagreed, 13(14.8%) were not sure, 19(21.6%) strongly agreed and 23(26.1%) agreed. The majority of the respondents agreed that proper contract management has improved education sector service delivery. This means that they district is emphasizing contract management. On finding out whether the district has employed qualified staff to provide quality education services; 8(9.1%) of the respondents strongly disagreed, 34(38.6%) disagreed, 6(6.8%) were not sure, 35(39.8%) strongly agreed and 5(5.7%) agreed. The majority of the respondents gave a positive statement. This means that users of education services receive quality products due the fact that they employee qualified staff. This implies that the district emphasizing screening of her employees before the actual placement.

On whether stakeholders are satisfied with services provided; 9(10.2%) of the respondents strongly disagreed, 12(13.6%) disagreed, 11(12.5%) were not sure, 33(37.5%) strongly agreed and 23(26.1%) agreed. This means that to a large extent, the respondents strongly agreed stakeholders are satisfied with services provided. This is in disagreement with one of the respondent who narrated that;

> *"The citizens are not satisfied with the services provided by government schools and this can be viewed through increased levels of dropout from government owned schools and increased enrollment levels in privately owned schools. This implies that students are ever drifting*

*from government schools to private schools".*

This analysis was carried out to test the degree of association between contract documentation and education service delivery in Masaka District Local Government. Results from this analysis are presented in Table 3. The table has been prepared to capture all the variables together with their coefficients.

The results in correlation analysis are in agreement with the literature by (PPDA report 2010) which indicates existence of relationship between contract documentation and overall service delivery. In the case of Masaka District Local Government, this service delivery is in relation with education service delivery at district level.

**Table 3: Results from correlation analysis**

| | 1 | 2 |
|---|---|---|
| Education sector service delivery (1) | 1 | |
| Contract documentation (2) | .645** | 1 |

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

Findings in Table 3 indicate that there is a relationship between contract documentation and education service delivery in Masaka District Local Government ($r = 0.645$). This relationship is further reported to be positive and statistically significant ($p \leq 0.01$). This result means that enhancement in contract documentation procedures in the local government is likely to exist alongside enhancement of the education service delivery. The two are therefore related in such a way that improvement of one will occur when there is improvement in the other.

**4.3 Results from regression analysis on what contract documentation and Education sector service delivery**

To further check the association between contract documentation and education service delivery in Masaka District Local Government, a regression analysis was carried out. This was mainly carried out to check whether contract documentation as an activity has any influence onto the education service commission. Further to that, there was need to test this degree of influence. Findings in relation to this analysis are reported in Table 4 below:

**Table 4: Results from regression analysis**

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | 1.314 | 0.258 | | 5.100 | 0.000 |
| Contract documentation | 0.584 | 0.075 | 0.645 | 7.837 | 0.000 |
| Dependent variable: | Education service delivery | | | | |
| R: | 0.645 | | | | |
| R square: | 0.417 | | | | |
| Adjusted R Square: | 0.410 | | | | |
| F statistics: | 61.426 | | | | |
| Model Sig: | 0.000 | | | | |

Results of Table 4 indicate that, a unit change in Education Service Delivery (ESD) is due to a 0.645 change in contract documentation other factors kept constant. This influence is further reported to be positive (Beta = 0.645). The results also indicate that a unit change in contract documentation in the local government brings about 41% changes in education service delivery. This means that contract documentation influences up to 41% of the changes in education service delivery in Masaka District Local Government. This means that there are other factors that influence the 59% of the changes in education service delivery in the local government.

These findings are in line with the recommendations provided by Basheka (2008) as well as the guidance document in relation to service delivery through contracts published by the government of New Zealand (New Zealand Government, 2011). In both of these documents it is stated how contract documentation as a process has impact on the overall service delivery of a business and or an entity. The documentation in the literature concurs with the findings that were obtained in this study.

## 4. Conclusion and Recommendations

Going by the findings of both correlation analysis (r =.645$^{**}$) and regression (p=0.001) model, the researcher concludes that ESD is greatly influenced by contract documentation.

The study recommended that central government should provide Masaka district local government with computers and modern software that can help in documentation of contract activities. This can help in improving the quality of the records kept.The district staff should be regularly trained on the use of modern fashioned book keeping methods. District authorities should also consider improving the presence of contract documentation procedures in their contracting processes in order to enhance performance and eventually improve education service delivery.

## References

Alexander, J. F. (2009). *Contracting through the lens of classical pragmatism: An exploration of local government contracting - An applied Research Project* . Texas State University-San Marcos.

Amagoh, F. (2009). Information asymmetry and the contracting out process. *The Innovation Journal: The Public Sector Innovation Journal, 14*(2), 1 - 14.

Amin, Samia and Anupamsharan, (2005).Evolution of contract management in India – from lone ranger to business critical function.

Basheka, B. (2008). Procurement planning and accountability of local government procurement systems in Developing countries: Evidence from Uganda. *Journal of Public Procurement, 8*(3), 379 - 406.

Brown, T. L., & Potoski, M. (2003a). Managing contract performance: A transaction costs approach. *Journal of Policy Analysis and Management, 22*(2), 275 - 297.

Caseley, J. (2003). Blocked Drains and Open Minds: Multiple Accountability Relationships and Improved Service Delivery Performance in an Indian City. IDS Working Paper 211. Brighton: Institute of Development Studies

Cooper, P. J. (2003). *Governing by contract: Challenges and opportunities for public managers.* Washington, DC: CQ Press.Creation, John Wiley & Sons.

Davison, B., & Wright, E. (2004). *Contract Administration (CA)*. Washington D.C: National.

Glewwe, P. and M. Kremer, (2008).“Schools, Teachers, and Education Outcomes in Developing Countries”, in E. Hanushek and F. Welch (eds.) Handbook of the Economics of Education, 2, Elsevier B.V.

Hanushek, Eric A., and Ludger Woessmann, (2007).“The Role of Education Quality in Economic Growth.”Policy Research Working Paper 4122, World Bank, Washington, DC.

Errigde, A., & Mcllroy, J. (2002). Public procurement and supply Management strategies. *Public policy and administration, 17*(1), 52 - 71.

Government of Republic of Kenya. (2007). *Kenya Vision 2030 report.* Government Blue Print, Nairobi.

Holt, G., Olomoaiye, P., & Harris, F. (2006). Tendering Procedures, Contractual Arrangements and Latham: The Contractors’ View. *Engineering, Construction and Architectural Management*, 97 - 115.

Krejcie, & Morgan. (1970). *Sampling table for determination of sample size basing on pre-determined population size.*

New Zealand Government. (2011). *Contract and relationship management - Driving results and maximising outcomes.* Wellington 6140: Government Procurement Solutions. Ministry of Economic Development.

PPDA. (2014). *Public procurement and disposal audit report .* Kampala: PPDA Press.

PPDA Report. (2010). *Public procurement and disposal audit report.* Kampala: PPDA Press.

Uwezo. (2010). *Are our children learning? Annual learning assessment report Uganda.* Uwezo.net.

World Bank. (2011). *World development report: making services work for poor people.* Washington DC: International Bank for Reconstruction and Development.

# Contract Relationship Management and Education Service Delivery in Masaka District Local Government

**Beatrice Juliet Nakalanzi[1], James Baguma[2], Stella Nakajugo[3] and Nduhura Twesigye[4]**

**[1, 2, 3 & 4] Lecturers, Kampala University, Email: nakjuliet90@yahoo.com**

## Abstract

*This research aimed at establishing whether contract relationship management impacts the education service delivery in Masaka DLG. This was based on the hypothesis that contract relationship management has a significant influence on service delivery. The research was carried out at Masaka. Out of the population of 140 potential respondents, a sample of 103 was selected. A response rate of 85.4% was realized and was found to be acceptable for research results. The data was collected using questionnaires. Basing on the objective of the study, descriptive, correlation and regression analyses were carried out. The results indicated that of contract relationship management is averagely existent in the operations of Masaka DLG and is carried out at a very low level, though its management is reported to have a very strong association with education service delivery at the district (r = 0.639) and the association is statistically significant (p ≤ 0.01). Additionally, the contract relationship management influences up to 40.2% of the changes in education service delivery at the district. Basing on these results therefore, it is recommended that the contract relationship management processes in Masaka DLG be improved so that education service delivery can be enhanced in the district.*

***Key words: Contract Management, Education Sector, Service Delivery***

## 1. Background to the Study

Section 3 of the Public Procurement and Disposal of Public Assets Act (PPDA) No.1 of 2003 defines a contract as an agreement between a procuring and disposing entity and a provider, resulting from the application of the appropriate and approved procurement or disposal procedures and proceedings as the case may be, concluded in pursuance of a bid award decision of a contracts committee or any other appropriate authority.

ICN (2009) reported that contract management phase of the procurement cycle starts after the award of contract. Effectiveness of contract management will depend on how thorough the earlier steps in the procurement cycle were completed. Regulation 258(1) of the PPDA Act (2010) provided that the contract management covers the process from contract signing to contract completion. Goo *et al.* (2009) acknowledged the contractual elements as foundation, change management, and governance characteristics. Donaghy (2011) suggested that contract management consists of a range of activities and practices that are carried out together to keep the arrangement between customer and provider running smoothly. They can be broadly grouped into three areas; Service delivery management, Relationship management and Contract administration.

Once a contract has been entered into, the relationship between the contractor and the contractee begins. This relationship could be maintained as a healthy relationship or could be violated depending on the intentions of the parties to the contract. Once violated, court cases might result. However, if well maintained, trust is likely to be built leading into even better relations in the future. Business referrals are mainly the most fruitful outcome of keeping a good contractual relationship (Realyst, 2015; University of Texas, 2017).

Contract relationship management in India has developed alongside the evolution of Indian business over the past two and half decades. Until recently, across all sectors and industries, it was handled by a variety of departments, from supply chain management, commercial, procurement, planning to legal. After the 1990s, it evolved into a broader role of enterprise risk management but only recently contract management has come to be viewed as a potential source of revenue **(**Anupam, 2015)**.** Among others, the review considered improved contract documentation, contract relationship and contract monitoring.

Uganda spends over 55% of her budget on public procurement (PPDA 2012). This is equivalent to Shs.6, 000 billion or $ 2.4 billion of the year 2012 government budget. Contract relationship management is therefore central to achieving efficiency and effectiveness in education sector service delivery. It is a significant factor to achieve development projects; thus achievement of strategic outcomes (accountability of the government to public). Further, it is also essential in promotion of the private sector through the business opportunities availed to service providers through contract awards (PPDA, 2012).

Most of the problems of contract management are as a result of some of the problems within the procurement process.

Access to quality services in particular in the education sector has been recognized fundamental for economic development (World Bank, 2003). However, in Uganda and other developing countries, education sector service delivery is often poor or nonexistent: schools are not open when they are supposed to be; teachers are frequently absent from schools and, when present, they spend a significant amount of time not serving the intended beneficiaries/children; learning materials, even when available, are not used, and public funds are stolen. Despite the fact that there have been low contract enforcement indices (Rwakakamba, Lukwago,& Walugembe, 2014), it is not obvious that the same scenario existed in Masaka District Local Government. Masaka District Local Government however registered low performance in education service delivery. This is evidenced by the low performance in UPE and USE where teachers are contracted to offer service. This therefore prompted the researcher to establish whether there is a relationship between contract relationship management and education service delivery.

## 2. Literature review

### 2.1. Education sector service delivery

Education Sector Service Delivery is the distribution of basic education services of high quality at the right time (Caseley, 2003). The Education Sector Service Delivery comprises establishments that provide instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. These establishments are not operated for profit, or they may be publicly owned and operated. They may also offer food and/or accommodation services to their students (Hanushek and Ludger, 2007).

According to Glewwe and Kremer, (2008), educational services are usually delivered by teachers or instructors, who explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home, and through diverse means, such as correspondence, television, the Internet, or other electronic and distance-learning methods. The training provided by these establishments may include the use of simulators and simulation methods. Education sector service delivery outcomes are determined by the interplay of government, providers and citizens. In particular, education outcomes are the results of the interaction between various factors involved in the multi-step service delivery systems and depend on characteristics and behavior of individuals and households. While education service delivery quality is contingent foremost on what happens in consultation rooms and in classrooms, a combination of various basic elements have to be present in order for quality services to be accessible and produced by teachers at the frontline, which all depend on the overall service delivery system and supply chain. Adequate financing, infrastructure, human resources, material and equipment have to be available for service delivery at the frontline, as well as proper institutions and governance structure to provide adequate incentives to the service providers. The availability of these essential elements and institutions are a function of the efficiency of the entire service delivery system (Tessa *et al.,* 2010).

## 2.2 Contract Relationship management and Education sector service delivery

According to Patterson (2005), Contract Relationship Management involves ensuring good communication between the contractor and the client based on mutual respect, trust, understanding, openness and accountability. This promotes service delivery. Contract relationship Management begins as soon as the contracting process begins, from the invitation of proposals, to proposal evaluation, award and implementation of contract up to closure of the contract (Davison and Wright 2004). According to Davison and Sebastian (2009), relationship management underpins overall success of contract management. According to Basingstoke and Deane (2013), good contractual relationship between the contracting parties provides a firm foundation for the success of the contract that is being executed. The positive relationship between the contractor and the acquiring entity results into smooth flow of the contract activities, therefore ensuring successful contract execution. In the same line, Cooper (2003) argues that it is important to establish and maintain a constructive relationship and regular communication between the contracting parties. This positive relationship involves providing positive and constructive feedback, ensuring that payments are done without delays as well as listening to the contractor, identifying any problems, and addressing them promptly in time. This ensures a higher degree of contract performance and service delivery.

Davison and Wright (2004) explain that for contracts involving provision of consultancy services that extend over a reasonable period of time, it is better for both contracting entities to adopt a structured approach that involve constant meetings in managing their contractual relationship in order to achieve maximum and effective service delivery. In such contracts the management of the relationship with the contractor could consist of day-to-day discussions and interactions between the contractor, the contract manager and relevant entity staff. Formal meetings at pre-determined intervals with nominated personnel from both the acquiring agency and the contractor would also be necessary and relevant. Amagoh (2009) asserts that, poor relationship management results into court disputes. In the same line, Broomberg, Masobe, & Mills (1997) argue that contract management is strongly constrained by dispute resolution by the courts which is costly and unreliable. In that event, private ordering efforts are required to support governance structures, thereby mitigating prospective contractual impasses and breakdowns which may have merit. Private ordering efforts to craft governance structure supports contractual relations during the contract implementation interval thus making their manifestation vital. However, not only do alternative modes of governance differ in kind, but each generic mode of governance is defined by an internally consistent syndrome of attributes which is to say that each mode of governance possesses distinctive strengths and weaknesses.

Contract relationship should be managed in a professional manner and be based on cooperation and understanding in a legal framework, taking into account the need for probity and ethical behavior (Holt, Olomoaiye and Harris, 2006). According to PPDA (2014), the overall performance of central government entities in Uganda during the 2012/2013 financial year was not good. The records indicate that 0% of them were highly satisfactory, 42% of them were rated satisfactory, 25% moderately satisfactory and another 25% unsatisfactory. Those rates as highly unsatisfactory were only 8%

of all the entities rated. PPDA report (2014) further reveals that such performance was partly due to poor Contract Relationship Management between the contracting parties. Works procurement contracts have high values than the supplies and services contracts and account for a significant portion of the national budget. Reports indicate that the work related contracts are the poorest performing contracts (PPDA 2014). During the 2013/2014 financial year, the Ministry of Works and Transport took 478 days to process a procurement deal from initiation to publication of the best evaluated bidder (Errigde and Mcllroy 2002). This was not in line with the legal requirements as per the above mentioned procurement deal. Timeliness in the procurement process is one of the key issues that impact on service delivery. This implies that both parties involved in the contract should respect the time frame of the contract in order to achieve a win-win situation.

According to UNRA (2014), open bidding for works and services may take up to 9 to 15 months including Government and Donor approvals, while open bidding through Expression of Interest (Prequalification) for works and services may take up to 15 to 24 months including government and donor approvals. The report indicates a variance of 122% and 136.9% in contract price above the estimated prices for the Insurance Regulatory Authority and National Agricultural Advisory Services respectively. Contract variations are common with works contracts, like in referral hospitals where 8% of the contracts were varied (PPDA report 2013) while the rest were still following the equivalent of old-school contracting. The old school is where there is no concrete contracting strategy and limited visibility or understanding of key contract issues. The most common behaviors of such outdated contracting methods are the excessive manual work and disorganized contract repository. According to PPDA (2014), it is clearly stated that open – international bidding should take 30 working days whereas the open-domestic bidding should take only 20 working days.

In cases of problems or changes, Contract Management teams are often in the dark of the causes and mainly rely on overly detailed and rushed manual work for information. Time delays in contracting process are a breach of contract, the different parties involved in a contract should therefore appreciate that additional charges are justified for such inconveniences. Therefore, time variance, price variance and any other form of deviation from the working guidelines of a contract calls for legal charges and costs are met by the failing party in the procurement process (Insider report, 2015). However much contract relationship management is essential towards service delivery, a number of researchers never looked into how it improves service delivery. More still, there is no clear evidence that there has been a study regarding Contract Relationship Management and Education Sector Service Delivery in Masaka District Local Government. This therefore necessitated the need for this research to be carried out.

## 3. Methodology

The employed cross-sectional researches design in order to be able to investigate the different aspects of the problem within reasonably short time (a year). The study was carried out from Masaka District headquarters. Masaka District is one of the oldest districts located in central Uganda, 125kms from Kampala the Capital City of Uganda on Mbarara- Kabale road. A sample size of 103 respondents was selected out the population of 140 from the district for the study. This consisted of 7 heads of departments, 82 staff members (senior managers, managers and clerks), 3 district political heads and 48 councilors determined using Morgan and Krejcie table Data was collected through questionnaires and interview guides. The questionnaire was tested for validity of all the possible dimensions of the study. To measure content validity, the researcher contacted two research experts in order to understand whether the questionnaire was valid in a way of collecting information that was used to understand the research problem. Data collected was organized through cleaning, coding and data entered into the SPSS analysis tool. Qualitative analysis involved categorizing data and then attaching it to the appropriate categories. The analysis of the interview responses was edited according to the themes developed in the objectives of the study.

## 4. Results and Discussion

### 4.1. Contract relationship management in Masaka DLG

This analysis was carried out to get information in relation to the state of contract relationship management at

Masaka District Local Government (*Masaka DLG*). This therefore means that this analysis was helpful in providing information in relation to the key aspects of contract relationship management in Masaka DLG. Findings from descriptive analysis are presented in Table 1 below:

**Table 1: Contract relationship management in Masaka DLG**

| Items for consideration | Agree (%) | Not sure (%) | Disagree (%) | Means | Std. Dev |
|---|---|---|---|---|---|
| The district organizes formal meetings at pre-determined intervals with its contractors | 56.8 | 18.2 | 25 | 3.58 | 1.354 |
| Issues raised by contractors are solved on time | 54.5 | 12.5 | 33 | 3.26 | 1.434 |
| The district provides feedback to contractors | 52.2 | 10.2 | 37.6 | 3.31 | 1.571 |
| The district pays service providers on time. | 55.7 | 11.4 | 32.9 | 3.47 | 1.561 |
| Contractors work in harmony with the district staff | 67.1 | 9.1 | 23.8 | 3.10 | 1.494 |
| Relationship between the contractors and the client are kept open and constructive | 54.6 | 26.1 | 19.3 | 3.47 | 1.222 |
| There are constant meetings in managing the performance of contracts | 39.8 | 11.4 | 48.8 | 2.88 | 1.515 |
| The district maintains good contractual relationship with the contractors. | 39.7 | 22.8 | 37.5 | 2.86 | 1.233 |

***Source: Primary Data, 2017***

Basing on the results in Table 1, it is obvious the status of contract relationship management in Masaka DLG is not good. This is evidenced by the responses of the respondents which indicate that the district does not maintain good contractual relationship with the contractors (mean = 2.86). Despite this fact, the findings indicate that the district rarely organizes formal meetings at pre-determined intervals with its contractors (mean = 3.58). This is further supported by 18.2% of the respondents who indicate not to be sure as to whether the formal meetings are actually organized. This is a challenge as far as relationship management with the service providers is concerned.

In relation to the issues raised by the contractors, the findings indicate that they are attended to and solved though to a low extent (mean = 3.26). There is a low level of feedback provision to the contractors from the district (mean = 3.31). Timely payment to contractors for the work done in Masaka DLG is also reported to be done though to a low extent (mean = 3.47). Findings also indicate that the relationship between the contractors and the client are kept open and constructive though there is some level of secrecy (mean = 3.47). In relation to this, 26.1% of the respondents indicate not to be sure as to whether the relationship between contractors and the clients are kept open and constructive. This is challenging as far as contract relationship management is concerned at Masaka DLG.

Findings also indicate that in Masaka DLG, there are no constant meetings between contractors and officers at the district in relation to managing contract performance. This is a big challenge in relation to effective management of contracts executed at Masaka DLG. Though the concern here is put on all contracts, the focus of this research is on contracts relating to education service delivery at the district.

The findings of this research indicate that there is a very low level of contract relationship management at Masaka DLG. This further means that the low relationship has an impact on how the contracts at the district are managed. These findings are in relation with the reports of PPDA in relation to contract performance in Uganda (PPDA 2014; PPDA 2013; PPDA 2012). According to these reports, there has been unfavorable contract relationship management activities in most of the contracts carried out in Uganda.

### 4.2. Responses on Education Sector Service Delivery

Findings regarding whether all educational services are provided on time and results are indicated below:

**Table 2: Responses on Education Sector Service Delivery**

| Statements on Education Sector Service Delivery | Response (%) | | | | | Mean | SD |
|---|---|---|---|---|---|---|---|
| | **SA** | **A** | **NS** | **D** | **SA** | | |
| All Educational services are provided on time | 26(29.5) | 29(33.0) | 4(4.5) | 15(17.0) | 14(15.9) | 3.43 | |
| Services provided to the sector are of high quality | 28(31.8) | 20(22.7) | 9(10.2) | 21(23.9) | 10(11.4) | 3.40 | |
| There is sustainability of service provision | 13(14.8) | 27(30.7) | 10(11.4) | 30(34.1) | 8(9.1) | 3.08 | |
| I am satisfied with the services provided to education by the district | 5(5.7) | 32(36.4) | 17(19.3) | 18(20.5) | 16(18.2) | 2.91 | |
| Cost effective services are provided | 16(18.2) | 38(43.2) | 9(10.2) | 15(17.0) | 10(11.4) | 3.40 | |
| Durability is considered in service provision | 21(23.9) | 23(26.1) | 21(23.9) | 9(10.2) | 14(15.9) | 3.32 | |
| Proper contract management has improved education sector service delivery | 19(21.6) | 23(26.1) | 13(14.8) | 21(23.9) | 12(13.6) | 3.18 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| The district has employed qualified staff to provide quality education services | 35(39.8) | 5(5.7) | 6(6.8) | 34(38.6) | 8(9.1) | 3.28 | |
| Stakeholders are satisfied with services provided | 33(37.5) | 23(26.1) | 11(12.5) | 12(13.6) | 9(10.2) | 3.67 | |

***Source: Primary Data, 2017***

Findings regarding whether all educational services are provided on time indicated that; 14(15.9%) of the respondents strongly disagreed, 15(17.0%) disagreed, 4(4.5%) were not sure, 26(29.5%) strongly agreed and 29(33%) agreed. This means that that to a large extent, majority of the respondents agreed that all educational services are provided on time. This implies that consumers of education services are happy and satisfied because of timely delivery of their requirements. This was supported by one of the interviewee who narrated that;

> *"Though we are faced with some challenges in service delivery in the education sector, much of our services are provided on time. Most schools have enough infrastructures, scholastic materials"*

On whether services provided to the sector are of high quality; 10(11.4%) of the respondents strongly disagreed, 21(23.9%) disagreed, 9(10.2%) were not sure, 28(31.8%) strongly agreed and 20(22.7%) agreed. The majority of the respondents agreed with the statement. This means that Masaka community is enjoying high quality products, an indication of satisfied consumers of education services.

On finding out whether there is sustainability of service provision; 8(9.1%) of the respondents strongly disagreed, 30(34.1%) disagreed, 10(11.4%) were not sure, 13(14.8%) strongly agreed and 27(30.7%) agreed. The majority of the respondents gave a positive response. This means that educations services provided in Masaka take long time while they are still good to be used. However, 38(41.2%) disagreed that there is sustainability of service provision. This implies that some services do not take long time before they develop some unusable issues.

Regarding whether the respondents were satisfied with the services provided to education by the district; 16(18.2%) of the respondents strongly disagreed, 18(20.5%) disagreed, 17(19.3%) were not sure, 5(5.7%) strongly agreed and 32(36.4%) agreed. The majority of the respondents agreed that the respondents were satisfied with the services provided to education by the district. This means that contract management is carried out very well by the district. This was also supported by one of the respondents who narrated that;

> *"Most of the schools in this district have not faced the challenges of poor service delivery as a result of poor contract management. The challenges we face come as a result of limited funding from the central government"*

To whether cost effective services are provided; 10(11.4%) of the respondents strongly disagreed, 15(17.0%) disagreed, 9(10.2%) were not sure, 16(18.2%) strongly agreed and 38(43.2%) agreed. The majority of the respondents agreed.

The findings are in line with Amagoh, (2009) who noted that, it is important to track critical elements throughout the life of the contract in order to improve effectiveness in delivery of services as well as ensuring contract monitoring

Responses on whether durability is considered in service provision show that; 14(15.9%) of the respondents strongly disagreed, 9(10.2%) disagreed, 21(23.9%) were not sure, 21(23.9%) strongly agreed and 23(26.1%) agreed. The majority of the respondents agreed. This means that the district ensure proper evaluation and inspection in contract management.

Regarding whether proper contract management has improved education sector service delivery; 12(13.6%) of the respondents strongly disagreed, 21(23.9%) disagreed, 13(14.8%) were not sure, 19(21.6%) strongly agreed and 23(26.1%) agreed. The majority of the respondents agreed that proper contract management has improved education sector service delivery. This means that they district is emphasizing contract management.

On finding out whether the district has employed qualified staff to provide quality education services; 8(9.1%) of the respondents strongly disagreed, 34(38.6%) disagreed, 6(6.8%) were not sure, 35(39.8%) strongly agreed and 5(5.7%) agreed. The majority of the respondents gave a positive statement. This means that users of education services receive quality products due the fact that they employee qualified staff. This implies that the district emphasizing screening of her employees before the actual placement.

On whether stakeholders are satisfied with services provided; 9(10.2%) of the respondents strongly disagreed, 12(13.6%) disagreed, 11(12.5%) were not sure, 33(37.5%) strongly agreed and 23(26.1%) agreed. This means that to a large extent, the respondents strongly agreed stakeholders are satisfied with services provided. This is in disagreement with one of the respondent who narrated that;

> *"The citizens are not satisfied with the services provided by government schools and this can be viewed through increased levels of dropout from government owned schools and increased enrollment levels in privately owned schools. This implies that students are ever drifting from government schools to private schools".*

## 4.4 Results from correlation analysis

In relation to descriptive analysis, correlation analysis was carried out. This analysis was carried out with specific aim of establishing existence of association between education service delivery and contract relationship management in Masaka DLG. These findings are presented in Table 3 below:

**Table 3: Results from correlation analysis**

| Statement | 1 | 2 |
|---|---|---|
| Education sector service delivery (1) | 1 | |
| Contract relationship management (2) | .639** | 1 |
| **. *Correlation is significant at the 0.01 level (2-tailed).* | | |

Findings from correlation analysis indicate that there is a very strong association between contract relationship management and education sector service delivery (r = 0.639). This relationship is further reported to be statistically significant ($p \leq 0.01$) and positive. This means that increase in the level of education service delivery in the district is associated with improvement in contract relationship management at Masaka DLG.

Correlation results and their interpretation are further supported by the existing literature (Amagoh, 2009; Insider report, 2015). According to these authors, there is a very strong relationship between the way a relationship is managed between contracting parties and the extent to which there can be success in the overall contract performance. This contract performance success is what in the findings is reported as education sector service delivery. The findings therefore have been helpful in confirming the earlier documented literature in relation to contract management and contract relationship management.

Though the relationship (and or association) has been ascertained through the correlation analysis, there was a need to also establish whether contract relationship management indeed has influence onto education service delivery in Masaka DLG. This was done using the regression analysis.

$H_1$: The findings accept the hypothesis that contract relationship of Management has a significant positive relation with education sector service delivery in Local Governments of Uganda.

## 4.5 Findings from the regression analysis

The results from the regression analysis were useful in complementing the correlation analysis. In this analysis, the aspect of influence was tested. The results are presented in Table 4 below:

**Table 4: Results from regression analysis**

| Statement | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|
| | **B** | **Std. Error** | **Beta** | | |
| (Constant) | -0.675 | 0.518 | | -1.304 | 0.196 |
| Contract relationship management<br>1.195<br>0.155 | | | 0.639 | 7.705 | 0.000 |
| Dependent Variable: | Education sector service delivery | | | | |
| R: | 0.639 | | | | |

| | | | | | |
|---|---|---|---|---|---|
| R square: | 0.408 | | | | |
| Adjusted R Square: | 0.402 | | | | |
| F statistics: | 59.364 | | | | |
| Model significance: | 0.000 | | | | |

contract relationship management has a positive influence onto education sector service delivery in Masaka DLG. This is based on the Beta value of 0.639 which is reported to have a significance level of 0.001. This means that the influence of contract relationship management onto education service delivery at the district is a significant one.

The results also indicate that contract relationship management influences up to 40.2% of the changes in education service delivery at Masaka DLG. This means that contract relationship management is very influential onto the education service delivery at the district.

Findings obtained indicate that there is a chance to improve the level of contract performance at Masaka DLG. This is based on the fact that education service delivery at the district level could still be improved now that it is not good. This significant influence implies that if the contract relationship management is improved at the Masaka DLG, there are high chances of improving the overall education service delivery.

## 5. Conclusions and Recommendations

Good contractual relationship between the contracting parties promotes easy exchange of ideas between the two parties and therefore high chances for the success of the contract that is being executed. This ensures smooth flow of the contract activities, therefore ensuring successful contract execution. Trust between the two parties can also be built through good relationship and therefore helping in improving service delivery quality.

The study recommended that district management should ensure that regular meeting are organized with contractors to discuss issues pertaining the contracts and also improve the working relationship between the two. The district should ensure that service providers are paid on time so as to improve their morale in providing high quality services and on time. The district staff should also be sensitized on the relevancy of having good working relationships with the contractors as this can help in reducing the gap between the two parties.

## References

Amagoh, F. (2009). Information asymmetry and the contracting out process. *The InnovationJournal: The Public Sector Innovation Journal, 14*(2), 1 - 14.

Amin, Samia and Anupamsharan, (2005).Evolution of contract management in India – from lone ranger to business critical function.

Basingstoke and Deane. (2013). 'Procurement and Contract Management Strategy 2013-2017'. Retrieved 16 January, 2015

Broomberg, J., Masobe, P., & Mills, A. (1997). *The relative efficiency of contracting out versus public provision of hospital services in South Africa.* London: Zed Press

Caseley, J. (2003). Blocked Drains and Open Minds: Multiple Accountability Relationships and Improved Service Delivery Performance in an Indian City. IDS Working Paper 211. Brighton: Institute of Development Studies

Cooper, P. J. (2003). *Governing by contract: Challenges and opportunities for public managers.* Washington, DC: CQ Press.Creation, John Wiley & Sons.

Davison, B., & Wright, E. (2004). *Contract Administration (CA).* Washington D.C: National.

Errigde, A., & Mcllroy, J. (2002). Public procurement and supply Management strategies. *Public policy and administration, 17*(1), 52 - 71.

Glewwe, P. and M. Kremer, (2008).“Schools, Teachers, and Education Outcomes in Developing Countries”, in E. Hanushek and F. Welch (eds.) Handbook of the Economics of Education, 2, Elsevier B.V.

Hanushek, Eric A., and Ludger Woessmann, (2007).“The Role of Education Quality in Economic Growth.”Policy Research Working Paper 4122, World Bank, Washington, DC.

Holt, G., Olomoaiye, P., & Harris, F. (2006). Tendering Procedures, Contractual Arrangements and Latham: The Contractors' View. *Engineering, Construction and Architectural Management*, 97 - 115.

Insider report. (2015). *The pain and peril of procurement delays.* Washington Technology.

Krejcie, & Morgan. (1970). *Sampling table for determination of sample size basing on pre-determined population size.*

Patterson, J. (2005). Implementation of supply chain management and its impact on the Value of firms. *Supply Chain Management: An International Journal, 10*.

PPDA report, (2010). Public procurement and disposal audit report 2010

PPDA. (2012). *Procurement and disposal audit report of Masaka district local government for the financial year 2010/2011.* PPDA Press.

PPDA. (2013). *Annual Procurement & Disposal Audit Report on 90 Procuring and Disposing Entities audited during the Financial Year 2012/2013.* Kampala: PPDA Press.

PPDA. (2014). *Public procurement and disposal audit report .* Kampala: PPDA Press.

Realyst. (2015). *Project and contract management guideline.* Retrieved from http://ppo.govmu.org/English/Documents/Project%20and%20Contract%20Management%20Guideline_Version%201_draft%20for%20comment.pdf

Tessa Bold, Bernard Gauthier, Jakob Svensson & Waly Wane. (2010). Delivering Service Indicators in Education and Health in Africa.

University of Texas. (2017). *Contract management handbook.* Dallas: University Press.

UNRA. (2014). *Audit of the road contracts for the period under review.*

World Bank (2003). World development report: making services work for poor people. Washington DC: International Bank for Reconstruction and Development, 2004

# Influence Of Population Growth On Environment In Rwanda: A Case Study Of Gatunda Sector, Nyagatale District

**[1]Henry Stanley Mbowa, [2]Muhire Kanyamasoro &[3]Munyentarama Jean Chrysostome**

**[1]Lecturer, Kampala University Graduate School and Research Directorate, Uganda; Email: mbowa200@gmail.com**

**[2]Director, Kampala University, Masaka Campus**

**[3]Graduate of a MSc. Environmental Management, Kampala University**

## Abstract

*United Nations estimates, global population is increasing by approximately 80 million the size of Germany each year. Although fertility rates have declined in most areas of the world, population growth continues to be fuelled by high levels of fertility, particularly in Asia and Africa. Purposely, the study examines the influence of population growth to the environment in Gatunda sector, Nyagatare district, Rwanda. The study employed a cross-sectional with both descriptive and analytical data approaches. A sample of 62 respondents was purposively selected from 90 people. Data was corrected through questionnaires, observation schedules; check lists and interview guides and analysed using SPSS (v.16). Results also indicated that population Growth results into positive effects such as increase tax base, cheap labour, infrastructural development, urbanization, provision of markets, security, creativity and innovation whereas the negative effects of population growth were; overcrowding, wetland reclamation, deforestation, migration, poverty, dependency and environmental pollution. The study recommended that, Gatunda sector should promote public education/awareness about population issues, carry out population projections to predict the future needs and enhance social security of the disadvantaged group.*

***Key words: Fertility rates, family planning, population growth, Gatunda Sector***

## 1. Introduction

According to recent United Nations estimates, global population is increasing by approximately 80 million the size of Germany each year. Although fertility rates have declined in most areas of the world, population growth continues to be fuelled by high levels of fertility, particularly in Asia and Africa (UN, 2009). The report adds that in numerous Middle Eastern and African nations, the average number of children a woman would be expected to have given current fertility levels remains above 6.0 for example, 6.4 in Saudi Arabia, 6.7 in Yemen, 6.9 in Uganda, and as high as 7.5 in Niger. Even in areas where fertility rates have declined to near replacement levels (2.1 children per couple), population continues to grow because of "population momentum," which occurs when a high proportion of the population is young (Guengant and May, 2002).

Population growth has been and still contributing to the destruction of the environment around the world and the more the environment is destroyed the more population gets affected. Natural resources are under increasing pressure threatening public health and development. Water shortage, soil exhaustion, loss of soil fertility, and degradation of coastlines is as a result of population growth (Joseph and Barbara, 2009). In the early of twenty-first century, the world population had fluctuated around 6 billion, in which developing countries contributed to 80% of the total amount and mostly occur in developing countries like Asian countries.

Population Reference Bureau (2008) reports that environmentalists and economists increasingly agree that efforts to protect the environment and to achieve better living standards can closely be linked and are mutually reinforcing. Over periods, the arguments about positive and negative effects of population on environment are still complicated problems for most of the environmentalist. The higher the population growth, the more human activities and more negative impacts to the environment which is harmful, poisonous or fatal to the animal, people surrounding it and other organisms.

In addition, environmental consequences of population are a subject to broad interaction between population and national economic development. Scholars have debated for many years whether population growth helps or hinders economic growth and issues of economic growth is relevant to the environment because the wealthier nations are generally healthier, interested most environmental quality and better cleaner technologies than developing countries. However, there are also some optimist views stated that population growth can make a positive impact on the environment and economic growth, an example is Ahlburg (2001). He believed that larger population can lead to *"technology pushed"* and *"demand pulled"* which means higher population growth can increase the needs for goods and boost the technological development. Therefore, it can increase the labour productivity, income per capita and living conditions. Other scholars add that population growth stimulates innovation and providing bigger markets therefore, solving environmental challenges does not mean avoiding environmental degradation but rather containing the damage to allow human societies to co-exist and also avoiding some worst environmental consequences (Guengant and May, 2008).

Rwanda's population density is among the highest in Sub-Saharan Africa. This high density is worrisome when combined with high growth rates, high fertility rates, a population that is overwhelmingly rural and engaged in subsistence farming, a severe shortage of arable land and extensive poverty. It is for these reasons that population issues have been of concern in Rwanda for at least 40 years (CCA, 1999). Therefore, the study focused on analysing the impact of population growth on the environment in Rwanda. The emphasis was based on positive and negative of the impacts of population growth, thus increase in population growth rate can lead to a benefit or detriment to the environment where it occurs.

## 2. Related Literature

On the positive side, one can see a chain reaction of events caused by population growth. According to the neoclassical growth model, population is beneficial to an economy due to the fact that population growth is correlated to technological advancement. Rising population promotes the need for some sort of technological change in order to meet the rising demands for certain goods and services. With the increased populace, economies are blessed with a large labour force, making it cheaper as well, due to its immense availability (Kichodo, 2012).

According to Kichodo (2012) the available population, the required skilled, semi-skilled and unskilled labour is drawn for economic growth and development. The agricultural sector in some of African countries is dominated by semi-skilled labour. Large plantation firms for example in Uganda are employing large numbers of people. In addition, Asian countries have been able to develop because of their large populations.

He further adds that a large population provides a large market for goods and services hence stimulating the development of industrial, agricultural and services sector. In development countries, industrial development is partly attributed to the growth of internal market for good produced. For example, with increase in population, the demand for houses also increases. Many countries with dense populations have highly developed industry. This is most common in areas where waterpower and fuel are at hand, or where mineral deposits are found. Certain areas of Western Europe, for example, have water power or coal or iron (Barbara and Joseph, 2009).

Kichodo (2012) asserts that high population growth rates stimulate the exploitation of natural resources. The current development intervention does not incorporate any concern about maintaining demographic balance through a streamlined population policy and conserving environmental resources. When the population base is extremely high it harms 'per capita wellbeing' and per capita consumption. The fundamental condition for resilient economic growth is population John and Kamurase (2009) adds that public policy through resource mobilization and allocation cannot do much in determining which way things should move unless the government plans to combat overpopulation. The citizens need to think rationally at the level of awareness with the global policy community reaffirming its commitment to sustainable level of population growth. There can hardly be any argument with the fact that a swelling population threatens to put at risk all implementation strategies of development in the substantive areas of public policy. Even a high budgetary allocation against any policy moves for a change can hardly be implemented in a country with a rising population.

Global water consumption rose six fold between 1900 and 1995, more than double the rate of population growth (Kirk and Dudley, 2006). According to MoH (2003), the pressure to provide adequate housing increases as the population grows. More than half of the developing world's population will be living in urban areas by the end of the century. This growth outstrips the capacity to provide housing and services for others. In some countries, finding a place to live is hard, especially for women. Some women and children are forced to live in the poorest community where they are open to exploitation and abuse. The priorities for getting rid of poverty, improving food supply, ending malnutrition, and providing adequate housing coincide at all points with those required for balanced population growth (Obara, 2000). He also notes that the distribution of people around the globe has three main implications for the environment. First, as less-developed regions cope with a growing share of population, pressures intensify on already dwindling resources within these areas. Second, migration shifts relative pressures exerted on local environments, easing the strain in some areas and increasing it in others.

May (1995) argues that fulfilling the resource requirements of a growing population ultimately requires some form of land-use change to provide for the expansion of food production through forest clearing, to intensify production on already cultivated land, or to develop the infrastructure necessary to support increasing human numbers. During the past three centuries, the amount of Earth's cultivated land has grown by more than 450 percent, increasing from 2.65 million square kilometers to 15 million square kilometers. A related process, deforestation, is also critically apparent: A net decline in forest cover of 180 million acres took place during the 15-year interval 1980–1995, although changes in forest cover vary greatly across regions. Whereas developing countries experienced a net loss of 200 million acres, developed countries actually experienced a net increase, of 20 million acres.

Finally, urbanization, particularly in less-developed regions, frequently outpaces the development of infrastructure and environmental regulations, often resulting in high levels of pollution. Composition can also have an effect on the environment because different population subgroups behave differently. For example, the global population has both the largest cohort of young people (age 24 and under) and the largest proportion of elderly in history. Migration propensities vary by age. Young people are more likely than their older counterparts to migrate, primarily as they leave the parental home in search of new opportunities. As a result, given the relatively large younger generation, we might anticipate increasing levels of migration and urbanization, and therefore, intensified urban environmental concerns (Pritchard, 2010).

## 3. Methodology

The study employed a cross-sectional survey design which used both descriptive and analytical data collection approaches were used. The study targeted 90 people living Gatunda sector namely; 30 key informants, 40 community members, 10 religious leader and 10 government officials. From these people, a sample size of 62 respondents was purposively selected and participated in the study. The study population was selected using purposive sampling technique basing on the fact that the researcher was well knowledgeable and that the respondents were believed to have appropriate information pertaining to the study. For purposes of obtaining the relevant information, the researcher targeted 33 community members, 21 key informants, 5 religious leader from different religious sects, and 3 government officials. Data was collected through questionnaire, interviews, observation and checklist. Validity and reliability were ensured first by reading the responses to the respondents to ensure what was written is what they meant. Secondly, a co-judging procedure was used to ensure the validity and reliability of the study. The co-judging method involves the use of an independent co-judge independently classifying all statements in accordance with the categories of description set up by the researcher. Data was coded, interpreted and entered into SPSS (v. 16) and later analyzed to give it a broader and more meaningful picture of the sample and to generate frequency tables, pie charts and bar graphs for further interpretation.

## 4. Results

### 4.1. Positive Effects of population growth to the environment

Results in Table 1 below presents the positive effects of population growth on the environment and the socio-economic growth and development of Gatunda sector:

**Table 1:P ositive effects of population growth to the environment**

| Variable | Frequency = 57 | Percent |
|---|---|---|
| Increased tax base | 46 | 80.7 |
| Cheap labour | 56 | 98.2 |
| Employment opportunities | 50 | 87.7 |

| | | |
|---|---|---|
| Provision of markets | 49 | 86.0 |
| Infrastructural development | 47 | 82.4 |
| Urbanization | 40 | 70.2 |
| Exploitation of idle resources | 35 | 61.4 |
| Security | 32 | 56.1 |
| Creativity & Innovation | 23 | 40.3 |

***Source: Primary Data, 2014***

According to Table 1 above, (56/57) of the respondents reported that cheap labour supply was a major positive outcome of population growth which plays a key role in the socio-economic growth and development of Gatunda sector and the country in general. In addition, employment opportunities were reported (50/57); due to population growth people come up with alternatives and opportunities to cater for the ever increasing population where the population is engaged in avoid the consequences of a redundant population.

This was followed by provision of markets where the produce and other products are sold (49/57), infrastructure development was represented by (47/57) and these infrastructures like road network help people commute from one place to another. Other noted outcomes were the exploitation of idle resources (35/57), urbanization (46/57), increased tax base of the country (46/57) and creativity and innovation with (23/57). Furthermore, the respondents noted that when the population grows, it increases a steady supply of cheap labour which is influential in the production processes of any region and increased market centers where produce/ products are exchanged as well as increased tax base hence promoting infrastructural development.

### 4.2. Negative effects of population growth to the environment

Results generated present the negative effects of population growth on the environment and the socio-economic growth and development of Gatunda sector as indicated in Table 2 below:

**Table 2: Negative effects of population growth to the environment**

| Variable | Frequency = 57 | Percent |
|---|---|---|
| Deforestation | 54 | 96.5 |
| Migration | 46 | 80.7 |
| Dependency | 57 | 100.0 |
| Poverty | 50 | 87.7 |
| Environmental pollution | 56 | 98.2 |
| Overcrowding | 57 | 100.0 |
| Swamp destruction | 55 | 96.5 |

***Source: Primary Data, 2014***

Results in table 2 above indicate that all respondents (57/57) reported overcrowding and dependency as the major threats of population growth on the environment respectively that is dependent governments and donor aid; overcrowding was common in the urban areas due to limited land resource due to high population growth. Furthermore, environmental pollution was another effect of population growth (56/57) and this was evident in terms of air, water and land pollution including noise among others. This was followed by swamp reclamation (55/57) and this was done to provide land for settlement, industry and agriculture, deforestation was represented by (54/57). Other noted adverse effects to the environment of Gatunda sector included migration (46/57) and poverty (50/57). The respondents commended that there is a need to improve the adverse consequences of population growth to the environment so as to promote the ecological, social and economic growth and development of Gatunda sector.

## 5. Discussion

### 5.1. Effects of population growth on the environment

The respondents were asked the effect of population on environment and their responses indicated both positive and negative effects as discussed below:

#### Positive effects of population growth on the environment

Provision of cheap labour was reported as a positive effect of population growth in Gatunda sector. The labour supplied is useful for the socio-economic growth and development of the area. It was noted that cheap labour is used in the agricultural production, industrial and construction. This implies that the higher the population, the greater the labour supplied. Respondents reported that the labour supply was in form of un-skilled, semi-skilled and skilled labour. It was also noted that different institutions, industries, and hospital employ these forms of labour. Furthermore, agricultural farms and gardens employ the semi-skilled and un-skilled labour. The findings agree with Joseph and Barbara (2010) who argues that population growth is instrumental in labour supply especially to countries with higher population such as China and India.

The increase in population size resulted into full exploitation of idle resources. The natural resources like the minerals, forests and wetlands have been utilized. In addition these natural resources are being exploited to certify human needs. The presence of heavy rainfall and fertile soils has promoted agricultural production. Similarly, the clay soils facilitate brick making and other clay products where the unemployed youths are engaged thus reducing the theft problems. One of the respondents noted that,

> *"the country is covered by wetlands which provide papyrus materials for making arts and craft products hence employment opportunity to the ever increasing population and breaks idleness".*

Furthermore, it was also noted that population growth results into urbanization. Urbanization is indicated by the increase the number of people in any location. A higher population leads into the development of urban areas with an improvement in infrastructure to support the population. The findings concur with (Pearl, Raymond and Reed, 2002) who explained that infrastructure like schools, rods, hospital and housing facilities are very instrumental in facilitating the societies' development and they come as a result of urbanization which is part of population growth.

Moreover, findings revealed that population growth results into increased tax base in a country. The tax can be in form of revenue levied on the different activities in a country. For example, tax is levied on the items that are used by the population such as domestic/ households, institutional, industrial among others. It was also reported that tax is levied on labour supply in form of Pay As You Earn (PAYE). The more the population, the higher the tax base and the lower the population, the lower tax base of a country. This implies that more tax revenues enhance infrastructural development and improvement in social services delivery in the area. The respondents added that, PAYE collected from government and private sector employees who are in registered organizations. The results are in agreement with CCA (1999) which asserts that the Rwanda's tax base has promoted infrastructural growth which enhanced the socio-economic growth and development.

Kichodo (2012) argues that in order to cater for the ever increasing population, both individuals and government are forced to introduce innovations to support the high population. Field findings add that the innovation and creativity has been enhanced in the area, and this has given people courage to work hard and promote new ideas. Through innovations and creativity are the new crops varieties and animal species that have been developed. These involved hybrids of seeds, and breeds of animals developed to increase production and quality of the produce like food, milk and meat; respondents added that this has given rise to export promotion for the country.

**Negative effects of population growth to the environment**

It was also noted that most of the wetlands had been encroached due to limited land resource. This overcrowding issue has adverse consequences to the environment. For example, it results into outbreak of disease, deaths and environmental degradation. Furthermore, in towns, there is too much crowding and housing is no longer enough thus resulting into congestion in the city center. It was also reported that due to overcrowding, there is poor waste disposal for example waste is being dumped into the wetlands and drainage channels thus resulting into environmental pollution especially water pollution. It was further reported that overcrowding resulted into traffic jam in the city center which causes more atmospheric pollution in the area

Another reported adverse impact was wetland destruction. Wetlands have been reclaimed to give room for agriculture, settlement and industrial development due to land shortage in the area; this is because much of the country's land is rugged. It was reported that this nature of the land has caused more people to shift to wetlands and downer slopes thus lowering the rainfall patterns of the area. In areas where wetlands have been used for settlement and agriculture, floods are more rampant especially when it rains heavily. However, these floods act as breeding places for mosquitoes and other disease causing organisms thus influence the outbreak of malaria, and other water borne-related diseases hence increasing government expenditure.

Furthermore, another notable consequence of population growth was deforestation where forests are cut. It was noted that trees and forests are cut down to create land for farming and settlement. In addition, they are cut to provide timber for furniture and fuel wood. The destruction of forests has also resulted into reduced rainfall, increased erosion, and landslide in hilly areas. It was also reported that rainfall patterns had changed thus creating less and unreliable rainfall with its impact on agricultural productivity. One of the respondents stated that,

> *"charcoal has become expensive and unreliable for example we buy a bag at 12000RwF and a bundle of fuel wood at 4500WwF.*

CCA (1999) adds that the direct consequence of rapid population growth is the depletion of natural resources. There is devastation of resources caused by non-ecological human behaviour. Demographic imbalance, unplanned settlements and economic growth tend to harm the natural order of things dismantling ecological settings. Furthermore, given that 92% of Rwandans derive their livelihoods by traditional patterns of subsistence agriculture on small family plots, the high population densities have worrisome implications for food security and the wellbeing of households. Recent assessments indicate that approximately 60% of the population cannot produce enough food to meet basic nutritional requirements, while 35% of households have access to only half a hectare of land, which is cultivated continuously.

Study findings also revealed that due to population growth, there is a high rate of environmental pollution which has emerged from rapid growing urbanization and industrialization. The pollution from the industrial processes has affected the wetlands, air, land and forestry. Air pollution was evident due to industrial emissions and also waste disposed-off into the wetlands and land which results into land pollution hence reduced the value. The respondents added that atmosphere is polluted by smoke, gases and dust from the industries and this pollution is accompanied by high rates of living disorder and disease outbreak. One of the respondents reported that,

> "*increased dumping of waste into the wetlands has resulted into algae, eutrophication and death of aquatic life because of increased bio-oxygen demand a situation of low oxygen supply; and this water can neither nor support any economic activity*".

## 6. Conclusion and Recommendations

The challenge of controlling population growth is both complex and demanding, but it is not an impossible task and quick action is necessary. People regularly buy insurance to reduce uncertainty and protect themselves from future disasters but no insurance policy will pay greater dividends for the next generations than a modest investment in efforts to stabilize population growth today. Decline in the number of children per couple may lead to decline in dependency ratios hence easing the financial burden of supporting dependent population. This may free up money for saving and investment which lead to enhanced productivity, strong economic growth and rising incomes

The study recommends that, Government should strengthen policies on migration, and government state should provide all logistical support like allowances and social insurance for health, education to fewer families, the country should put in place strict measures on birth control in the proposed health policy and voluntary family planning movement may be reinforced.

## References

CCA (1999) Common Country Assessment Report, Rwanda

Guengant, J.P and J.F. May. (2002). "Impact of the proximate determinants on the future course of fertility in sub-Saharan Africa", *Population Bulletin of the United Nations*, Special Issue 2002

John F and Kamurase A, (2009) Demographic Growth and Development Prospects in Rwanda: Implications for the World Bank.

Joseph, C and Barbara, K (2009) World Geography: Developed by education Challenges, IAC, DC, Lexington, Massachusetts, Toronto

Kichodo, H (2012) Regional Geography of Uganda and field work.

Kirk and Dudley (2006) The Relation of Employment Levels to Births in Germany. Milbank Memorial Fund Quarterly.

Ministry of Health (2003) *National Population Policy for Sustainable Development of Rwanda*: The Republic of Rwanda, National Population Office.

Obara, A (2000). Gold Medal Geography: McMillan, Kenya Ltd.

Pearl, Raymond; and Reed, L. J. (2005) The Rate of Growth of the Population of the United States. National Academy of Sciences, Proceedings

Population Reference Bureau (2008) *2008 World Population Data Sheet*. Washington, DC: Population Reference Bureau.

Pritchard, J (2010) Geography of East Africa. JM Dent and Son Ltd

United Nations (2009) Discusses conditions and trends of fertility: Population Bulletin No. 7

United Nations (2009) *World Population Prospects: The 2008 Revision*. New York: United Nations, Department of Economic and Social Affairs, Population Division

# Factors Influencing Students' Dropout In High Schools In Rubaga Division: A Case Study Of Kitebi Secondary School, Mutundwe Parish

**[1]Nakijoba Robinah – Bilhah and Dr. Jean Bosco Binenwa**

**[1]Principal, Kampala University School of Nursing and Health Sciences**

**[2]Director, Kampala University Graduate School and Research Directorate**

## Abstract

*The purpose of the study was to assess the factors which influence students' dropout from secondary schools in Mutundwe parish. The study employed a descriptive survey research design which involved the use of qualitative and qualitative data collection tools. The study targeted 680 people and a sample of 68 respondents was determined by Mugenda and Mugenda. Data was collected through questionnaire and interviews. Results indicated that 66 (33%) stated cultural rituals, number of students in the family to have impact on students' dropout in Ketebi secondary school. On the other hand, responses from teachers in the school and students indicated students' fear of some teachers and lack of teacher at school (teachers' absenteeism). It results indicated that participation and positivism (96.2%) and gender socialization (94.3%) lead to students dropout. The study recommended that school and parents should collaborate in making early interventions aimed helping students who exhibit behaviors consistent with dropping out be prevented from dropping out; Ministry of Education and Sports (MoES) should sensitize school managers on the various policies and the School and Parent Teacher Association should work hand-in-hand to make school transformations aimed at creation school climate to avoid dropout.*

***Key words: Dropout, positivism, socialization, teachers' absenteeism***

## 1. Background to the study

Worldwide the dropout rates are alarming in private educational institutions (Allenswort and Easton, 2007). The national dropout statistics make the dropout problem in the United States very evident and very overwhelming (Manacorda, 2012). According to Ekstrom *et al* in by October 2000, 5 out of every 100 students enrolled in high school in October 1999 had left school without successfully completing a high school program (Ekstrom *et al*, 2009). In terms of the actual number of dropouts, of the 10 million students' ages 15 to 24 enrolled in high school during the 1999-2000 school year and one-half million dropped out.

Thus, when dropout rate varies by gender and if students tend to drop out earlier compared to boys, it manifests that there are some unique factors contributing to the increase in the dropout rate, particularly for students. In other words, there are some factors which extensively contribute to an increase in students' dropout though those factors also impact dropout rate for boys. In this respect, the findings of Holcamp (2009) also support our argument when the author found that some socio-cultural factors highly impact students' dropout rate though those factors also contribute to boys' dropout rate but to a lesser extent. Therefore, we can argue that some particular factors produce poor educational outcome which consequently increase the dropout rate for students. Therefore, from this viewpoint, the main objective of this paper is to clarify which factors contribute to the increase in the dropout rate, particularly among students which are not quite clear in past reviews on the dropout issue. Dropout rate does not occur through a single factor; it is a composition of several factors. A number of studies have been conducted on students' dropout issue based on particular regions, societies and cultural perspectives in various parts of the world.

A consequence of dropping out is the negative impact on adult psychological functioning Kaplan (1980, 1983) suggested three possible explanations for this psychological dysfunction. First, dropping out cause an individual's self-worth to be lowered because of the negative stigma placed on dropping out by society and because of the loss of opportunities the individual faces. Second, dropping out of school may disrupt the coping mechanisms (reliance on peers and teachers) that the individual uses to cope with the trying adolescent years. Finally, dropping out forces the individual to face new expectations (gaining employment and finding a home), which are adult responsibilities for which the individual may not have the maturity to handle (Kaplan, 1996).

Students' population in primary schools rose from 30,000 in 1960 to over 140,000 in 1988. The number of secondary schools grew from less than 70 in 1962 to more than 500 in 1988. As the number of university eligible candidates expanded, access to university education or professional training education, the more stringent became more stringent and restrictive it become to access higher education. There was a persistent inequality in access institutional education by gender and region. Currently, there over 1000 private education training (PET) Colleges and over 2000 Secondary schools in Uganda which are spread across urban, semi-urban and deep rural parts of the country (MoES, 2009).

The question in mind was what is the factors lead to students' dropout in Kitebi Secondary School, how long this problem will come to the end and how? Thinking of this, the researcher profoundly thought to assess the factors which contribute to existence of the drop out in secondary schools in Kampala taking Kitebi secondary school as a case study located in Mutundwe parish.

## 2. Review of related Literature

### Social-cultural factors

Social-cultural aspects of people determine the education aspirations of such communities and the importance put to education directly correspond to the extent to which the two variables conforms, Hardy (2004). Basing on his study on factors influencing the dropout rates of students among the Aborigins in Australia, Auralia (2008) observed that the cultural aspects of community were still traditional in orientation that students were only being viewed as home maids entrusted with the responsibility of taking care of homes, while their male counterparts could adventures into to emerging issues such as education. He further notes that in social environments, it was rare to locate women playing central community roles, but any appearance of such would be to offer care. Making observation about how far social-cultural issues can reverse academic gains of a society, Nancy (2002), ahead with researcher of world vision Kenya (WVK) working with local communities in Africa to stop women with genital mutilation (FGM) indicated that in communities that practice this rite, students who have undergone the exercise immediately discontinue schooling because they have been declared adults fit for marriage. According to Ondalo (2011), it was common to spot many young students in lower classes, but with progress of time the faces of students becomes fewer and fewer, indicating something was greatly wrong: retention from public primary schools in Kuria District, he established that students were just kept in schools to grow up for marriage and the earlier one looked mature enough, regardless of the level of education, the faster they are married off. It is therefore indicative that culture of a people plays a very significant role in influencing the relative length of being in learning institutions and hence the greatest impediment to realizing high transition rates among the students to subsequent levels of education in Kuria District. Focusing on the marriage domain, some men who are well educated also found to prefer spouses with less education to eliminate competition in the family and in cases where women acquire more education, such are normally funded by their husband as strategy of making the educated spouses submissive (Oguta, 2005).

Abaa (2006) reporting from her study done in Senegal based on the influence of cultural practices on realization of economic prosperity of the nation by up scaling women participation in the key sectors of economy, observed that cultural provide the foundation upon which development springs and such cultural practices in Africa are to be blame for denying this critical mass of a society's population opportunities to compete with the male counterparts in acquiring education. According to Njeri (2009) on her study focusing on the needs for social change in realizing enhanced growth and development in Sub-Sahara Africa, retrogressive cultural rites such as FGM and property inheritance among the students must be addressed constructively in order to enhance their retention rates in most learning institution to gain skills necessary for participant in national development activities. Owano (2011) in her research on factors that influence the retention of female students in secondary schools in Muhoroni division, Kisumu County revealed several factors that influenced the retention, initiation rites which interfered with the normal school and class attendance, the attitudes of parents which at times were negative on the girl child and most of the parents preferred educating boys to students, the roles in the society and domestic labour were overwhelming for the girl child leaving the students to be seriously exhausted and cannot concentrate in the class work and lastly poverty which seriously affected the education of students as a result of the death of parents leaving the girl child to lack school fees and depend on the guardians and well-wishers.

Save the Students (2005) indicates that cultural norms and beliefs constrain students' education especially in many developing parts of the world. In these societies, traditional values and some religious beliefs constrain students from making their own decisions and expressing their own opinions. Chege and Sifuna (2006) examined claim that many cultures favor education for boys more than students. Kapakasa (1992) cited in UNESCO, 2010 studied students' persistence in school and found that initiation ceremonies (religious ceremony) have significant effect on students' dropout rate when parents have more propensity to pay for the expenses of the ceremony than their daughters' education. However, traditional values can be different from location to location and in this respect, UNESCO (2010) indicate that traditional values are stronger in rural areas in developing countries compared to urban areas and people often do not allow students to leave homes even for schools.

**School based factors**

Several studies examined the impact of female teachers on the educational achievement of students. Solotaroff *et al.* (2007) found that in Afghanistan, lack of female teachers is an obstacle to students' participation and enrolment in schools. Afghan people believe that students should not be taught by male teachers; however, female teachers are not available in Afghan society which is the foremost reason for the low rate of female education. Sabates *et al.* (2007) presented that in Pakistan, students usually drop out early because of lacking of female teachers in schools. In these societies, parents tend to stop their daughters' education before adulthood as female teachers are not available in schools. In addition, Ngales (2005) found that in Ethiopia, female students were often absent in class during menstruation and frequent absence led them to drop out from school.

Nekatibeb (2002) adds that learning environments have been well recognized as inadequate in Sub-Saharan Africa due to low level of economic development and poverty. Most learning institutions are in short supply of classrooms, facilities and learning materials. Nekatibeb (2002) observed that in many countries, teachers are poorly paid than other sectors or are not paid in good time. The results is teacher absenteeism, lack of motivation or attrition where schools and teachers are forced to search for alternative incomes from parents or to use student labour; this situation has a negative impact on students education, because it discourages parents from sending students to school or shortens the time spent on teaching and learning (Ibid).

A study by Alexander (2008) of elementary schools in West Africa found that holding students back to repeat a grade (retention) without changing instructional strategies is ineffective. Retention in grade also greatly increases the likelihood that the student will drop out of school and being held back twice makes dropping out almost certain. The study of primary school students in Ghana by Buxton (2010) found that students' poor performance was largely due to malnutrition and such their performance is unlikely to improve by making them repeat grades.

A study on gender inequalities in primary schooling by Colclough *et al.* (2000) found the language of instruction used in schools as one school factor, which contributed to students dropping out of school. The study found that students who come from non- English speaking backgrounds enrolled in schools where English language was used as the medium of instruction were more likely to have higher rates of dropout. The study also identified other school factors such as poor quality of education, inadequate facilities, overcrowded classrooms, and inappropriate language of instruction, teacher absenteeism and, in the case of girls, school safety, as common causes for school dropout.

A study by Collins (12008) in the United States of America presented school-related problems such as disliking school, receiving poor grades, not being able to keep up with schoolwork, and not getting along with teachers as four of the top six reasons for dropping out. The study found that students with poor grades are at greater risk of dropping out. Many public school students are not on grade-level in basic academic skills beginning in early grades and persisting through high school. In Zambia, National Learning Achievement Surveys (NLAS) consistently showed that learning achievement at middle basic levels in literacy and numeracy was below the criterion level of 40% for minimum level of performance. The implication of the survey is that students at this level have been performing poorly over time, exposing them to the risk of dropping out (MoES, 2009).

Sabates *et al.* (2010) found that school level factors also play a role in increasing pressures to drop out such as teacher's absenteeism, school location and poor quality educational provision due to poor teacher quality. Teacher quality was found to be one of the school level factors that can have an influence on dropping out of school. In the case of Tanzania, which saw a significant reduction in dropout rates and an increase in primary school completion rates, teacher quality was instrumental in the process. For instance, from the year 2000, standards 1-3 were only taught by experienced teachers rather than, non-qualified teachers (NQTs).

**Teachers' attitudes**

Much research has examined how teachers' attitudes toward female students are linked to dropout issue. Colclough *et al.* (2000) found that in Ethiopia, teachers in school more positively viewed boys than students because they usually expect students to quit school early. Teachers' attitude and their teaching practices have foremost impact in sustaining students in schools.

Ananga (2011) noted that the socialization of gender within our schools assures that students are made aware that they are unequal to boys. Every time students are seated or lined up by gender, teachers are affirming that students and boys should be treated differently. When an administrator ignores an act of sexual harassment, he or she is allowing the degradation of students. When different behaviours are tolerated for boys than for students because 'boys will be boys', schools are perpetuating the oppression of females. Ananga (2011) observed that some teachers socialize students towards a feminine ideal. Students are praised for being neat, quiet, and calm, whereas boys are encouraged to think independently, be active and speak up.

Teacher attitudes and teaching practices have important implications for the success and persistence of students in schools. Nekatibeb (2002) claims that studies from several countries in Sub-

Saharan Africa indicated that both female and male teachers believed that boys were academically better than students. Study findings indicated that many countries reported the tendency of teachers to pay more attention to boys than students in the classrooms. Still in other conditions boys were given priority in the distribution of books and other learning material. Njau and Wamahiu (2012), in a study on dropout rates in Sub-Saharan Africa, it was found that among serious obstacles to female education, premature departures or dropping out from schools by female education is notable in Sub-Saharan Africa. One of the reasons established was the attitude of teachers towards students in class. Teachers were reported to favour boys than girls in terms of academic performance and achievement. This discouraged girls and often led to dropout.

In a study on schooling Ugandan students, Kabesiime (2007) noted that the teachers' attitude towards students in the classroom was crucial for retention of students in school. It was found that teachers who are keen on encouraging equal participation of girls and boys in class increased the completion rate of students' education in secondary schools. The study found that teachers who had been sensitized to change any negative attitudes towards students' education and adopted new methods to promote equity in the classrooms had made a great impact in the performance and retention of students in schools.

## 3. Research Methodology

The study used a descriptive survey research design, employing both qualitative and quantitative data collection approaches to elicit information on the perceptions of the students; teachers and parents to establish remedial solutions to students' dropouts. The study targeted was 680 people from which 68 respondents were determined using Mugenda and Mugenda formula. Data was collected through questionnaire and interviews. The questionnaire consisted of both open and closed ended questions to be answered by the respondents distributed to teachers, parents and students so as to gather the required information on students' dropout at Kitebi secondary school. On the other hand interviews were conducted as a supplement to questionnaires. Data was analysed using a Statistical Package for Social Sciences (SPSS) and Microsoft excel to analyse quantitative data from the questionnaires.

## 4. Results and Discussion

### 4.1. The socio-cultural factors influencing students' dropout at Kitebi secondary school

### Common cultural factors on dropout

Culture of a people embodies age old practices that define how individuals socialize among members of a specific community, in extension to how others are evaluated. It packages values and patterns of behavior that are generally acquired through informal education and interpersonal interaction in casual modes of exchanges. Cultural practices could impede or facilitate the process of learning, but was readily achieve the former than the latter. In this study the researcher believed that some cultural practices were likely to work against enhancing rates of dropout among female students in learning institutions. In this respect, the respondents were asked to complete the questionnaire indicating the most commonly practiced cultural factors and Table 1 below illustrates their responses.

**Table 1: Cultural practices on dropout**

| Cultural practice | Frequency | Percentage |
|---|---|---|
| Modern religion | 23 | 43.4 |
| Cultural rituals | 19 | 35.8 |
| Marriage | 7 | 13.2 |
| Family care | 4 | 7.6 |
| **Total** | **53** | **100** |

***Source: Field Data, 2017***

Table 1 reveals that head teachers and parents observed that in their communities, 23(43.4%) mentioned that they were practicing modern religion, 66 (33%) stated cultural rites, 19(35.8%) indicated marriage and 7(13.2%) mentioned engaging in family care issues. The implications of statistics in table 4 was that most of the cultural practices common among the respondents were those at variance with schooling activities hence could significantly pull learners out of learning institutions. The result concur with Chepkemoi (2009) who enumerates issues of social-cultural dimensions that ought to be addressed to set students free to compete with their male counter parts as early marriage, retrogressive cultural rights, family chores, acquisition of property like land, among others.

## Early marriages

Given that culture defines what one practices and learns, some cultural practices may impede formal learning initiatives; hence reverse any gains to be realized in promoting formal education. Moreover, learners and society put premium on certain cultural practices, some of which only serve to perpetuate old order. In the light of such eventualities, the respondents were asked to fill the questionnaire indicating the significance of the commonly practiced factors of culture and Table 2 illustrates their responses.

**Table 2: Significance of early marriage on dropout**

| Significance | Frequency | Percentage |
|---|---|---|
| Socialization | 20 | 37.7 |
| Education | 14 | 26.4 |
| Cultural heritage | 15 | 28.3 |
| Modernization | 4 | 7.6 |
| **Total** | **53** | **100** |

***Source: Field Data, 2017***

Table 2 indicates that of the questionnaire citing significance attached to commonly practiced factors of culture, 20(33%) stated that cultural practices in use were vital for socialization, 15(28%) stated education, 14(26.4%) mentioned indicate Cultural heritage, with a paltry 4(7.6%) mentioning modernization. The implications of these statistics is that most of respondents identified less significance to educational needs as being contributed to by the commonly practiced factors of culture. In this respect much of the culture people practice may enhance or constrain realization of the goals of education and this dimension explains the low dropout rates among the female students in Mutundwe parish. This was also realized in the interviews conducted on head teachers.

## Number of students in family and dropout

Education is an investment that demands availability of sufficient resources, if the goal of educating the young in the society is an objective to be achieved. On this account, family income viewed against the prism of the number of students to be catered for was determine the extent to which learning was be sustained over a relatively long duration. On the basis of this eventuality, the respondents were asked to complete the questionnaire showing the range of the number of students in their families and their responses captured as displayed in table 3 below:

**Table 3: Range of students in family on students' dropout**

| Range of students | Frequency | Percentage |
|---|---|---|
| 1-2 | 5 | 9.4 |
| 3-4 | 11 | 20.7 |
| 5-6 | 21 | 39.6 |
| Above 6 | 16 | 30.2 |
| **Total** | **53** | **100** |

***Source: Field Data, 2017***

Table 3 indicates that of the questionnaire stating the range of number of students in their families, 5(9.4%) stated being in a family with 1-2 students, 11(20.7%) indicated 3-4 students, 21(39.6%) indicated 5-6 students and, 16(30.2%) mentioned coming from a family with above 6 students. Implied by the table is that a large majority of the respondents were from families with large number of students constraining the meager family income. This scenario creates the impression that dropout cases were bound to be high as most of the time such students would be out looking means of survival at the expense of being in school learning. These further results into poverty and harsh economic conditions are some of the factors forced the student in Secondary School to dropout. Most of the students we interviewed cited family poverty, compounded by inadequate education opportunities, and the need to survive as reasons that compelled them to seek work as domestic workers. Secondary education is very expensive for the most parents to afford. Some of the girls were supposed to join Secondary education but due to the family poverty, they were unable to do so. For them the cost of education acted as the chief impetus to seek employment. Many stated that they were forced to drop out of school in order to contribute to family income when a member of the family fell ill or die.

**4.2. The school based factors that influence students' dropout at Kitebi Secondary School**

**Response from dropouts on school factors contributing to student dropout**

Thirteen (13) dropouts were interviewed on school based factors that led to their dropping out of school. Eight (8) dropouts said that no school factors played a role in their decision to drop out of school while five (5) dropouts said that there existed school based factors that influenced their dropping out of school. For the eight dropouts, who agreed that school factors played a role in their decision to drop out, cited poor performance, punishments, harshness by some teachers, and manual work as some of the school factors that contributed to their decision to drop out.

One of the dropouts noted that,

> *I beat up fellow students and never returned to school after that incidence to avoid being punished because teachers are very harsh.*

This agrees with the findings of Kasonde-Ng'andu *et al.* (2012) who clarify that part of corporal punishment, it is unfortunate that this vice perpetuates the education system because corporal punishment had long been abolished in schools in Uganda. In Uganda, corporal punishment, as an evil that has been perpetrated with impunity in most schools, was abolished in 2003. This was as a result of international agreements on the rights of students such as the United Nations Convention on the Rights of a Child (CRC), the African Charter on the Rights and Welfare of the Child (ACRWC), the African Child Policy Forum and the Pan-African Research and Advocacy Organization. Unfortunately, the ban on corporal punishment in Ugandan schools has not been followed by measures that offer alternatives to the vice. Most parents feel that government prohibited corporal punishment without providing school administrators with proper guidelines and training on alternative methods of maintaining discipline in schools. The above developments are very unfortunate and calls for concerned authorities in the Ministry of Education to attend to such issues as they deprive students of the much, needed education for their future development.

A dropout from the school said:

> *Dropping out of school is never a correct decision, for example if was educated would not be working at a grinding mill and be dusted as am. I would have found a better job that is good paying but my performance in school was never good.*

In relation the above, the study found that students receive very little support because support structures in schools are either non-existent or if they exist they are nonfunctional. The problem of none functioning of students support structures like guidance and counseling in schools as school factor was equally observed by Munsaka, (2009) in his study on dropouts in southern Zambia. Intervention measures aimed at making school matter in the life of students are vital to ensure their continued stay in school. Most students drop out because they don't see the significance of school in their lives. It is vital that students should have future clear goals early in life if they to value school ensure their continued stay in school to completion.

During interviews with dropout students, it was revealed that there were several non-school factors that contributed to students dropping out of school. However, the study treated some non-school factors as school factors depending on the nature of their occurrence. The most cited factor was lack of financial support. Lack of finances was treated as a school factor if the finances leading to student dropout related to secondary school user fees when there is free secondary education policy in place. Others were sent away on account of wearing school uniforms when there is a policy in place that student should be sent away from school on account of school uniforms. Students reported that they were being forced to quit school because they could not afford to pay examination fees, user-fees and buy school uniforms.

A respondent from senior three stated that:

> *Financial constraints after the death of my father forced me out of school because there was no one to buy the school requirements for me and also failed to pay examination fees.*

Another student who dropped from student is senior two asserted that:

> *There is too much working in school almost every day that is why I stopped school.*

Students also revealed that pre-marital sex resulting in teenage pregnancy was a major single factor that contributed to them dropping out of school especially among female students in school. Pregnancy in this study was treated as a school factor because it was found that schools did not handle adequately issues of reproductive health as a result most students did not have adequate knowledge on reproductive healthy as such fell prey to pregnancies. The findings showed that four out of five dropout school students interviewed indicated that they left school because they got pregnant while two out of 5 dropout boys said they dropped out of school because they had impregnated a schoolgirl.

One dropout in senior five said:

*I stopped school because I impregnated a school going girl. The school authorities could not allow me to continue with school because of what I did.*

It was also revealed that pregnancy was big factor that contributed to students dropping out of school, especially for female students in the school. The study found out girls rarely drop out and when they do it is usually on account of pregnancy. Of the five female dropout students four of them attributed their dropping out of school due to pregnancy. The study found that pregnancy continues to be one of the major causes of school dropout especially among girls in the school. For example, it was revealed that the school had twenty pregnant girls attending school at the time of the study; eleven of them in senior four and six respectively. One of the factors contributing to high pregnancy is of over-age for a grade level. The study found that girls who reported to have dropped out of school were overage for the grade they attended prior to dropping out. The study by Cameron (2005) found that the older the students are the more likely the chance of dropping out because opportunity cost increases with age. In this study it was found that the girls who were pregnant were overage for their grade level. There is need to avoid late enrolment particularly for girls. The older the child is the more the pressures and demands to take responsibility to contribute to the welfare of the family through work increasing the likelihood of dropping out of school (UNESCO, 2006; 2010).

While in the field, it was revealed that the boys who dropped out of school had impregnated a school girl. This finding is saddening, because such cases as those of pregnancies have a policy in place, known as the re-entry policy, which allows students to go back to school after delivery, especially among the girls. This policy was introduced in 1997 to enable schoolgirls who fell pregnant go back to school to continue their education after delivery and boys who impregnate school girls to remain in school. It suffice to mention here that although the policy focuses on the re-admission of girls, MoES encourages both boys and girls who have dropped out of school for various reasons to go back to school. The study found either lack of knowledge of policy issues or simply failure to adhere to policy issues to be common among school authorities (UNESCO, 2006; 2010).

**Response from teachers on school factors contributing to student dropout**

Interviews with teachers revealed that students dropped out of school because of fear of class teachers, corporal punishment, behavior of teachers towards students, nonpayment of user fees, over enrolment leading to disengagement due to lack of individual attention, lack of teachers, bulling, poor performance and overcrowded classes.

One of the teachers said:

> *Students fear us and as such they decide to leave school on their own.*

Teachers cited students' fear of teachers as one of the school factors contributing to drop out of students from school. Luneburg & Schmidt, (1989) identified that students' teacher relationship influenced dropping out of school because it affects students' attitude towards school. A negative student-teacher relationship leads to development of a negative attitude towards school in students putting them at risk of dropping out.

According to the study by Luneburg and Stouten (1983) students' resentfulness towards school community is a major variable in their decision to drop out. Teachers are supposed to be professionally inviting with others; being professionally inviting with others include such qualities as treating people, not as labels or groups, but as individuals.

Teachers need to be both personally and professionally inviting with themselves as well as with others in order to create an inviting school environment with low dropout rates as a result of strong relationships established with learners. Teachers are not supposed to be threats to students' existence. As in the case of Tanzania teacher quality affects dropout rates, good quality teachers mean low dropout rates. Ineffective teacher-pupil relationship leads to high dropout rates because it makes students to develop low personal satisfaction when measured on the quality of school life scale (QSLS).

A teacher from the school said:

> *Over enrolment leads to some students becoming passive and eventually drop out.*

Interestingly, overcrowding in classes was cited by teachers in this study as one of the school factors contributing to student drop out. This is due to the high number of students being admitted to the school especially in senior and senior five after results of primary seven (PLE) and senior four (UCE) are released. Such numbers have resulted into overcrowding of students in classes to an extent that some study in 'movable classes'. Therefore, with overcrowding and studying in movable classes some decide give-up school and go back home because of fear survival for the fittest and poor learning environment. According to the study by Colclough *et al.* (2000) found overcrowding as one of the school factors contributing to student dropout. Munsaka (2009) found overcrowding in classes leads to deprivation of individual attention that students may require leading to students being disengaged from school activities and ultimately dropping out of school because school has nothing for them. This problem of overcrowded classes mainly affects schools in urban settings more than rural schools. However, the problem of overcrowding in classrooms goes beyond the boundaries of the school both political will or government commitment by budgeting for USE to expand education infrastructure as well as a community approach to education as in the case of Uganda (MoES, 2010).

Another teacher said:

> *Lack of teachers is a factor causing students to drop out. When they come to school for some time and continuously find that their class has no teacher they become bored and stop coming to school.*

Teacher absence is associated with students' dropouts as seen from research evidence. A study in South Africa identified some teacher behaviour associated with students drop out such as 20% of teachers being absent on Mondays and Fridays, one third of teachers being absent at the month-end, teachers teaching far less hours than scheduled and teachers' sexual involvement with students (Kasonde-Ng'andu *et al.,* 2008). The study by Colclough *et al.* (2000) also found teacher absenteeism as one the school factors contributing to pupil dropouts. This study found that teacher absenteeism was still a problem in most schools that needed to be dealt with. Teacher absenteeism affects more government schools and so, they need to be tackled to prevent students dropping due to boredom resulting from teacher absence.

The 32 respondents who admitted that school factors existed and contributed to students dropouts comprising 19 teachers and 13 students cited punishments, persistent poor performance, poor teacher-student relationship, language, poor administration, school policies, boredom and lack of functioning student support structures as some of the school factors contributing to pupil dropouts.

It was also revealed that poor performance was partly attributed to difficulties with language of instruction and lack of literacy skills by school entrants (King & Schielman, 2004). For example Colclough *et al.,* (2000) found that inappropriate language of instruction leads to dropout, particularly students from non-English speaking backgrounds are more likely to have higher dropouts. Students experience language problems even in higher grades as was observed during the administering of questionnaires during the study as a result it affects their performance in class work. Poor performance affects students' attitude towards schoolwork negatively influencing their decision to dropout, Luneburg & Schmidt, (1989). Failing grades make students who do not like school not motivated to stay in school. Other studies by Hunt (2008) and Lewin, (2009) all cited low achievement as a cause of dropout.

It was also observed that the school had no programmes for underachievers apart from making them repeat class cited by several studies as factor contributing to dropout (Sabates *et al.,* 2010). Since poor performance is mostly attributed to malnutrition making students repeat grades does not improve student' performance but only increases the risk of dropping out of school (Buxton, 2010). The situation only improves when teachers take a more proactive approach to the problem of school dropouts by identifying students at risk and attending to the factors that contribute to their chances of dropping out (Ananga, 2010). Teachers' behavior has an influence on the students' decision to stay in school. Inappropriate teacher behavior has a negative effect particularly on at risk students with emotional or behavioral problems and increases their likelihood of dropping out (Nakitibeb, 20o2).

### 4.3. Teachers' attitudes and their influence on students' dropout at Kitebi secondary school

The study also thought to examine the teachers' attitudes and their influence on students' dropout in school. The responses were from both the students and teachers in the school and the results are presented in Table below:

**Table 4: Teachers' attitude and their influence on students' dropout**

| Response | Frequency | Percent |
|---|---|---|
| Favoritism | 47 | 88.7 |
| Academic perceptions | 31 | 58.5 |
| Intelligence | 41 | 77.3 |
| Gender socialization | 50 | 94.3 |
| Participation and positivism | 51 | 96.2 |
| School environment | 46 | 86.8 |
| Corporal punishment | 27 | 50.9 |
| Language use | 31 | 58.5 |
| Methods of teaching | 45 | 84.9 |
| Love and relationships | 15 | 28.3 |

***Source: Field Data, 2017***

Results in Table 4 above indicate that majority of the respondents reported participation and positivism (96.2%) as an attitude that drive students out of school at any time. The noted participation was in the co-curricular activities, music and drama whereby teachers had negative attitude to those who did not participate in the other activities of the school. This was followed by gender socialization (94.3%) were the focus was more on the girls than the boys.

Favoritism accounted for 88.7% of the total respondents, school environment (86.8%), methods of teaching was reported by 84.9% and intelligence was represented by only 77.3%. Those with responses include language use and academic perceptions (58.5%) in classrooms and school respectively. However, corporal punishment was reported at 50.9% and the least was love and relationship accounting to 28.3% of the total respondents. The results in the table imply that participation and positivism, gender socialization attributed a high rate of students' dropout especially the girl child. On the other hand love and relationships could result into low dropout rates in the school as noted in the table above.

Findings show that participation and positivism was ranked highly to be among the attitudes of teachers that result into students' dropout. The results are in agreement with the findings of Colclough *et al.* (2000) in their research in Ethiopia who found that teachers were more positive about the participation, interest and intelligence of boys rather than girl students. In some cases, this is because they believe that students will drop out early, an attitude that can then become a self-fulfilling prophecy (Ames, 2004).

On the side of gender socialization results concur with Ananga (2011) who noted that the socialization of gender within our schools assures that students are made aware that they are unequal to boys. Every time students are seated or lined up by gender, teachers are affirming that students and boys should be treated differently. When an administrator ignores an act of sexual harassment, he or she is allowing the degradation of students. When different behaviors are tolerated for boys than for students because 'boys will be boys', schools are perpetuating the oppression of females. Ananga (2011) observed that some teachers socialize students towards a feminine ideal. Students are praised for being neat, quiet, and calm, whereas boys are encouraged to think independently, be active and speak up.

Further still, intelligence and academic perceptions were also reported on by the respondents in the schools and the findings also agree with Nekatibeb (2002) who asserts that both female and male teachers believed that boys were academically better than students. It was also noted that most teachers tend to pay more attention to boys in the classroom than students. Fawe (2004) explains that teachers were not conscious in using their language toward students in the classroom. They also viewed girl students as less intelligent to those boys and that students are just there to marry early. According to Njau and Wamahiu (2014) in a study on dropout rates in Sub-Saharan Africa, it was found that the foremost cause of higher rate of students' dropout was the attitude of teachers towards students in class. Teachers tend to favour to boys than students in terms of academic performance and achievement which led to dropout.

It was also revealed that in many instances, teachers are not aware that the language they use in the classroom reinforces negative gender attitudes. Some teachers use terms and expressions and tones of voice that give the impression that students are not as intelligent as boys, or that girls do not need to perform well because they will just get married (FAWE, 2004). Ananga (2011) asserts that when an administrator ignores an act of sexual harassment, he or she is allowing the degradation of the students. A permissive attitude towards sexual harassment is another way in which schools reinforce the socialization of students as inferior. Thus when schools ignore sexist, racist, homophobic, and violent interactions between students, they are giving tacit approval to such behaviours.

Njau and Wamahiu (2014), in a study on dropout rates in Sub-Saharan Africa, it was found that among serious obstacles to female education, premature departures or dropping out from schools by female education is notable in Sub-Saharan Africa. One of the reasons established was the attitude of teachers towards students in class. Teachers were reported to favour boys than girls in terms of academic performance and achievement. This discouraged girls and often led to dropout.

In a study on schooling Ugandan students, Kabesiime (2016) noted that the teachers' attitude towards students in the classroom was crucial for retention of students in school. It was found that teachers who are keen on encouraging equal participation of girls and boys in class increased the completion rate of students' education in secondary schools. The study found that teachers who had been sensitized to change any negative attitudes towards students' education and adopted new methods to promote equity in the classrooms had made a great impact in the performance and retention of students in schools.

## 5. Conclusion and Recommendations

The study shown there are several school factors that contribute to students dropping out of school. School and non-school factors compound each other in causing dropping out from school. It is therefore essential that school factors contributing to students dropouts are given the same attention that other factors causing students dropouts like socio-cultural are given.

The study recommended that school and parents should collaborate in making early interventions aimed helping students who exhibit behaviors consistent with dropping out be prevented from dropping out; Ministry of Education and Sports (MoES) should sensitize school managers on the various policies and the School and Parent Teacher Association should work hand-in-hand to make school transformations aimed at creation school climate to avoid dropout.

## References

Abaa, O. (2006). *Influence on cultural practices on the realization of economic prosperity of the nation up scaling participation of women in the key sectors of the economy.*

Alexander, K. L. (2008) From first grade forward: Early foundations of high school dropout. *Sociology of Education, 70*, 87-107.

Allensworth, E.M. & Easton, J.Q. (2007) *What matters for staying on-track and graduating in Chicago public high schools: A close look at course grades, failures, and attendance in the freshman year.* Chicago: Consortium on Chicago School Research.

Ames, D.R. (2004). Inside the mind reader's toolkit: Projection and stereotyping in mental state inference. *Journal of Personality and Social Psychology, 87,* 340–353.

Ananga, E. (2011). *Dropping out of school in Southern Ghana: the push-out and pull-Out factors.* Retrieved on October 17th 2017 from www.create-rpc.org.

Aurelia, J. (2008). *The influence*

*of Socio-Cultural Orientations on Transition Rates among the African girl child*, EARCO, Nairobi.

Buxton C (2010) 'The relationship between malnutrition, educational achievement and attendance among school students in Ghana' *CREATE Research Monograph* (forthcoming) Brighton: University of Sussex, UK.

Cameron, L. (2005). '*Primary Completion Rates*.' EPDC Technical Paper WP-09-01. Washington DC: Education Policy and Data Center. P.23.

Chege, F., & Sifuna, D.N. (2006) *Girls' and Women's education in Kenya gender perspectives and trends*

Chepkemoi, D. (2009). *Cultural Practices and their Influence on Transition in Public Primary Schools and Subsequent Levels of Educations*, Think about the Students Fund.

Colclough, S., Keke, E.A.C., Nzewi, U.M. & Njoku, Z. (2000). *Tracking school age students's education status in UNICEF A-Field states.* Enugu: UNICEF.

FAWE News (2004) *Closing the Gender Gap in Education Curbing Drop out;* Nairobi. (2004). *Review of National Education Policies and plans for Scaling up Good practices in Girls Education.*Nairobi: FAWE.

Glick, R & Sahn, E. (2000) Influence of parents' socioeconomic status on Students' academic performance. Implication for the planning of universal basic education program, Ilesa: Jola Publishing Co. Ltd.

Hardy, M. (2004). *Focusing on Transition Challenges and the Gender Attributes in Realizing Academic Uniformity Sustainable Development,* A world Vision Education tool For Africans, Senegal.

Holcamp, G. (2009). *Researching the girls' dropout rate in Malawi. Why girls dropout of primary schools and in what way this rate can be reduced*. Master Thesis Special Education.

Hunt, F. (2008). 'Dropping out from school: A cross-country review of literature.' *CREATE Pathways to Access No 16.* Consortium for Research on Educational Access, Transitions and Equity: University of Sussex.

Kabesiime, D. (2007). School Dropout and push-out factors in Brazil: The role of early parenthood, child labour and poverty. IZA discussion on Paper. No 2515 Bon: Institute for study of labor (IZA).

Kaplan J. D. (2008) School engagement and students at risk (NCES 93 470). Washington, DC: National Center for Educational Statistics, U.S. Department of Education.

Kapakasa, A.M. (1992). *Determinants of girls' participation and persistence in school*. Washington, DC: World Bank Population and Human Resource Division, South Africa

Kasonde-Ngandu, S., Chanda, L.,Chipili, A., Katolo, D. A., Likando, M., Lishomwa,M., Mwala, B.N.K., Mwale, M.F., Mweemba, G., Mweene, M.E.C., Namangolwa, S., Zimba, A. (2012). *Views of head teachers, teachers, parents and students on use of corporal punishment in high schools in Zambia.* Lusaka: UNZA Press.

Lunenburg, F. C., & Stouten, J. W. (1983). Teacher pupil control ideology and pupil's projected feelings toward teachers. *Psychology in the Schools, 20*, 528-533.

Manacorda, M. (2012).The cost of grade retention. *Review of Economics and Statistics,* 94 (2), 596–606.

Ministry of Education and Sports (2010) *2010 Educational statistical bulletin,* MoES *Republic of* Uganda

Ministry of Education (2009). 2009 /2010 *Budget Analysis*. MoE, Ghana

Munsaka, E. (2006). The influence of family and community on school dropout among rural adolescents in Zambia. Cape Town: Department of Psychology, University of Cape Town.

Nancy, S. (2002). *Influence of female genital mutilation on the academic prosperity of the Girl Child in Local Communities in Africa,* World vision, Kenya, Nairobi.

Nekatibeb, U (2002) Why youths drop out of high school: The impact of preferences, opportunities and abilities. *Econometrica 67*, 1295-1339.

Ngales, L.O. (2005). *The philosophy of education for Nigeria*. Enugu: Harris Printing and Publishing.

Njau, G & Wamahiu, F. (2014) High school dropouts: a review of issues and evidence. Review of Educational Research, 57, 101-121

Oguta J. (2005). *The Paradox of Academic Achievements and Marriage Difficulties: The Place of Girl Child in the Institutions of Marriage,* UNDP: Nairobi.

Okeke, E.A., Nzewi, U.M. & Njoku, I. (2008) *Tracking school age students's education status in UNICEF, A Field State*. Enugu: UNICEF

Ondolo, O. (2011). *Factors Influencing Transition of Learners in Public Primary Schools in Kuria District,* Moi University.

Owano, P.A, (2011). *Factors that influence the Retention of female students in secondary schools in Muhoroni Division, Muhoroni District, Kisumu County*. Unpublished M.ed Thesis, Universsity of Nairobi.

Sabates, R., *et al.* (2010) Background paper prepared for the Education for All Global Monitoring Report 2011 *The hidden crisis: Armed conflict and education* School Dropout: Patterns, Causes, Changes and Policies.

Save the students, state of the world's mothers. (2005). *The power and promise of students education*. http://www.google.co.ke/search. retrieved on Dec. 10, 2017

UNESCO Institute for Statistics (2006). Students out of school: Measuring exclusion from primary education. Montreal: UNESCO.

UNESCO: (2010). Studies and Surveys in Comparative Education. *A statistical study of Wastage at School*. pp. 1-16, UNESCO Office of Statistics, IBE; Paris - Geneva 1972.

# Staff Development And Learners' Academic Performance In Primary Schools In Mityana Municipality

[1]Thomas Russell &[2]Muwanga James Kironde

[1]Lecturer, Kampala University, Graduate School and Research Directorate

[2]Graduate in MA Education and Management, Kampala University

## Abstract

*The purpose of the study was to investigate the "effect of staff development on learners' academic performance in the selected primary schools in Mityana Municipality". Descriptive survey design was employed for the study. The population of the study was 1,458 teachers. Random sampling technique was used to derive sample from the selected schools. Thus, a sample size of 285 teachers and 10 officials from Ministry of Education and Sports (MoES) were determined and data was collected through questionnaire. The collected data was presented by use of frequency and percentages, and later analyzed using Analysis of Variance (ANOVA) statistical technique. The finding of the study revealed that teachers' performance is positively affected through regular in-service training, workshops and mentoring. On the basis of findings and conclusions, the study recommended that, there should be formal policy guidelines for training of teachers, opportunity should be made for every teacher to attend in-service training programme, educational conferences, and adequate funds should be provided by the Ministry of Education and Sports for staff development programmes.*

***Key words: Conferences, mentoring, seminars, teachers' performance, worker shops,***

## 1. Introduction

Syeda, Nighat & Syeda (2012) note that "*education is extremely important not only for the success of an individual but also for the nation*". Education is defined as to develop knowledge, skills and character of the pupils. Its major objective is to make an individual learn about how to level with the society by developing intellect, equipping one's self to deal with the reality of life and by facilitating realization of self-potential and latent talents of an individual. Education encompasses teaching and learning specific skills, positive judgment, well developed wisdom and profoundness (Syeda, Nighat & Syeda, 2012). A successful teacher is required to be equipped with the characteristics like mastery of subject matter, professional training, sound physical and mental health, devotion and dedication to his profession (Syeda, Nighat & Syeda, 2012). The teacher of today is an individual who is not only interested in children's acquired knowledge and skills but also equally involved in his total development. Considering the crucial role of teacher in the academic achievement and overall development of his pupils, it is imperative that a teacher should possess qualities like command on the subject, moral and mental fitness, devotion to the profession and appropriate skill to perform his duties for the achievement of the coveted objectives. A teacher has to play many roles in an educational set up. He is supposed to work simultaneously as "authority figure, leader, knower, director, manager counselor and guide", whereas at the same time he is supposed to play such roles as friend, confidante, and parent as well. In this regard, a teacher is not a mere provider of knowledge and lessons in the classroom but moreover he is a person involved and interested in the wholesome development of pupils ; he is accordingly supposed to have some qualities and characteristics like proficiency in the subject, moral health, physical and mental fitness.

Effective performance on the part of staffs is essential for the success of the school. Such performance, to a large extent, will depend on their knowledge skills, and confidence in originating ideas as to how best to carry out the task of the job. Hence, the need of staff development programmes which should aim at improving the effectiveness of individuals at work and for the greater responsibilities. Teachers constitute an important factor in the implementation of the curriculum. The quality of teachers is known to be a key predictor of student's performance. Teaching as a profession demand continuous development of knowledge and ability through training programmes such training programmes includes in-service, conference, workshop, seminars and mentoring staffs. This implies that, staff development through in-service, conference, workshop, seminars and mentoring offer one of the most promising ways of improving classroom instruction. It is an attempt to assist the classroom teachers to improve on their teaching strategies, techniques, handle new instructional materials or possessed the necessary information and skills that are required for effective lesson delivery. In essence the dream of self-reliance, skill acquisition and entrepreneurship through education can only be realized through a well-defined programme. In most cases, staff development programmes are organized by an institution, a corporate body, Association or Government agency and is normally lasted for a short period of time.

The effect of staff development on learners' academic performance is worth investigating when one looks at the over view in the background to the study (Eric, 2013). The caliber of many teachers working in the public primary schools in Mityana Municipality is nothing to write home about. They are usually inefficient in the performance of their duties. Administrators of education in the municipality rarely organize in-service training, conferences, workshops, seminars and mentoring for primary school teachers to improve themselves in spite of their critical role in bringing about teachers' effectiveness and this has grossly affected the quality and quantity of teachers, hence poor performance of the learners. Apart from this, the academic performance of primary school pupils has also been disappointing. More than half of the candidates who sat for the National Examination (PLE) in 2017 could not advance to secondary level and it was discovered that lack of efficient and skilful teachers; corruption etc. has been the reason behind this sordid performance (Mityana Education Sector Report, 2017). Teachers are faced with challenges in implementing staff development programmes which amongst others includes failure to involve teachers in the planning of professional development activities demoralizes and develops in them negative attitudes. Teachers appreciate programmes where they take part in organizing rather than being left in the dark on matters that concern them.

## 2. Review of related literature

### Mentoring and learners' academic performance

There are several definitions and interpretations of the word 'mentoring'. Schooley (2010) notes that, mentoring involves formal and informal developmental partnership where employees receive information advice and guidance from the experienced professional, usually within the school, who has expertise and a strong desire to help others grow in their jobs. Moorhead & Griffins (2004) defined mentoring as an arrangement in which more experienced teachers help a less experienced teachers grow and advanced by providing advice, support and encouragement. Mentoring is also a dyadic relationship between a more experienced member of a school and a less experienced individual (Ismail & Arokiasamy, 2007). Mentoring encompasses Coaching, sharing perspectives, and transferring knowledge and wisdom to the mentee(s). Olasupo (2011) posited that a mentor in the academic setting is generally a senior faculty member who advices or guides a junior faculty member in matters relating to achievement on academic success.

Therefore, mentoring is a key element of staff development in educational institution, especially in the university system. New and younger employees are encouraged to establish collaborative relationship with older and more experienced staff (mentors) for the purpose of getting the right orientation in the work place. The purpose of staff development is to enhance the quality of human capital for maximum capacity utilization within and outside the organization. The school is committed to a working environment where professional improvement is seen as a continuous process which enables all members of staff to develop their professional skills and effectiveness in support of the goals and priorities of the school, mentoring is a powerful personal development and empowerment tool. It is an effective way of helping people to progress in their careers and is becoming increasingly popular as its potential benefits are being realized.

Mentoring is a collaborative relationship or partnership between two people (mentor and mentee) normally working in a similar field or sharing similar experiences. It is a helpful relationship based upon mutual trust and respect. Mentoring programme is a great way to get involved and make a valuable contribution in the school, Bright & Innocent (2015). Mentoring, as a social learning model, is based on the practice of broadly stressing the importance of positive reinforcement on behavior change (Bandura, 1977). As a social learning model, mentoring combines cognition with reinforcement of stimuli in the process of learning from other people.

Mentoring assumes a variety of forms in staff development. As Smith (2005) points out, "Developmental relationship such as between a mentor and a protege can be powerful stimuli for change and learning. Research indicates that mentors as well as beginning teachers find that the program enhances their classroom, abilities, increases their enthusiasm for teaching and that they experience positive results involving their teaching, professional growth, and effect on the profession" (p.14). Mentoring is regarded as one of the best tools for "reducing stress for novice teachers, orientations to curriculum and promoting the creation of better norms of collegiality and collaboration" (David, 2008). It helps in the resolution of challenges and predicament, making it more likely that an individual attains his careers goals and growth. The benefits of mentoring are based on a developmental social learning perspective which posits that behavior is learned in interaction with others, especially when they serve as models (David, 2008). In this regard, mentoring is especially valuable for the transmission of positive attitudes as mentors provide invaluable information on the mission and philosophies of the school, help employees cope with career stress and give proper orientation towards work place values (David, 2008).

**In-service trainings and learners academic performance**

Hakan (2013) defines In-service training as the educational opportunities to help the staff to improve themselves in their professions for all the personnel in all the work fields (education, health, technology, and private sector, all working fields in public school, press and media school). In-service training is attempt to improve staff competence through continuing education courses, meetings and study groups, visits, lectures and personnel reform.

Nakpodia (2008) asserts that In-service teacher education is an integral part of staff development programme, which is organized for teachers while in service, Nakpodia outline the benefits of in-service training of teachers to include: to enable teachers obtain higher academic and professional qualifications in order to improve their positions in the school system, to help teacher acquire more conceptual and technical knowledge, skills and competences in their teaching subjects and pedagogy in order to improve their efficiency in classroom instruction and to enable the teachers to be adequately equipped to meet up with the new changes in the school system in the 21st Century.

Akinbode (1996) in an early study had established that investment in the form of in-service training was a crucial factor in the development of job commitment. The result of the study showed that teachers who had low commitment to the profession prior to training became highly committed after they were given opportunity to go for in-service training. Thus, in-service training served to boost teacher moral and thus, engendered positive work performance among them. Therefore, staff working in a school will form an important part of it and it is considered as a huge asset of that system making a basis for developing the organization through in-service training programme. Man power is considered as the most significant and lucrative resources of a school. As a matter of fact, an organization won't succeed completely without the professional and trained man power even if it profits by the most modern equipment, facilities, and technology. On the other hand, training is regarded as one of the most complicated obligations in managing each school, particularly in the manpower administration. Training and optimization will cause more profound insight, higher knowledge and intellectuality and more capabilities and efficiency among the working man power of a school so that they can actualize their commitments and the goals of the organization will be achieved more efficiently. Implementing the training and optimization of the staff to continue their activities effectively and improve their efficiency. The staff of an organization is considered as its huge asset that can make a basis for its development through in-service training (Seyyed & Abdolabbas, 1997).

Interestingly, schools are facing many changes which are related to economic needs, social needs and technology needs. As such, training programme plays an important part to overcome these problems and to cater the needs of the school (Che, 2014). In-service training is a kind of teaching type which helps the working staff to obtain the ability to keep up with the changes within their school, to learn new knowledge in order to reach the targets determined by the organization, to improve him/her in his/her profession. In-service training is a necessity for the organization to constantly improve and renew them, and achieve success. The use of phrases such as teaching and training, personnel improvement, personnel replenishment, improvement in human resources, continuing education, professional improvement, professional promotion, and organizational replenishment in place of in-service training clearly shows that in-service training is one of the integral activities of modern organizations (Hakan 2013). In-service training has for many years been the driving force behind much changes that has occurred in the area of teaching and learning. As in any other profession, it is vital that teachers keep up to date on the most current concepts, thinking and research in their field. This, in turn supports in their "lifelong learning' as educators, as professionals and as individuals who are responsible for the education of the next generation.

**Conferences and learners' academic performance**

Staff development is a key to the success of any school as the smooth and efficient running of any school depends on how well employees are equipped with relevant skills to perform their task. The success or failure of the school depends on employee's performance. Therefore, schools are investing huge amount of money on staff development. The knowledge, ideas, skills and attitudes of the staff must be developed through integrated and systematic way of attending conference. Ezene (1998) asserts that conferences are usually used to tackle a single or set of problems. It may involve session of various types; such as lectures, panel discussion, workshop, etc. Conferences therefore, have a very important place in the work place. The work place is rapidly changing and information needs to be customized in order to meet the diverse of all school. Moreover, educational conferences mostly comprise different personalities in the field of education with bountiful of ideas. Ezene (1998) further stated that, form and use of conferences which the researcher adopted as one of the elements under training recognized it strength for conveying a message to a large audience, while seeking opportunity to hear and comment on view of recognized authorities. Teachers have access to a broad range of ideas through conferences which lead to enhanced performance.

**Workshops and learners'**

**academic performance**

Oxford Advanced Learner's Dictionary defines workshop as a period of discussion and practical work on a particular subject in which a group of people share their knowledge and experience. Thus, the importance of workshop training is to enable teachers acquire the skills to do what they have not been able to do before on the job, become better at carrying out the responsibilities they have been performing before (Afshan, Sobia, Kamran & Nasri, 2012). However, workshops which consist of smaller groups of delegates allow facilitators to deliver delegates to engage in practical exercise. This close interaction with other delegates from differing companies generates conversations and allows to actively participating in the sharing of powerful information. This type of learning process can be very effective when used over short periods of time for example two to three days. They create an effective learning opportunity for those delegates who learn more effectively from direct interaction. In the development of school, workshop plays vital roles in improving performance as well as increasing productivity, and eventually putting companies in the best position to face competition and stay at the top. Workshop training is a type of activity which is planned, systematic and it results in enhanced levels of skill, knowledge and competency that are necessary to perform work effectively (Afshan, Sobia, Kamran & Nasri, 2012). There exists a positive association between training and employees performance. Training generates benefits for the employee as well as for the school by positively influencing employee performance through the development of employee knowledge, skills, ability, competencies and behavior. Schools dedicated to generating profits for its owners (shareholders) providing quality service to its customers and beneficiaries, invest in the training of its employees (Evans and Lindsay, 1999).

The more highly motivated a trainee, the more quickly and systematically a new skill or knowledge is acquired. That is why workshop training should be related to money, job promotion, and recognition etc. that is something which the trainee desires (Afshan, Sobia, Kamran & Nasri, 2012). There are four prerequisites for learning, motivation comes first. Cue is the second requirement. The leaner can recognize related indicators (cue) and associate them with desired, responses with the help of training.

Response comes third. Training should be immediately followed by positive reinforcement so that the learner can feel the response. Last is the feedback; it is the information which learner receives and indicates in the quality of his responses. This response will be given as quickly as possible to make sure of the successful learning.

Attending workshop is very vital to job productivity and school performance since the formal education system does not adequately provide specific job skills for a position in a particular school, while few individuals may have the requisite skills, knowledge, abilities and competences needed to fit into a specific job function. Some others may require extensive training to acquire the necessary skills to be able to fit in a specific job functions and also make significant contribution to the school. It's not recent news that great teachers help create great student, a well informed and inspired teacher is sure to influence a student's achievement. Workshop can be organized to develop certain skills of teachers. Attending workshop has great effect on teachers' performance (Evans and Lindsay, 1999). Lastly, the workshop presents an opportunity to promote, network and build the experience of teachers for a good and successful classroom management.

## 3. Methodology

The study employed a descriptive survey design in which qualitative data collection approach were used select a sample from the existed primary schools in Mityana municipality. Since, the schools were too many, a survey approach served as an important means through manipulation of the variables for this research. However, the subjects of this study were the head teachers, head teachers administration and academic, teachers and official of the ministry of education in particular. All information obtained were presented in tables, described and analyzed by use of frequency and simple percentages. In order to test the five hypotheses postulated, simple percentages and frequencies as well as one way analysis of variance (ANOVA) at0.05 significance level were used. The population for this research according to Mityana Municipal Education Sector Report, 2017, the municipality consists of thirty seven (37) primary schools and one thousand four hundred and fifty eight (1,458) teachers.This study is on the effect of staff development on learners' academic performance in the selected primary schools in Mityana Municipality, Mityana district. In order to have fair representation of the target population of primary schools in Mityana Municipality, 50% was used in order to adjust the class distribution of a data. For this reason therefore, nineteen (19) schools representing 50% of the thirty seven (37) primary schools were randomly selected and applied in this research. However, in selecting the sample size of the respondents, 30% of the population was used as recommended by Aderoumun (1985) when he stated that 30% or above of a given population (1,458 teachers) can be used as a sample for study. In selecting the respondents used in each primary school, purpose and simple random sampling techniques were used. The researcher used closed structured questions where the respondents are requested to indicate extent to which they agreed or disagreed with a given statement on issues raised by the researcher. Before administering the instrument, supervisor made valuable and necessary corrections. Data collected through the questionnaire were compiled, analyzed using descriptive and inferential statistics where frequency counts, simple percentages and one way analysis of variance (ANOVA) are considered appropriate for the study.

## 4. Results

### 4.1 Effect of in-service training on learners' academic performance in public primary schools in Mityana Municipality

Results on the effect of in-service training on learners' academic performance in primary schools in Mityana Municipality and responses of all respondents were collected, analyzed and presented in a table. Thus, Table 1 below gives the details.

**Table 1: Effect of In-service training on learners' academic performance in public primary schools in Mityana Municipality**

| Item Statement | Category of Respondent | S.A | A | U | D | S.D | Total |
|---|---|---|---|---|---|---|---|
| | | F | F | F | F | F | F |
| 1. Through in-service training, teachers in my school learn how to plan lesson well and this enables learners to perform better in the class. | 1. Head teachers | 15 | 6 | - | - | 1 | 22 |
| | 2. Teachers | 96 | 119 | 5 | 11 | 2 | 233 |
| | 3. Officials from M.O.E.S | 6 | 4 | | | | 10 |
| 2. Through in-service training, teachers in my school master their subjects and this improves pupils performance | 1. Head teachers | 12 | 10 | | | | 22 |
| | 2. Teachers | 95 | 119 | 7 | 10 | 2 | 233 |
| | 3. Officials from M.O.E.S | 5 | 5 | - | - | - | 10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3. Through in-service training, teachers learn how to control their classes and this enhances learners' performance in the class | 1. Head teachers | 9 | 11 | 1 | | 1 | 22 |
| | 2. Teachers | 87 | 126 | 9 | 10 | 1 | 233 |
| | 3. Officials from M.O.E.S | 7 | 3 | - | - | - | 10 |
| 4. Through in-service training, teachers in my school learn how to introduce and present lesson and it helps in improving learners' capacity, hence improved performance | 1. Head teachers | 11 | 8 | 2 | | 1 | 22 |
| | 2. Teachers | 87 | 124 | 13 | 6 | 3 | 233 |
| | 3. Officials of M.O.E | 4 | 4 | 2 | - | - | 10 |
| 5.Through in-service training, teachers in my school learn how to evaluate lessons, hence improve pupils performances | 1. Head teachers | 12 | 9 | | | 1 | 22 |
| | 2. Teachers | 75 | 127 | 14 | 13 | 4 | 233 |
| | 3. Officials from M.O.E.S | 9 | 1 | - | - | - | 10 |
| 6.Through in-service training, teachers in my school learn questioning techniques, which helps to improve learners performance | 1. Head teachers | 5 | 12 | 1 | 3 | 1 | 22 |
| | 2. Teachers | 70 | 129 | 20 | 12 | 2 | 233 |
| | 3. Officials from M.O.E.S | 3 | 7 | - | - | - | 10 |

***Source: Primary Data, 2018***

There is a consensus among the three categories of respondents that through in-service training, teachers in most primary schools in Mityana Municipality learnt how to plan lesson well and this enabled learners to perform better in the class. This is evident from the opinions of head teachers, teachers and officials of MOES in their response to item 1, that is, 21, 214 and 10 agreed to item No.1 respectively. There is also consensus among the respondents in their response to item 2 which indicates that through in-service training, teachers in most primary schools in Mityana Municipality mastered their subjects and this improved learners' performances in the class. This opinion is resultant form the responses of head teachers represented by 22, teachers 214 and officials of MOES 10 agreed to the statement.

There is evidence to suggest that head teachers, teachers and officials of MOES agreed that through in-service training, teachers learnt how to control their classes and this enhanced learners' performance. This is evident from the respondents' responses where 21 of head teachers agreed, 215 of teachers and 10 of officials of MOES agreed on item 3. There is also evidence of consensus among respondents in their responses to item 4 which indicates that 20 of head teachers, 211 of teachers and 8 of officials of MOES were in agreement that through in-service training teachers in most primary schools in Mityana Municipality learnt how to introduce and present lesson and this helped in improving their capacity, hence improved learners' performance in national examinations.

There is also consensus among the respondents in their response to item 5 which indicates that through in-service training, teachers learnt how to evaluate lessons, hence improved learners' performance. This opinion is resultant from the responses of head teachers represented by 21, teachers 202 and officials of MOES 10 There is also evidence to suggest that head teachers, teachers and officials of MOES agreed that through in-service training, teachers in most primary schools in Mityana Municipality learnt questioning techniques, which helped to improve learners' performance in the class. This is evident from the respondents' responses where 17 of head teachers, 199 of teachers and 10 of officials of MOES agreed on item.

## 4.2 Effect of conferences on learners' academic performance in public primary schools in Mityana Municipality

This section presents opinions of respondents on the effect of conferences on learners' academic performance in primary schools in Mityana Municipality and Responses of all respondents were collected, analyzed and presented in a table. Details are presented in Table 2 below:

**Table 2: Effect of Conferences on learners' academic performance in public primary schools in Mityana Municipality**

| Item Statement | Category of respondents | S.A | A | U | D | S.D | Total |
|---|---|---|---|---|---|---|---|
| | | F | F | F | F | F | F |
| 7. Through conferences, teachers in my school learn how to plan lesson well and this enables learners to perform better in the class. | 1. Head teachers | 4 | 8 | 9 | 1 | - | 22 |
| | 2. Teachers | 61 | 89 | 38 | 36 | 9 | 233 |
| | 3. Officials of M.O.E.S | - | 8 | 2 | - | - | 10 |
| 8.Through conferences, teachers in my school master their subjects and this improves learners performance in the class | 1. Head teachers | 2 | 9 | 5 | 6 | | 22 |
| | 2. Teachers | 51 | 19 | 37 | 45 | 9 | 233 |
| | 3. Officials of M.O.E.S | 1 | 7 | 2 | - | - | 10 |
| 9.Through conferences, teachers learn how to control their classes and this enhances learners performance in the class | 1. Head teachers | 1 | 2 | 9 | 5 | 5 | 22 |
| | 2. Teachers | 55 | 91 | 27 | 51 | 9 | 233 |
| | 3. Officials of M.O.E.S | - | 6 | 4 | - | - | 10 |
| 10.Through conferences, teachers in my school learn how to introduce and present lesson and it helps in improving their capacity, hence improved performance in class | 1. Head teachers | 5 | 7 | 5 | 5 | | 22 |
| | 2. Teachers | 48 | 102 | 28 | 46 | 9 | 233 |
| | 3. Officials of M.O.E.S | | 7 | 3 | | | 10 |
| 11.Through conferences, teachers in my school learn how to evaluate lessons, hence improve learners' performance | 1. Head teachers | 2 | 7 | 4 | 8 | 1 | 22 |
| | 2. Teachers | 49 | 96 | 34 | 44 | 10 | 233 |
| | 3. Officials of M.O.E.S | - | 8 | 2 | - | - | 10 |

***Source: Primary Data, 2018***

There is a consensus among the three categories of respondents that through conferences, teachers in most primary schools in Mityana Municipality learnt how to plan lesson well and this enabled them to perform better in the class. This is evident from the opinions of head teachers, teachers and officials of MOES in their response to item 7 represented by 12, 150 and 8, respectively who agreed to item No.7. There is also evidence of consensus among respondents in their responses to item 8 which indicates that 11 of head teachers, 70 of teachers and 8 of officials of MOES are in agreement that through conferences, teachers mastered their subjects and this improves learners' performance in the class and final examinations.

There is also evidence to suggest that head teachers, teachers and officials of MOES agreed that through conferences, teachers learnt how to introduce and present lesson and it helped in improving their capacity, hence improved performance of learners in the class. This is evident from the respondents' responses where 12 of head teachers, 150 of teachers and 7 of officials of MOES agreed on item 10. There is also evidence of consensus among respondents in their responses to item 9 which indicates that 14 of head teachers, 146 of teachers and 6 of officials of MOES are in agreement that through conferences, teachers in most primary schools in Mityana Municipality learnt how to control their class which enhances pupils' performance.

There is also consensus among the 3 categories of respondents that through conferences, teachers learn how to evaluate lessons, henceimprove learners' performance teachers' knowledge increases and this helped to enhance learners' performance in the class. This is evident from the opinions of head teachers, teachers and officials of MOES in their responses to item 11 represented by 9, 145 and 8, respectively.

### 4.3 Effect of Workshop on learners' academic performance in public primary schools in Mityana Municipality

This section contains opinions of respondents on the effect of workshops on learners' academic performance in primary schools in Mityana Municipality and responses of all respondents were collected analyzed and presented in Table 3 below:

**Table 3: Effect of Workshop on learners' academic performance in public primary schools in Mityana Municipality**

| Item Statement | Category of respondents | S.A | A | U | D | S.D | Total |
|---|---|---|---|---|---|---|---|
| | | F | F | F | F | F | F |
| 12.Through workshops, teachers in my school learn how to plan lesson well and this enables learners to perform better in the class. | 1. Head teachers | 11 | 9 | 1 | 1 | - | 22 |
| | 2. Teachers | 74 | 111 | 19 | 20 | 9 | 233 |
| | 3. Officials of M.O.E.S | 9 | 1 | - | - | - | 10 |
| 13.Through workshops, teachers in my school master their subjects and this improves learners' performance in the class | 1. Head teachers | 8 | 11 | 1 | 1 | 1 | 22 |
| | 2. Teachers | 61 | 125 | 22 | 22 | 3 | 233 |
| | 3. Officials of M.O.E.S | 10 | - | - | - | - | 10 |
| 14.Through workshops, teachers learn how to control their classes and this enhances learners' performance in the class | 1. Head teachers | 4 | 14 | 2 | 1 | 1 | 22 |
| | 2. Teachers | 78 | 110 | 23 | 20 | 2 | 233 |
| | 3. Officials of M.O.E.S | 5 | 5 | - | - | - | 10 |
| 15.Through workshops, teachers in my school learn how to introduce and present lesson and it helps in capacity, hence improved performance in the class | 1. Head teachers | 9 | 9 | 2 | 1 | 1 | 22 |
| | 2. Teachers | 75 | 115 | 22 | 17 | 4 | 233 |
| | 3. Officials of M.O.E.S | 5 | 4 | 1 | - | - | 10 |
| 16.Through workshops, teachers in my school learn how to evaluate lessons, hence improve their performances | 1. Head teachers | 7 | 13 | 1 | | 1 | 22 |
| | 2. teachers | 70 | 119 | 20 | 20 | 4 | 233 |
| | 3. Officials of M.O.E.S | 8 | 1 | 1 | - | - | 10 |
| 17.Through workshops, teachers in my school learn questioning techniques, which helps to improve learners' performance in the class | 1.Head teachers | 6 | 13 | 1 | 1 | 1 | 22 |
| | 2. Teachers | 63 | 126 | 25 | 16 | 3 | 233 |
| | 3. Officials of M.O.E.S | 6 | 4 | - | - | - | 10 |

***Source: Primary Data, 2018***

There is a consensus among the three categories of respondents that through workshop, teachers in most primary schools in Mityana Municipality learnt how to plan lesson well and this enabled learners to perform better in the class. This is evident from the opinions of head teachers, teachers and officials of MOES in their responses to item 12 represented by 20, 185 and 10, respectively. There is also consensus among the respondents in their responses to item 13 which indicates that through workshop, teachers in most primary schools in Mityana Municipality mastered their subject and this improved learners' performance in the class. This opinion is resultant from the responses of head teachers represented by 19 teachers 186 and officials of MOES 10.

There is evidence to suggest that head teachers, teachers and officials of MOES agreed that through workshop, teachers learnt how to control their classes and this enhanced learners' performance. This is evident from the respondents' responses where 18 of head teachers, 188 of teachers and 10 of officials of MOES agreed on item 14. There is also evidence of consensus among respondents in their responses to item 15 which indicates that 18 of head teachers, 190 of teachers and 9 of officials of MOES are in agreement that through workshop, teachers in most primary schools in Mityana Municipality learnt how to introduce and present lesson and this helped in improving their capacity, hence improved learners' performance in the class.

There is also consensus among the respondents in their responses it item 16 which indicates that through workshop, teachers learnt how to evaluate lessons, hence improved learners' performance. This opinion is resultant from the responses of head teachers represented by 20, teachers 189 and officials of MOES 9. There is also evidence to suggest that head teachers, teachers and officials of MOES agreed that through workshop, teachers in most primary schools in Mityana Municipality learnt questioning techniques, which helped to improve learners' performance in the class. This is evident from the respondents' responses where 19 of head teachers, 189 of teachers and 10 of official of MOES agreed on item 17.

## 4.4 Effect of Mentoring on learners' academic performance in public primary schools in Mityana Municipality

This section contains opinions of respondents on the effect of mentoring on learners' academic performance in primary schools in Mityana Municipality. Responses are from items 18 – 25 in the questionnaire were collected, analyzed and presented in Table 4 below:

**Table 4: Effect of Mentoring on learners' academic performance in public primary schools in Mityana Municipality**

| Responses | | S.A | A | U | D | | Total |
|---|---|---|---|---|---|---|---|
| **Item/ Statement** | **Category of respondents** | **F** | **F** | **F** | **F** | **F** | **F** |
| 18. Through mentoring, teachers in my school learn how to plan lesson well and this enables them to perform better in the class. | 1.Head teachers | 7 | 11 | 2 | 2 | - | 22 |
| | 2. Teachers | 58 | 116 | 14 | 31 | 14 | 233 |
| | 3. Officials of M.O.E.S | 6 | 3 | 1 | - | - | 10 |
| 19.Through mentoring, teachers in my school master their subjects and this improves learners' performance in the class | 1. Head teachers | 6 | 13 | 1 | | 2 | 22 |
| | 2. Teachers | 47 | 115 | 29 | 33 | 9 | 233 |
| | 3. Officials of M.O.E.S | 8 | 2 | - | - | - | 10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 20.Through mentoring, teachers learn how to control their classes and this enhances learners' performance in the class | 1.Head teachers | 6 | 11 | 2 | 1 | 2 | 22 |
| | 2. Teachers | 70 | 100 | 22 | 31 | 10 | 233 |
| | 3. Officials of M.O.E.S | 7 | 3 | - | - | - | 10 |
| 21.Through mentoring, teachers in my school learn how to introduce and present lesson and it helps in improving their capacity, hence improved performance in the class | 1. Head teachers | 5 | 12 | 3 | 1 | 1 | 22 |
| | 2. Teachers | 61 | 103 | 27 | 33 | 9 | 233 |
| | 3. Officials of M.O.E.S | 2 | 6 | 2 | | | 10 |
| 22.Through mentoring, teachers in my school learn how to evaluate lessons, hence improve learners' performance | 1. Head teachers | 4 | 14 | 2 | | 2 | 22 |
| | 2. Teachers | 65 | 106 | 25 | 29 | 8 | 233 |
| | 3. Officials of M.O.E.S | 4 | 5 | 1 | - | - | 10 |
| 23.Through mentoring, teachers in my school learn questioning techniques, which helps to improve learners' performance in the class | 1. Head teachers | 5 | 12 | 2 | 3 | | 22 |
| | 2. Teachers | 51 | 113 | 27 | 28 | 14 | 233 |
| | 3. Officials of M.O.E.S | 3 | 5 | 2 | | | 10 |
| 24.Through mentoring, teachers' knowledge increases and this helps to enhance learners' performance in the class | 1. Head teachers | 5 | 8 | 3 | 5 | 1 | 22 |
| | 2. Teachers | 74 | 100 | 22 | 29 | 8 | 233 |
| | 3. Officials of M.O.E.S | 6 | 4 | - | - | - | 10 |
| 25. Through mentoring, teachers' learn how to carry out formative and summative evaluation of pupils | 1. Head teachers | 5 | 14 | 2 | | 1 | 22 |
| | 2. Teachers | 51 | 103 | 42 | 29 | 8 | 233 |
| | 3. Officials of M.O.E.S | 7 | 2 | - | - | - | 10 |

***Source: Primary Data, 2018***

There is a consensus among the three categories of respondents that through mentoring, teachers in most primary schools in Mityana Municipality learnt how to plan lesson well and this enabled them to perform better in the class. This is evident from the opinions of head teachers, teachers and officials of MOES in their responses to item 18 represented by 18, 174 and 9, respectively. There is also consensus among the respondents in their responses to item 19 which indicates that through mentoring, teachers in most primary schools in Mityana Municipality mastered their subject and this improved learners' performance in the class. This opinion is resultant from the responses of head teachers, represented by 19, teachers 162 and officials of MOES 10.

There is also evidence to suggest that head teachers, teachers and officials of MOES agreed that through mentoring, teachers learnt how to control their classes and this enhanced their performances. This is evident from the respondents' responses where 17 of head teachers, 170 teachers and 10 of officials of MOES agreed on item 20. There is also evidence of consensus among respondents in their responses to item 21 which indicates that 17 of head teachers 164 of teachers and 8 of officials of MOES are in agreement that through mentoring, teachers in most primary schools in Mityana Municipality learnt how to introduce and present lesson and this helped in improving their capacity, hence improved learners' performance in examinations.

There is also consensus among the respondents in their responses to item 22 which indicates that through mentoring, teachers learnt how to evaluate lessons, hence improved learners' performance. This opinion is resultant from the responses of head teachers represented by 18, teachers 171 and officials of MOES 9. There is also evidence to suggest that head teachers, teachers and officials of MOES agreed that through mentoring, teachers in most primary schools in Mityana Municipality learnt questioning techniques, which helped to improve learners' performance in the class. This is evident from the respondents' responses where 17 of head teachers, 164 of teachers and 8 of officials of MOES agreed on item 23.

There is also consensus among the three categories of respondents that through mentoring, teachers learnt how to carry out formative evaluation of student. This is evident from the opinions of head teachers, teachers and officials of MOES in their response to item 24 represented by 13, 174 and 10, respectively. There is also evidence of consensus among respondents in their responses to item 25 which indicates that 19 of head teachers, 154 of teachers and 9 of officials of MOES are in agreement that through mentoring, teachers in most primary schools in Mityana Municipality learnt how to carry out summative evaluation of pupils.

## 5.3 Conclusion and Recommendations

Teachers and administrators have crucial roles to play in bringing about improved learning in pupils. Their ability to effectively carryout these roles would be determined largely by the quality of staff development programmes made available to, and utilize by them. Staff development efforts in public primary schools should consider the complex relationship between staff development and improvement in staff job performance. Such improvement could then lead to marked improvement in content, process, context and outcomes of student learning in schools.

Mityana Municipality should continuous permit teachers to go on in-service training programmes since learners academic performance is enhanced through such trainings, government should mobilize adequate funds for regular workshops of primary school teachers and government should sensitize primary school teachers on the need for regular attendance of workshops to enable them to abreast on current educational strategies, methods.

## References

Aderoumun, W.O. & Ehiametalor, E.T. (1985). Introduction to Administration of Schools in Nigeria. Ibadan: Evans Brothers.

Afshan, S., Sobia, I. Kamran, A., & Nasir, M. (2012). Effect of Training on Employee Performance: A Study of Telecommunication Sector in Pakistan. Interdisciplinary Journal of Contemporary Research in Business Vol. 4, No.(6) p13

Bandura, A. (1977). Social Learning Theory, Upper Saddle River, N.J: Prentice Hall.

Bright, C.M., & Innocent, A.A (2015). Mentoring as Staff Development Strategy for Effective Programme Implementation in Ugandan Universities.

Che, M.Z. (2014). The need for In-service Training for Teachers and its Effectiveness in School. International Journal for Innovation Education and Research Vol. 2-11, 2014.

David, E.O. (2008). Mentoring in the Ugandan Academia: Experiences and Challenges. International Journal of Evidence Based Coaching and Mentoring Vol. 6 No. 2, August, 2008 pp. 45.

Eric, C.A. (2013) Development of Teachers' Academic Performance in Primary schools in Etche Local Government Area, Rivers State of Nigeria. Singaporean Journal of Business Economics, and Management Studies Vol. 2, No. 4, 2013.

Evans, J.R & Lindsay, W.M., (1999), "The Management and Control of Quality", 4th Edition, South-Westernllege College Publishing, Cincinnati Ohio, USA.

Hakan, K. (2013). The Ideas of Geography Teachers about in -service Geography Training Activities. Academic Journals. Educational Research and Reviews Vol. 8(7), pp. 322 -337.

Ismail, M. & A & Arokiasamdy, L. (2007). Exploring Mentoring as a tool for Career Advancement of Academics in Private Higher Education Institution in Malaysia. The Journal of International Social Research, 1(1):135

Mityana Municipal Education Sector Report (2017). Performance of Primary Schools in the National Examinations.

Nakpodia, E.O. (2008). The Role of Educational Administration in the Promotion of in-Service Teacher Education for Primary School Teachers in Uganda. Kampala - City

Schooley, C. (2010). Drive Employee Talent Development through Business Mentoring Programs.www.3creek.com/. ..forrester-business-mentoring aug10.pd.

Smith, R.E. (2005). Human Resource Administration: A School-Based Approach (3rd ed.) Larchmont, NY: Eye of Education.

Syeda, F.J., Nighat, S., & Syeda, F.K. (2012) in Service Training: A Contributory Factor influencing Teachers: Teachers' Performance. International Journal of Academic Research in Progressive Education and Development January Vol. 1, No. 1. The Nation (2015) Vol. 10, No.3303 p.2.

# Supply Chain Management And Customer Satisfaction Of Small Firms: A Case Study Of Aquana Water Company Ltd, South Sudan

**[1]Mekere Gobezay Kidane & [2]Dr. Peace Beatrice Acikosibo**

**[1]Graduad, proceruement and logistics, Kampala University**

**[2]Lecturer, Graduate School and research Directorate, Kampala University**

## Abstract

*In competitive business environments companies have identified the need to redesign their supply chain management practices and customer satisfaction. The study sought to determine the relationship between supply chain management, customer satisfaction and loyalty of small business enterprises. The study employs a survey research design and targets population was a total of 280 respondents which comprises of Aquana Water Factory Ltd, Staff 50, Customer 80, End User 150. Stratified and purposive sampling techniques are used to select a sample of respondents. Findings very strong positive relationship between supply management and customers satisfaction at r= 0.615 and at level of significance 0.05, this implies that the good supply chain management improves on customers satisfaction. Thus, supply chain management has direct relationship with customer satisfaction. The study concludes that supply chain management and customer satisfaction in the Aquana Water Company Ltd. The study recommends that, Aqua Water Company should carry out periodic market surveys so that the information can be shared with pertinent departments in order to help them prepare procurement plan based on the existing market conditions; trained and sensitized in order to boost the skills and competency levels required by staffs involved in the procurement process.*

***Key words: customer satisfaction, supply chain,***

## 1. Introduction

According to Ayers (2001), supply chain is knowledge movement that includes all activities related to the back flow of product from customers back up to the chain in the form of product return, reuse, and recycling. Ayers' definition suggests that every single company depends on other businesses to deliver its products or services to its customers. Supply chain as a set of three or more entities organizations or individuals directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer. Owing to the fact that SCM practices are a key to firm performance, this concept has attracted a great deal of interest among academicians and practitioners alike over the past two decades (Narasimhan & Kim, 2007). As effective SCM provides benefits that transcend across the entities on both upstream and downstream sides, firms are realizing the potential of integrating their external supplier-firm-customer relationships and internal operational practices with a view to enhancing their level of competitiveness and performance as well as customer satisfaction. A sound understanding of SCM practices thus assumes utmost importance in coping with the global competition and sustained profitability (Power *et al.,* 2001; Moberg *et al.,* 2002). This study focused on four basic supply chain practices by Suhong, *et al.* (2009), which include strategic supplier partnership, postponement, customer relationship and information sharing.

## 2. Review of Related Literature

Strategic supplier relationship activities play an important role in SCM (Wisner, 2003). Through close relationship supply chain partners are willing to share risks and reward, and maintain the relationship on long term basis (Cooper & Ellram, 1993; Stuart, 1993; Thatte, 2007). Long-term perspective between the buyer and supplier increase the intensity of firm-supplier integration. Customer relations related to the company's ability to communicate to the delivery of appropriate products and services to customers locally and globally in the right time, right place, and appropriate of quantity and quality. Customer linkage especially sharing product information with customers, receiving customer orders, interact with customers to manage demand, after placing the order system, share the status of orders with customers on scheduling orders, and product delivery stage (Lee *et al.,* 2007). Qu*et al.,* (2010) argued that a long term relationship with supplier facilitates in garnering positive results in an array of activities reflected in superior product quality, diminished lead time, and agile customer service leading to customer satisfaction.

Customer Satisfaction has been one of the top tools for a successful business. Customer satisfaction is defined as an overall evaluation based on the total purchase and consumption experience with the good or service over time (Fornell, Johnson, Anderson, Cha & Bryant 1996). With marketing, customer satisfaction also comes along with it which means it ascertains the expectation of the customer on how the goods and services are being facilitated by the companies. Actionable information on how to make customers further satisfied is therefore, a crucial outcome (Oliver 1999.) At a glance, customer satisfaction is a crucial component of a business strategy as well as customer retention and product repurchase. To maximize the customer satisfaction companies should sell ideas and methods after the completion with all the necessary documents. As for example, customers will buy a car after taking a closer look at it such as how is the engine, what is its model, how many kilometers it has been traveling, and is there any cracks or not. Therefore, they do not feel disappointed after purchasing it. Otherwise, if the company uses only their sell and build method customers might expect that the car is exactly the same as what they see in the pictures or during the exhibition and later on the company might receive complaint if anything is wrong. Customer satisfaction is a barometer that predicts the future customer behavior (Hill, Roche & Allen 2007).

Indeed, this has benefited the customers significantly on consuming qualitative products (Rebekah & Sharyn 2004). Customers often look for a value in the total service which requires internal collaboration among the department that is responsible for different elements of the offering, such as the core product (goods or services) delivering the product, product documentation, etc. Moreover, from profitability and productivity perspectives only activities that produce value for customers should be carried out. Hence, firms have to get to know their customers much better than has normally been. However, the company should be able to build trust with the customer so it is easy to get the feedback from the customer. This is how customer oriented product or service could be developed (Hill, Brierley & MacDougall 2003.) Customer satisfaction is dynamic and relative. Only the idea "customer-centric" can help companies improve satisfaction and keep customer truly, conversely, if competitors improve customer satisfaction, then it may loss corporate customers. While improving customer satisfaction, customer expectations should be noticed. Service quality, product quality and value for money have a direct positive impact on customer satisfaction. Employee satisfaction is equally important before achieving the customer satisfaction. If employees have a positive influence, then they can play a big role to increase customer satisfaction level. Satisfaction is a dynamic, moving target that may evolve overtime, influenced by a variety of factors. Particularly when product usage or the service experience takes place over time, satisfaction may be highly variable depending on which point in the usage or experience cycle one is focusing (Lovelock & Wright, 2007).

Customer satisfaction is influenced by specific product or service features and perceptions of quality. Satisfaction is also influenced by customer's emotional responses, their attributions on their perception of equity (Zeithal & Bitner. 2003, 87-89.) Increased customer satisfaction can provide company benefits like customer loyalty, extending the life cycle of a customer expanding the life of merchandise the customer purchase and increases customers positive word of mouth communication. When the customer is satisfied with the product or service of the company, it can make the customer to purchase frequently and to recommend products or services to potential customers. It is impossible for a business organization to grow up in case the company ignores or disregards the needs of customers (Tao, 2014)

## 4. Results and discussion

### 4.1. Relationship between Supply chain management and Customers Satisfaction at Aquana Water Company Ltd

This sub section analyses the influence of supply chain management on customers loyalty and serve delivery at Aquana Water Company Ltd and the analysis was based on Person correlation coefficient. The results are presented in Table 1 below:

**Table 1: Supply chain management and customers' satisfaction**

| Element | Analysis | SCM | CS |
|---|---|---|---|
| Supply chain management | Person correlation | 1.00 | 0.551** |
| | Sig. (2-tailed) | 0.0 | 000 |
| | N | 100 | 100 |
| Customers satisfaction | Person correlation | 0.615 | 1.000 |
| | Sig. (2-tailed) | 0.000 | 0.000 |
| | N | 100 | 100 |

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

Results in Table 1, above indicates that there is a very strong positive relationship between supply management and customers satisfaction at r= 0.615 and at level of significance 0.05, this implies that the good supply chain management improves on customers satisfaction. Therefore in order to improve on customers' satisfaction, supply chain management must be managed effectively by the management of an organization like Aquana Water Company Ltd

Results indicate that there is a very strong positive relationship between supply management and customers satisfaction at r= 0.615 and at level of significance 0.05, this implies that the good supply chain management improves on customers satisfaction. Therefore in order to improve on customers' satisfaction, supply chain management must be managed effectively by the management of an organization like Aquana Water Company Ltd. This finding is in relation to the finding of other scholars like Horn and Pesonen, (2014), Resource-Based View (RBV) (Nath, Nachiappan and Ramanathan, (2010); Wong and Karia, (2010), Mukherjee Gaur and Datta, (2013); Schwarz, (2014), Lindahl, Robert, Ny and Broman, (2014) Agus and Hassan, (2011) Todorut, (2012; and Bon and Mustafa, (2013). A notable aspect though, is that none of these strategies addresses the relationship between strategic SCM practices and product quality, product variety and flexibility as business strategies that could enhance customer satisfaction. Besides, the current study is based on the South Sudan context rather than Europe, USA or Asia, which provides an element of novelty and fresh perspectives from a hitherto overlooked geo-spatial context. The study is significant in that it adds new literature to the existing body of business management literature on supply chain strategy, quality, variety and flexibility among SMEs. Also, the results of the study have practical implications for SME owners/managers and managers of larger organizations as well as shareholders within the business environment in terms of customer satisfaction through the adoption of SCM practices.

The systems thinking theory was used to support the influence of supply chain management practices on customer satisfaction. Systems thinking theory is a management approach which enables the leadership to see the company as a unified part. According to Senge (1990), system thinking theory calls for addressing various parts of a system from a holistic viewpoint and not in isolation of each other. In doing so, in tackling the problems in their entirety, the theory advocates for greater understanding of the problems or issues at hand through gauging patterns or the interrelationships that are at play among various entities of a system (Rubenstein-Montano *et al.,* 2001). Such interrelationships or the evolving properties at work in the whole system, Senge (1990) argues, would, however, go missing, if and when the whole is broken into parts. This theory is thus tailored toward systematically explicating the dynamics that characterize the SCM practices..

## 5. Conclusion and Recommendations

In conclusion, there is a very strong positive relationship between supply management and customers satisfaction at r= 0.615 and at level of significance 0.05, this implies that the good supply chain management improves on customers satisfaction. Therefore in order to improve on customers' satisfaction, supply chain management must be managed effectively by the management of Aquana Water Company Ltd.

The study recommends that Aqua Water Company should carry out periodic market surveys so that the information can be shared with pertinent departments in order to help them prepare procurement plan based on the existing market conditions; trained and sensitized in order to boost the skills and competency levels required by staffs involved in the procurement process.

## References

Agarwal.V. (2007).“Contemporary Issues in Supply Chain Management”, A Case Study of Marico Industries, Supply Chain Management. *New Century Publication. New Delhi.*

Allen, D.R. & Wilburn, M. (2002). “Linking Customer and Employee Satisfaction to the Bottomline”, *A Comprehensive Guide to Establishing the Impact of Customer and Employee Satisfaction on Critical Business Outcomes*. ASQ Quality Press. USA

Allmendinger, G. (2005), “Four strategies for the age of smart services”, Harvard Business Review, Vol. 83 No. 10, pp. 131-45.

Ary, D., Jacobs, L. C., & Razavieh, A. (2002). Introduction to Research in Education, 6th Ed.

Ayers, James B. (2001). "COSTS: Getting to the ROOT CAUSES," *Supply Chain Management*

Beamon, B. M., (1998). "Supply chain design and analysis: models and methods". *International Journal of Production Economics* 55(3), 281–294.

Cacioppo, K. (2000). "Measuring and Managing Customer Satisfaction*",* Quality Digest.

Chopra, Sunil & Peter Meindi, (2002). "Supply chain management; Strategy, planning and operations, Delhi: Pearson Education.

Colburn, R. (2013). "Determining the Effect of Return management Experience on Customer Satisfaction", University of Tennessee Honours' thesis project

Cooper, M. C. and Ellram, L. M., (1993). "Characteristics of supply chain management and the implications for purchasing and logistics strategy". *International Journal of Logistics Management,* 4, 13–24.

Copacino, William C., (1996)."A Seven Supply-Chain Principles", *Traffic Management*, 60.

Davenport, T. H., Harris, J. G., De Long, D. W., & Jacobson, A. L. (2001). "Data to Knowledge to Results: Building an Analytic Capability", *California Management Review*, 43, 117-139.

EbrahimKarimi& Mahmoud Rafiee., (2014). "Analyzing the Impact of Supply Chain Management Practices on Organizational Performance through Competitive Priorities (Case Study: Iran Pumps Company)". *International Journal of Academic Research in Accounting, Finance and Management Sciences*

Eckert, S.G. (2007), "Inventory Management and Its Effects on Customer Satisfaction". *Journal of Business and public Policy.*(1), 1-2 Economic Survey (2010), Government Printers, Nairobi

Ellram, L. M., (1991). "Supply Chain Management: The Industrial Organization Perspective", *International Journal of Physical Distribution and Logistics Management*, 21(1), 13-22.

Ellram.(1999), "Retail Logistics", *International Journal of Physical distribution &LogisticsManagement*. (29),

Fisher, M. L., Hammond, J. H., Obermeyer, W. R., & Raman, A. (1997). "Making supply meet demand in an uncertain world". *Harvard Business Review* 72(3), 83–93.

Fuller JB, O'Connor J., (1993). "Rawlinson R. Tailored logistics: the next advantage". *Harvard BusinessReview*;

Gunasekaran, A., Patel, C., &Tirtiroglu, E. (2001). "Performance measures and metrics in a supply chain environment". *International Journal of Operations and Production Management*

Handfield, R. B., & Nichols, E. L., (2002).*Introduction to Supply Chain Management*, New Jersey: Prentice-Hall, Inc.

Haque, M., & Islam, R. (2013). "Effects of Supply Chain Management Practices on Customer Satisfaction: Evidence from Pharmaceutical Industry of Bangladesh". *Global Business and Management Research:An International Journal*, 5 (2&3).

Harland C., (1996). "Supply network strategies – The case of health supplies". *European. Journal. Purchase, Supply, Management,* 2(4)183-192.

Hendrick, T. E., (1997). "Purchasing Contributions to Time-based Strategies (Tempe: Center for Advanced Purchasing Studies)".

JenetManyiAgbor, (2011)."The Relationship between Customer Satisfaction and Service Quality: A study of three Service sectors in Umea".

Johnson M E, Davis T., (1998)."Improving supply chain performance by using order fulfillment metrics".

*National Productivity Review*, 17(3)3–16.

Jones, C. (1998). Moving beyond ERP: Making the missing links. Logistics Focus, 6 (7), 2-7. Journal of Operations Management, Vol. 23, pp. 618-641.

Kenya National Bureau of Statistics. 2012. Economic Survey Report. Nairobi, Kenya

Koh S, Demirbag M, Bayraktar E, Tatoglu E, Zaim, S., (2007). “The impact of supply chain management practices on performance of SMEs”. *Ind. Manage Data. Syst*., 107(1)103-124.

Lamming, R., Johnsen, T., Zheng, J. & Harland, C., (2000).“An initial classification of supply networks”. *International Journal of Operations & Production Management,* 20 (6), 675-691.

Landeros, R., Monczka, R.M., 1989, Cooperative buyer-seller relationships and a firm’s competitive posture. Journal of Purchasing and Materials Management, 9–18.

Larreche, J. Boyd, H. W., Walker, O. C., (1998). Marketing management. Boston: Irwin McGraw-Hill.

Lee, H. L. et al. (2007). “The Value of Information Sharing in a Two-Level Supply Chain”, *Management Science, 46*(5), 626.

Lee, H. &kleiner, B. (2001).“Inventory Management in Women’s Retail Clothing Industry”. *Management Research News*. (24), 40-45

Lee, Hau L. &SeungjinWhang., (2000)”creating value through supply chain integration, supply chain

# Effect Of Inventory Management Practices And Organizational Performance: A Case Study Of Kisumu County Hospital

**[1]Sylvance Otieno Abwao and [2]Tugume Geoffrey**

**[1]Administrator, Kampala University**

**[2]Lecturer, School of business and Management studies, Kampala University**

## Abstract

*Managing stock effectively is important for any organization, running a hospital is no exception because without enough stock, services to patients will come to a halt. Health facilities must provide 24 hour services and accordingly, the need to keep stocks of certain medicines and other medical supplies to be able to discharge their duties effectively. The purpose of the study was to examine the impact of inventory management practices the performance of Kisumu County Hospital, Nairobi Kenya. A sample of 60 staff and 30 patients was selected for the study. Questionnaires were used as the main instrument of data collection. The study revealed that the hospital ensures agreements with supplier for short cycle deliveries (items which do not take long to deliver), ensures accurate prediction of supplier delivery dates and operate Materials Requirements Planning system (MRP). The patients were satisfied with the hospital's reliability of healthcare service (24 hour service and full complement of medical staff), completeness of healthcare service and affordability of healthcare service. Results also indicated that the hospital faces with poor storage of drugs, bureaucratic process in procurement and loss of drugs through inventory shrinkages. The study recommended management to emphasize the importance of inventory management, improve the demand forecasting of major medical supplies and adoption of advanced information system such as Electronic Data Interchange (EDI) to link their inventory practices with their service delivery.*

## 1. Introduction

Managing stock effectively is important for any organization, running a hospital is no exception because without enough stock, health services to patients will come to a halt. Stock represents the largest single investment in assets for most organizations. In most organizations, employees have become habituated with high levels of commodity availability resulting in higher stock holding levels (Chopra and Meindl, 2007). The basic reason why stock is held is so as to avoid stock out and it resulting problems. Gudum

(2002) notes that uncertainty and variability of the timing and content of information flow and goods flow leads to uncertain planning, increased costs, stock outs and delays. Therefore, there is the need to take measures especially on inventory to deal with uncertainties and dynamics on the operational level of business. However, in order for this to be effective, there is the need for strategies applied at the tactical and strategic levels of organizations which will steer their supply chain strategy to achieve competitive strategy and excellence.

Although there have been several research in the area of inventory and supply chain management in ensuring organizational performance, little studies have been done to view the role of inventory control in healthcare delivery especially in Kenya (GoK, 2013).

Public sector in Kenya and across other developing countries mostly leave inventory decision to departments as well as stores management, as a result there are relating problems in terms of high cost of inventory, selection of suppliers, delivery problems, stock obsolescence, stock-out, etc. Meanwhile Act 654, Financial Administration Act 2003 provides regulations governing the acquisition receipt, custody, control, issue and disposal by the minister of finance. Government stores are to be procured from Value Added Tax registered persons except where there is a waiver by the minister of finance or an enactment and there should be to a justification for a request of any waiver or exemption. Intermittent and emergency purchases are common procurement practices in most of the public institutions as against the public procurement laws as proper procurement procedures are not duly followed. Kisumu County Hospital has a daily hospital attendance of over 500 patients a day. This has made it necessary for the hospital to buy and store medical and non-medical materials to be able to serve the clients (patients).

## 2 Review of Related Literature

### 2.1 Inventory Management Practices

Kalyango (2001) highlights the following practices that minimize stock related costs; Inventory Planning and Scheduling. This is how units of stock are required by an organization in a given period to enable smooth business operations. A good stock plan set in advance will enable planners to set procurement/ purchase dates and quantities that are consistent with the plan to avoid disruptions due to inventory shortages (Ogbo *et al.,* 2014).

Inventory Recording; Accurate and up-to- date stores records are keys to effective stores management. The basic procedures include counting and recording promptly after receipt or production and whenever there is a store transaction, issue of stores should be properly authorized and show details such as code number, quantity of the transaction and the voucher reference. It is undertaken by organizations to reduce the errors of stock management and to ensure accurate and reliable stock records. It involves spot checks/ surprise checks, stock taking, which is the physical counting and measuring of quantity of each item in stock and recording the results (Oballah *et al.,* 2015).

Recording technique; Inventory recording is undertaken to reduce the error relating to inventory accountability and accuracy in a firm's investment in inventories. Stock accounting is important in any firm as it registers the changes in the level of stock held to realize maximum value and avoid misuse of funds. Inventory recording may take it form of stock taking and sport checks which are a process of physically counting, weighing or otherwise measuring the quality of each item in stock and recording system should reduce the discrepancies between stock in record and the physical stock.

Inventory Valuation; It is also a stock control technique, which refers to the establishment of the value of stock and therefore its implication on the profits. Lacey (Kamukama) identified the following methods of stock valuation; First in First out (FIFO), Last in First out LIFO) and the average price method. First in First out (FIFO) is a method whereby prices of goods are determined by depending on the oldest stock until all the units are finished and then the second oldest is used to determine the prices and the trend continues. According to (Kamukama, 2006),FIFO method follows the principle that materials received first are issued first. After the first lot or batch of materials purchased is exhausted, the next lot is taken up for supply. The inventory is priced at the earliest costs. This means that the unused raw materials (closing stock) are constituted by the goods which were not recently purchased.

Inventory control; Inventory control is the activity which organizes the availability of items to the customers of the organization. This role includes the supply of current sales items, new products, consumables, spare parts, obsolescent items and all others supplies (Lysons and Gillingham (2003) write that inventory/stock control refers to the techniques used to ensure that stocks of raw materials, WIP and finished goods are kept at levels which provide maximum service levels at minimum costs. An effective Inventory Control System should; Minimize time and carrying costs, Maintain sufficient stock for smooth production, sales operation and on sufficient customer service. And control investment in inventories or keep an optimum level. Different business concerns may apply different inventory practices to meet specific requirements and circumstances to help in containing the costs associated with inventory. Inventory recording is undertaken by organizations to reduce the errors of stock management and to ensure accurate and reliable stock records. It involves spot checks/ surprise checks, stock taking, which is the physical counting and measuring of quantity of each item in stock and recording the results (Brooks *et al.,* 2007).

ABC Analysis: This has already been covered before, but is also regarded as a material control tool. It's considered as the best approach and based on the principle of selective control. The maxim is "put your effort where the results are maximized(Kamukama, 2006). ABC analysis categorizes products based on importance. Importance may come from cash flows, lead time, stock outs, sales volume, or profitability. Once the ranking factors is chosen, break points are chosen for classes A, B, C and soon. The 80-20 concept is particularly useful in distribution planning when the products are grouped or classified by their sales activity. The top 20 percent might be called A times, the next 30 percent B items, and the remainder C items. Each category of items could be distributed differently. For example, A items might receive wide geographic distribution through many warehouses with high levels of stock availability, whereas C items might be distributed from a single, central stocking point(e.g. a plant) with lower total stocking level than for the A items. B items would have an intermediate distribution strategy where few regional warehouses are used (Ballou 2009).

Just –in- time (JIT) system. This is a demand –pull" system under which products are only manufactured to satisfy a specific customer order (Horngren 1999). As the name suggests the idea is that inventories are acquired and inserted in production at the exact times they are needed, this requires efficient purchasing, very reliable suppliers and an efficient inventory handling system. In this system supplier delivers the components and parts of the production line just in time to be assembled. Other names for this or very similar methods are zero inventories and stockless. Just-in-time inventory management is an approach which works to eliminate inventories rather than optimize them. The inventory of raw materials and work-in-process falls to that needed in a single day. This is accomplished by reducing set-up times and lead times so that small lots may be ordered. Suppliers may have to make several deliveries a day or move close to the user plants to support this plan.

Inventory Levels; this is a stock management technique, which involves controlling the amount of stock held by an organization. The main aim of this technique is to strike a balance between profitability and liquidity to ensure that there is no under or over stocking. According to Kamukama (2006) short adherence to stock control should be established in order to minimize the costs associated with stock. Firms should therefore determine the level of stock they require so that excess or inadequate stock is avoided. Several Authors indicate that firms should establish the following practices in order to avoid undesirable stock levels i.e. the re-order level, average stock level and maximum stock level, minimum stock level of safety stock.

Re-order level is a level fixed between and represents a stage at which emergency and immediate steps have to be taken for acquiring new stock. It gives a warning to the stores that materials have reached the lowest point and if no emergencies are taken, they will be completely exhausted. The re-order level must be sufficient enough to cover the maximum possible consumption of stock during the reorder period.

Re-order level = Maximum daily usage x maximum lead time/period. Minimum stock level or safety stock is maintained to prevent stock outs. It represents the quality below which the stock of an item should not be allowed to fall. This safety stock should be used only in abnormal circumstances minimum stock level/safety stock=Re-order level – (average rate of consumption x average lead time).

## 2.2. Effect of Inventory Management

Inventory plays an important role in the growth and survival of an organization in the sense that failure to an effective and efficient management of inventory, will mean that the organization will lose customers leading to poor services delivery and sale will decline. Coyle, Bardi and Langley (2003:188) state that "inventory as an asset on the balance sheet of companies has taken an increased significance because of the strategy of many firms to reduce their investment in fixed assets, that is plants, ware houses, office buildings, equipment and machinery and soon. Virtually every enterprise finds it necessary to hold stocks (or inventory)of various items and materials. That is because it would be practically impossible to operate with only one of each item to be sold or used in manufacture or used in office work. A reserve or a fundor inventoryof each item or material used or sold frequently is therefore maintained, so that as items or materials are sold or used they can be replaced or replenished from the stocks held in reserve. Due to uncertainty in future demand, and because of the unguaranteed availability of supplies, stock is therefore held to ensure an availability of goods to minimize the overall costs associated with the management of stock (Drury, 2000).

Gittinger (1995) argues that precautionary motive is one of the central roles of inventory management. Accordingly, precautionary motive means that stock held to guard against risk of unpredictable changes in demand and supply. In most cases, the level of demand of goods and the time required for supply cannot be known with certainty. Therefore, to ensure product availability, the organization maintains additional amount of safety stock to meet regular production and market needs. Firms should invest in stock control for precautionary motive to act as a buffer or link between demand and supply so that production can be geared to a more constant output. Precautionary motive necessitates holding of inventories to guard against the risk of unpredictable changes in demand and supply forces and other factors.

Balloon (1987) illuminates that inventories should be held to improve customer service and therefore goods should be spotted at a place where customers can get them in the quantities they wish. The transaction motive is aimed at facilitating smooth operations on daily basis. According to Pandey (2002) Transaction motive emphasizes the need to maintain inventories to facilitate smooth production and sales operation. Firms should maintain back up inventory either in excess or low levels to take advantage of current and future demands or price fluctuations. They should therefore purchase goods and stock them in advance when they anticipate price increase in future and also prepare for contingencies that may befall a company, for instance, strikes, prices, goods among others (Kakuru, 2000).

Lucay (2003) observes that excessive levels of stock are undesirable because they increase the risks of inventory becoming obsolete, stock loss through damage and theft, increased storage costs like rent, insurance and unnecessary tie up of the firm's funds. He further state that a firm would be foregoing profits when it continues maintaining excessive levels of inventory, which implies that the probability position of the firm is being threatened in the long run since funds are not being invested in other profitable ventures. Lower levels of inventory are also undesirable because it interrupts production, loss of good will and high ordering costs especially when ordering is frequent. Inadequate inventory levels leads to business closure due to shifting of customers to other efficient suppliers as a result of production/ operation interruptions.

## 3. Methodology

The study used a case study design which employed the qualitative and quantitative data collection approaches. The study targeted 260 people from which 152 respondents were determined using Kreijcie & Morgan sample size table and participants were chosen using both stratified and purposive sampling techniques. Using the purposive sampling technique, the researcher selected 30 key informants who included Kisumu County Hospital top managers. Stratified sampling helped in selecting 122 other hospital employees. Data was collected through interviews, checklist and observation schedules which was analyzed using a Statistical Package for Social Sciences (SPSS).

## 4. Results

### 4.1. Response Rate

It was noted that, out of 152 questionnaires distributed to the participants from Kisumu County Hospital, only 150 were returned which gave a response rate of 98.7% of the participants.

## 4.2 Inventory management practices at Kisumu County Hospital

The study investigated into the inventory management practices used by Kisumu County Hospital. The responses were based on strongly agree, agree, not sure, disagree, and strongly disagree as presented in the subsequent sections below:

### Up-to- date stores records

The study established that accurate stores records were one of the inventory management practices used by Kisumu County Hospital. It was revealed that the employees at the district take recording as an important component of their management and that this had improved their performance. The findings are presented in Table 1 below:

**Table 1: Response patterns on up-to- date stores records**

| Response | Frequency | Percent | Valid |
|---|---|---|---|
| Strongly agree | 56 | 53.3 | 56.0 |
| Agree | 40 | 38.1 | 40.0 |
| Not sure | 2 | 1.9 | 2.0 |
| Strongly disagree | 2 | 1.9 | 2.0 |
| Total | **100** | **95.2** | **100.0** |

***Source: Primary Data, 2017***

From Table 1, 56% of the respondents strongly agreed to the notion of up-to- date stores records as one of the inventory management practices used by Kisumu County Hospital, 40% agreed, 2% were not sure, while 2% strongly disagreed to the idea.

### Stock plan

It was established that a good

stock plan helps in organizational performance and is a component of inventory management. This was cited by the respondents during the study. Respondents' opinions are expressed in the Table 2 below:

**Table 2: Responses on stock plan**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Strongly agree | 46 | 43.8 | 46.0 | 46.0 |
| | Agree | 34 | 32.4 | 34.0 | 80.0 |
| | Not sure | 6 | 5.7 | 6.0 | 86.0 |
| | Disagree | 9 | 8.6 | 9.0 | 95.0 |
| | Strongly disagree | 5 | 4.8 | 5.0 | 100.0 |
| | **Total** | **100** | **95.2** | **100.0** | |

***Source: Primary Data, 2017***

According to Table 2 above, 46% of the respondents strongly agreed that stock plan is a good inventory management practice, 34% agree, 6% were not sure, 9% disagreed, while 2% strongly disagreed to the idea.

## Proper accounting records

Proper accounting records Peer counseling has many advantages to the client, the counselor and the community. Respondents' opinions on the idea are presented in Table 3 below:

**Table 3: Responses on proper accounting records**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Strongly agree | 28 | 26.7 | 28.0 | 28.0 |
| | Agree | 56 | 53.3 | 56.0 | 84.0 |
| | Not sure | 5 | 4.8 | 5.0 | 89.0 |
| | Disagree | 9 | 8.6 | 9.0 | 98.0 |
| | Strongly disagree | 2 | 1.9 | 2.0 | 100.0 |
| | **Total** | **100** | **95.2** | **100.0** | |

***Source: Primary Data, 2017***

According to Table 3 above, 28% of the respondents strongly agreed that proper accounting records is an inventory management practice, 56% agreed, 5%were not sure, 9% disagreed, and 2% strongly disagreed.

## Surprise checks

It emerged from the study that positive surprise checks constitutes an important strategy in inventory management. First and foremost, all employees at the Kisumu County Hospital and more so top managers should work towards ensuring that all their subordinates comply with the set rules and standards in the organization. This can be achieved through surprise checks. This is clearly presented in Table 4 below:

**Table 4: Responses on surprise checks**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Strongly agree | 36 | 34.3 | 36.0 | 36.0 |
| | Agree | 48 | 45.7 | 48.0 | 84.0 |
| | Not sure | 13 | 12.4 | 13.0 | 97.0 |
| | Strongly disagree | 3 | 2.9 | 3.0 | 100.0 |
| | **Total** | **100** | **95.2** | **100.0** | |

*Source: Primary Data, 2017*

Results from Table 4 above indicate that, 36% of the respondents strongly agreed surprise checks helps in promoting proper inventory management, 48 agree, 13% were not sure, and 3% strongly disagreed.

## 4.3. Effect of inventory management to Kisumu County Hospital

The study explored contributions of inventory management to organizational performance. The reason was to establish whether respondents were aware that inventory management practices contribute greatly to the performance of local governments. The results are presented in the following headings:

## Inventory planning and scheduling

It emerged that inventory planning and scheduling was being improved as a result of inventory management at the district. This was through accomplishment of the planned projects due to good inventory practices. Responses are presented in Table 5 below:

**Table 5: Responses on inventory planning and scheduling**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Strongly agree | 28 | 26.7 | 28.0 | 28.0 |
| | Agree | 66 | 62.9 | 66.0 | 94.0 |
| | Not sure | 6 | 5.7 | 6.0 | 100.0 |
| | **Total** | **100** | **95.2** | **100.0** | |

*Source: Primary Data, 2017*

From the table, 28% of the respondents strongly agree noted that inventory planning and scheduling had improved as a result of good inventory management practices, 66% of the respondents agree and 6% were not sure the idea.

## Improved procurement

Improved procurement was reported by the respondents as one of the contributions of inventory management to organizational performance as presented in Table 6 below:

**Table 6: Responses on improved procurement**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Strongly agree | 38 | 36.2 | 38.0 | 38.0 |
| | Agree | 56 | 53.3 | 56.0 | 94.0 |
| | Not sure | 6 | 5.7 | 6.0 | 100.0 |
| | **Total** | **100** | **95.2** | **100.0** | |

*Source: Primary Data, 2017*

From table 6 above, it is revealed that 38% of the respondents confirmed the assertion that improved procurement, 56% of the respondents agreed, and 6% were not sure.

## Cost reduction

Cost reduction is central in ensuring that any project prospers. It was noted by the respondents there is a need for government to show clear commitment to Cost reduction which was being reflected through inventory management. Their opinions are presented Table 7 below:

**Table 7: Responses on cost reduction**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Strongly agree | 41 | 39.0 | 41.0 | 41.0 |
| | Agree | 56 | 53.3 | 56.0 | 97.0 |
| | Not sure | 3 | 2.9 | 3.0 | 100.0 |
| | **Total** | **100** | **95.2** | **100.0** | |

***Source: Primary Data, 2017***

According to the table 7 above, 41% of the respondents noted that cost reduction was a function of inventory management, 56% of the respondents agreed, and 3% were not sure.

## Effective stores management and internal coordination

Effective stores management and internal coordination was cited by respondents as one of the great contributions of inventory management at Kisumu County Hospital. This was cited by the respondents as in Table 8 below:

**Table 8: Responses on effective stores management and internal coordination**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Strongly agree | 61 | 58.1 | 61.0 | 61.0 |
| | Agree | 30 | 28.6 | 30.0 | 91.0 |
| | Not sure | 9 | 8.6 | 9.0 | 100.0 |
| | **Total** | **100** | **95.2** | **100.0** | |

***Source: Primary Data, 2017***

According to Table 8 above, 61% of the respondents said that effective stores management and internal coordination in most local government is a result of proper use of inventory management, 30% of the respondents agreed, and 9% were not sure.

## 5. Discussion

### 5.1. Inventory management practices used by Kisumu County Hospital

The study investigated into the inventory management practices used at Kisumu County Hospital. The reason was to establish the strategies adopted by the district in its quest to ensure proper organizational performance. The researcher first asked respondents whether there are various Inventory management practices used by Kisumu County Hospital. According to the respondents, 35% and 30.0% of the respondents strongly agreed and 53% agreed respectively that there are inventory management practices used by KDLG. Accordingly, 10% were not sure, 2% disagreed and none strongly disagreed to the idea. The study established that accurate stores records were one of the inventory management practices used by Kisumu County Hospital. It was revealed that the employees at the district take recording as an important component of their management and that this had improved their performance, 56% of the respondents strongly agreed to the notion of up-to- date stores records as one of the inventory management practices used by Kisumu County Hospital, 40% agreed, 2% were not sure, while 2% strongly disagreed to the idea. It was established that a good stock plan helps in organizational performance and is a component of inventory management. This was cited by the respondents during the study. Respondents' opinions, 34% of the respondents strongly agreed that stock plan is a good inventory management practice, 6% were not sure, 9% disagreed, while 2% strongly disagreed to the idea.

Proper accounting records Peer counseling has many advantages to the client, the counselor and the community. Respondents' opinions on the idea are 28% of the respondents strongly agreed that proper accounting records is an inventory management practice, 56% were not sure, 5% disagreed, 9% strongly disagreed, and 2% disagreed. It emerged from the study that positive surprise checks constitutes an important strategy in inventory management. First and foremost, all employees at the district and more so top managers should work towards ensuring that all their subordinates comply with the set rules and standards in the organization. This can be achieved through surprise checks, 36% of the respondents strongly agreed surprise checks helps in promoting proper inventory management, 13% were not sure, and 3% strongly disagreed.

Kisumu County Hospital management should create opportunities where all employees in their respective departments will feel as part of the systems. Proper stores management thus was established to be an important practice that leads to organizational performance in Kisumu County Hospital 43% of the respondents strongly agreed that proper stores management is a practice of inventory management, 47% agreed, 1% were not sure and disagreed respectively, and 8% strongly disagreed. The methods that are used by Kisumu County Hospital to manage inventory are stock valuation where by the system used FIFO to record the value of the stock that is held at a particular period for accountability purposes and writing of final accounts to be submitted to the Ministry of Health. The organization has a strong data centre for its stock such as receipts, invoices which help in keeping record of all the relevant prices so as to carry out a stock valuation.

From the findings, it was evident that inventory management leads to efficiency and effectiveness by avoiding over stocking and under stocking. To ensure this stock taking is carried out to determine the stock levels and hence determine the organizations worth. It also helps to determine the balance of stock and check for any variances and make reconciliations to make sure that the physical stock corresponds with what is within the records. This helps management to detect for any variations and consider possible solutions to solving these problems. The stock control techniques used are JIT to control carrying or holding costs. The other is EOQ that controls the quality and timing of purchases. This in the end helps the organization to hold stock that is readily needed. The inventory records are enough to be relied on and there is segregation of duties on record keeping in Kisumu County Hospital.

## 5.2. Effect of inventory management to performance of Kisumu county Hospital

The study explored contributions of inventory management to organizational performance. The reason was to establish whether respondents were aware that inventory management practices contribute greatly to the performance of local governments, 21% of the respondents acknowledge the assertion that inventory management practices contribute greatly to the performance of local governments, 59% of the respondents agree, 15% were not sure, 5% strongly disagreed with the idea. It emerged that inventory planning and scheduling was being improved as a result of inventory management at the district. This was through accomplishment of the planned projects due to good inventory practices. respondent opinions were 21% of the respondents noted that inventory planning and scheduling had improved as a result of good inventory management practices, 59% of the respondents agree, 15% were not sure, 5% strongly disagreed with the idea.

Improved procurement was reported by the respondents as one of the contributions of inventory management to organizational performance as revealed, 38% of the respondents who confirmed the assertion that improved procurement, 56% of the respondents agreed, and 6% were not sure.

From the study it was confirmed that cost reduction is central in ensuring that any project prospers. It was noted by the respondents there is a need for government to show clear commitment to Cost reduction which was being reflected through inventory management. , 41% of the respondents noted that cost reduction was a function of inventory management, 56% of the respondents agreed, and 3% were not sure. Effective stores management and internal coordination was cited by respondents as one of the great contributions of inventory management at Kisumu County Hospital. 61% of the respondents said that effective stores management and internal coordination in most local government is a result of proper use of inventory management, 30% of the respondents agreed, and 9% were not sure.

## 6. Conclusion and Recommendations

The study reveals that Kisumu County Hospital holds stock that is used to satisfy current and future needs of the people of Kisumu County. The Kisumu County Hospital carries out monthly stock taking of items in stores and stock is inspected for quality and right specifications. Basing on the findings, Inventory management helps organizations to cut down costs incurred by an organization. It can therefore be concluded that inventory management practices are related to performance of an organization, corporation or business as regards service delivery.

Kisumu County Hospital should put a lot of efforts in the following; verification and tendering to ensure that the organization gets reliable suppliers, Installation of a strong control and inspecting system so as to detect fraud and theft of stock, Kisumu County Hospital should install a computerized package to deal with recording of inventory so as to avoid unintentional errors.

**References**

Ballou, R.H. (2009) *Business Logistics Management*: Planning, Organizing, and Controlling the Supply Chain, 4th Edition, Prentice- Hall International, London.

Cachon, G. and Fisher, M. L. (2000), *"Supply chain inventory management and the value of shared information*"., Management Science, 46 (8), 1032 - 1048.

Chopra, S. and Meindl, P. (2003), Supply Chain Management: Strategy, Planning and

Operation, 4th Edition, Pearson Prentice Hall, Upper Saddle River, New Jersey.

Chopra, S., and Meindl, P., (2007), "*Supply Chain management strategy, planning and operation*", 3rd Ed, Pearson Education Inc. Jersey

Coyle, J. J., Bardi, E. J., and Langley, C. J. Jn., (2003), *"The management of business Logistics: A supply chain perspective*", Quebec, Canada, Transcontinental Louisevill,

Dilworth, J. B. (1993), "*Production and Operation Management*", Fifth Edition, pp 216-252

Government of Kenya (GOK) (2013). Annual Report.

Gudum, C. K. (2002), "*Managing variability in a supply chain: An inventory* *control perspective*", PhD Thesis, Samfundslitteratur, København

Lucey, T., (2009), "*Costing*", 7th ed. London. Cengage Learning.

Lysons, K. and Gillingham, M. (2003), "*Purchasing and Supply Chain Management*", 6th Edition, Prentice Hall.

Oballah, D., Waiganjo, E. and Wachiuri, E. W. (2015). Effect of Inventory Management Practices on Organizational Performance in Public Health Institutions in Kenya: A Case Study of Kenyatta National Hospital. International Journal of Education and Research, Vol. 3 (3), 704 – 714.

Ogbo, A. I., Onekanma, I. V. and Ukpere, W I. (2014). The Impact of Effective Inventory Control Management on Organisational Performance: A Study of 7up Bottling Company Nile Mile Enugu, Nigeria. Mediterranean Journal of Social Sciences, Vol 5(10), pp. 109 -118.

# Effect Of Teachers' Workload allocation on Students' Performance In Sciences: A Case Of Tawheed Academic Institute In Mayuge District, Uganda

**[1]Henry Stanley Mbowa & [2]Kawanguzi Ali**

**[1]Lecturer, Graduate School and Research Directorate, Uganda:**

**[2]Gradund, School of Education and management studies, Kampala University**

## Abstract

*The study aimed at examining Teachers' workload and learning to the performance of students in science subjects at Taweed Academic Institute (TAI), Mayuge district, Uganda. The study employed a case study design with the use of qualitative approaches for data collection. The study targeted 140 people from whom a sample size of 103 respondents was obtained using Kreijcie and Morgan sample size determination table. Data was collected through interview, observation, focus group discussion and documentary review and analyzed qualitatively using content analysis. The results also showed that all the respondents had agreed to the contributing effects of teachers' workload on effective teaching and learning of science subjects at TAI. It was noted that, a few number of science teachers for mathematics and physics left others with no teacher allocated. Thus, this has resulted into students' failure to complete the syllabus hence poor performance. Results revealed that, presence of heavy workload has led to lack of motivation to both teachers and student hence poor performance in science subjects. The study recommended that TAI should recruit more teachers to address science teachers, the school should also motivate teachers through reducing workload, application of simple materials to teach practical instead of applying alternative to practices and the district should establish a movable laboratory which would help more than one school in the area.*

***Key words: Effective teaching, teachers' workload, performance***

## 1. Introduction

Workload is the amount of work assigned to or expected from a worker in a specific time period (Free Dictionary, 2015). Globally the Australian Council for Educational Research (ACER) in 2004 viewed workload as amount of labour on individual has to do (Ingvarson *et al.,* 2005). There is a distinction between the actual amount of work and the individual's perception of workload. The survey component of the study by (ACER) revealed few statistically significant relationships between school size, geographic location (urban rural), type of school and governance (state, state-integrated, private), socio-economic status, ethnicity, single sex and co-ed schools and actual or perceived workload (ibid). In the communities where literacy rate is low and people are not aware of their rights and responsibilities, lack ideas on good health habits development perspectives, local teachers can act as change agents. Because teachers are conscious and educated, they can cause change to take place in the community settings. Furthermore it could also be said that any expression used to represent students' scholastic standing. Gerald, Kimani & Njagi (2013) reported that the academic achievement of students at secondary school level is not only a pointer of the effectiveness of schools but also the point of wellbeing of the youth in the particular country. Yusuf & Adigum (2010); Lydiah and Nasongo (2009) noted that the performance of students in any academic task has its impacts to the society where they was act and solve various issues. The report by Daily Mail magazine of the US says half of the professional teachers leave their work due to excessive Teachers' workload. The allocation of Teachers' workload in Ugandan secondary school has become challenge to most school where the ratio of periods per teacher is over the allocated number of teachers as per education system. There are the subjects especially science subjects of mathematics, physics chemistry and biology, you may find that there are very few number or even no teacher and those are few encounter over maximum ration over the periods of teaching just because of lack of enough teachers. The average amount of time a full-time teacher is required to spend at school is only about three-quarters of the teacher's work week.

## 2. Reviewed Literature

A study by World Bank (1990) reported that Teachers' Conditions of Service (TCS) concluded that, in the absence of incentives to perform better, many teachers are currently providing much less and lower quality education than they are capable of. The de-motivation of teachers is a major contributory factor to the abysmally poor learning achievements of primary and secondary students' (World Bank, as cited in Bennell and Mukyanuzi, 2005). Nyirenda, (2005) stipulated that the standards of education are influenced by numbers of factors including students who are independent in their studies and highly motivated teachers. The experts of education are aware that excellent student performance is a result of devoted and hardworking teachers who provided right instructions at the right time. This shows that only those teachers who are highly motivated can perform better but he did not said anything on the impacts of workload on teaching effectiveness therefore it gives the room for such research to be conducted. It has been proved that teachers have an important influence on students 'academic achievement.

Wright, Horn and Sanders (1997) revealed that teacher has the importance in students learning. If the teacher is ineffective, students under the teacher's tutelage was achieve inadequate progress academically. This is regardless of how similar or different the students are in terms of individual potential in academic achievement. A number of things which influences student's achievement academically including class size, teachers effort and school infrastructures. Bennel & Mukyanuzi, (2005) confirms that the measuring indicators of variation of Teachers' workload are pupil Teachers' ratio (PRT). Primary school teachers in Uganda are deployed according to prevailing vacancy rates in the districts, which are derived on the basis of the official (TPR) staffing norm of 1:45 and this varies in Uganda between urban and rural areas. Odunsi, (2008) in the same study on the importance of teacher student ratio revealed that Teachers' attitude towards Integrated Science teaching influence students' attitude toward learning Integrated Science and achievement in the subject. Another key indicator of teaching load is the stream-teacher ratio.

World Bank, (1990), reports came up with the other indicator of teaching load as the stream-teacher ratio (STR) for 'non-urban' and urban schools. In 1990 was 1.03 and 0.7 respectively. Given this staffing constraint, the current policy of increasing the proportion of female teachers could seriously frustrate another key objective, namely the equitable staffing of primary schools, especially in rural areas where poverty is most concentrated and educational under-provision is most acute. It is said that the SEDP policy of the abolition of school fees has led to more rapid increases in enrolments in of students which has pushed up class sizes leading to class overwhelmed with students. Thus, it is the shortage of classrooms rather than teachers that is the critical constraint (Bennel & Mukyanuzi, 2005). Teachers' working loads are very big for both primary and secondary schools in Uganda. Teachers have to teach many subjects because of the small number of teachers available. However, the Teachers' workload in secondary schools is heavier which are over 50% minimum of 30 periods per week and 45 maximum per week (Sumra, 2005). Studies have also shown that there is great relationship between teachers and the academic achievement of students so far to this issue of workload nothing much have been researched. Ogunwuyi, (2000) reported a significant relationship between Teachers 'attitude and students' achievement in Integrated Science. In some other studies carried out by researchers such as Ajayi (1999) revealed there were no significant relationship exists between teachers workload and students' academic achievement while Kolawole (1982) found that a negative relationship exists between the academic performance of students and class size but Walberg (2000) proved that a significant and consistent relationship exists in the academic achievement of students in small classes of between 1-20 students that obtained higher scores in science tests than their counterparts in large classes of more than 20 students.

Therefore, the study investigated the effect of teachers' workload allocation on students' performance in sciences at Tawheed Academic Institute in Mayuge district.

## 3. Research Methodology

The study employed a case study design which used both qualitative data collection approach. The study was carried out at Tawheed Academic Institute (TAI) located in Buyemba parish, Bukatube Sub County in Mayuge district. The study targeted 140 people who included district education officer, headmaster, academic teacher, DOS, science teachers and students. A sample size of 103 respondents was determined by Krejcie & Morgan, 1970 sample size table determination. The selected sample was categorized as follows and the interview was used that is, district education officer (DEO), headmaster (HM), deputy headmaster (DHM), academic teacher (AT), 4 Directors of Studies (DOS), twelve normal science teachers (ST) while the researcher used focus group discussion to collect data from 83 students of TAI in Buyemba parish, Mayuge district. This study employed structured interview, observation; focus group discussion and documentary review methods for collection of data which was analyzed through content validity analysis and descriptive analysis. Content validity analysis involved coding and classifying makes sense of the data collected and to highlight the important messages, features or findings. The interview questions were prepared and developed; followed by a pilot study aiming at testing the validity and reliability of the tools. Ten copies of set interview questions were produced and administered to the ten randomly purposively selected respondents.

## 4. Results and Discussion

### 4.1. Effect of teachers' workload allocation on students' academic performance at Tawheed Academic Institute (TAI)

#### Response from Director of Studies (DOS)

Poor preparation of the lesson, teachings has it techniques and methodologies which guides the teacher to teach properly, which includes following the syllabus as the guide to prepare scheme of work, lesson plan and then lesson notes. Due to heavy workload of science teachers in schools they fail to prepare them properly hence affects students' performance as they fail to finish the syllabus.

Failure to attend all periods, during the interview, in all schools attended the DOS complains to this reasons that teaching load is excessively heavy to science teachers and hence affected students' academic performance negatively. They pointed out that most of the science teachers available fails to attend all periods allocated in the time table and their teaching was inefficient due to lots of classes to attend and period as well. For example, one of the academic teachers complained:

> *"The teaching load in our school is heavy in science subjects, and the situation is even worse to mathematics and physics which discourages science teachers to be motivated in teaching"* (Interview, August, 2018).

This were observed during interview with academic teachers in four school visited. The Academic teacher from the visited school highlighted that due to shortage of science it has resulted to poor preparation. One Deputy Headmaster from the interviewed school commented that,

> *"Government should employ many science teachers so as to overcome the problem of shortage of science teachers"* (Interview, February, 2018)

Results indicated that, there were huge gap between Arts teachers and Science teachers in school. Olaoye (2004) asserts that, Mathematics Teachers' experience in handling the subject with the students was found to exert greater influence on their academic performance of students. Therefore, through researchers' observation, science teachers had direct effect to students' academic performance. This implies that, Mathematics as a subject needs closer guidance from the teacher hence with a few teachers, it becomes difficult. It was reported further that, there were a few science teachers. It was also observed that there were a few number of science teachers as compared to arts this reveal huge workload allocation. This means that, students lose interest in studying science subjects due to unavailability of science teachers and drop the subjects.

The DOS noted that, teachers are de-motivated. For example;

> *"Even some science teachers are discouraged because they see their subjects are not important and less effort is made to recognize them. In most schools, physics and chemistry are regarded as subjects for senior one and two students only. Senior three and four are not considered much because subjects are option and not compulsory.*" (Interview, July, 2018)

**Response from teachers**

Various respondents from school visited acted on how Teachers' workload allocation affects students' academic performance negatively. In responding to this question they come up with the following answers; poor marking of students' assignments and class activities, assignments and provide activities have been cited as a critical ingredient in the teaching and learning process as they serve as a diagnostic tool for teaching and learning process. Results revealed that, the number of assignments given to the students were not timely marked which significantly affected academic performances. One of the teachers reported that;

> "*Due to heavy workload, I usually fail to attend to all my students' assignments and sometimes I fail to mark them on time because I have so many periods to teach"*. (Interview, August, 2018)

Failure to attend slow learners, it was also noted by science teachers to have effect to the performance of the students negatively. Due heavy teaching load, most science teachers fail to attend to slow learners to help them capture what others got. In the school, it was observed that, not all students had equal understanding capacity whereby slow learns need to be attended to in special occasion which was difficult by science teachers. This implies that teachers' workload leads to teaching of subjects out of their subject of professionalism. The findings revealed that, some of the subjects taught were out of the subject scope the teachers. It was noted by one teacher teaches that, three subjects out of the two he studied from the University were not part of the professional training.

Another reported that he was "*teaching Chemistry and Biology while the he specialized in Chemistry and Mathematics. Another teacher noted that he was teaching Mathematics and Biology, while he had specialized in Mathematics and Chemistry.*

Interestingly, the question that may need to ask is whether these teachers teaching subjects outside their areas were really teaching effectively or not?

> *Obviously, the teaching was nothing but a just teaching. Implying that, and if this is the case, what then would one expect out of this on the part of students' academic performance? Indeed, this increases teaching load on one hand but also constitutes poor performance on the other hand. As observation, this hinders Teachers' performance including subjects' preparations and also attending to students individual cases.*

The findings correspond with UNESCO (2009) which states that teachers in schools with an acute shortage of teachers are overstretched, as some of them are forced to teach subjects of which they have no experience at all. However, UNESCO (2009) suggests that teachers should be prepared to teach more than one subject, or possibly as many as three subjects, at various grades in order to minimize the effects of the shortage of teachers in developing countries.

Furthermore, failure to manage science practical, which is the most important part in learning process is in one way or another affects their performances. On the other case investigated, the study revealed that due to heavy workload among subject teachers. For example, the TAI has a laboratory facility but with a few practical equipment which could not facilitate the learning of science subjects. Evidence is presented of the highly positive attitude that teachers and students have to practice science, though the evidence of students' attitudes is equivocal and would benefit from further enquiry. Teachers and other stakeholders' positive attitudes are borne out by the individual respondents who answered the question.

> *"How important is practical work in science education performance?"* It was agreed that, it is vital as one Chemistry teacher put it: *"science without practical is like swimming without water"*.

Excessive Teachers' workload allocation has led to overcrowded period to teachers which hinders the teaching of a teacher and subjects as well. As noted from previous interviewed teachers, Teachers' workload allocation affected students' performances, and one of the teachers pointed out the same and I quote;

> *"I am the only teacher teaching Chemistry and Biology from Senior III to Senior VI. I have more than 34 periods per week, which teaching load greatly increased my workload hence poor performance."*(Interview, August, 2018)

In the same view to the other interviewed respondent pointed out that, in some other cases the respondent had to teach more than two subjects out of their subjects of professionalism either by experience or just because they studied them in secondary advanced level combinations. It was noted that in Teachers' training colleges, teachers specialized in only two subjects as noted already. In contrast, some teachers were teaching more than two subjects, some of which were not of their specialization. For example one of the teachers in at TAI had to teach biology and mathematics out of the subjects of specialization which are chemistry and physics. The other teacher had to teach biology despite the fact that the subjects of specialization are Agriculture and chemistry.

Lack of motivation to students from teachers, the findings revealed that all most all science teachers interviewed shows that they are de-motivated with teaching conditions. When the same question was posed to teachers during the interview on how Teachers' workload allocation affects students' performance most teachers agreed that they were de-motivated with teaching as they were teaching more than 30 periods per week which makes them tired of teaching.

One science teacher from the school expresses the anger saying:

> *Teaching career is very stressful here as we have so many periods and also attending so many classes due to scarcity of teachers and also the teaching environment is not supportive since the laboratories for practices are not well equip.* (Interview, August, 2018).

Poor teaching and learning environment, contrarily to above noted issue the other observed issue which also is contributing factor of teachers workload allocation in students' performance from this study is school teaching and learning environment which also is influencing the results for students who opt to take science subjects, hence, contributing to the drop of students' interest in science subjects too and even those who opt to take them are under morale.

This observation is in line to what Kupermic, Leadbeater and Blatt (2001) who emphasized that, school climate is the social learning setting or learning environment in which students have different experiences, depending upon the protocols set up by the teachers and administrators. In fact all headmasters agree that the school climate can create a fabric of support that enables all members of the school community to teach and learn at optimum levels to the students' performance.

In the school, it was observed that there were no user friendly environment for teaching and learning. One of the factors that affect the efficiency of learning is the condition in which learning takes place. This includes the classrooms, textbooks, equipment, school supplies, and other instructional materials. In the school and at home, the conditions for learning must be favorable and adequate if teaching is to produce the desired results. It cannot be denied that the type and quality of instructional materials and equipment play an important part in the instructional efficiency of the school. It is difficult to do a good job of teaching in a poor type of building and without adequate equipment and instructional materials. A school building or a classroom has no merit when built without due regard to its educational objectives and functions.

**Response from Headmaster and Deputy Headmaster**

Headmaster of the school had the same view with teachers on how Teachers' workload allocation affects students' performance in secondary school and come up with the following answers;

Number of periods taught by a teacher in a week is very hence become difficult to manage, the responses from head schools agreed that teachers in the school, science teachers were teaching large number of periods per week. For example one headmaster disclosed that:

> *"The situation is even worse in my school. I had only one teacher teaching Chemistry and Biology from Senior three to senior five for both subjects. His teaching load is extra heavy. Taking Chemistry subject for example, both senior four and senior six had three streams each, with each stream having three periods per week. This makes a total number of eighteen (18) periods per week. The teaching load is even the toughest when the same teacher has to attend to Senior Two and senior three which too have two streams each, with each stream having four periods, which make a total number of sixteen (16) periods per week. In fact, 34 periods (18+16) per week makes the teacher exhausted and demoralized."* (Interview, August, 2018)

The same to Deputy Headmaster (DHM) of the school, he also claimed almost the same situation to the Biology teacher who had a total number of forty four periods per week for the four classes. Bad enough, the DHM insisted that it is difficult to force any of these teachers to attend all periods in a week because is knowing and being aware of the heavy teaching load the teachers are bearing. She also reported about the problems prevailing in their school as a result of the clash in the periods on the timetable and needed to be addressed.

The administrative role and its effects on Teachers' workload and students' academic performance was a serious issue. This was common in the school where the headmaster is among those few science teachers teaching chemistry as a subject at the same time holds administrative roles as head of school. When asked, if the administrative role as extracurricular activity indicated in the interview guide line questions affects students' performance the answers was;

> *"I am among the two science teachers in this school teaching chemistry. Students in my classes are overcrowded adding to my extracurricular duties, it makes me fail to prepare class lessons as well as to attend students as there were interactions with administrative roles. As head of school should attend school administrative matters in and out of school which sometimes makes me fail to attend classes.*"(Interview, August, 2018)

From the findings discovered whether teachers performed administrative roles (extracurricular activities) contributed to academic performance of science subjects in the school from their answers it was revealed that, extracurricular activities contribute to academic performance.

From their claims the researcher wanted to know each of extracurricular activities which those interviewed school Teachers' possess and these were Administrative extracurricular roles and non-administrative roles extracurricular activities.

The other case observed in the same school as noted through interview, the teacher who teaches Agriculture and Chemistry at the same time due to few number of teachers in the school, he has to attend other extracurricular duties of being second masters and self-reliance teacher, when asked how it affects the teaching and learning as well as performance the answers from the headmaster was;

> *...the Chemistry and Agriculture teacher teaches both subjects from senior*

> *one to senior four. The teacher is also the second master. The teacher also is self-reliance. The teacher is occupied with a lot of work in his office. The opinion is this teacher performs his duties well despite lots of workload to attend. When these teachers are too occupied with more responsibilities, they surrender teaching but find out extra hours after normal working hours and on weekend to compensate the missed classes….* (Interview, August, 2018)

**Response from the students**

Contrary to above respondents, students when asked the same question on how Teachers' workload affects their performance and pointed the following points;

> *Fail to assist to students individually from science teachers, Students are not supported and encouraged due to lack of enough science teachers. Students need closer assistance in facilitating learning, when teachers are few, students' dreams fade. Few teachers available fail to take a close monitoring to all students due to high number of students.*

At the school, there are about 540 students with only one physics teacher and one mathematics teacher with 13 streams to teach, students also cannot rely on parental supervision. Improper preparation to teachers the findings revealed that Teachers' workload allocation leads for students to have poor preparation in the lessons as students fail to finish the lessons as supposed to be the findings revealed from the focus group discussion made by students shows mostly in all schools attended students fail to finish the lesson from one level during the end of the year.

Teachers' workload allocation for science teachers had led to the failure accomplishing the syllabus. Students complained that their science teachers have lots of period to the extent the fail to attend all classes and all periods. In the school, students claimed they did not finish their senior three mathematics syllabus and now they are in senior four learning senior four syllabuses while the last one is yet to be completed.

## 5. Conclusions and Recommendations

In Uganda, secondary teachers face so many problems starting from the working conditions as well as environmental factors, resulting to poor provision of quality secondary education to the students. The study revealed that, teachers workload to science subjects is one among the contributing factors to poor teaching and learning effectiveness as well as poor academic performance to students of secondary schools in Mayuge District. This means that, it was true that teachers' workload have direct impacts on teaching and learning effectiveness. This has contributed to the poor academic performance of the students in Mayuge District.

In order to reduce the effect of teachers' workload on students' performance it is advised for, the government of Uganda under the ministry of education and sports (MoES) to recruit as many teachers as possible to overcome the problem; teachers should apply simple materials to teach practical instead of applying alternative to practices; government should develop much opportunity to those students who undertake Teachers' degree programmes so as to stimulate large number of students to take the race.

## References

Ajayi, I.A. (1999). Teachers'assessment of parents' Teachers' association roles in administration of Secondary Schools. *Journal of Educational Research and Evaluation* 3(2), 110 -116.

Bennell, P. & Mukyanuzi, F. 2005. Is there a teacher motivation crisis in Uganda? Londres, Department for International Development

Gerald N. Kimani Kara A. M. &. Njagi L.W (2013), Teacher Factors Influencing Students'Academic Achievement in Secondary Schools in Nyandarua County, Kenya. International Journal of Education and ResearchVol. 1 No. 3rd March, 2013.

Ingvarson, Elizabeth Kleinhenz, Adrian Beavis, Helena Barwick, Imelda Carthy and Jenny Wilkinson (2005), Report on Secondary Teacher Workload Study.

Kolawole, S.K.(1982). Impact of class size on student‟s achievement in selected secondary schools in Ibadan. Unpublished M.Ed Thesis, University of Ibadan.

Krejcie, R. V. and Morgan, D. W. (1970). Determining sample size for research activities, Educational and psychological measurement, 30, 608, Sage Publications.

Lydiah,L.M.& Nasongo, J.W.(2009). Role of the Head teacher in Academic Achievement in Secondary Schools in Vihiga District, Kenya. Current Research Journal of Social

Nyirenda. M, (2014).Factors that boost education delivery in Uganda: Retrieved in 31st, March 2018 from http://www.ippmedia.com/?l=70440

Odunsi, T.O. (1988). A study of the attitudes of some Nigeria teachers towards science and science teaching. *Journal of Research in curriculum,* 6 (2), 205-211.

Ogunwuyi, O. (2000). A causal model of teacher and student factors as determinants of achievement in secondary school integrated science. Unpublished Ph.D Thesis. University of Ibadan, Ibadan.

Olaoye, L.A.A. (2004). *An evaluation of the mathematics curriculum of the Nigerian Certificate in Education programme*. Unpublished PhD Thesis. University of Ibadan, Nigeria

Sumra, S. (2005). *Working conditions of Teachers in Uganda: a research report*. Kampala.

UNESCO, (2004).Education for all, The quality impressive. Retrieved on 19th October, 2017 From, http://www.unesco.org/education/gmr_download/en_summary.pdf

Yusuf, M.A & Adigun, J.T. (2010). The Influence of School Sex, Location and Type on Students' Academic Performance Int J Edu Sci, 2(2): 81-85

UNESCO. (2009), Needs Assessment Study of Uganda Science Education. Retrieved from http://www. esrftz.orgon 06/04/2018

# Awareness, Attitude And Practices Of Food Vendors On Food Hygiene And Safety In Kampala, Uganda

**[1]Dr. Nzanzu J. Twalibu&[2]Owen Njuki**

**[1]Lecturer, Kampala University, Graduate School and Research Directorate**

**[2]Lecturer, Kampala University Nursing school and Health and Sciences; Email: owenbiotech@yahoo.com**

## Abstract

*It is estimated that street foods contribute up to 40% of the daily diet of urban consumers in developing countries. The purpose of the study was to determine the awareness, attitude and practices of food vendors on food hygiene and safety in Kampala, Uganda. The study employed a cross-sectional survey design with both qualitative and quantitative research approaches. The study targeted a total of 250 people from whom, a sample size of 152 food vendors was determined by Krejeie and Morgan sample size determination table. Data was collected through face-to-face interviewing of food vendors, with observations of general hygiene and cleanliness. Data was captured in Excel and imported into Epi Info version 3.4.3 to establish differences between markets with high and low proportions of food vendors with regard to awareness, practices and attitudes variables. Result revealed that 77% entered the business due to unemployment, 70% had been trained in food safety and 86% were certified by regulating body. Parish with a higher density of FVs were more likely to have received training as opposed to parish with a lower density of FVs and this was statistically significant $x^2=3.34:P<0.05$. Attitude towards food safety was also positive since all questions had greater than 71% agreement on the attitude to specific food safety behaviours. The study recommended that, the MoH should conduct training and FAO/WHO should look at developing a standardized tool that could be used to evaluate the 5 Keys to Safer Foods for comparison of findings with other work done in the street food environment.*

## 1. Introduction

WHO (2016) asserts that each year 9.4 million people suffer from food-borne diseases throughout the world. Therefore, it can be noted that given the nature of preparation, street food contamination is inevitable, yet millions of people depend on this source of nutrition (Kahindi, 2015). The food industry plays an important role in cities and towns of many developing countries both economically and in meeting food demands of city dwellers (Cress-Williams, 2016). It also contributes substantially to household food spending and provides an income to many female-headed households. Thus, poor personal and environmental hygiene contribute to food contamination, this result into Food borne diseases (Mathee*et al,* 2016). Street foods are perceived to be a major contributory factor, as in most instances, food is prepared in unsanitary conditions by people not trained in proper food handling techniques (WHO, 2015).

In 2016, WHO recommended that member countries should ensure that street food vending is regulated and that measures are taken to ensure the education of food vendors in hygienic food preparation principles (WHO, 2016). A baseline assessment focused on the quality and safety of street foods, the socioeconomic background of vendors and their customers, as well as vendors' facilities and aspects relating to the preparation of street foods, was conducted (Martins & Anelich, 2010).

Although food poisoning is a notifiable disease, the Department of Health reports that, food related and other diarrhoeal illnesses are conditions that are clinically mild and are less likely to be reported as people are less likely to seek medical attention (Ministry of Health, 2009).

The Ministry of Health published statistics relating to food poisoning in 2006. The report looked at number of reported Food borne illnesses and fatalities between 2001 and 2005. A total number of 1886 Food borne illnesses and 51 food borne illness related deaths were reported to the Department of Health. The majority of cases were reported from Kalerwe parish followed by Bwaise and Nsooba parishes respectively (Ministry of Health, 2006). Data on Food borne illness in the study area is this limited. Despite this, the preparation and handling of street food by the typical vendor can result in potential significant health risks for the KCCA consumer and there is special cause for concern, because of the health risks that are related to unsafe food (WHO, 1996). It is recognized internationally that these informal street food supply systems, which provide low-cost nutrition, should be managed and encouraged to develop, but with the emphasis on food safety. One of the major initiatives around street foods and their safety has been the FAO Street Food Project and in 2011, the KCCA Department of Health embarked on such a project with legislative and education components (KCCA, 2011).

The Kawempe division has been particularly proactive in taking measures to address street food vending and aims to have all food vendors registered and trained on food hygiene and safety (Kidiku, 2011). However, it has been expressed that there is uncertainty as to the effectiveness of the training in improving awareness and practices about food hygiene and safety (Personal Communication with the researcher, 20th February 2018). Therefore, the current study filled the study gap through examined the awareness levels of food vendors on food hygiene and safety, the attitudes of food vendors on food hygiene and safety, and the practices food vendors use to ensure food hygiene and safety in Bwaise parish, Kawempe division, Kampala Capital City Authority.

## 2. Literature review

### 2.1 Awareness of food vendors on food hygiene and safety

The awareness, attitudes and behaviors often explained through the Awareness, Attitude and Practices' model (Simelane, 2005). This implies that awareness accumulates through learning processes and these may be formal or informal instruction, personal experience and experiential sharing (Glanz & Lewis, 2002). It has been traditionally assumed that awareness is automatically translated into behaviour (Glanz & Lewis, 2002). However behavior change theorists and experiences in the HIV field have indicated that awareness alone does not translate into appropriate behavior modification (UNAIDS, 2004).Awareness however is not insignificant and it is found to be vital in the cognitive processing of information in the attitude-behavior relationship (Simelane, 2005). Attitude involves evaluative concepts associated with the way people think, feel and behave (Keller, 1998). It comprises a cognitive, emotional and a behavioral component implying what you know, how you feel and what you do (Keller, 1998).

It has also been noted that attitudes may influence one's intention to perform a given behavior or practice (Rutter & Quine, 2003). They are thus correlated with behavior, for instance if a person has a positive attitude towards appropriate hand washing, they are more likely to wash their hands (Simelane, 2005). However, some social scientists have argued that awareness, attitude and practices (AAP) surveys are not necessarily adequate or sufficient to provide information especially for programmatic planning. It is argued that critical elements relating to a variable may not be captured in the use of a questionnaire and that in depth information gathering using qualitative methods may be additionally beneficial in eliciting information, as surveys fail to explain the logic behind the behavior (Launiala, 2009). Another concern is that there is an assumption that there is direct relationship between awareness and behavior. In health related studies, however, it has been found that awareness is not the only factor that influences treatment seeking practice and in order to change behavior, health programmes need to address a number of issues including socio-cultural, environmental, economic and structural factors (Launiala, 2009). Behaviorists further add that a number of factors can influence one or more of the AAP variables such as self-esteem, self-efficacy and misconception (Ajzen, 2002, Keller, 1998). A few studies have looked at this aspect of behavior change, including behavioral models in food handler training, and are discussed later.

**2.2 Attitudes of food vendors on food hygiene and safety**

It was noted that education of food industry personnel in hygiene matters prayed a key role in changing food vendors attitude and that is it was been recommended as a means to improving food handling practices, and thus, the safety of food (WHO, 1996). This is attributed to the fact that human handling errors have been responsible for most outbreaks of food poisoning in developing and developed countries (Clayton *et al.,* 2002; Ehriri & Morris, 1996). For example, the hepatitis A virus can be introduced by unwashed hands of food handlers who are themselves infected. Therefore, good personal hygiene, as well as, sanitary handling practices in the food processing area is essential components of any prevention programmes for food safety (Clayton *et al.,* 2002).

A systematic review to investigate the effectiveness of food safety training as an intervention was conducted by Campbell and colleagues in Canada (Campbell *et al.,* 1998). The inclusion criteria for the studies were multiple; including study design (controlled trials, cohort, case-control, pre-test/post-test without control, cross-sectional, ecological and time series); studies with specific interventions (inspection-based, food handler training and community based education); study selection of participants(food handlers working in the formal environment) and study outcomes (changes in inspection scores, awareness of food safety practices and violation of inspection criteria). Quality assessment of the 34 studies included on the basis of the inclusion criteria categorized and rated 1 study as strong, 14 were moderate and 19 were weak. Therefore, only 15 studies were included in the systematic review. Interventions from the 15 studies were grouped into three categories of public health interventions regarded as important to enhance food safety: inspections, food handler training, and community-based education (Campbell *et al.,* 1998). Findings from the systematic review suggest that these multiple public health interventions are effective in assuring food safety, since routine inspection of food service premises (at least one inspection per annum) was effective in reducing the risk of food-borne illness ,through improved inspection scores; food handler training can improve the awareness and practices of food handlers, particularly if combined with certification; and selected community based education programs can increase public awareness of food safety (Campbell *et al.,*1998).

In the United Kingdom, a time-series experimental study was conducted as a result of the identification of unsatisfactory conformance to food safety standards following inspections (Rudder, 2006). The aim of the study was to identify barriers to compliance in the 40 food retail businesses. Environmental Health Officers conducted risk assessments on food safety through inspections at the establishments and categorized the businesses according to their performance. Over a period of six months the businesses were offered advice, seminars and one to one support. Thereafter, a further risk assessment was done and Rudder (2006) reported that 65% of the businesses had improved their risk profile, 15% had remained the same, 10% had some deterioration and a further 10% had completely deteriorated (Rudder, 2006). The authors concluded that lack of awareness and understanding of the principles of food safety coupled with language difficulties, were significant barriers to promoting food safety and that supportive activities can make a significant impact on practices (Rudder, 2006).

Aware of the lack of studies and clarity on the impact of training on food safety behaviors within the food industry, Nieto-Montenegro, Brown and LaBorde (2008) undertook a study that looked at developing food safety educational material and training strategy for Hispanic workers using the Health Action Model (HAM) (Nieto-Montenegro, Brown and LaBorde, 2008). HAM takes into account the social and environmental factors around the worker that may influence adoption of behaviors (Tones *et al.,* 1990; Nieto-Montenegro *et al.,* 2006). Seaman and Eves indicate that the Health Action Model gives the most thorough description of factors that may influence behavior change following hygiene training. The study conducted by Nieto-Montenegro *et al*. (2008), found that the educational lessons alone produced a significant increase in awareness and hand washing after using the restroom. With supervisor re-enforcement after training, hand washing before work and after breaks also increased significantly although there was no effect with the monetary incentive (Nieto-Montenegro *et al.,* 2008). This study showed that elements of awareness and motivational systems are important and that training is enhanced by supervisory reinforcement of the behavioral rules with the personnel. Its premise is similar to the type of study needed to assess the effectiveness of training of street food vendor training.

## 2.3 Practices of food vendors on food hygiene and safety

A study to assess awareness, attitudes, and behavior concerning food hygiene and safety issues amongst formal food handlers conducted in Italy found that the majority of food handlers who had attended a training course had awareness and a positive attitude toward Food borne diseases control and preventive measures (Angelillo *et al.,* 2000). The positive attitude was not supported when asked about self-reported behaviors and when observed during food preparation for practice of hygienic principles. This was on the basis that only 21% used gloves when touching raw, unwrapped food. Predictors of the use of gloves were educational level and attending training courses. The authors suggested that emphasis should continue on improving awareness and control of Food borne diseases amongst food handlers (Angelillo *et al.,* 2000). In Malawi, a study on the awareness, attitude and practices on food hygiene of caregivers also showed a poor relation between awareness, behavioral and sanitary practices, as swabs from caregivers' hands and food tested positive for coliforms and E Coli (Kalua, 2002).

Furthermore, a study conducted in Mauritius on 50 food vendors, it was reported that despite the efforts of Health Inspectors in promoting the risks of poor hygiene practices, and an awareness of hygienic conditions, the majority were not putting their awareness into practice as they perceived their products to be of low risk (Subratty, Beeharry & Chan Sun, 2004). The authors attributed this to lack of awareness and recommended a need to strengthen the educational programme (Subrattty *et al.,* 2004). Mukhola (1998) in assessing the factors influencing the safety and quality of street food in a rural area in Limpopo examined the awareness, attitude and perceptions in both food vendors and consumers. Her findings indicated that the majority of food vendors and consumers had little information regarding the proper preparation and storage of food as well as environmental conditions that may be detrimental to health. Furthermore, 64.4% of consumers thought that street food is sold under unacceptable conditions and these needed improvement (Mukhola, 1998).

## 3. Methodology

The study employed a cross-sectional survey design with both qualitative and quantitative research approaches. The study targeted a total of 250 people from whom, a sample size of 152 food vendors was determined by Krejeie and Morgan (1970) sample size determination table. The study population consisted of food vendors selling cooked foods in Kawempe division, who were practicing in Food Hygiene and Safety. A random point was determined per market in Bwaise I and II. The markets were allocated to the two strata on the basis of the population demographics, regional characteristics and numbers of trained food vendors in the parish as per the data base. Two markets were randomly selected from each stratum, i.e. 2 markets with a large proportion of food vendors (in parish I & II) and two markets with a low proportion of food vendors. Data was collected through face-to-face interviewing of food vendors, with observations of general hygiene and cleanliness. Data was captured in Excel and imported into Epi Info version 3.4.3 to establish differences between markets with high and low proportions of food vendors with regard to awareness, practices and attitudes variables. Chi-square testing was used to assess statistical significance differences between high density and low density parish with the cut off point for statistical significance set at $p<0.05$.

## 4. Results

## 4.1. Awareness of food vendors on food hygiene and safety in Bwaise parish

The research asked respondents about their awareness on the awareness on the 5 key for food hygiene and safety and their results are noted in the following Tables:

**Table 1: Participants Awareness of the 5 Keys (n=150)**

| Aware of 5 Keys | Yes: n (%) | No: n (%) | Total: n (%) |
|---|---|---|---|
| Markets with high proportion of FVs (n=98) | 57 (82.6%) | 41 (50.6%) | **98 (65.3%)** |
| Markets with low proportion of FVs (n=52) | 12 (17.4%) | 40 (49.4%) | **52 (34.7%)** |
| Total | **69 (46%)** | **81 (54%)** | **150 (100%)** |
| | ***$x^2$=16.73: p < 0.05**** | | |
| Awareness of 5 Keys adjusted for training | | | |
| Trained (n=101) | 62 (89.9%) | 39 (48.1%) | **101 (67.3%)** |
| Untrained (n=49) | 7 (10.1%) | 42 (51.9%) | **49 (32.7%)** |
| Total | **69 (46%)** | **81 (54%)** | **150 (100%)** |
| | **$x^2$=29.27: p < 0.05*** | | |

***Source: Primary Data, 2018***

***Note:*** *Cooked; Key 3: Cook Thoroughly; Key 4: Keep food at safe temperatures; Key 5: Use safe water and raw materials (See: Appendix 4 for explanation on the 5 Keys to Safer Foods)*

Results in Table 1 above show that of the 69 (47%) food vendors who were aware of the 5 Keys to Safer Foods, 57 (83%) were from Parish with a high density of FVs and 12 (17%) were from parish with a low density of FVs. The difference in awareness between the parish was significant $x^2$=16.73: $p<0.05$. This implies that, FVs from high density parish were more likely to be aware of the 5 Keys to Safer Foods. Adjusting the data for exposure to training still showed significant difference $x^2$=29.27: $p<0.05$ with trained FVs more likely to be aware of the 5 Keys to Food Safety.

**Table 2: Awareness on the principles regarding food hygiene and safety (n=150)**

| Keep Clean (Key 1): Correct Hand washing | Yes: n (%) | No: n (%) | Total: n (%) |
|---|---|---|---|
| Markets with high proportion of FVs (n=98) | 90 (72.0%) | 8 (32.0%) | 98 (65.3%) |
| Markets with low proportion of FVs (n=52) | 35 (28.0%) | 17 (68.0%) | 52 (34.7%) |
| Total | **125(83.3%)** | **25 (16.7%)** | **150 (100%)** |
| | **$x^2$=14.62: p = 0.0001*** | | |
| Cross Contamination (Key 2): Chopping Boards | | | |
| Markets with high proportion of FVs (n=98) | 73 (75.3%) | 25 (47.2%) | 98 (65.3%) |
| Markets with low proportion of FVs (n=52) | 24 (24.7%) | 28 (52.8%) | 52 (34.7%) |
| Total | **97 (64.7%)** | **53 (35.3%)** | **150 (100%)** |
| | **$x^2$=11.86: p < 0.05*** | | |
| Cross Contamination (Key 2): Storage | | | |
| Markets with high proportion of FVs (n=98) | 88 (66.2%) | 10 (58.8%) | 98 (65.3%) |
| Markets with low proportion of FVs (n=52) | 45 (33.8%) | 7 (41.2%) | 52 (34.7%) |
| Total | **133(88.7%)** | **17 (11.3%)** | **150 (100%)** |
| | **$x^2$=0.35: p = 0.28** | | |
| Cross Contamination (Key 2): Wiping Cloths can spread germs | | | |
| Markets with high proportion of FVs (n=98) | 90 (65.7%) | 8 (61.5%) | 98 (65.3%) |
| Markets with low proportion of FVs (n=52) | 47 (34.3%) | 5 (38.5%) | 52 (34.7%) |
| Total | **137(91.3%)** | **13 (8.7%)** | **150 (100%)** |
| | **$x^2$=0.09: p = 0.49** | | |
| Temperature (Keys 3&4): Cooked food must be served hot | | | |
| Markets with high proportion of FVs (n=98) | 85 (68.0%) | 13 (52.0%) | 98 (65.3%) |
| Markets with low proportion of FVs (n=52) | 40 (32.0%) | 12 (48.0%) | 52 (34.7%) |
| Total | **125(83.3%)** | **25 (16.7%)** | **150 (100%)** |
| | **$x^2$=2.34: p = 0.07** | | |
| Temperature (Keys 3&4): Cooked meat cannot be left overnight | | | |
| Markets with high proportion of FVs (n=98) | 84 (76.4%) | 14 (35.0%) | 98 (65.3%) |
| Markets with low proportion of FVs (n=52) | 26 (23.6%) | 26 (65.0%) | 52 (34.7%) |
| Total | **110(73.3%)** | **40 (26.7%)** | **150 (100%)** |
| | **$x^2$=22.46: p < 0.05*** | | |
| Use Safe water (Key 5): Safe water can be seen | | | |
| Markets with high proportion of FVs (n=98) | 54 (71.1%) | 44 (59.5%) | 98 (65.3%) |
| Markets with low proportion of FVs (n=52) | 22 (28.9%) | 30 (40.5%) | 52 (34.7%) |
| Total | **76 (50.7%)** | **74 (49.3%)** | **150 (100%)** |
| | **$x^2$= 2.21: p = 0.07** | | |

*Source: Primary Data, 2018*

Despite the poor awareness of what the 5 Keys to safer foods are, respondents answered satisfactorily with regard to the principles that the 5 Keys to safer foods are aimed at, i.e. food hygiene and safety. Therefore, it can be depicted from Table 6 above that respondents' awareness on the principles regarding food hygiene and safety as related to an in-depth awareness of the 5 Keys of food safety awareness are statistically.

Statistical significance was found in relation to hand washing $x^2$=14.62: p=0.0001, cross contamination prevention $x^2$=11.86: $p<0.05$ and appropriate temperature control with regard to the correct cooling of cooked meat $x^2$=22.46: $p<0.05$. Table 6 illustrates that 97 (65%) were aware that chopping boards could cause cross contamination with 73 (75%). FVs from high density parish more likely to indicate this as opposed to 24 (25%) from low density parish and this was statistically significant $x^2$=11.86: $p<0.05$. Awareness on the correct storage of foods to prevent cross contamination can be considered to be good as 133 (89%) correctly answered with FVs from high density markets more likely to answer correctly (66%) as opposed to 34% from low density regions. This was however not significant $x^2$=0.09: $p<0.49$.

Temperature control received good to satisfactory answers as 125 (83 %) were aware that cooked foods need to be served hot. Of those that correctly answered 85 (68%) were from high density Parish and 40 (32%) were from low density areas. Although FVs from high density Parish were more aware on this variable, this was not statistically significant $x^2$=2.34: $p<0.07$. Regarding awareness on leaving foods overnight to cool, 110 (73%) correctly indicated that this should not be done. FVs from high density parish (76.4%) were more likely to know this as opposed to 24% from low density regions. This finding was statistically significant $x^2$=22.46: $p<0.05$.

Of the 125 (83%) FVs that knew that the correct times to wash hands, 90 (72%) were from high density parish and 35 (28%) were from low density regions. FVs from high density parish were more likely to be aware of this important activity, and it was statistically significant $x^2$=14.62: $p<0.05$. Cause for concern was that 76 (51%) believed that clean water can be determined through observation. FVs from high density parish were more likely to indicate this (71%) as opposed to 29% of FVs from low density parish.

**Table 3: Exposure to training and responses to some awareness questions (n=150)**

| Washing of utensil is important between use on raw and cooked foods | | | |
|---|---|---|---|
| | **True: n (%)** | **False: n (%)** | **Total: n (%)** |
| Trained (n=101) | 86 (72.9%) | 15 (46.9%) | **101 (66.3%)** |
| Not Trained (n=49) | 32 (27.1%) | 17 (53.1%) | **49 (32.7%)** |
| Total | **118(78.7%)** | **32 (21.3%)** | **150 (100%)** |
| | **$x^2$=7.69: p = 0.004*** | | |
| The same cutting board should not be used for raw foods and cooked foods even if it looks clean | | | |
| Trained (n=101) | 64 (66%) | 37 (69.8%) | **101 (67.3%)** |
| Not Trained (n=49) | 33 (34%) | 16 (30%) | **27 (26.7%)** |
| Total | **97 (64.7%)** | **53 (35.3%)** | **150 (100%)** |
| | **$x^2$=0.22: p = 0.32** | | |
| Wiping Cloths can spread microorganisms | | | |
| Trained (n=101) | 93 (67.9%) | 8 (7.9%) | **101 (67.3%)** |
| Not Trained (n=49) | 44 (32.1%) | 5 (8.7%) | **49 (32.7%)** |
| Total | **137(91.3%)** | **13 (8.7%)** | **150 (100%)** |
| | **$x^2$=0.22: p = 0.43** | | |
| Cooked meat cannot be left overnight | | | |
| Trained (n=101) | 82 (74.5%) | 19 (47.5%) | **101 (67.3%)** |
| Not Trained (n=49) | 28 (25.5%) | 21 (42.9%) | **49 (32.7%)** |
| Total | **110(73.3%)** | **40 (26.7%)** | **150 (100%)** |
| | **$x^2$=9.69: p < 0.05*** | | |
| Safe water can be seen | | | |
| Trained (n=101) | 52 (68.4%) | 49 (66.2%) | **101 (67.3%)** |
| Not Trained (n=49) | 24 (31.6%) | 25 (33.8%) | **49 (32.7%)** |
| Total | **76 (50.7%)** | **74 (49.3%)** | **150 (100%)** |
| | **$x^2$=0.08: p = 0.39** | | |

***Source: Primary Data, 2018***

Results in Table 3 above indicates that 118 (78%) knew that it was important to wash utensils to prevent cross contamination, of which 86 (73%) were trained and 32 (27%) were untrained. Trained FVs were more aware regarding cross contamination and this was statistically significant $x^2$=7.69: p=0.004. Interestingly, irrespective of exposure to training, 91% indicated that cleaning cloths can spread germs. Keeping food at safe temperatures was an important consideration for 110 (73%) respondents of whom 82 (75%) were trained and 28 (26%) were untrained. Trained FVs were more aware of on keeping food at safe temperatures $x^2$=9.69: p<0.05. When data was adjusted by training versus no training, awareness in prevention of cross contamination and temperature control remained statistically significant.

### 4.4 Attitudes of food vendors on food hygiene and safety in Bwaise parish

This was the second objectives of the study and it was set to establish the attitude of the food vendors as regard to food hygiene and safety in Bwaise parish, Kawempe division, Kampala City. As a result, the responses for the objectives are presented in table 4 below:

**Table 4: Food vendors Attitudes to Food Safety Principles (n=150)**

| Frequent hand washing is worth the time | Agree n (%) | Not sure n (%) | Disagree n (%) |
|---|---|---|---|
| Markets with high proportion of FVs (n=98) | 82 (65.6%) | 7 (43.7%) | 9 (100%) |
| Markets with low proportion of FVs (n=52) | 43 (34.4%) | 9 (56.3%) | 0 (0%) |
| Total | **125 (83.3%)** | **16 (10.7%)** | **9 (100%)** |
| | **$x^2$=0.03 p = 0.44** | | |
| Keeping surfaces clean reduces risk of illness | | | |
| Markets with high proportion of FVs ( n=98) | 93 (68.4%) | 4 (30.8%) | 1 (100%) |
| Markets with low proportion of FVs (n=52) | 43 (31.6%) | 9 (69.2%) | 0 (0%) |
| Total | **136 (90.1%)** | **13 (8.7%)** | **1 (6.7%)** |
| | **$x^2$=5.94 p = 0.02*** | | |
| Keeping raw and cooked foods separate helps to prevent illness | | | |
| Markets with high proportion of FVs (n=98) | 89 (70.1%) | 6 (31.6%) | 3 (75%) |
| Markets with low proportion of FVs (n=52) | 38 (29.9%) | 13 (68.4%) | 1 (25%) |
| Total (n=150) | **127 (84.7%)** | **19 (12.7%)** | **4 (2.7%)** |
| | **$x^2$=8.20 p = 0.04*** | | |
| It is unsafe to keep food unrefrigerated for more than 2 hrs | | | |
| Markets with high proportion of FVs ( n=98) | 76 (71%) | 11 (40.7%) | 11 (68.75%) |
| Markets with low proportion of FVs (n=52) | 31 (29%) | 16 (59.3%) | 5 (31.25%) |
| Total | **107 (71%)** | **27 (18%)** | **16 (11%)** |
| | **$x^2$=6.53 p = 0.03*** | | |
| Thawing food in a cool place is safer | | | |
| Markets with high proportion of FVs ( n=98) | 80 (70.2%) | 14 (43.75%) | 4 (100%) |
| Markets with low proportion of FVs (n=52) | 34 (29.8%) | 18 (56.25%) | 0 (0%) |
| Total | **114 (76%)** | **32 (21.3%)** | **4 (2.7%)** |
| | **$x^2$=4.91 p = 0.02*** | | |

*Source: Primary Data, 2018*

Table 4 shows the attitudes of food vendors in relation to food hygiene and safety as a way to prevention and control of Food borne diseases were established. One hundred and twenty five (83%) agreed that frequent hand washing is necessary and worth the effort. Street vendors from high density areas (66%) were more likely to agree with this as opposed to 34% in the parish with a low proportion of FVs. This was not found significant $x^2=0.03$ $p = 0.44$. Almost all the food vendors (90%) agreed that keeping surfaces clean was important. Street vendors from high density parish were more likely to agree (68%) with this than FVs from low density parish (32%). This proportional difference was found to be significant $x^2=5.94$ $p = 0.02$. The need to prevent cross contamination by separating raw and cooked foods was an attitude that 85% of FVs had. Of these 70% were from high density parish and 30% from low density regions.

This proportion was found to be statistically significant $x^2=8.20$ $p = 0.04$. Keeping foods at the correct temperature was an attitude that was regarded positively. Seventy one percent agreed that it was unsafe to keep foods unrefrigerated for more than two hours. Of these, 71% were from high density parish and 29% from low density regions. FVs from high density parish were more likely to have a positive attitude toward temperature control and this was significant $x^2=6.53$ $p = 0.03$. The findings were similar for the other temperature control variable of thawing food correctly.

### 4.5 The practices of food vendors use to ensure food hygiene and safety in Bwaise parish

This subsection, investigate the practices which food vendors use to enhance food hygiene and safety in Bwaise parish, Kawempe division, Kampala City:

**Table 5: Practices of street vendors regarding food safety behaviors (n=150)**

| I separate raw and cooked food during storage | | | | | |
|---|---|---|---|---|---|
| | **Always**<br><br>**n (%)** | **Most Times**<br><br>**n (%)** | **Sometimes**<br><br>**n (%)** | **Not Often**<br><br>**n (%)** | **Never**<br><br>**n (%)** |
| Markets with high proportion of FVs (n=98) | 86(64.2%) | 10 (76.9%) | 0 (0%) | 0 (0%) | 2(66.7%) |
| Parish with low proportion of FVs (n=52) | 48(35.8%) | 3 (23.08%) | 0 (0%) | 0 (0%) | 1(33.3%) |
| Total | **134(89.3%)** | **13 (8.7%)** | **0 (0%)** | **0 (0%)** | **3 (2%)** |
| | **$x^2$=25.16 p < 0.05*** | | | | |
| I inspect food for freshness to ensure quality ingredients | | | | | |
| Markets with high proportion of FVs (n=98) | 86 (66.1%) | 10 (66.7%) | 2 (40%) | 0 (0%) | 0 (0%) |
| Markets with low proportion of FVs (n=52) | 44 (33.9%) | 5 (33.3%) | 3 (60%) | 0 (0%) | 0 (0%) |
| Total | **130(86.7%)** | **15 (10.0%)** | **5 (3.3%)** | **0 (0%)** | **0 (0%)** |
| | **$x^2$=0.28 p = 0.30** | | | | |

***Source: Primary Data, 2018***

Results from Table 5 above display the practices of street vendors as self-reportedbehaviors to the researchers. Eighty nine percent (89%) of respondents always observed the practice of separating raw and cooked foods to prevent cross contamination, of these 64% were from the parish with a high density of FVs and 36% from low density regions. FVs from high density parish were more likely to practice food separation to prevent cross contamination. This finding was significant $x^2$=25.16: $p < 0.05$. A further 8.7% of all FVs reportedly practiced this most times and 2% indicated that they never practice this behavior. Ensuring that fresh and quality ingredients are bought was always done by 87% of the respondents, with 9% practicing this sometimes. Although FVs from high density parish were more likely to inspect food ingredients, the finding was not significant $x^2$=0.28 p = 0.30.

## 5. Discussion

### 5.2 Awareness of food vendors on food hygiene and safety in Bwaise parish

This study aimed to investigate the awareness, attitudes and practices of food vendors regarding food safety. It was indicated in the literature review that although studies have looked at awareness, attitudes and practices of food handlers regarding food safety, a vast majority have focused on the food handlers in the formal situation, such as established restaurants. The rationale to undertake this study was to assess these factors in the informal sector as improper street food preparation may pose a significant risk to the consumer by virtue of the conditions in which they are prepared.

Attitude Regulation of food vendors has been regarded as one of the interventions together with training that could support the street food sector (WHO, 1996). By regulating food vendors, they are to be inspected as is the case with formal vendors/restaurants. If conditions are favorable, they are registered with the HOs and are legally allowed to prepare and sell food in terms of the applicable legislation (operating license). They would also then be exposed to training programmes as they would be known and can be scheduled for training. Although certification and training were inclusion criterion in this study, this study found that only 86% were certified and that 67% of FVs reported having received formal training. Only two other studies have documented certification of FVs. In the Sudan, it was reported that 64% of food vendors were certified and 0% in India (Abdalla *et al.,*2009; Choudhury *et al.,*2010). With regard to training, the large proportion of untrained (33%) food vendors in this study is concerning as it implies, that despite a regulation on training in existence, food vendors have been certified or registered with the municipality to prepare and sell food without undergoing any training. The findings of this study are slightly better than the findings of two studies conducted in Nigeria that investigated the food safety awareness and practices of food vendors in two different geographical locations. Chukuezi (2010) reported that only 5% of FVs had been exposed to formal training whereas findings established this at 12% of food vendors (Chukuezi, 2010).

The main health hazard associated with food borne diseases and street food is microbial contamination. The WHOs Five Keys to Safer Food (WHO, 2007) are recognized as a standard way of producing and maintaining safe food. Maximum adoption of these food safety keys and their associated behaviors ensure consumer protection against food health hazards (WHO, 2007). Although the majority of food vendors in this study were not able to name the 5 Keys to Safer Foods, the awareness of these principles was considered acceptable when they were asked on specific behaviors relating to the principles. For example, regarding Key 1 (Keep Clean), which relates to general cleanliness and hand washing, 84% knew that hand-washing was important and 93% knew the importance of washing raw ingredients. In relation to Key 2 (separate raw and cooked food), 89% knew that raw and cooked food should be stored separately in the refrigerator, and 91% knew that wiping cloths can spread germs. When looking at the critical temperature issues covered by Key 3 (Cook food thoroughly) and Key 4 (Keep food at safe temperatures), 73% knew that cooked meat should not be left out of the fridge overnight and 83% knew that hot (cooked) foods should be served piping hot. When data was stratified by training, it was surprising to find no difference in awareness between trained and untrained vendors although trained vendors provided more correct answers (69.9%).

The finding that the food vendors were not able to specifically name the 5 Keys to Safer Food may be attributed to the training. The principles or behaviors that are addressed in the 5 Keys may have been presented in the training as food safety principles rather than 5 Keys for safer food. Given that the 5 Keys were introduced by the WHO in 2007 (WHO, 2007), this may be particularly true for those food vendors that had been trained prior to 2008, which is two years or more prior to the survey being conducted. The percentage of food vendors who had received their training more than 24 months prior to the study was 30%. A shortcoming of this study was that the researcher did not do any verification of the training records to ascertain if indeed the specific 5 Keys training package was being utilized by the Kawempe division or whether they have just continued to utilize and teach only the principles of the 5 keys to safer food as part of the training curriculum for food vendors. This should be investigated in future studies. The ability of the vendors to be able to provide correct answers for the actual behaviors was far better than being able to list the 5 keys as they are not stand alone messages and the awareness of the actual behaviors indicates that they are far more likely to be put into practice.

The feacal-oral route is recognized as the most important mode of transmission for pathogenic microbes from food handlers to food (WHO, 2015). Keeping clean is one of the five keys that aim to promote good hygiene practices and cleanliness such as hand washing. In this study, 83% of food vendors correctly indicated that hands should be washed after using the toilet and before handling food. Other studies conducted have not asked a similar question, i.e. to obtain the most critical times that hands should be washed. Abdalla and colleagues (2009) reported that 74% of the street vendors indicated that hands should be washed due to being contaminated and 92% gave "after using the toilet" as a reason for hand washing (Abdalla *et al.,* 2009). However 38% indicated that hands should be washed when handling raw foods and 46% indicated that they should be washed continuously whilst handling foods.

## 5.3 Attitudes of food vendors on food hygiene and safety

Seventy eight percent (78%) indicated that hands should be washed with soap and water with 8% indicating that they should be washed in hot water (Abdalla *et al.,* 2009). In this study the attitude of food vendors to hand washing confirmed the findings of Abdalla *et al.,* in that 83% fully agreed that frequent hand washing was important. It can be said that the food vendors in this study have excellent awareness and a positive attitude regarding hand washing. However, the perception by 52% of the food handlers that clean water can be easily identified with a naked eye is a concern and may need to be further explored in order to determine whether this is due to the proximity of tapped drinkable (potable) water in this study area or misconception about microbes. The perception that uncontaminated water may be detected with the naked eye is concerning, as with a perception like this, people may drink contaminated water on the basis of sight, whilst exposing themselves to deadly infections such as cholera. From a food safety perspective, this would be concerning when foods that do not have a heat step are washed in water perceived to be clean e.g. salads. Additionally hand washing, utensil washing and surface cleaning would also be hazardous if water perceived to be clean was used.

Time and temperature abuse and cross contamination are well documented in a number of retrospective studies that investigated the cause of food poisoning (WHO, 2017). The growth potential of microbes is enhanced or increased through time and temperature abuse and cross contamination (WHO, 2016). Cross-contamination occurs when harmful micro-organisms are spread between food, surfaces and equipment. For example, if raw chicken is prepared on a chopping board and the board is not washed or insufficiently cleaned before preparing a ready-to-eat meal such as a salad or sandwiches, harmful bacteria can be spread from the chopping board to the ready-to-eat meal (WHO, 2015). Cross-contamination can also occur if raw meat is stored above ready-to-eat meals as the raw meat juices can drip down on to the meals and contaminate them. Additionally the prevention of cross contamination through the separation of raw and cooked foods during storage and preparation is an additional important consideration. In the findings from this study the correct awareness regarding cross contamination during preparation was reported by only 65% of the respondents which although satisfactory, is concerning, since major outbreaks are often associated with cross contamination (Park *et al.,* 2010; WHO, 2006). However, from a risk perspective, the risk posed by cross contamination during food preparation in these food handlers may not be high since very few prepared salad accompaniments.

Awareness that correct storage of food and clean wiping cloths could prevent cross contamination was very good. Eighty nine percent and 91% respectively gave correct responses. This was confirmed when attitude was assessed as 85% fully agreed with the statement that "keeping raw and cooked food separate may prevent illness". Eighty nine (89%) knew that cooked foods should be stored separately from raw foods. In an intervention study conducted in Ghana, the awareness of the food vendors with regard to this was reportedly much higher at 99% although only 27% reportedly practiced this (Donkor *et al.,* 2009). In this study, 71% reported always practicing this behavior. The higher level of awareness in the Ghana study may be attributed to the fact that it was an intervention study. Participants were exposed to a baseline assessment, trained on food safety principles and then questioned on aspects of the food safety training.

### 5.4 Practices of food vendors use to ensure food hygiene and safety in Bwaise parish

Time and temperature abuse may occur when foods are not cooked adequately to the correct temperature and immediately served thereafter (WHO, 2014; Incidence of Food borne illness, 2010). It may also occur when food not served immediately is cooled and stored inappropriately. If such food or leftovers are not adequately and sufficiently reheated, time and temperature abuse may occur (WHO, 2014; Incidence of Food borne Illness, 2010). Temperature abuse may also occur when food is held at the incorrect holding temperature for too long a period such as in the buffet type foodservice (WHO, 2016; Incidence of Food borne Illness, 2010). When asked about storage of food, many of the vendors indicated that they did not need storage as they "bought enough to cook" and "cooked enough to sell", thus time and temperature abuse as well as cross contamination between raw and cooked foods were unlikely to occur in relation to these FVs. In the study conducted by Chukuezi (2010), 43% of food vendors had leftover food for serving the next day and yet only 33% of the vendors had refrigerators for storage. This may possibly be a reason why street foods in other developing countries may cause illness and have high microbial counts. In this study a cause for concern is that only 65% knew that cooked food needed to be adequately reheated. It may be possible that this is not a behavior required to be practiced in this sector in Uganda as the focus is on the "cook enough to sell" concept. There is an indication that they do not prepare foods in advance and therefore do not conceptualize the need to reheat foods. Mosupye *et al.*(1998) as well as Mukhola, (1998) concluded that the reasons for the low microbial counts from food vendor samples analyzed could be attributed to the food being prepared on the spot and sold to consumers whilst still warm and that most (82%) vendors did not take leftover food to the market (Mosupye *et al.,*1998; Mukhola, 1998). This is one of the behaviors known to contribute to Food borne illness and there is a need to ensure that food vendors are clear on this aspect in the event that they are called upon by communities to cook in for other reasons such as for funeral preparations. Data from the Department of Health indicates that community events such as funerals are increasingly featuring Food Poisoning Outbreaks and investigations thereof suggest that time and temperature abuse were the cause.

This study found that many vendors have sufficient awareness to ensure hygienic handling of food. In addition, 81% of FVs displayed a positive attitude towards the five principles of food safety. The awareness was in some instances applied into safe practices. Although samples of food were not collected to verify these safe practices it can be suggested that on the basis of previous studies done on microbial contamination that the low microbial contamination found was due to the high level of awareness and practices of food vendors with regard to food safety.

Although only personal hygiene and surroundings were observed in this study, the findings are at an acceptable level, perhaps confirming that hygienic and sanitation conditions have improved and that food vendors in an urban environment are still capable of producing relatively safe food with low bacterial counts, as per the findings of von Holy and Makhoane (2006) and Leus *et al.*(2006). This would need to be confirmed by microbiological sampling and testing with study designs similar to that employed by von Holy & Makhoane (2006) and Leus *et al.*(2006). The observational findings in this study are consistent with the findings of Martins (2006) who reported that street vendors do observe good hygienic practices in preparing, cooking and handling foods (Martins, 2006). The survey conducted in 1999 in Johannesburg showed that high hygiene standards were maintained by most vendors during preparation and serving of food.

Food safety is also dependent on personal and environmental hygiene. Due to the nature of street foods literally being prepared and served on the street, the physical conditions/ preparation area are exposed to the natural elements. They have been further differentiated from the formal sector (restaurants, etc.) by Borne diseases Tinker (2016) adding a further qualification that street foods are sold on the street from "pushcarts or baskets or balance poles, or from stalls or shops having fewer than four permanent walls". Muinde *et al.*(2005) confirmed in their study that such sites do not give proper protection of street foods from dust and smoke from vehicles. Dust has potential to carry many microbes that may be pathogenic if left to settle on prepared foods. Hence it is important that food is covered to protect it from such exposure (Muinde *et al.,*2005). In Sudan, Abdalla *et al.* (2009) found that 38% of vendors sold food with no covering (Abdalla et al, 2009). Based on observations, the current study found that 63% of food vendors had cloths or alternative covering items to cover the foods being served. Chukuezi (2010) reported similar findings with 10% of the vendors storing food for serving in the open (Chukuezi, 2010). He furthermore found that 43% did not use aprons and 52% wore no hair covering.

Consistent with this are the findings of Muinde *et al.* (2005) who found that 81.3% of the vendors did not use aprons and 65% did not cover the hair while Mensah *et al.*(2002) found that 54% wore hair coverings (Muinde et al, 2005; Mensah *et al.,* 2002). In a study conducted in Bloemfontein in 2006, 71% of food vendors observed wore head coverings during food preparation (Leus *et al.,* 2006). In contrast to the above findings, this study in revealed that 90% wore aprons and 83% wore head coverings. In terms of the legislation, the regulations governing the general hygiene requirements for food premises and the transport of food (Food and Vending Act, 1999), anyone preparing food should wear protective clothing such as aprons and head coverings such as nets or scarves (as cited in MoH, 2006). The reasons that the food handlers conformed to this requirement was not explored in this study. One would expect that it could be linked to the certification and or training.

## 5. Conclusion and Recommendations

It can be concluded that these food vendors practice the 5 key behaviors required to ensure food safety and that possibly the health risk posed by street foods may be no greater than the risk posed by foods from other sources. The study provided Kawempe division with information regarding the awareness, attitudes and practices of food vendors as well as information regarding on who is trained and certified. KCCA's trainings should focus on an understanding of the rationale for the behaviors as awareness is not always translated into practices and Kawempe division should regularly capture information and inspect vendors on food safety and hygiene.

## References

Ajzen, I. (2002). Perceived Behavioural Control, Self-Efficacy, Locus of Control, & the Theory of Planned Behaviour. Journal of Applied Social Psychology, 32: 665- 683.

Angelillo, I.F., Viggiani, N.M., Rizzo, L. & Bianco, A. (2000). Food Handlers and Food-borne Diseases: Awareness, Attitudes and Reported Behavior in Italy. JournalFood Protection, 63(3):381-385.

Campbell, M.E., Gardner, C.E., Dwyer, J.J., Isaacs, S.M., Krueger, P.D. & Ying, J.Y. (1998). Effectiveness of Public Health Interventions in Food Safety: A Systematic Review. Canadian Journal of Public Health, 89(3): 197-202.

Cress-Williams, L. (2016). Food Micro Enterprises for Food Security in an Urban Slum Community in East London: Development of an Awareness-Creating Programme. Unpublished Dissertation. Stellenbosch University.

Ehriri, J. E. & Morris, G. P. (1996). Hygiene Training and Education of Food Handlers: Does it Work? Ecology of Food and Nutrition, 35: 243–251.

Kahindi, B. B (2015) Food Safety Management Practices of Small and Medium Sized Food Industry Enterprises in Tanzania

Kalua, F.K. (2002). The Relationship Between Awareness, Attitudes and Practices of Caregivers and Food Hygiene at Day Care Centers.

KCCA (2011). Promoting foot street food vending in Kampala and beyond. Kampala Capital City Authority, Uganda.

Keller, J. (1998). Attitude is Everything. New York: INT.

Kiduku, S. (2011). Knowledge, practices and practices among food handlers

Krejcie, R. V. and Morgan, D. W. (1970). Determining sample size for research activities, Educational and psychological measurement, 30, 608, Sage Publications.

Launiala, A. (2009). How Much Can a KAP Survey Tell us About People's Awareness Attitudes and Practices? Some Observations from Medical Anthropology Research on Malaria in Malawi. Anthropology Matters, 11 (1).

Martins, J.H. & Anelich L.E. (2010). Improving Street Foods in South Africa. Unpublished Report for the Food and Agricultural Organization of United Nations, Rome TCP/SAF/8924 (A).

Mensah, P., Yeboah-Manu, D., Owusu-Darko, K. & Ablordey A. (2002). Street Foods in Accra, Ghana: How Safe are They? Bull World Health Organization, 80(7) Geneva.

Ministry of Health (2006). Ensuring the Safety of Street Foods in the City suburbs. Proceedings of the Tenth National Conference on Food Safety. Kampala, Uganda Sep. 19-23, 2006.

Ministry of Health (2009) Epidemic Preparedness Committee Report.

Mukhola, M.S. (1998). Factors Influencing the Safety and Quality of Street Food in Rural Areas. Unpublished Dissertation. Tshwane University of Technology.

Nieto-Montenegro, S., Brown, J.L., & La Borde, L.F. (2006). Using the Health Action Model to Plan Food Safety Educational Materials for Hispanic Workers in the Mushroom Industry. Food Control, 17 (10): 757-767.

Rudder, A. (2006). Food Safety Risk Assessment of Ethnic Minority Food Retail Businesses. Food Control, 17(3) 189-196.

Rutter, D. & Quine, L.(2003). Changing Health Behaviour: Intervention and Research with Social Cognition Models. Open University Press. Buckingham.

Simelane, N.B. (2005). HIV/AIDS Awareness, Attitudes and Risky Sexual Behaviours of College Students at Nazarene Teacher Training College in Swaziland: A Descriptive Study. Unpublsished Thesis. University of the WesternCape.

Subratty, A.H., Beeharry, P. & Chan Sun, M. (2004) A Survey of Hygiene Practices Among Food Vendors in Rural Areas in Mauritius. Nutrition & Food Science, 34(5): 203-205.

Tones, K. Tilford, S. & Robinson, Y. (2011). Health Education Effectiveness and Efficiency. Chapman & Hall. London.

World Health Organization (WHO) (1996). Food Safety Issues: Essential Safety

Requirements for Street Vended Food (Revised edition). World Health Organization.Geneva.

World Health Organization/Food and Agriculture Organization. (2016). FAO/WHO guidance to governments on the application of HACCP in small and/or less-developed food businesses. *FAO food and nutrition paper*, 8, 3.

# National Agricultural Advisory Services And Economic Development In Emerging Countries: Empirical Lessons From Uganda In Great Lakes Region

[1]Mark Kiiza & [2]Nduhura Twesigye

[1]Lecturer, School of Social Work and Social Administration, Kampala University, Email: kmalkoedit@yahoo.com

[2]Lecturer, Department of Business Administration, Kampala University

## Abstract

*Over time, National Agricultural Advisory Service has become an increasing aspect of concern and has enhanced food security and economic development in emerging countries. The study examined the impact of NAADS programme strategies and farmers' perception on economic development of Uganda. The NAADS programme implementation practices was anchored on scientific management theories that are fuelled by political, economic and social education spheres of life. It employed a case research design which enabled in-depth understanding of variable. The study sampled 60 participants as unit of inquiry from unit of analysis in Kakumiro district Uganda. Interviews, focused group discussion and survey were used in data collection. Data collected was analysed using content analysis and excel. Findings revealed that NAADS strategies of popular community education significantly influenced perception, implementation of programme and economic development. The study concludes that knowledge gaps underpin implementation, perception and significantly affects steady development progress among farmers. The study recommends for more effort in community participation, corporate governance, improved popular education fuel perception and bottom up practices beyond the farmers group level activities. The study also recommends collective decision-making process at inter-group level, in order to increase local farmers' participation in Uganda, Great Lakes Region.*

***Keywords: Advisory services, bottom-up practices, corporate governance, NAADS***

## 1. Introduction

Globally agriculture is known as an engine and critical path way that fuels rural economic development and reduction of poverty in most of the developing countries. It is a known across continental that Agriculture is a pivoting point and an essential economic activity that rapidly promotes improved livelihood and gross domestic product of people in developing countries (Group, 2018). Despite of all benefits Agriculture does fuel economic development, improving livelihood in Africa most of the leaders invest very little in agriculture industry. That alone leave a lot to desire and it is noted that most of the emerging countries especially in Africa neglect and despise agriculture despite its contribution and benefits towards economic development (Rodney, 2018). The modernisation of agriculture is taking shape and steady progress in emerging economies is a blessing in disguise on African continent. Denhardt & Denhardt (2015) contends that most people who have effectively participated in community popular education and Agricultural advisory services in the Great Lakes Region of East Africa have exhibited indicators of economic shift as far as there earning are concerned. Therefore this confirms that Agriculture is very instrumental in fuelling development within the region (Modi & Cheru, 2013). The government of Uganda has taken a stride among others in the emerging economies within the Great Lakes Region to support this sector so as to pave its way towards middle income earners has tried her level best to support agriculture activities and fuel modernisation and prosperity for All. It is notable that the NAADS programme exhibits a stable paradigm shift from the tradition approaches of farming to a modern way basing on the trends of the technology in Agriculture sector which fuelled economic development in communities. The assumed linear path of community-based education and engagement of local people has transformed people's perception and encouraged active involvement in National Agriculture Adversary Services activities. NAADS has greatly improved livelihood and economic development in rural Communities in the Great Lakes Region (John, M, Johannes, & Ousmane, 2016).

However, information asymmetry still serve as the underlying factor jeopardises steady progress and retards economic development to many people the region. The empirical lessons from Uganda, National Agricultural Advisory Services (NAADS) programme and the skills acquisition of popular education practices plays a vital role in fuelling gross domestic product and enhanced economic development. In Uganda, Kakumiro district people testify steady progress in peculiar way. Despite the impressing and real Impacting stories from farmers in Uganda organizations there are a number of barriers affecting the agriculture sector. NAADS inception in Uganda come in as a paradigm shift which was first tested in some six different to see its feasibility by then Kakumiro District was still part of Kibaale District later it was covered off to form an independent district (Salgues, 2016). What trigged the study was the unique way of rural community participating in NAADS implementation activities within the newly formed districts like Kakumiro district. It is further noted that the programme has improved livelihood while shifting the gross domestic products from low income earns towards middle income earns with increased Gross Domestic Product (John et al., 2016).

Further, one of the most painful elements is inadequate stable market for the produce which affects farmers and extension education system operates in the government of Uganda. NAADS programme proposes that, within the districts like Kakumiro and new farmers should be given executive demand driven support so as to make a difference. The farmers will be well served effectively with political support of the new leadership of the district. Moss, (2013) contends that contracted NAADS service providers in the districts should understand how farmers learn and perceive the given concepts and skills. "Learning" is the acquisition of knowledge, values and skills using the available technology (Taylor et al., 2006).

Thus, NAADS programme is grounded on government policies of decentralization and arched on, liberalization, privatization theories and promoted by increased popular community-based education activities. The administrative structure and NAADS framework allow active community based participatory approach and the policies to influence the implementation process activities (NAADS, 2000).That alone enables the beneficiaries to get involved actively in decision making process with regard to the identification of needs, setting of priorities, formulation of plans, monitoring and evaluation of outputs and outcomes (Kemp, 2018). World Bank (1994) looks at community based popular education and extension agriculture skills from economic development perspective and critical pathway towards modernisation. The effective implementation of NAADS programme process influences the beneficiaries and local community to share common knowledge and control over development initiatives, decision making and appropriate utilisation of resources that affect their lives.

It is against that background the authors were interested in conducting a study to unveil information asymmetry and shade light the implementation of NAADS programme and people's perception in Kakumiro district in Uganda.

## 2. Review of Related Literature

This presents the philosophy and a number of theories in literatures reviewed history of agriculture and extension services. The authors also look at the modernisation and independent theories to provide insights for better understanding of the pathway of NAADS programme. The relevant literature and the theories informed the authors on popular community-based education programme and its benefits for community empowerment initiatives and economic development. Brett (2003) presents the role of participatory and change management theory is to provide rigor and firm ground in managing economic development projects and programmes in poor countries. The authors' noted that popular agriculture education services and NAADS have emerged in response to global demands driven appeals for greater individual learning.

The article points out that education can succeed for specific kinds of projects and programmes in favourable circumstances, but is unsuitable for many others (Costandius, 2012). The NAADS programme implementation framework emphasizes participatory approaches that enable the community beneficiaries to get involved actively in decision making process with regard to the identification of needs, setting of priorities, formulation of plans, monitoring and evaluation of outputs and outcomes (NAADS

2000; 2006).

Drawing from Midley (1986) and Rondinelli (1991), Muhangi (2007) points out that the rationale for community education has been thought to include being a means of enhancing empowerment, enhancing responsiveness to people's real needs, instilling a sense of ownership of programmes by the local people, promoting sustainability, and making programmes cheaper by allowing mobilization of local resources. Education is also believed to promote more equitable distribution of the benefits that accrue from development activities.

The NAADS implementation modalities (2006) indicate that NAADS is aimed at empowering farmers to demand for advisory services in order to increase their agricultural productivity and incomes. The poor subsistence farmers in the rural communities are the principle beneficiaries of the NAADS programme but interesting you find that the elite are the ones doing well as far as the programme is concerned. However, this scenario is attributed to fail to integrated indigenous knowledge with the programme that alone creates acknowledge gap of the most poor and disadvantaged people in the society.

The most poor and rural Farmer Groups form the channels through which farmers receive advisory services under the programme but worse still the education and advisory services are given to them in English which is sometimes hard for them to comprehend. NAADS support farmers to organize in groups to benefit from collective effort and to access advisory services, technologies and production inputs. There is need for empirical evidence on whether the NAADS implementation modalities as stipulated in the 2006 report are put into action. A study on community education in NAADS programme in Kakumiro district will provide this evidence. World Bank report (2000) points out that poverty has remained stubbornly high in Africa for decades due to inappropriate approaches used to alleviate it. It notes that top-down plans, donor-driven investment programmes have been less than successful. What is contained in the new vision of the Bank is therefore a vision of prosperity through the empowerment of local communities.

## 3. Methodology

The study employed a case study design using both qualitative and quantitative data collection approaches to enable critical examination of the NAADS' programme and the set implementation modalities. The study targeted 80 people from NAADS and a sample size was 60 participants which included forty (40) NAADS' beneficiary ordinary farmers and twenty (20) key informants who included farmers and other relevant domains in national agriculture adversary programme. The study employed scientific and rigour approaches which entailed registration of all NAADS participants in order to determine the 60 research participants. Data was collected from respondents through interviews, focused group discussions and questionnaires with open-ended questions. The data collected was analysed using excel and content data analysis to draw meaning from the finding of the study.

## 4. Results and Discussion

### 4.1. The NAADS implementation strategies

The study results indicated that respondents they participate in the formation of farmers' groups which was so significant in popular education system. The NAADS Programme by principle requires the beneficiaries to form groups so as to ably benefit from agricultural and technology inputs and their active participation as group members (MAAIF, NAADS implementation modalities report, 2006).

Evidences indicated that the small groups for the farmers enhanced active participation and learning which was significant to reinforce effective and efficiency Kakumiro District. With the assistance of extension workers at the sub-county level specifically the community Development officer (CDO) farmers are mobilized voluntarily to form or join groups on the basis of the identified enterprise(s) people greatly benefited and improved on their livelihood in the district.

The Small group membership varies from one group to another but the majority of the groups comprised between 20 and 25 members in Kakumiro District, Uganda. A person becomes a member after paying a membership of 2,000 Uganda shillings as a sign of commitment to a group. That simple contribution fee which is determined by the number of members in a particular group fuels commitment and devotion of the members in the programme. Every farmer's group must be registered at the sub-county level with the sub-county accountant and pay a registration fee.

The group is also required to open up a bank account in a nearby micro finance institution to enable them acquire simple loans to run their activities so as to significantly benefit from the NAADS programme. It is also a requirement that each registered group pays a co-funding fee annually to the sub-county accountant. This is meant to ensure that the group is and remains active.

**4.2 Participating individual and comprehension of NAADS programme support**

The findings indicated that, comprehension of NAADS programme implementation modalities (2006) by state had challenged people's perception and that one of the mandates of the NAADS programme was to empowering farmers the popular community-based education and also support other enterprises selected by participating individuals.

The finding further revealed that through active communal participatory process of farmers and individual member running different enterprises, they are guided to profitably gain from their farming activities and enterprises as promoted in their groups.

The study findings from Respondents indicate that farmers' and other group members participate in different ventures select from the available enterprises which have already been determined by the Farmers' or individual member forum executive at the sub-county level with the assistance of the technical planning committee. That alone gives evidence of the comprehension and appropriate use of the knowledge gained from popular education of the NAADS programme. The programme significantly helped the members and participating farmers to reap from the knowledge and skills gained from NAADS programme. In both counties of Nalyeyo and Kisiita, the selected enterprises included Beans growing / Banana plantation improvement, Goat rearing, and poultry keeping.

The technical planning committee at the sub-county level consists of, among others, the sub-county chief, secretary for production, C/ Person LC III, and the NAADS coordinator also significantly contributed to good practices exhibited in Kakumiro District, Uganda. This committee together with the farmers' forum selected the enterprises for each financial year on the basis of geographical and climatic conditions that would favour the selected enterprises.

However, the study findings indicated the majority of respondents expressed inability and having inadequate of information about the criteria followed in the process of appropriate financial management of enterprises in the sub-county. Most of them feel they are not empowered fully in regard to effective management their own enterprises in business form so as to maximise their resources.

The farmer group executives and representatives at various levels

All the respondents said that they participate in elections to elect group leaders and other farmers' representatives at different levels. Group leadership structures consist of the chair person, vice chairperson, secretary, treasurer, and advisor/ mobilizer. In a general meeting, candidates are nominated, seconded, and members vote by show of hands. The term of office varies from one group to another but is commonly between 2-3 years, after which new leaders are elected.

Respondents said that leaders play a big role in as far as group enterprise activities are concerned. Notable roles of group leaders mentioned include convening and conducting group meetings, representing group members at higher level NAADS meetings at parish or sub-county level, monitoring group enterprise activities, and ensuring group cohesion.

Farmers also elect their representatives at different levels: parish and sub-county. At parish level, during the inter-group meeting, members elect the NAADS parish coordination committee (PCC), community-based selection committee, inter-group association, and community-based facilitators (CBFs). Still at parish level, under the new NAADS arrangements, farmers elect the six demonstration and lead farmers in the parish.

At sub-county level, the elected farmers to the parish level hold a meeting and elect farmer representing the parish farmers at sub-county level which make up the farmers' forum. The council is composed of 18 members with its chair person as the head. Fifteen of them are farmers representing various parishes and three are technical staff at the sub-county, including the sub-county chief, secretary for production, and the NAADS Coordinator. Members of Farmers' forum elect from among themselves the procurement committee which is composed of three members.

## Monitoring and evaluation of NAADS programme

Some respondents said that as members of groups they participate in the monitoring of group enterprises. This is done through group field tours whereby they visit fellow group members who are engaged in NAADS enterprises. The monitoring exercise focuses on the assessment of the performance and progress of group enterprises. They look at how the activities are fairing, difficulties and challenges faced by group members, and advise accordingly.

Other respondents said that sometimes they make rotational monthly meetings hosted by a group member. Members use this opportunity to visit the host member's activity site to assess the progress and advise accordingly. Respondents in both counties of Nalyeyo and Kisiita spoke about this participatory monitoring. However, this practice varies from one farmer's group to another; thus, it is not cross-cutting in all farmers' groups. The practice is also not continuous but it is planned for only specific periods of time.

Most respondents said that according to the trainings they attended, they were aware that monitoring and evaluation of the NAADS programme and enterprise activities is the work of community-based facilitators (CBFs), parish coordination committees (PCCs), chairperson farmers' forum and the NAADS coordinator. They reported however, that the concerned officials have not done their work as expected because they rarely monitor group enterprises. Some of these officials also admitted that they have not done their work of monitoring and evaluation effectively. Particularly, the CBFs in both Nalyeyo and Kisiita counties explained that this is because of poor facilitation. One CBF noted:

"It is true i was given a bicycle to do the work of NAADS sensitization and monitoring of NAADS' farmers' group enterprises in Nalyeyo parish but I do this once in three months. I cannot do it every month because I also have other things to do. Besides, the NAADS programme does not provide me with lunch or dinner whenever I go there to do the work"

Contrary to the PMA annual report 2005/2006 which states that the NAADS Secretariat trained parish monitoring and evaluation (PM&E) coordination committee members and facilitators from 20 districts in the country, in the parishes of Kakindo and Katojo in Nalyeyo Sub-county, Kakindo parishes in Kisiita County the training programme was unheard of by the respondents. This explains the ineffectiveness of the NAADS programme monitoring exercise, particularly farmers' enterprise activities in the study area.

Procurement and supply of agricultural and technology input / implements to farmers

One of the areas which the majority of respondents mentioned and termed 'denial of the right to participate' was the procurement process. Respondents reported that unlike in the first phase of programme implementation where procurement was the preserve of the NAADS implementing officers at the district and sub-county level something that resulted in procurement and supply of poor quality goods / materials and services, under the 'new NAADS' implementation guidelines (2008), beneficiary farmers were trained and well informed that the procurement process should be participatory and involve beneficiary farmers at each successive stage as much as possible.

However, members of the CBSC at the parish level in both counties of Nalyeyo and Kisiita complained that their education in this process is stifled by the procurement committee at the sub-county level. Moreover, all supplies are procured at high prices which some respondents termed as "inflated prices". Some members of these committees noted that they sometimes deliberately refuse to sign the delivery sheets because of lack of transparency in the entire procurement and supply process despite the existence of principles and guidelines entailed in the NAADS Master document (2000), implementation modalities (2006), and 'new NAADS implementation guidelines (2008).

Community education in the programme implementation to its beneficiaries

Most respondents said that because of their education in NAADS activities mainly through group meetings and NAADS training, they feel empowered to make decisions regarding NAADS programme implementation. They freely participate in the formation of their own farmers' groups and decide from among the available enterprises to engage in their favourite enterprises.

Currently the farmers in goat rearing enterprise rear indigenous goats which are procured locally or from neighbouring districts. The same applies to those engaged in poultry farming who also decide on which breed – exotic or indigenous to engage in. Some respondents were rearing indigenous while others exotic breeds of poultry either layers or broilers.

Most respondents said that education in group activities has made them develop a sense of belonging to a social grouping and that they have benefited from the social support networks that have developed as a result. They have also developed sense of ownership of the group enterprises whereby each member of the group ensures that the group enterprise succeeds for the benefit of all the group members. There is a conviction of a shared responsibility that the group will gain or lose if the enterprise succeeds or fails.

However, this arrangement wealth recreation has boosted the coming in of the 'new' NAADS on the basis of a Presidential directive with effect from the financial year 2018/2019. The directive requires that one-member positive perception and comprehension in order to benefit from the programme.

Most respondents said that their education in group activities particularly meetings and training has offered them an opportunity to express personal views. There are issues and concerns which need collective action and advice from other group members. Through group meetings members express their opinions freely and get advice and answers or solutions to whatever problems they may be facing.

The majority female respondents said that education in meetings and other group gatherings has helped them gain confidence to express themselves in public. One female respondent said:

"…before I joined NAADS, I used to be shy and I could not speak in public gatherings, but these days, because of our farmer group meetings and training I have gained confidence to speak in public and now I can freely express myself and put across my point right in meetings and any other public gatherings without any fear".

Most respondents also said that participating in the activities of NAADS group enterprises particularly rotational meetings, and training has enabled them to learn from fellow members about enterprise activities and other development issues. They added that in such organized activities, members share views, exchange ideas, and have on-site study about enterprise activities. Members also make self- assessment of their own enterprises in comparison with others. This motivates them to work hard for better results. A number of sayings and proverbs were mentioned in connection with the above point which included among others "Two heads are better than one"; "one who does not consult others brews bad alcohol"; "concerted effort of the teeth breaks the bone"; "no man is an island".

Some respondents who hold leadership positions said that they have gained organizational and leadership skills. In addition, they have learnt how to be good examples of others. One chair person of a farmers' group said:

"…as a leader, you have to be exemplary to others. You must coordinate, guide, and monitor members' enterprises and prepare reports for higher authorities. You have to make sure that your enterprise meets the required standards and usually be a point of reference for best performance so as to encourage fellow members to work hard".

The above responses are in agreement with the arguments put forward by theorists and advocates of community education such as Brett (2002) who argued that education strengthens managerial competence, motivation and performance of workers, social solidarity, and relative position of poor and marginal groups in society. He also argues that education empowers poor people by taking them out of exploitative economic relationships and giving them control over their own organizations.

However, much as most respondents said that they actively participate in the activities of farmers' groups and their education is beneficial, this education is mostly felt at group level. Beyond group level, as we saw earlier, most decisions seem to be made by higher- level authorities at the sub-county, district, or NAADS secretariat. That means that in some cases farmers participate in the activities already decided upon by someone else. This tallies with what Mosse (2001) pointed out about the manipulation of 'people's planning' whereby rural people's knowledge (including for example analysis of problems, needs and plans) is produced collaboratively in the context of planning. More generally, programme action is shaped by the project's engagement in wider coalitions contending for influence within national and international policy arenas.

**4.3. NAADS programme beneficiary education and the perception**

The findings from Nalweyo sub-county and other parishes of Kakindo and Kikwaya seemed to have a high level of beneficiary education and perception of the programme skills. It is because they have benefited from NAADS more than participants from other sub-counties. The evidence indicated significant change of performance and responsiveness of people in the community and there is a steady progress in their livelihood. In Kisiita sub-county, the NAADS programme was introduced in FY

2013/2014 and most respondents have greatly benefited directly in the knowledge, skills and values from agricultural adversary input, training and group meetings. Most farmers groups are actively participating and involved in different enterprises have registered significant progress in their venture which has posted into a paradigm shift in their lives.

On the other hand, it is noted that, there is a slight variation among the participating personnel Bwanswa and Nalyeyo sub-counties there results clearly indicated steady progress and the majority of NAADS beneficiaries joined the programme in its transitional period during 2017/2018. The findings further indicate some people, who had been reluctant to join NAADS programme their gardens and business venture are not doing well as compared to the participating members. The findings revealed that, the people who are not participating were functioning poorly as was evident from the delivery of poor-quality goats, and farmers being mere recipients and not decision makers, among others. Unfortunately, when they decided to join after having heard that NAADS had been modified to empower farmers more, it was the same time that the programme was suspended. Now the 'new' NAADS has come with new guidelines and directives.

For example, the impact of NAADS in Nkondo is not clear given the fact that alongside it is numerous other rural development programmes and agricultural- related projects being implemented.

These include Kakumiro District Farmers' Association (MBADIFA), Uganda National Farmers' Association (UNFA) Technology Serve, Uganda Women's Effort to Support Orphans (UWESO), Area-based Agricultural Modernization Programme (AAMP) to mention but a few, of which most respondents were also beneficiaries. Some respondents could hardly differentiate the activities of these projects and programmes and they seemed to confuse them with those of NAADS. Others pointed out that it was hard for them to isolate NAADS programme activities and their impact from the rest of the projects or programmes because they are all jointly implemented and they are the same beneficiaries.

Generally, in both counties, education was higher in the early phases of NAADS implementation and specifically at group level as mentioned above. However, today, it is declining because of new NAADS guidelines and presidential directive, as well as non-response from the NAADS programme to beneficiaries' demands which, with these new guidelines will probably never be responded to the required activities of the programme.

One farmer pointed out that:

Service providers know alot of technical stuff, but all we need is simple information that is suitable in our villages and for our own environment. They seem to train farmers without understanding the real objective of why we are learning it. We need pictures that we can hang on our walls. It is easier to learn through pictures.

There progressive farmers who are doing well and some struggling farmer lamented that the instructors concentrated on the teaching task but did not care whether the farmers comprehended the given issues so that they may be in position to apply the learnt knowledge and skills in their life. There where are need to mind of the medium of instruction and translate the agriculture knowledge in local language (Runyakitara) for ease comprehending of the subject matter.

There are farmers among the beneficiaries in Kakumiro district who are excellent farmers that we can learn from them. If the service providers could listen to the community could them appropriately.

Some of the farmer questioned why some service providers talk about political parties during training sessions and, yet, are supposed to talk about agriculture. It is important to note that politics will and executive support of the government is important in developing countries, particularly in Uganda.

4.5. Discussion

In Kakumiro district Uganda, the majority of respondents have benefited directly from the NAADS programme by way of the training and the agricultural inputs they have received. Consequently, they have increased their stock of domestic animals mainly goats and chicken.

Kisiita County who have been in the NAADS programme for years but have not yet benefited. There are many farmers' groups whose members have never individually benefited and yet they pay annual co-funding (Beveridge, 2012).

Most of them appreciated the outcomes of their education in training they had attended. Farmers who are doing well have herds of goats, many chickens, and well-tended banana plantations which produce large bunches of matoke. One successful respondent in Nalyeyo said:

"… before I joined NAADS, I had a poor-quality banana plantation which was producing small sized matoke mainly for home consumption. But now as you can see, my banana plantation has improved tremendously and it can now produce very large sized matoke for both home consumption and for commercial purposes. This is because of advisory services and trainings about enterprises and farmer group meetings I attend where I got this knowledge"

Another one said: "

… before I joined NAADS, I had few and small-sized goats which I was rearing using traditional method, but when I joined NAADS, I attended training organized by NAADS officials about modern methods of rearing goats. Also, by attending group meetings, I have learnt better methods of rearing goats and it is because of this that the stock has increased and the quality in terms of size has also improved tremendously".

However, the current NAADS implementation guidelines particularly the Presidential directive ordering the selection of only six beneficiaries (demonstration and lead farmers) per parish for each financial year has had a negative impact on the beneficiary education and their attitude towards the NAADS programme as a whole.

This is because farmers' group members, who had previously applied for the enterprises and have been waiting, may end up not being considered under this new arrangement. This is judged on the basis of possession of farm structures (for goats and poultry enterprises), a reasonable size and 'improvable' banana plantation among others as advanced (Plato, 2016).

Most respondents argued that NAADS is now for the rich and not the poor, and that it has lost track. One respondent in Kihumuro Bwanswa parish, Kisiita challenged the NAADS programme implementation modalities and said:

"Surely, if NAADS was designed for poor farmers, how then do we select those farmers with certain material and structural possessions at their homes and who happen to be the rich and you give them more things to make them richer and leave out the real poor and needy farmers? Is NAADS trying to fulfil the biblical scriptures that 'one who has, more will be added unto him'? I think NAADS is losing track".

Another respondent commented on the Presidential directive:

"…this directive is unfair and does not consider a number of factors affecting the poor farmers. I belong to a farmers' group of goat rearing enterprise and our member was recently selected as a lead farmer and she was given 21 goats to rear but to pay back two million shillings to the group through its bank account within a period of two years. But I am wondering if my turn comes, will I manage to rear all these goats because I have a small piece of land? If they die because of overstocking, will the group not lose out? Besides, we are 20 members in a group, if the first recipient is to repay after two years, it means the last beneficiary will have his/her turn after forty (40) years.

Generally, all the respondents were pessimistic about the operationalisation of the new NAADS guidelines (2008) and particularly the President's directive on the criteria of selecting only six beneficiaries per parish. As a result, education is declining drastically and beneficiaries argue that they no longer make decisions but just operate on directives from above thereby making them mere recipients. This justifies the argument put forward by Susan Vincent (2004) against education which is that outsiders tend to retain for themselves the right to guide the process and decide who participate in a particular sector in Uganda.

## 5. Conclusion

From the above findings the study concluded that, community education existed in the first phase of the NAADS programme implementation (2001-2018) but has been on decline. Forms and scope of popular education preferred by the beneficiary farmers include selecting enterprises, forming farmers' groups, electing group leaders and representatives, attending training, and group and inter-group meetings in Kakumiro District, Uganda. The strategies of farmers' group level as major decisions and appropriate application of change management theories are made by higher NAADS programme implementation authorities.

It is clear that there would be much more benefits accruing from the programme if the beneficiaries were fully participating in the decision making regarding the programme planning, and implementation in Uganda.

The comprehensive perception of knowledge and skills of decision making are now owned by participating individual is NAADS programme but not made by higher authorities' right from the sub-county level upwards in Uganda. Such decisions include the selection of enterprises and farmers groups are done low levels but not at sub-county level without education from the grassroots farmers within the communities.

The decisions irreversible directives from the president initiatives is retarding the population education and NAADS programme due to miss conception of the ideology behind wealth creation programme. The agricultural and technology inputs and advisory education is of significant values to farmers and entrepreneurs participating in programme activities in Kakumiro District, Uganda.

The study recommends for more effort in community participation, corporate governance, improved popular education fuel perception and bottom up practices beyond the farmers group level activities. The study also recommends collective decision-making process at inter-group level, in order to increase local farmers' participation. Additionally, NAADS coordinator and other coordinating leaders be elected at different levels should use popular community education and train the farmers the truth regarding the fate of their applications for enterprises instead of keeping them waiting in vain which makes them demoralized, de-motivated and disinterested in participating in NAADS programme activities

References

Beveridge, S. (2012). Special Educational Needs in Schools. Routledge.

Costandius, E. (2012). See Kayamandi – See Yourself: Social Responsibility and Citizenship Project for Visual Communication Designed Students. AFRICAN SUN MeDIA.

Davies, J. (2012). Conservation and Sustainable Development: Linking Practice and Policy in Eastern Africa. IDRC.

Denhardt, J. V., & Denhardt, R. B. (2015). The New Public Service: Serving, Not Steering. Routledge.

Group, T. W. B. (2018). An Incomplete Transition: Overcoming the legacy of exclusion in South Africa. University of Cape Town Press.

I, M., G., Baltenweck, I.and Omondi. (2015). Setting up sustainable dairy business hubs: A resource book for facilitators. ILRI (aka ILCA and ILRAD).

John, L., M, B., Nienke, Johannes, R., & Ousmane, B. (2016). Agricultural Research in Africa: Investing in Future Harvests. Intl Food Policy Res Inst.

Kemp, R. L. (2018). Strategic Planning in Local Government. Taylor & Francis.

Lambek, N. C. S., Claeys, P., Wong, A., & Brilmayer, L. (2014). Rethinking Food Systems: Structural Challenges, New Strategies and the Law. Springer Science & Business Media.

Medicine, N. A. of S., Engineering, and, Division, H. and M., Practice, B. on P. H. and P. H., & States, C. on C.-B. S. to P. H. E. in the U. (2017). Communities in Action: Pathways to Health Equity. National Academies Press.

Modi, R., & Cheru, F. (2013). Agricultural Development and Food Security in Africa: The Impact of Chinese, Indian and Brazilian Investments. Zed Books Ltd.

Moss, C. B. (2013). Agricultural Finance. Routledge.

Quisumbing, A. R., Meinzen-Dick, R., Raney, T. L., Croppenstedt, A., Behrman, J. A., & Peterman, A. (2014). Gender in Agriculture: Closing the Knowledge Gap. Springer Science & Business.

Rodney, W. (2018). How Europe Underdeveloped Africa. Verso Books.

Salgues, B. (2016). Health Industrialization. Elsevier Science.

Watuleke, J. (2015). The Role of Food Banks in Food Security in Uganda: The Case of the Hunger Project Food Bank, Mbale Epicentre. Transaction Publ.

Willig, C. (2013). Introducing Qualitative Research in Psychology. McGraw-Hill Education (UK).