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Bugema University

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Message from the Editor in Chief



Dr. Paul Katamba Dean, Graduate School

Welcome dear readers!

The Editor in chief has the pleasure to welcome readers both academicians and non-academicians to the 5th Volume of the Academic Journal of the School of Graduate Studies: Bugema University. It is unquestionable fact that our School of Graduate Studies has progressed both in curriculum development and action research that have given a distinguished recognition amongst the local and international academic Authorities, Institutions and Universities. This is evidenced by the Charter Award by the Republic of Uganda and the recognition by International Board of Education (IBE).

In the academic world the benefits of research can never be over-emphasized or under estimated. We continually witness massive technological changes brought about by the innovative mind of mankind. Man is driven to research in an attempt to solve problems that face his society. It is, therefore, incumbent upon any institution of higher learning or any business entity to engage into serious research if ever it will make a difference.

The School of Graduate Studies is focused to maintain the university motto: “Excellence in Service” by guiding and developing practical problem solving research. The school provides both theoretical and practical training in the diverse fields of professions ranging from business and management with specifics in HRM, Accounting & Finance, Project Planning & Management, Development studies, Counseling Psychology, Public Health and Education Management.

This journal is multidisciplinary in nature, thus the fields of study mentioned above have equally been represented to give you an opportunity to endeavour in diversity and in its uniqueness. Hope the findings in the articles will be of immense importance to the readers. Once again, you’re warmly welcome and enjoy reading.

Paul Katamba, *PhD*

Editor in Chief

**EXPATRIATE CAPABILITIES AND FINANCIAL PERFORMANCE OF
MULTINATIONAL CORPORATIONS (MNC'S) IN UGANDA:
A CASE OF HUAWEI, (U) LTD**

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Abstract

The objective of the study was to establish the relationship between expatriate capabilities and financial performance of Huawei Uganda limited. It was hypothesized that there is no significant relationship between expatriate capabilities and financial performance of Huawei Uganda limited. The study used both qualitative and quantitative approach, Qualitative approach was used to describe individual's traits that could not be easily described numerically and quantitative approach was used because numerical data was applied. A cross-sectional survey was used as the study aimed providing a solution to the problem one point in time. A sample of 113 respondents was used in the study. The study revealed a positive and moderately significant relationship between Expatriate Capabilities and Financial Performance in MNCs at a 0.50 and also found that expatriate capability contributes 25% to the financial performance of Huawei Uganda limited.

Keywords; *Expatriate Capability, Competence, Financial Growth, Profitability Daptability, Willingness, Financial Performance.*

Introduction

As global competition intensifies, the importance of establishing multinational corporations (MNC'S) and managing their operations is increasing (Sohn, 2004; Vernon, Wells & Rangan, 2002). This heightens the need to identify and select qualified and competent managers for overseas assignments who can implement the organization's strategies in a

particular host country (Geringer, & Herbert, 2001).

The dependence on expatriate capabilities has been recognized as an important mechanism to monitor and evaluate the activities and behaviors within the subsidiary (Tung, 2003; Harzing, 2001). According to Tugume Fred, MNCs that dominate Uganda's service sector like banking and telecommunication, prefer to appoint their own

foreign executives as a way of protecting their interests (The Monitor, June 3rd, 2008) and to transfer corporate knowledge and develop operations abroad in a manner consistent with their values and objectives

(Mutoigo & Sejjaaka, 2004; The Independent, January 28th, 2009). This in turn through the accumulation, development, and reconfiguration of the organization's unique resources, capabilities, and knowledge creates a competitive advantage (Kobrin, 2008).

In a knowledge-based perspective, Nonaka and Takeuch (2000) & Zack (2001) argue that managerial capabilities and knowledge-based resources are the most relevant to the achievement of a firm's competitive advantage (Harzing, 2001) while financial performance is the outcome of past or present competitiveness (Depperu & Cerrato, 2005). However, many expatriate appointments are unsuccessful (Hyondong, 2005). About 30 to 50% of expatriates who stay at foreign assignments are considered to be ineffective or marginally effective by their organizations and this has been found to have a strong bearing on financial performance of companies (Hillman, 2001)

Studies to assess the impact of multinational corporations (MNC'S) on technology transfer conducted by Uganda National Council of Science and Technology in 2000 and 2001 revealed that the absorption of organization and management practices as well as tacit knowledge was neglected (The Observer, 19th November 2009). This is evidenced by the poor performance of smaller MNCs who find it hard to make strong profit margins due to intense competition and there is poor quality of services and products offered. Due to similar product offering and poor knowledge and technology transferred (The

Observer, 19th November 2009).

Several contemporary studies (Borensztein 2005; Harzing 2006, 2001) remark that the challenge for MNCs is to accurately understand the cost versus benefit of using expatriates so as to effectively recruit expatriates who can use their capabilities to transfer knowledge so as to gain a competitive advantage and thus good financial performance.

Zain (U) has been reporting losses for the last 4 years to a tune of 29 billion in 2006, followed by decrease in loss by 25% and then an increase by 72% in 2007 and 2008 respectively (Director's report Celtel (U) Ltd, 2007 and 2008). Barclays (U) Ltd operating costs in 2008 grew by over 100% and yet it has also posted a net operating loss for the last three years of 4.7 billion shillings (\$2.3 million) in 2009 compared with that of 17.9 billion shillings a year earlier (The Observer, 21 April 2010).

It is a common scenario that foreign companies in the developing countries are managed by expatriate managers from the home country whose management style is in accordance with their home country's culture (Jassim, et al., 2005). These expatriates are sent to a foreign country by MNCs with the intent to control their operations and to provide technical and administrative services (Jun, et al., Jassim 2005). Existing literature recognizes many advantages of staffing these subsidiaries with expatriates over host country nationals. Compared to their locally hired counterparts, expatriates are generally believed to have a better understanding and a greater commitment to overall corporate goals (Doz & Prahalad, 2006; Kobrin, 2008). Expatriates' familiarity with the corporate culture and the control system of headquarters would result in more effective communication and coordination (Shenkar, 2009) and are effective in replicating existing organizational

specificities and the operating procedures in headquarters in the subsidiaries (Rosenzweig & Singh, 2001).

According to Dowling and Welch (2004), the other advantages of using expatriates for business abroad include the aspect of organizational control and coordination. Expatriates are better equipped with an understanding of the values, attitudes

and priorities of the headquarters, (Priem et al., 2001) as well as familiar to the products and procedures of the company (Darroch, 2003). In comparison to Host country Nationals, expatriates are generally better equipped for training local workers in new technology as well as corporate systems (Hocking, 2004).

In addition, Collings et al, (2007) suggest that organizations understand that the use of people they know and who are integrated in the organization, when positioning people abroad is beneficial for them and especially when looking at minimizing organizational problems. There is a level of trust between these individuals and their superiors and it is more likely that they will strive for the organization's best interest in comparison to host country managers.

However, the disadvantage of using expatriates include; a low level of promotion opportunities for local managers, which can influence their work moral and motivation (Darroch, 2003). In addition expatriates inability to quickly adapt to another country and culture arises which can lead to ineffectiveness of the expatriate if it is not dealt with (Dowling & Welch, 2004). According to Hutchings (2002) expatriates are generally not aware of details concerning local labor markets, education systems, specific practices and techniques of the country and they often lack language skills and Collings et al.

(2007) argues that the cost of sending people abroad is high.

Expatriate Capabilities are highly considered when selecting expatriates to send on overseas assignments (Torrington, 2004) and these are based on three attributes namely, competencies, willingness and adaptability of expatriates (Fuchsberg, 2004; Whitfield, 2005; Hyondong, 2005). Competencies are looked at in terms of knowledge and skills in managerial and technical aspects which must be possessed

by expatriate managers (Tung, 2003, 2007; Bjorkman & Schaap, 2004). Technical competence has been almost the sole variable used in deciding whom to send on overseas assignments, despite the fact that multiple skills are necessary for successful performance in international assignments (McGahan, et al., 2007).

In addition, literature on expatriate staffing and localization suggests that expatriates who are useful and valuable to overseas affiliates must have the genuine desire to impart years of hard-earned professional know-how to local employees (Rogers, 2009) that is their willingness is very crucial for the success of the subsidiary. This is in relation to having the motivation to do so.

And lastly, expatriates flexibility and adaptiveness to the subsidiary environment is essential for successful expatriation (Lyles & Salk, 2006; Lane, Salk & Lyles., 2001) which is in relation to the ability of the expatriates to sustain cross-cultural and institutional differences so as to adjust themselves to host country environment. Expatriate adaptability is defined as the level of psychological comfort towards the various aspects of a host culture (Black & Gregersen, 2001; Lane, Salk and Lyles 2001).

Huawei Uganda started its operations in the Uganda Market in 2001, being the conception

of the cordial relations between the Governments of Uganda and the Peoples' Republic of China. Huawei though a Chinese multinational company, has a strong local presence in Uganda and is dedicated to contribute to the socio- economic development of Uganda. It has a localization rate of over 70%, with a management team that constitutes locals in high profile positions (Huawei.co.ug).

Huawei has established end-to-end advantages in telecom network infrastructure, application and software, devices and professional services in many parts of the world, namely China,

Europe, America, Africa, Asia and Middle East (Huawei.co.ug). Huawei has also deployed a wide range of green solutions that enable customers to reduce power consumption and carbon emissions, contributing to the sustainable development of the social economy and the environment. Total sales in 2005 were USD 21 million, and the 2006 sales expected to reach USD 40 million (Huawei.co.ug).

Despite the high sales, high market share and presence of expatriates in the company who according to the company are 50, still the management Huawei find that the financial performance of the company is poor and way below the expected level. This builds curiosity in the researcher to find out whether the capabilities of these expatriates in anyway have an effect on the poor financial performance that the company

RESULTS AND DISCUSSION

The level of Expatriate Capabilities in Huawei Uganda limited was investigated under this variable included competence, willingness and adaptability. It was analyzed using the mean and

is currently experiencing.

Methodology

The study used both quantitative and qualitative approaches taking a descriptive correlational design. The target population of the study was 160

which comprised of employees at the corporate headquarters of Huawei Uganda in Kampala who are 155 and management who are 5 in number that is unit of analysis The researcher used Morgan and Krejcie (1970), table of random numbers to get a sample out of the population.

The population of 155 employees lead to a sample of 108 respondents, the management of the company was taken as a whole that is the 5. Thus the total sample population was 113. Stratified sampling was used to group respondents from the company in terms of managers and employees. For managers the researcher used census survey sampling, for employees systematic random sampling was used where a list of employees was obtained from the human resource manager, the first name was chosen randomly and then consecutive names at a pre-defined interval that is after two names and so forth. The researcher used a self administered questionnaire which comprised of closed and open ended questions which were to be drawn in accordance with the set objectives of the study.

standard deviation. The mean portrays the occurrence of a response and standard deviation portrays the extent to which scores deviate from the mean.

Table 1: Descriptive statistics showing mean (μ) and standard deviation (s) on the level of Expatriate Capabilities in Huawei Uganda limited. (N=107)

Item	Mean	Std Dev
Competence	2.78	1.466
Willingness	3.15	1.457
Adaptability	3.18	1.98
Grand Total	3.06	1.427

Legend 1	scale interpretation
4.24 - 5.00	Very high
3.43 - 4.23	High
2.62 - 3.42	Medium
1.81 - 2.61	Low
1.00 - 1.80	Very low

Table 1 gives the summary on the level of Expatriate Capabilities in Huawei Uganda limited.

With regard to competence, the results indicated that the competence levels in Huawei Uganda limited are medium because most of the respondents were neutral on the competence of expatriate capabilities at a mean ($\mu = 2.78$), which is medium with regard to legend 1 or scale that was used in the study indicating medium competence on the part of expatriates. This can further be observed from the high standard deviation of ($s = 1.466$) which confirms how the competence of the expatriates deviate from the mean line.

When it came to willingness of expatriates, the findings indicated that there is medium willingness of expatriates in Huawei Uganda limited as many respondents were neutral with the existence of willingness of expatriates at a mean of ($\mu = 3.15$), which is a medium mean with regard to legend 1 or scale used in the study, indicating medium willingness amongst expatriate in Huawei Uganda limited. This can further be confirmed from the standard deviation of ($s = 1.457$) which is a high one showing how willingness of expatriates deviates from the mean

line indicating high willingness amongst expatriate in Huawei Uganda limited.

Further, the findings indicated that there is medium adaptability amongst the expatriates in Huawei Uganda limited as most of the respondents were neutral with the adaptability levels of expatriates at a mean of ($\mu = 3.18$), which is a medium mean with regard to legend 1 that was used in the study, indicating medium adaptability capabilities amongst expatriates in Huawei Uganda limited. This can further be evidenced from a high standard deviation of ($s = 1.98$) showing how the adaptability capabilities of expatriates deviates from the mean, indicating medium adaptability capabilities amongst Huawei expatriates.

In general, the expatriate capabilities in Huawei Uganda limited are medium and in existent as shown by the grand mean of ($\mu = 3.06$) indicating a high mean as per legend 1 used in the study. This is further supported by the scores of standard deviation ($s = 1.427$) which were high, showing expatriate capabilities deviates from the

mean implying medium implementation of expatriate capabilities.

Expatriate Capabilities are highly considered when selecting expatriates to send on overseas assignments (Torrington, 2004) and these are based on three attributes namely, competencies, willingness and adaptability of expatriates (Fuchsberg, 2004; Whitfield, 2005; Hyondong, 2005).

However, the findings shows that the level of expatriate capabilities in Huawei Uganda

With regard to profitability, the results Table 2: shows that there is low profitability in Huawei Uganda limited because most of the respondents disagreed with the profitability

attributes that were used in the study at a mean ($\mu=2.25$), which is a low mean and high standard

limited is moderate indicating that the company is not effectively following the above criteria selecting the expatriates to send on international assignments.

With regard to The level of financial performance in Huawei Uganda limited. The specific variables investigated were; profitability and growth. It was analyzed using descriptive statistics specifically by the use of the mean and standard deviations only. The mean (μ) portrays the occurrence of the response and standard deviations (s) portray the extent to which scores deviate from the mean.

deviation with regard to the legend 2 that was used in the study, indicating low profitability

levels in Huawei Uganda limited. This can further be supported by the high standard deviation of ($s=1.266$) which shows how the profitability attributes deviate from the mean, indicating low profitability levels of Huawei Uganda limited.

Table 2: Descriptive statistics showing the level Financial Performance in Huawei Uganda limited

Item	Mean	Std Deviation
Profitability	2.25	1.266
Growth	2.01	1.071
Grand Total	2.14	1.098

Legend 2	scale interpretation
4.24 - 5.00	Very high
3.43 - 4.23	High
2.62 - 3.42	Medium
1.81 - 2.61	Low
1.00 - 1.80	Very low

Relating to growth, the results still indicated that there is low growth in the company, because most of the respondents disagreed with the existence of the different growth attributes that were used in the study at a mean ($\mu = 2.01$) and standard deviation of ($s= 1.071$) indicating a low

mean and high standard deviations with regard to legend 2 or scale used in the study. This implied that there is a low growth level at Huawei Uganda limited.

In general there is low level of financial performance at a grand mean ($\mu = 2.14$) which is

low levels with regard to legend 2 or scale used in the study. This can be further be evidenced from the high standard deviation of ($s= 1.098$) which shows how the financial performance deviates from the mean, indicating poor financial performance in the company. This is further observed or evidenced from the low mean values of the different attributes of financial performance (profitability $\mu = 2.25$ and growth $\mu= 2.01$), they are all similar and low implying that they are just merely fragments of financial performance that are used to measure their success in Huawei Uganda limited.

Several contemporary studies (Borensztein 2005; Harzing 2006, 2001) remark that the challenge for MNCs is to accurately understand the cost versus benefit of using expatriates so as to effectively recruit expatriates who can use their capabilities to transfer knowledge so as to gain a competitive advantage and thus good financial performance. In fact, previous research has found that greater need for superior financial

performance increases the propensity of MNCs to use more expatriates in the host subsidiaries. This literature supports the thinking in Huawei Uganda limited that if they use more expatriate they will achieve superior financial performance but contrary to this they have a lot of them working in the company 70-80 (Human Resource Manager) but according to the findings here the financial performance of the company is low despite their presence begging the question whether really it is necessary for multinational corporations to have many expatriates in their subsidiaries so that this subsidiaries perform well financial wise.

Relationship between Expatriate Capability and Financial Performance of Huawei Uganda limited

The study examined the relationship between expatriates capabilities and financial

performance and determine the extent of the relationship. It was analyzed using Multiple regression to be able to examine the relationship and the extent between the two variables

Table 3 : Showing Multiple Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.010	.213		4.741	.000
	Competence	.182	.130	.254	1.395	.166
	Willingness	.138	.132	.210	1.039	.301
	Adaptability	.061	.112	.083	.548	.585

a. Dependent Variable: Financial Performance

In multiple regressions the model takes the form of an equation that contains a coefficient (b) for each independent variable. The first part of the table gives us estimates for these b values

indicating the individual contribution of each of independent variables to the model.

The B values tell us about the relationship between project procurement practices and dependent variable. If the value is positive we can

tell that there is a positive relationship between the independent variable and dependent variable and where a negative coefficient represents a negative relationship. For these data independent variable portray a positive weak relationship. From the table above, competence $r = 0.182$, willingness $r = 0.138$, adaptability $r = 0.61$, since these values are positive it means the availability of all those independent variables has an effect on the financial performance of Huawei Uganda limited.

The B values also tell us to what degree each variable affect the dependent variable if the effects of all other independent variables are held constant. Each of these beta values has an associated standard error indicating to what extent these values would vary across different samples, and these standard errors are used to determine whether or not the b value differs significantly from zero. Therefore, if the t-test associated with a "b" value is significant (if the value in column labeled sig. is less than 0.05) then that independent variable is making a significant contribution to the model, the smaller the value of sig. (and the larger the value of t) the greater the contribution of independent variable.

This findings are in line with studies to assess the impact of multinational corporations (MNC'S) on technology transfer conducted by Uganda National Council of Science and Technology in 2000 and 2001 which revealed that the absorption of organization and management practices as well as tacit knowledge was neglected (The Observer, 19th November 2009). Huawei Uganda limited is experiencing making it have low financial performance.

Conclusion

It was concluded that there is a moderate but positive relationship between Expatriate Capabilities and Financial Performance of Huawei

Uganda limited at correlation coefficient of $r = 0.50$. Consequently the researcher rejected the null hypothesis which stated that "there is no significant relationship between Expatriate Capabilities and Financial Performance" as the critical value was greater (12.781) than the level of significance of (0.05) and accepted the alternate hypothesis that "there is significant relationship between Expatriate Capabilities and Financial Performance of Huawei Uganda limited".

Recommendations

In order for the subsidiaries to gain knowledge transfer from the parent companies, MNCs should ensure that the expatriates sent to manage these subsidiaries have capabilities in terms of being competent in both managerial and technical skills; they should have the willingness to transfer this knowledge and even adapt this knowledge within the context of the subsidiary.

In addition, there is need to send managers on expatriation assignments who have the experience and knowledge on how the Parent organizations are run so as to ensure that they do likewise in the subsidiaries. This guarantees provision of the right and adequate knowledge hence gaining a competitive edge over their competitors.

Expatriate managers should endeavor to work in teams so as disseminate the much needed knowledge and give feedback to employees in the subsidiaries.

In addition, appropriate incentive structures and proper knowledge transfer mechanisms should be put in place to ensure swift knowledge transfer.

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INTERNAL CONTROLS AND ACCOUNTABILITY OF UPE FUNDS- A CASE OF UPE SCHOOLS IN NABWERU PARISH KYADONDO NORTH COUNTY WAKISO DISTRICT- UGANDA

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ABSTRACT

The objectives of the study were to establish how the demographic characteristics of the respondents, in terms of position, qualification, gender and experience, relate to internal control application and accountability in UPE schools in Nabweru Parish. Also, to establish the level of the effectiveness of existing internal controls in managing UPE funds, examine the level of accountability of UPE, to establish the relationship between internal controls and accountability of UPE funds in schools in Nabweru Parish. It was hypothesized that there is no significant relationship between internal controls and accountability of UPE funds.

The study used a cross-sectional survey research design because the study was designed to give an explanation to the problem at a particular time. The study employed both qualitative and quantitative approach, Qualitative approach was used to describe individual's traits that could not be easily described numerically and quantitative approach was used because numerical data was applied. A sample of 160 respondents was used in the study.

It was concluded that, the internal controls are moderately implemented which was attributed to the lack of technical personnel to oversee and evaluate the level of effectiveness of the internal controls in the implementation process. This further implied that implementers received inadequate training and awareness on how to use the internal controls.

Furthermore it was concluded that the internal controls moderately contributes 52% to accountability of UPE funds in Nabweru parish. The null hypothesis "there is no significant relationship between internal controls and accountability of UPE funds" was rejected as the P value of 0.000 was less than the level of significance of 0.05. This implies that in any institution internal controls are significant to accountability of funds.

Keywords: internal control, application, accountability, schools, effectiveness, managing

INTRODUCTION

Globally, internal control systems have gained prominence and contributed greatly to organizational performance. Through internal controls the effectiveness of an organization's operations and its efficient utilization of its resources are ensured (World Council of Credit Unions,2003).For example, the USA State Audit

Department Report (2009) provides that internal control systems are an integral part of the wider accountability in any management of an institution. Therefore, management is responsible for establishing and maintaining internal control in order to achieve the organizational objectives as an affirmation of effectiveness, and efficiency of operations. More so, internal controls create reliable financial reporting, and compliance is strengthened based on applicable laws and regulations. Consequently when management often applies the internal control standards, it is assured of meeting each of the organizational financial objectives, leading to effectiveness. In the wider public domain, internal controls assert accountability which helps in minimizing corruption and builds public confidence for the promotion of development.

Regionally, Kariuki (2012) observes that a sound system of internal control depends on a systematic and regular assessment of the nature and scope of the risks to which the company is exposed. However, according to the Kenya Revenue Authority (KRA) Report (2009), an internal control system encompasses the policies, processes, tasks, behaviors and other aspects of the company. Practically, internal control systems are aimed at facilitating effective and efficient operations in organizations through permitting it to counter appropriately the major business, operational, financial, compliance and other risks to achieving the company's goals and objectives.

This includes, but not limited to, safeguarding of assets from inappropriate use and/or from loss and fraud, and ensuring that liabilities are identified and managed and help to ensure the quality of internal and external reporting. This calls for the maintenance of proper records and processes that generate a flow of timely, relevant, and reliable information from within and outside the organization. Internal control systems also help to ensure compliance with applicable laws and regulations, and policies (Kenya Revenue Authority Report, 2009).

In governance, internal controls contribute to accountability. Accountability is described as an account-giving of (past or future) actions and decisions, to justify them, and to suffer punishment in the case of eventual misconduct. Accountability cannot exist without internal controls which emphasize proper accounting practices. In other words, an absence of proper accounting principles means an absence of eventual accountability (Robert & Jan, 2005).

In Uganda, Public Financial Management (PFM) laws are flouted across sectors but education sector was found to have the highest number of violations. The most violated PFM law in education sector is public finance and accountability Act 2003 with 128 cases constituting 31.1% of the total violations within the nine sectors surveyed by Budget Monitoring and Accountability Unit (BMAU), (Transparency International Uganda Report, 2010). In 1977, the Ugandan government launched a 20-year Poverty Eradication Action Plan (PEAP) and Poverty Action Fund (PAF), where primary education is a central component of the strategies to eliminate poverty by 2020 (Ministry of Finance, Planning and Economic Development [MFPED] 1997). In the same year, the government consequently

introduced the UPE project aimed at providing full tuition to four children per household (Ministry of Education and Sports [MoES] 1998).

To emphasize the role of primary education in poverty eradication, the government identified UPE as one of the key sectors to benefit from the PAF. Through a capitation grant, PAF enables UPE to improve equitable access to basic education by removing the burden of paying school fees, and enhancing the quality of primary education by providing schools with resources necessary to run them (MoES 2002). According to the regulatory framework (1997), UPE schools obtain funds in the form of capitation grants from MFPED. These funds are then channeled through the Local governments to the end user (DEO's and Head teachers) who are then mandated to use

it and give accountability. The Local Government Financial and Accounting Regulations (LGFAR-2007) and UPE guidelines provide procedures in managing the UPE funds right from the ministry to UPE schools (end users), trainings to the implementers (including the UPE schools Head teachers) to enable a smooth running of the programme have also been conducted.

However, according to MFPED (October 2012), accountability of UPE funds has continued to account for a big portion of the reported violations in accounting procedures for example 68% of the UPE schools did not submit accountability of funds in one quarter alone. This prompted the MFPED not to release more funds unless proper accountability of what was already used is given, consequently MoES threatened to

sack the head teachers of schools that did not submit the accountability of the funds. It is against this background that the study is based to find out why selected UPE schools in Nabweru Parish, Kyadondo North County, Wakiso district fail to account for the allocated funds despite of the internal controls (like the regulatory guidelines) and trainings in place for smooth running of the programme. Attempts to delineate a study of this

kind would provide a ground for improvement in the sector.

Methodology

Sample

The study was conducted in the UPE schools in Nabweru Parish, Kyadondo County in Wakiso district. The target population was 199 respondents comprising of 10 Head Teachers, 12 Deputy Head Teachers, 167 Teachers, 10 Chair Persons-School Management Committee (SMC). The sample size for the study was 160 respondents selected purposively and through convenience.

Purposive sampling was used in selecting all the 10 head teachers, 12 deputy head teachers and the 10 chairpersons (SMC), while the 128 teachers from 167 was through convenience. Purposive sampling was used because the respondents were thought to be appropriate for the study and convenience sampling for the teachers because any available respondent would participate in the research study.

Table 1: Sample size table- (Appendix 2)

Category	Population	Sample size	Sampling technique
Head teachers	10	10	Purposive
Deputy Head teachers	12	12	Purposive
Teachers	167	128	Convenience
Chairpersons SMC	10	10	Purposive
Total	199	160	

Instrument

A self-administered questionnaire was given to the respondents to read and fill in responses. The completed schedule was collected from the respondents individually or in groups as suggested by (Kothari, 2004). This method of data collection was preferred because the respondents were alone when filling-in the questionnaire. it allowed a respondent time to consult records where necessary.

The questionnaire comprised of close-ended and open-ended questions. The close-

ended questions were developed on a 5 point likert scale by utilizing the item analysis approach wherein a particular item is evaluated on the basis

of how well it discriminates between those persons whose total score is high and those whose score is low (Kothari, 2004). This type of scale

was adopted so as to give respondents a wider choice of answers and gather different views of respondents.

Table 2: Definition of scale

Description	Mean range	Interpretation
Very often	4.21- 5.00	Very high
Often	3.41- 4.20	High
Sometimes	2.61- 3.40	Moderate
Rarely	1.81- 2.60	Low
Never	1.00 -1.80	Very low

Interviews were used to gather in-depth data which would not be captured using the questionnaire. Open-ended questions were designed for qualitative data where respondents expressed their views and suggestions.

The study used a cross-sectional survey research design to give an explanation to the problem at a particular time. The researcher tried to understand the views of teachers in the selected UPE schools. The study employed both quantitative and qualitative approach. With quantitative the researcher made an inquiry into a

problem based on theory testing composed of variables, measured with numbers, and analyze with statistical procedures to determine whether the predictive generalizations of the theory holds true. Qualitatively it sought to understand a problem basing on a holistic picture formed with words reporting detailed views of informants.

Descriptive statistic and correlation analysis was used to analyze the data to establish the findings. Objective one was analyzed using descriptive statistics to establish the demographic characteristics which are related to internal

controls application in Nabweru Parish. Objective two was analyzed using descriptive statistics to establish the central tendency of the scores to determine the appropriateness of the internal controls which are in place in managing UPE funds. Objective three was analyzed using descriptive statistics in measuring the variability of the scores using means, medium and percentages to determine the factors which influence the usage of UPE funds in accordance to the set accountability guidelines in Nabweru Parish. Objective four spearman correlation

Table 4 shows the demographic characteristics of the customer respondents. The findings reflect that the teachers are the majority and most of them females at diploma level and have served for more than 12 years. This finding is not surprising as the study investigated the gender in the teaching profession. In Africa and Uganda in particular, the teaching profession is the domain of female (Jennifer, 2010/2011). Further the high numbers at diploma level could

be because the qualification is the basic requirement and many cannot afford to further

analysis and simple linear logistic regression were used to establish the relationship between internal control and accountability of UPE funds in Nabweru parish and make inferences, where $Y=f(x) x_1 x_2 \dots$ and that f stands for accountability of UPE funds and x are the internal controls.

RESULTS AND DISCUSSION

Demographic Characteristics of the Respondents

their studies due to low savings out of the low income. Furthermore the long service could be because of the job security the government offers the employees and the hope for pension earning after retirement. This implies that the majority of

the implementers have low skills to enable them produce proper accountability of UPE funds given their level of qualification.

However, the respondents' long stay in service gave the researcher confidence that the respondents were competent enough to give relevant and required information for the study.

Table 3: Showing demographic characteristics of customer respondents

Items	Frequency	Percent	
Position			
	Head teacher	10	6.5
	Deputy Head Teacher	12	7.7
	Teacher	123	79.3
	Chairperson SMC	10	6.5
Qualification			
	Master's Degree	5	3.2
	Bachelor's Degree ⁸	24	15.5
	Diploma	76	49.0
	Certificate	47	30.3
	Other	3	1.9
Gender			
	Male	60	38.7
	Female	95	61.3
Length of service			
	1-11 months	3	1.9
	1-3 years	23	14.8
	3 years and 1 month-6 years	12	7.7
	6 years and 1 month-12 years	44	28.4
	Above 12 years	73	47.1

N=155

The Level of Effectiveness of Internal Controls in Managing UPE Funds

The second objective of the study was to establish the level of effectiveness of the internal control for managing UPE funds in the UPE schools in Nabweru Parish. The specific variables investigated under this objective included control environment, control activities, information and communication and monitoring. This objective was analyzed using the mean and standard deviation. The mean portrays the occurrence of a response and standard deviation portrays the extent to which scores deviate from the mean.

Table 5 gives the summary on objective two which was to establish the level of effectiveness of the internal control for managing

UPE funds in the UPE schools in Nabweru Parish. With regard to control environment, the results Table 5 indicated that the control environment for managing UPE funds in UPE schools in Nabweru parish is moderate. This is because most of the respondents thought that the control environment in place for managing UPE funds were sometimes not effective at a mean ($\mu = 3.14$), which is a moderate. This was further be observed from the high standard deviation of ($s = 1.02$) which confirms how the control environment or internal controls deviate from the mean line. This could imply that the implementers' attitude and ethical standards are still low to enable them to effectively implement the internal controls through the control environment.

Table 4: Descriptive statistics showing mean (μ) and standard deviation (s) on the level of effectiveness of the internal controls in managing UPE funds in the UPE schools in Nabweru parish.

Item	Mean (μ)	Std. Deviation (s)	Interpretation
Control environment			
The School Finance Committee is involved in the budgeting process	2.83	1.26	Moderate
The accountability process involves all the school finance committee members in the school	2.94	1.05	Moderate
Users of the UPE funds follow the procedures set upon by the guidelines in their spending	3.17	1.41	Moderate
Work plans are prepared in line with UPE Guidelines	3.27	1.22	Moderate
The school management committee regulates usage of the UPE funds in the school.	2.94	1.48	Moderate
The sub accountant of the sub county assists the school management committee in setting up and operating cash books as well as preparing reconciliations.	2.85	0.83	Moderate
The school applies effectively the policies set on the UPE funds	3.27	1.27	Moderate
The district education office follows UPE funds allocation policies before releasing the funds.	3.86	1.13	High
Pooled mean	3.14	1.02	Moderate
Control Activities			
The school uses a bank account into which the UPE funds are credited	4.20	0.75	High
The school uses the UPE cash book to support transactions of the school bank account.	4.04	1.15	High
All UPE expenditures are approved and authorized	3.80	1.22	High
Pooled mean	4.02	1.02	High
Information and communication			
The school displays school budgets and expenditure, UPE capitation grant received from the district against school enrolment on the notice boards easily accessible by parents, residents of the area, pupils and other stakeholders as required.	3.39	0.53	Moderate
Identified problems during monitoring and evaluation are communicated to management	2.93	1.04	Moderate
The monitoring and evaluation system provide information on the progress in implementation of the UPE program.	2.78	0.83	Moderate
Pooled mean	3.03	0.8	Moderate

Monitoring			
The district carries out supervision and monitoring visits to the schools	2.80	1.24	Moderate
During monitoring and evaluation problems are identified.	4.02	1.25	High
During monitoring and evaluation remedial actions are taken for identified problems.	2.84	1.26	Moderate
The DEO/ inspectors advise schools on UPE guidelines during the monitoring visits.	2.88	0.71	Moderate
Pooled mean	3.14	1.12	Moderate
Grand mean	3.33	0.99	Moderate

N=155

Legend 1

Scale	interpretation
4.21-5.00	Very high
3.41-4.20	High
2.61-3.40	Moderate
1.81-2.60	Low
1.00-1.80	Very Low

However, with UPE programe control activities, the findings indicated that there is a high level of effectiveness of control activities at a mean of ($\mu = 4.02$), which is a high mean with regard to legend 1 used in the study. This indicated a high effectiveness of the internal control activities in the accountability of UPE funds with a standard deviation of ($s = 1.02$). It showed how different control activities in the accountability of UPE funds deviates from the mean line. The high level of effectiveness of the control activities could be due to the fact that the financial reporting system in place is self-regulating and could not be so much affected by the implementers' attitudes and low ethical standards in the control environment.

Further, the findings indicated that there was moderate information and communication during the accountability of UPE funds process. Most of the respondents thought that information and communication on the accountability of UPE funds process was sometimes not in existence at a mean of ($\mu = 3.03$). This was a moderate mean

with regard to legend 1 used in the study, indicating low information and communication on the process of accountability of UPE funds. This was further evidenced from a high standard deviation of ($s = 1.12$) showing how information and communication on the accountability of UPE funds deviates from the mean, indicating a moderate flow of information on accountability of UPE funds. This means that even when the monitoring and evaluation is done, the results are not communicated to the implementers to enable them improve on the accountability process.

Lastly, the findings indicated that there was moderate monitoring during the process of accountability of UPE funds. Most of the respondents indicated that monitoring was sometimes not carried out at a mean of ($\mu = 3.14$) and standard deviation of ($s = 1.12$). This was a moderate mean and high standard deviations with regard to the scale used in the study, indicating lack of or poor monitoring of the accountability process. This could mean that the monitoring department is not adequately facilitated to enable

it perform effectively or the department itself is not monitored and evaluated to determine its level of performance.

In general, internal controls in the accountability of UPE funds are moderately implemented as shown by the pooled mean of ($\mu=3.33$) indicating a moderate mean as per legend 1 used in the study. This is further supported by the scores of standard deviation($s = .99$) which was high, showing how these internal controls deviate from the mean implying moderate implementation of the internal controls in the accountability process of UPE funds.

This means that respondent's opinions about the effectiveness of internal controls were almost similar (same opinion about the internal controls), suggesting that respondents agree that internal controls in accountability process for UPE funds are moderately implemented. This may be attributed to the lack of proper awareness and adequate training of the implementers and inadequate supervision and evaluation of the overall program by the higher authorities in the education system.

Also, this may imply that there is lack of technical personnel to oversee and evaluate the level of effectiveness of the internal controls in the implementation process of the accountability of UPE funds.

The findings to some extent contradicts with (University of Washington, 2013) which states that, internal controls ensure the reliability and integrity of financial information - ensure that management has accurate, timely and complete information, including accounting records, in order to plan, monitor and report business operations.. Further (Dinapoli, 2007) also stresses that, internal controls are much more than a set of procedures put in place to safeguard assets. Rather they are the accumulative sum of all the things done by public servants to identify, monitor, and manage risk in organizations.

However, this is contrary for the accountability of UPE funds, with the internal controls in place, the accountability reports for funds is still poor and a challenge to the implementers of the UPE program. The program is still ongoing despite the poor implementation of the internal controls. This implies that some organizations do not properly implement internal controls but still move on or perform, implying that it is not only internal controls that contribute to poor or failure of accountability of UPE funds. This calls for more investigation to be carried out to find out the other factors that contributes to the failure of accountability of UPE funds.

Summary

The study was carried out on internal controls and accountability of UPE funds in Nabweru parish, Kyadondo County. The data was analyzed using both descriptive statistics and inferential statistics.

The qualitative approach described individual's traits and quantitative approach for numerical data. The objective was to establish the relationship between internal controls and accountability of UPE funds in Nabweru parish and determine to what extent this relationship exists. Most of respondents in Nabweru parish were female teachers most of them holding diplomas and having served for more than 12 years.

Findings indicated that internal controls were moderately implemented as per the grand mean of ($\mu=3.33$) and standard deviation($s = .99$) in Table 5. Also, findings revealed that there is a moderate level of accountability of UPE funds in Nabweru parish at a grand mean($\mu = 3.21$) and a high standard deviation of ($s= .98$) as in Table 6.

Recommendations

With regard to demographic characteristics, government need to improve on the package it gives the teachers to attract more qualified people with the skills and to enable those in the system to obtain the skills required in the implementation of the UPE programs. This will enable proper application of internal controls and accountability of the UPE funds.

Regarding the level of effectiveness of internal controls, the implementers should be fully sensitized on the effective application of internal controls through seminars and trainings.

Furthermore, the authorities and management should promote regular evaluation of the internal controls in place to determine whether they were properly designed, implemented and working effectively.

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**TOBACCO GROWING AND SOCIAL-ECONOMIC WELL BEING OF FARMERS IN
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Abstract

The general objective of the study was to assess the relationship between Tobacco growing and social economic well being of Tobacco Farmers in Kizirafumbi Sub County, Hoima District. The specific objectives were to establish the demographic characteristics of tobacco growers, assess the income generated from tobacco growing, find out the social economic well being of farmers as a result of tobacco growing, and establish the relationship between tobacco growing and the social economic well being of farmers. The research design was cross sectional, descriptive, and correlational employing both quantitative and qualitative research approaches. The sample size of the study was 118 respondent of which were farmers. The main tool for data collection was a structured questionnaire supplemented by key informant interview guide. Multiple-regression analysis was used to predict the contribution of tobacco growing on the social economic well being of the farmers.

Majority of respondents were male (61.8%), mostly with primary education level at (47.0%), and unmarried (66.7%). Among the farmers interviewed, tobacco selling attracted better income. Social economic well being among Tobacco farmers was low in respect to literacy and numeracy (aggregate $\mu = 1.95$, $SD = 1.003$). Access to clean water was low with (aggregate $\mu = 1.55$, $SD = 0.83$), and support for education (aggregate $\mu = 1.21$, $SD = 0.62$). Support for sports was low with (aggregate $\mu = 1.21$, $SD = 0.62$), and property acquisition was low (aggregate $\mu = 1.95$, $SD = 1.15$). Majority of respondents (74.6%) had iron roofed houses, however, (55.9%) were of earth floor. Selling tobacco as an activity significantly contributed ($b = 0.404$, $p = 0.000$) to the social economic well being of Tobacco farmers. Field preparation, planting, weeding, harvesting ($b = 0.114$, $p = 0.280$; $b = -0.054$, $p = 0.615$; $b = -0.114$, $p = 0.284$; $b = 0.177$, $p = 0.096$) respectively do not significantly contribute to social economic well being of respondent Tobacco farmers.

Keywords: Tobacco, Growing, Social, Economic Well Being, Farmers

Introduction

Tobacco is an agricultural crop, most commonly used to make cigarettes. It is grown in most parts of the world and supports a billion-dollar industry. The psychoactive ingredient is nicotine, a stimulant, but more than 4,000 other chemicals (2,000 of which are known to be poisonous) are present in cigarettes (Polo Alto Medical Foundation, Retort 2012).

Tobacco is arguably one of the most important commodities for individual growing extensively in the world. The findings and achievements of previous studies and working group meetings on economically sustainable alternative to tobacco growing, in relation to the World Health Organization Articles 17 and 18, allows identifying a collective consensus among parties, key facilitators, researchers and experts. The implementation of article 17 and 18 should have a holistic approach, including health, economic, social, institutional, political and environmental aspects (Alegre, 2012). Sources indicate that by taking a leading role, Partnerships has brought together a range of stakeholders to work with the British American Tobacco Uganda (BATU) to improve the sustainable management practices (British American Tobacco Uganda Biodiversity partnership Report, 2006- 2010). This model of working has resulted in a positive impact, through demonstrating best practice and engaging with local communities. Furthermore, it has the potential to bring about change on a wider scale which will help tobacco and non tobacco stakeholders address their dependencies on forest and freshwater ecosystem services.

It has been argued that a prominent positive result of commercialization in agriculture is the engagement of agro-industrial firms as partners in production and marketing (Abwino and Haike 2006. Grolink 2007-04). However, this is so with a little mention on agro-industrial related activities like infrastructure development

which in turn can lead to poverty alleviation. Tobacco production grew by 59% between 1975 and 1997, with most of this increase occurring in developing countries Uganda inclusive (Polo Alto Medical foundation Report. 2012). To improve synergy between the global strategy and the local implementation for British American Tobacco (BAT), Uganda is a key source of tobacco for the group (BAT Report, 2012). In 2011; BATU farmers produced 18,000 tons of tobacco leaves more than 12,000 tons in 2010 (Musasizi, 2012).

However, in 2004, BATU launched an aggressive forestation campaign hoping to have 100 percent self-sufficiency in wood fuel requirements by 2015. This followed increased public awareness over environmental degradation, especially in areas of West Nile. According to BAT Uganda's Corporate & Regulatory Affairs Coordinator, the company invests over She 300m annually on its afforestation and biodiversity initiatives to ensure availability of adequate wood fuel as well as promotion of a sustainable environment in its areas of operation (Kizza, 2012).

In BATU's main tobacco-growing Districts of Hoima and Arua, land use information was collected and used to assess the impact on native forest resources. According to the The British American Tobacco Biodiversity Partnership (BATBP), through the Tropical Biology Association (TBA) and its partner in Uganda, Nature Harness Initiatives (NAHI) (2006 – 2015) studies showed that, significant areas of forest and bush land have been converted to agriculture, for both subsistence and cash crops with tobacco growing being the key cash crop grown. Over the last 20 years, forest resources have been significantly reduced and current trends suggest some forests will be lost by 2015. Deterioration of watersheds has affected water resources and some rivers were starting to dry up.

According to IFAD (n.d), Tobacco was ranked third easiest to sell because the British American Tobacco Company has a well organized network of depots close to the village. Sweet potatoes rank fourth and beans rank fifth in ease of selling because there is a ready market in Hoima town. In this sense, there is a need for an in-depth investigation on tobacco growing related activities in Kiziranfumbi Sub County. It is against this background that a specific study was carried out on tobacco growing and the social economic well being of tobacco farmers in Kiziranfumbi Sub County, Hoima District, Uganda.

Methodology

Sample

The sample size of the study was 127 respondents. This included 118 tobacco growers and 9 key informants from the two tobacco buying companies. The 118 main respondents were determined basing on Krejcie and Morgan (1970) random sample size table, suggest that the first column within the table should suffice (Confidence Level = 95%, Margin of Error = 5%).

The researcher identified and defined the population to deal with i.e. households involved in tobacco growing activities. Subgroups were determined and defined the within the population according to their demographic distribution. To have a sample that was representative of the population, 118 respondents were selected from the three parishes of Bulimya, Kidoma and Munteme which were as close as possible (Popham and Sirotnik, 1973).

The researcher selected 9 top administrators from BAT and Continental Uganda in Hoima using convenient sampling method to capture the right source of information per tobacco companies. Three respondents were

selected from Continental Uganda and six from BAT the biggest tobacco buying company in the Sub County making a total sample size of 127 respondents.

The study adopted the use of questionnaire and key informant guide to collect information from the respondents. The questionnaire was chosen because it gives respondents to decide the aspect, the form, details and allows them to speak what is the uppermost in their mind (Leary, 2003), while the key informant guide was used on the top administrators of both BATU Continental Uganda.

The study employed descriptive and correlation research design using qualitative and quantitative research approaches. It was descriptive by showing variables in relation to the respondents' approaches. Quantitative by summarizing data collected in form of frequencies, mean, percentages, and correlation for easy understanding. This was done to determine the tobacco growing in relation to the social economic well being of farmers in Kiziranfumbi Sub County. Qualitative statements were gathered using the key informant guide.

Data Analysis

Data from the field was cleaned, coded and entered in the computer by use of SPSS software. Descriptive statistics - percentages, mean, and standard deviation were generated to answer objective 1, 2, and 3. Pearson Correlation Analysis was used to derive Pearson correlation moment coefficient(r), which answered objective 4 and 5. Null Hypothesis was rejected after calculating P-value was less than 0.05. Qualitative data was analyzed manually viewing the responses.

RESULTS AND DISCUSSIONS

Socio-demographic Characteristics of Farmers

Sex

Result from Table 2 shows that majority of respondents (80 / 61.8%) were male and (38 / 32.2%) were female. Finding were in support of Kuboja et al (2011) baseline survey in which he

The study findings of socio-demographic characteristics are summarized in Table 2. noted that majority of the tobacco farmers in Kenya were males (92.8%) possibly due to the fact that yhey own land. Also, this might be attributed to the fact that tobacco production is labor intensive.

Table 2: Demographic Characteristics of Tobacco Farmers

Characteristic	Description	Frequency	Percent
Sex	Male	80	61.8
	Female	38	32.2
Age	18-25	10	8.3
	26-33	33	27.2
	34-41	48	39.7
	More than 42 yrs	30	24.8
	Education level	No formal Education	20
	Primary education	55	47.0
	Secondary education	35	29.9
	Tertiary/university education	6	5.1
Marital Well being	Married	80	66.7
	Widow	7	5.8
	Separated	7	5.8
	Divorced	5	4.2
	Single	21	17.5
Household size	<3	29	24.6
	4-7	67	56.8
	8-11	19	16.1
	12 and more	3	2.5
Period	Less than 1 year	2	1.7
	1-5 years	55	45.8
	6-10 years	28	23.3
	more than 10 years	35	29.2

N = 118

Age

In respect to age, Table 2 indicates that majority of the respondents (48 / 39.7%) were in age (34 – 41) bracket, 30 (24.8%) were above 42 years, and only 10 (8.3%) were 18 - 25 years. The age distribution analysis adopted categories proposed by Mattie et al. (1998) where people of age between 15 and 64 years are considered economically productive, non-productive or dependants if the age is outside that range. The above findings show a difference in the findings of UBOS, Labour Force Survey (2003) which noted that there were 1.5 million working children. But study findings in Table 2 indicated the age range distribution of 34-41 which was still economically productive, implying the existence of a working force that can be engaged in any economic activities

Educational Level

Finding in Table 2 revealed that, majority of respondents (55 / 47.0%) were of Primary education while a few 6 (5.1%) had acquired formal education up to Tertiary level. In support of the above, study results by Kuboja et al (2011) showed that, education levels were similar across study districts with over 86.7% of respondents involved in tobacco activities in Kenya having primary education.

Marital Status

According to Table 2, majority of the respondents (80 / 66.7%) were married and very few 21 (17.5%) were single. In support of the above Kuboja et al (2011) noted that, in tobacco production in Kenya, majority (97.8%) of the farmers were married while 1.7% and 0.6% were single and widow/widower, respectively

Household Size

Study findings in Table 2, showed that more than half of the respondents (67 / 56.8%)

had household size of 4-7 people and very few (2 / 1.7%) had family size above 12 people. Schulman (1991) expressed that owning tobacco quota and having high gross farm income, high amounts of on-farm household labor increase the propensity to survive in agriculture.

Period of Farming

During the study, many farmers (55 / 45.8%) interviewed had been growing Tobacco between 1 and 5 years and very few (2 / 1.7%) had been in farming for less than one year. Warner (2000) stated that tobacco farming constitutes a modest source of employment in most countries and tobacco manufacturing employment constitutes well under 1% of total manufacturing employment in most countries

Income Derived from the Tobacco Activities by Tobacco Farmers in Kizirafumbi Sub County

Objective 2 was to assess the income derived from the Tobacco activities by farmers. They include; field preparation, planting, weeding, harvesting and tobacco selling. Farmers were asked to indicate their average earning in the activities and study findings are summarized in Table 3.

Tobacco Field Planting

Results in Table 3, indicate that in respect to field preparation, majority of farmers interviewed (67 / 65.0%) reported that they earned below Ugshs 300,000 per season and only one farmer representing 2.9% earns more than Ushs 1,200,000. Study findings concurred with the World Health Organization statement which noted that, tobacco farmers barely make a living (WHO Report, 2004, 2008a and 2008b).

Harvesting of Tobacco

According to results in Table 3, very few farmers (4 / 4.5%) under the study were earning between Ushs 910,000 and Ush 1,200,000 from harvesting tobacco as an activity. Majority of the respondents (64 / 71.9%) reported that they earn

below Ushs 300, 000 per season. So, given the fact that this is an annual income since tobacco season takes a year, this exhibit low income for tobacco farmers hence affecting their livelihoods.

Table 3: Income derived from the Tobacco Activities

Activities	Description	Frequency	Percent
Field Preparation	Below 300000	67	65.0
	310000-600000	27	26.2
	610000-900000	5	4.9
	910000-1200000	3	2.9
	Above-1200000	1	1.0
Planting	Below 300000	77	85.6
	310000-600000	8	8.9
	610000-900000	2	2.2
	910000-1200000	2	2.2
	Above 1200000	1	1.1
Weeding	Below 300000	72	86.9
	310000-600000	10	11.9
	610000-900000	1	1.2
Harvesting	Below 300000	64	71.9
	310000-600000	18	22.3
	610000-900000	1	1.3
	910000-1200000	4	4.5
	Above 1200000	1	1.1
Tobacco Selling	310000-600000	36	30.5
	310000-600000	23	19.5
	610000-900000	21	17.8
	910000-1200000	21	17.8
	Above 1200000	17	14.4

N = 118

Tobacco Selling

Table 3 indicates that Tobacco selling attracted more income to the farmers. A comparatively sizeable number (17 / 14.5%) were earning more than Ugshs 1,200,000 from Tobacco

selling in a season; and fewer (30.5%) were earning below Ugshs 300,000. In support of the above Thyangathyanga (2013) reported that Tobacco in Malawi generates over 70% of the nations' foreign exchange.

Social Economic well being of Tobacco Farmers

The study considered the economic well being of the farmers. The indicators were property acquisition and quality of housing. Summary of the study findings are contained in Table 5.

Table 5: Economic Well being of Tobacco Farmers

Items	Mean	SD	Interpretation
Property Acquisition			
The family acquired land out of tobacco growing	1.50	0.98	Very low
The family acquired bicycle out of tobacco growing	2.54	1.43	Moderate
The family acquired motorcycle out of tobacco growing	1.99	1.29	Low
The family acquired vehicle out of tobacco growing	1.14	0.54	Very low
The family acquired radio out of tobacco growing	2.54	1.47	Low
The family improved housing condition out of tobacco growing	1.99	1.22	Low
Grand Mean and SD	1.95	1.15	Low

N= 118

Source: Primary Data

Legend: 3.25- 4.00 (High), 2.50 – 3.24 (Moderate), 1.75 – 2.49 (Low), 1.00 – 1.74 (Very low)

Property Acquisition

Table 5 shows that economic well being of Tobacco farmers as measured on the basis of property acquisition, was low (aggregate $\mu = 1.95$, $SD = 1.15$). Majority of respondents (90 / 75.6%) mentioned that it was not true that the family had acquired land out of tobacco growing. However, a sizeable number of respondents (54 / 45.5%) mentioned that the family acquired bicycle out of tobacco growing. On whether, the family acquired vehicle out of tobacco growing, overwhelming majority (108 / 91.5%) stated that it was not true. More than half of respondents (64 / 54.2%) mentioned that it was not true that the family improved housing condition out of tobacco

growing. However, many almost half of respondents (57 / 48.7%) stated that it was true that the family acquired radio out of tobacco growing. Uganda compared to Kenya the above findings does little agree with the data earlier revealed in the study on Housing among the tobacco and non tobacco growing households in Kenya by (Kibwage et al 2009) which noted that every household of the tobacco and non tobacco farmers had a motor cycle, a bicycle, television, a car, an ox plough and a shop or a kiosk, Adding that on average, each tobacco farming household had at least a radio as compared to the non tobacco farmers, where some households had no radio. The data revealed that on average, the

response interpretation could range between very low to moderate. Therefore, the findings did not show much significant difference among tobacco growing households in terms of property acquisition.

Quality of Housing

The study explored the quality of housing of the respondents. Specifically the study considered type of dwelling roof, house wall and

house floor. The study findings are contained in Table 6.

Type of House Roof

Results from Table 5 shows that, majority of respondents (88 / 74.6%) had iron roofed houses and few (30 / 25.4%) were sleeping in grass thatched houses. This was in line with the key informants' information that farmers had improved their dwelling places as a result of tobacco growing in Kiziranfumbi Sub County.

Table 6: Quality of Housing among Tobacco Farmers

Housing Characteristics	Description	Frequency	Percent
Type of House Roof	Grass thatched	30	25.4
	Iron roofed	88	74.6
Type of house wall	Mud and Wattle	72	61.0
	Wooden	6	5.1
	Un-burnt earth bricks	12	10.2
	Burnt earth bricks	25	21.2
	Sand and Cements wall blocks	3	2.5
Type of House floor	Earth Floor	66	55.9
	Improved floor	23	19.5
	Cemented floor	29	24.6

N = 118

Type of House Wall

According to Table 5, majority of respondents (72 / 61.0%) had houses made out of mud and wattle, 25 (21.2%) out of burnt earth bricks and very few (3 / 2.5%) hand sand and cement wall blocks. The above results does little agree with the findings (Kibwange et al, 2009) in Kenya where mud walled, grass thatched houses were largely owned by tobacco growing households as compared to other non tobacco growing households. Given the fact that more than

a half of the respondents revealed that they had not used income generated from tobacco related activities to improve on their housing, the results show that there exist little significant difference in as far as improving household structures is concerned among the tobacco growing households using income generated from tobacco production activities. This could be due to the need to the loan burden forced on them by tobacco growing companies inform of farm inputs, Delayed payment among others.

Type of House Floor

Study findings from Table 5, reveals that majority of the respondents (66 / 55.9%) had their houses of earth floor and few (29 / 24.6%) had cemented floor. The research findings agree with the truth of Kibwage et al (2009) that majority of the respondents, who were tobacco farmers, lived in iron sheet roofed houses with mud walls but only a room of doubt as to whether majority of the non tobacco farmers lived in permanent houses as compared to the tobacco growing households.

The key informants indicated that tobacco growing has increased household income, assets acquisition, boosted the standards of living and only Continental company had provided seeds to

boost food production though do accept that the activities have at the same time resulted into the environmental destruction, occupied most of the time hence reducing time for food production.

Contribution of Tobacco growing to the Social Economic well being of Tobacco Farmers in Kizirafumbi Sub County

The fourth objective was to establish the Contribution of Tobacco Growing to the social economic well being of Tobacco Farmers in Kizirafumbi Sub County. The objective was analyzed using multi-regression analysis. Table 8 provides the summary of the study findings.

Table 8: Contribution of Tobacco Growing on Social Economic Well being of Tobacco Farmers

Predictor Variables	Unstandardized	Standardized	Sig.
	Coefficients	Coefficients	
	B	Beta	
(Constant)	23.496		0.000
Field Preparation	1.830	0.114	0.280
Planting	-0.990	-0.054	0.615
Weeding	-0.655	-0.114	0.284
Harvesting	0.980	0.177	0.096
Tobacco Selling	1.929	0.404**	0.000

**Significant at 0.05 level of significance, $R^2 = 0.244$, Adjusted $R^2 = 0.190$

Table 8, study results show that there is sufficient evidence to confirm that tobacco selling as an income generating activity significantly contributes to the social economic well being of the respondent Tobacco farmers ($b = 0.404$, $p = 0.000$). The other factors in the model i.e. field preparation, planting, weeding, harvesting do not significantly contribute to social economic well being of respondent Tobacco farmers ($b = 0.114$, $p = 0.280$; $b = -0.054$, $p = 0.615$; $b = -0.114$, $p = 0.284$; $b = 0.177$; $p = 0.096$). The Standardized

Coefficients (beta) reveal that, tobacco selling contributes $b = 0.404$ which is (40.4%) to the social economic well being of respondent Tobacco farmers. While seemingly true that loss of tobacco-related jobs and income will affect hundreds of communities, both rural and urban, those that rely on tobacco for part of their economic base (Gale et al 2000). The tobacco growing related activities have been characterized of delayed payment, labour intensive that can even lead to loss of food, no say especially while

high interest loans always given in terms of farm inputs; monopoly of the buyer among others which have gone to an extent that even the little earned is spent at the expense of improving their social economic well being.

Testing Hypothesis

The hypothesis - There was no significant relationship between tobacco growing and the social economic well being of farmers in Kiziranfumbi Sub County Hoima District. As per results from Table 7, P-value is 0.000. Since p-value is less than 0.05 level of significance, the null hypothesis which stated that there is no significant relationship between growing and social economic well being among Tobacco farmers in the study area was accepted except in respect to tobacco selling.

Conclusion

Majority of respondents were male, very few were young, and mostly with primary education level and many were married, with relatively small household. And many had been growing Tobacco between 1 to 5 years. All growing were observed to be attracting low income per season. However, farmers interviewed, tobacco selling was attracting a slightly better income. Social economic well being among Tobacco farmers under study was low in respect to literacy and numeracy, access to clean water, support for education, support for sports, property acquisition. While majority had iron roofed houses, many were of earth floor.

The biggest challenge faced by the farmers is delayed payment by the Tobacco farmers coupled with labour intensive nature of Tobacco growing which consumes a lot of their which sometimes leads to household food security. Selling Tobacco as activity significantly contributes to the social economic well being of

Tobacco farmers. Field preparation, planting, weeding, harvesting do not significantly contribute to social economic well being of respondent Tobacco farmers. So in light of the above indicated findings, tobacco growing has not contributed much to the social economic well being of the tobacco farmers in Kiziranfumbi sub county, Hoima district.

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INFLUENCE OF EXPOSURE OF STUDENTS TO TELEVISION PROGRAMS ON SUBSTANCE ABUSE AMONG STUDENTS IN SECONDARY SCHOOLS IN MUKONO MUNICIPALITY-UGANDA

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ABSTRACT

The purpose of this study was to determine the influence of exposure of students to television programs on substance abuse of students in secondary schools in Mukono Municipality. By employing quantitative and qualitative research methods, a population of 361 students was interviewed using the structured questionnaires and disciplinary council members. The hypothesis was that “there is no significant influence of exposure of students to television programs on Substance abuse among students in secondary schools”. The hypothesis was rejected at P-Value 0.000 and the alternative hypothesis accepted. The students were exposed to drug content programs on television and this exposure contributed 48.1% to substance abuse among secondary school students. This contribution was attributed to the influence of drug content programs like, movies, music videos, drug advertisements and sports.

Conclusion: many students are exposed to drug content programs which influence them to start abusing drugs. However, the 48.1% influence meant that there were other 51.9% factors that contribute to substance abuse among students other than exposure to television programs which factors need to be established.

Keywords: *Determine, Influence, Exposure, Students, Television Programs, Substance Abuse, Schools*

Introduction

Substance abuse is one of the growing public health and social problems that has adversely affected a significant proportion of the population. According to the World Drug Report, United Nation Office for Drugs and Crime (UNODC Report, 2008), 205 million people were

involved in substance abuse worldwide. Of these, 25 million people were estimated to be problem substance users, many of whom were unable to stop without treatment. Injecting substance users were estimated at 13.2 million worldwide.

In America a new survey by Jaslow (2012) on the state of substance abuse among US teens reported that, substances were still a big problem

for many Americans. In the same annual survey, researchers from the Substance Abuse and Mental Health Services Administration (SAMHSA) studied 70,000 people aged 12 and older, asking them about drugs they may or may not have taken within a month. The survey found out that there was a 14 % decline in prescription drug use for non-medical purposes among people aged 18-25 yet prescription rates among children between 12-17 and adults over 26 remained unchanged.

According to Terry (2012), American high school students reported that some of their classmates used alcohol, tobacco or other substances during school day. Also, a survey by the National Center at Columbia University reported that about 17% of high school students' drink, smoke, or use other drugs during the day (Azuz, 2012).

Multi choice one of the streams can have a stronger effect on how people view and interpret the world around them (Ekhayeme 2011). In the society we live, children seek to emulate the actors they see on TV and in the movies. Portrayals of substance abuse by these actors will be seen by children as acceptable, since their idols do it. According to Bellum (2012), substantial tobacco use was observed in television shows popular among youth and asserts that it is projected that almost one million youth were exposed to tobacco depictions through the programming examined.

In Africa Substance abuse is a public health problem reported to be on the increase since the 1970s (UNODC Report, 2008). The report by the World Health Organization (WHO Report, 2006) stated that, while 17 to 42.8% of youths in Sub Saharan Africa were involved in chronic excessive drinking of alcohol, those involved in abusing drugs such as cannabis and others were 7 to 38%. Since television has a lot of drug content programs, children and adolescents are particularly vulnerable to the messages

conveyed which influence their perceptions and behaviors since many cannot discriminate between what they see and what is real (Ekhayeme, 2011).

According to Kagire (2013) in The East African, an undercover investigation carried out by *Rwanda Today* revealed that, there was an alarming increase in the consumption of alcohol and drugs among teenage students in Kigali's top secondary schools. In Kenya Muganda (2004) asserts that substance use usually begins at a very young age. He reported that students in Kenya start when they are in primary school, secondary school, and at University level. Kenya among other developing countries has taken lead in trafficking hard drugs where the substance consumption among secondary and college students has led to unrest and consequently wide ranging destruction of life and property as cited by Ngesu *et al*, (2008).

In Uganda Bwire (2010) noted that, the problem of substance abuse in schools is spreading uncontrollably. But many observers of the education industry argue that this is one of the visible signs of growing indiscipline in general that is afflicting schools and threatens to seriously impair the progress of society for many years to come. Bwire further alludes that substance abuse is recognized as worse in urban private schools where laxity among school administrators is helping to facilitate the spread of other forms of indiscipline.

According to the Uganda Youth Development Link (UYDEL Report, 2008), schools in Kampala and Wakiso districts revealed that 71% of the respondents acknowledged the existence of alcohol and substance abuse in their respective schools. The report noted that students usually disguise alcohol by mixing it with fruit juice, tea, and soft drinks like soda in order to avoid being noticed by the administrators. Also, they use slangs among themselves when referring

to alcohol, making it difficult for school administrators to curb the vice. Students acknowledged that teachers sometimes are insensitive or are unaware of students, who are drunk especially during evening preps,

Namutebi (2013), reports that there is a high rate of drug abuse among children in and out of school. The chief executive officer of UYDEL commented that most students in secondary schools in Hoima, Masaka districts, and on Entebbe Road are actively involved in the consumption of drugs. He said that young people were now switching to heroin from marijuana on which he blamed cases like burning of schools, nude dancing and prostitution (Namutebi, 2013).

METHOD

Samples

The sample size- 361 was determined using Morgan and Kjiecie (1980), formulae. The proportional allocation of Kothari (2008) was used because the cost of selecting an item in a school was equal. Therefore the sizes of the samples from the strata were kept proportional to the sizes of the strata. i.e., if (P1) represented the portion of the population in stratum (*i*) and (*n*) the total sample size, the number of elements selected from stratum (*i*) was (*n*). P1. Therefore, the sample of size was drawn from a population size of N = 6799

School	Symbol	population	sample size
Paul-Mukasa S.S	N1	644	34
Sseeta High School	N2	1700	91
Seeta Hill College	N3	310	16
Mukono Kings HS	N5	345	18
Mukono Bishop SS	N6	2000	106
Mukono High School	N7	1800	96
		6799	361

Instruments

The study employed qualitative and quantitative methods for data collection. Primary data was generated through the use of a self administered questionnaire and an interview guide in the field, which helped the researcher to get first hand information from the respondents.

Procedure

Four private and two public schools were selected to represent all the secondary schools in Mukono municipality. Purposive sampling was used for the two public schools because they are the only two in the district and

simple random sampling was used to get the four private schools.

Snowball sampling was used in the schools to get the 361 respondents for the study. Snowball sampling was used to identify some of the potential substance abusers by creating a rapport with the randomly selected students since by the nature of the study it was hard to identify the students who abused drugs. The researcher asked for assistance from the students and the members of the disciplinary committee.

Data Analysis

The data from the field was cleaned, sorted, coded and entered in the computer by use of the

statistical package for social science (SPSS), computer software where descriptive and inferential statistics were derived. Descriptive statistics (mean, standard deviation, percentages, and frequencies) were used to answer objectives 1, 2 and objective 3. Objective 4 was analyzed using Pearson's correlation moment coefficient, where beta coefficients indicated the contribution of exposure to television program on substance abuse among students in secondary schools in

Mukono Municipality at 0.05 level of significance.

RESULTS AND DISCUSSION

Demographic Characteristics of Research Participants

Table 1: Demographic Characteristics

Items		Frequency	Percent
Sex of the respondent	Male	190	52.6
	Female	171	47.4
Age	12-14	37	10.2
	15-17	62	17.2
	18-20	135	37.4
	20 and above	127	35.2
Religion	Catholic	102	28.2
	Protestant	103	28.5
	Muslim	89	24.7
	Others	67	18.6
Type of schooling	Day scholar	224	62.0
	Boarding	137	38.0
Class	S1	27	7.5
	S2	40	11.1
	S3	54	15
	S4	55	15.2
	S5	87	24.1
	S6	98	27.1

N=361 Sources: Primary Data

Sex

Result from Table 1 indicated that male respondents dominated the study at 190 (52.6%) while females were 171 (47.4%). This implied that study findings were influenced by male responses although female respondents were also represented significantly. This is possibly because majority of the population of schools is dominated

by male students given the many factors that hinder female participation in the academic sphere.

Age

As indicated in Table 1, age 18-20 dominated 135 (37.4%) followed by 20 and Above 127 (35.2%) next were age bracket

between 15-17 62 (17.2%) and lastly those of 12-14 37 (10.2%). The results suggest that the age group 18-20 years influenced the findings. This is basically because the interview with the disciplinary council members pointed to this particular age bracket.

Religion

In relation to the religion majority of the respondents belonged to the protestant church in the study 103 (28.5%), followed by the Catholics 102 (28.2%), next were Muslims 89 (24.7%), and lastly those who belong to other denominations 67 (18.6%). This is because all the schools where the research was carried out, were affiliated to protestants and Catholic religions.

Type of Schooling

With regard to the type of schooling, day schooling dominated the study 224 (62.0%) followed by those who were in boarding schools with 137 (38.0%). This was because out of the six schools under the study, only one was purely boarding and one was purely a day school. The rest with the highest population of students were government schools whose enrolment rate of day scholars was high. This is attributed to the fact that these government schools with day sections

provide cheaper opportunity for the surrounding community members.

Class

Relating to class respondents in S6 dominated the study at 98 (27.1%). They were followed by S5 with 87 (24.1%), S4 at 55 (15.2%), S3 54 at (15%), S2 at 40 (11.1%), and lastly those who were in S1 with 27 (7.5%). The study was dominated by S.6 and followed by S.5. This is because they fall under the age bracket that was pointed out by the School disciplinary council members during the interview process as the most notorious drug abusers.

Level of Exposure of Students to Television Programs in Secondary Schools in Mukono Municipality

The second objective of the study was to examine the level of exposure of students to television programs in secondary schools in Mukono municipality. This objective was analyzed using the mean (μ) and standard deviation (SD). The mean portrays the occurrence of a response and standard deviation portrays the extent to which scores deviate from the mean. Tables 2 present the summary of the findings.

Table 2: Level of exposure of students to television programs in secondary schools

Exposure to television	μ	SD	Interpretation
State the average hours you watch sports in a day	2.29	1.47	Low
State the frequency you watch drug content advertisements in a day	3.82	1.19	High
State the average hours in a day you spend watching music videos	4.85	1.36	Very high
State the average numbers of movies you watch in a day	3.39	1.32	Moderate
Grand mean and SD	3.58	1.33	High

Sources: Primary Data $N=361$

Legend 1: 1.00-1.80 (Very low), 1.81-2.60 (Low), 2.61-3.40 (Moderate), 3.41-4.20 (High), 4.20-

5.00 (Very high)

Result from table 2 reveals that, students agreed ($\mu = 3.58$; $SD = 1.33$) that there was a high level of student exposure to television programs. Children spend more time watching programs-football, rugby, reggae music and Rock music which can lead them to substance abuse. It might also be due to the fact that since parents don't have time to monitor the programs, children are caught up in advertisements of alcoholic beverages like bell lager, Nile special, and Rwenzori gin.

Research findings were in agreement with the findings of Yoshimi, et al. (2003) who reported that there are more TV sets in households, more channels, with increased broadcasting time and international programs for children. In support to the above, due to today's working Parent's, it explains the diminished opportunities for the interaction with their children making TV watching for the children increasingly significant (Taimalu, 2006; Lahikainen et al., 2007). Also, children spend more time on television and converse less with their parents than before (Evans et al., 2011), which proves that there is a high level of exposure of students to television programs.

These results were further supported by the qualitative data that was collected in terms of types of sports watched, types of drug

advertisement watched, types of music videos watched and the types of movies watched. It was found out that football, Rugby, wrestling and basketball were the sports programs frequently watched with football and wrestling having the highest frequency. It was also found out that rock, reggae, raga, classic and hip hop music, was the types of videos watched with rock and hip hop as the most frequently watched videos. In relation to the movies watched, findings indicated that love stories, horrors, adventure, investigative, action, comedy and cartoon movies were watched. However, action movies were the most frequently watched and scored the highest.

Level of Substance Abuse among Students in Secondary Schools in Mukono Municipality

The third objective of the study was to examine the level of substance abuse among students in secondary schools in Mukono Municipality. This objective was analyzed using the mean (μ) and standard deviation (SD). The mean portrays the occurrence of a response and standard deviation portrays the extent to which scores deviate from the mean. Tables 3 present the summary of the findings.

Table 3: Level of substance abuse among students in secondary schools in Mukono municipality

Level of substance abuse	μ	SD	Interpretation
In your life which of the following substances have you ever used?	3.52	1.20	High
In the past three months, how often have you used the substances mentioned (first drug, second drug, etc)?	3.83	1.34	High
During the past three months, how often have you had a strong desire or urge to use (first drug, second drug etc.)?	3.50	1.50	High

During the past three months, how often has your use of (first drug, second drug, etc.) led to health, social, legal financial and academic problems?	2.85	1.01	Moderate
During the past three months, how often have you failed to do what was normally expected of you because of your use of (first drug, second drug etc.)?	2.83	1.44	Moderate
Has a friend or relative or anyone else ever expressed concern about your use of (first drug, second drug, etc.)?	4.49	1.33	Very high
Have you ever tried and failed to control, cut down or stop using (first drug, second drug, etc.)?	3.36	1.33	Moderate
Grand mean and SD	3.48	1.31	High

Sources: Primary Data N=361
Legend 1: 1.00-1.80 (Very low), 1.81-2.60 (Low), 2.61-3.40 (Moderate), 3.41-4.20 (High), 4.20-5.00 (Very high)

Results from Table 3 revealed that there was a high level of substance abuse ($\mu = 3.48$; $SD = 1.31$) among secondary school students in Mukono Municipality. Students agreed that they abused marijuana, tobacco, cocaine, kuber, and alcohol of which research findings were in line with United Nation Drug Control Program (1997) report. The report stated that substances of abuse fall into three categories: Depressants like heroin and barbiturates, stimulants such as cocaine, crack, and amphetamines, and hallucinogens which is marijuana, and ecstasy. All of which are ingested, inhaled, smoked, injected, and snorted.

Also, in agreement with the research findings Park (2011) reported that kids are more likely to use substances than others. Further Muganda (2004) also supported by confirming that adolescents abuse a wide range of legal and illegal substances mainly by use of alcohol, miraa, tobacco and bhang, cocaine, and heroin. Terry (2012), commented that, high school students mentioned that some of their classmates used alcohol, tobacco or other substances during school days. During an interview with key informants all

reported that Kuber (locally known as Kubba) was the most abused substance followed by alcohol and tobacco then marijuana.

Relationship between Exposure of Students to Television Programs and Substance Abuse in Secondary Schools in Mukono Municipality

Objective four was to establish the relationship between exposure of students to television program and substance abuse in secondary schools in Mukono Municipality. The objective was analyzed using Pearson correlation analysis. Pearson Correlation moment coefficient (r) provides the measure of linear relationship between the exposure of students to television programs and substance abuse among secondary school students in Mukono Municipality, while coefficient of determination (r^2) indicate the amount variation of substance abuse explained by exposure of students to television. Table 4 provides the summary of the study findings.

Table 4: Correlation between exposure to television and Substance abuse

		Substance abuse
Pearson Correlation		0.694**
Sig. (2-tailed)		0.000
Coefficient of determination(r^2)	of	0.481
N		361

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

As indicated in Table 4, there is positive and moderate significant relationship ($r = 0.694$, $p = 0.000$) between exposure to television and substance abuse. The study findings implied that if the level of exposure to television is high, then the level of substance abuse becomes moderately severe. This may basically be due to the fact that most of the television programs like advertisements, music videos, movies and TV shows include drug content which the students are exposed to. This is supported by Grimes et al. (2008), where he reports that there is no doubt that television has an impact on all of us, especially on children. This is because television broadcast are more neutral, even positive, portrayals of illicit drug use and criminal sanctions against cannabis and other drugs are often debated as rights-abating.

In addition to this finding Yoshimi, et al. (2003), reports that, television plays an increasingly powerful role in young children's everyday life due to increased TV exposure. It is also in agreement with Drug Testing Network (2013), where it is reported that children were being subjected to a constant stream for negative messages about drugs, that their world is teaching them that drug use is not only normal but risk-free. They are being taught that they can put illegal substances into their bodies and suffer no apparent consequences.

Further in support Nichols (2013) reported that, television plays a role in influencing the youth through movies and music videos that depicts drinking as a fun activity which leads teens to be curious and begin experimenting with underage drinking. This is supported by Drug Testing Network (2013), who reported that 63% of all rap songs in music refer to illicit drugs in some manner, the television TV shows and music videos constantly bombarded children with the idea that drugs are cool; drugs are fun, and harmless. They further report that role models especially rock stars, movie actors, and professional athletes were constantly being arrested for drug use and because of their immense wealth, they suffered very little consequences for their actions

Further analysis to determine the extent of the relationship of exposure to television on the substance abuse based on the coefficient of determination ($r^2 = 0.481 \times 100$) implies that exposure to television contribute 48.1% to substance abuse among secondary school students in Mukono Municipality. The remaining 51.9% is as a result of other factors that were not considered in this study which still needs to be established. This may mean that there are other factors that interrelate that contribute much to the sustainability of substance abuse among secondary school students in Mukono Municipality other than exposure to television

which is in line with the findings of Patel (2003), where it is reported that the main factors to starting drug abuse is peer pressure, curiosity and easy availability.

Analysis of Qualitative Data from the Interview Guide

From the interview that the researcher had with the disciplinary committee members from the different schools, it was reported that 6-7(moderate) number of students abused substances in a term. All the disciplinary council members agreed that male students between 18-20 years of age abused a wide range of substances as reported by one member of the council a deputy head teacher and one disciplinary master at Mukono High School. It was also reported that girls had started abusing substances within and outside the school compound as commented by the Deputy Headmaster at Bishop Senior School. Findings were in agreement with the findings of Namutebi (2013) where it is reported that, there is a high rate of substance abuse among children in and out of school.

Concerning the interview about how the schools were dealing/ handling substance abuse cases, it was reported by the deputy Headmaster of Bishop senior school that the students caught in these cases were punished by expulsion. This was in agreement with the response of one senior male teacher at Sseeta High School who said that, "with our school the rules and regulations are clear. Once caught with any substance the penalty is exiting the school gate." All other teachers who were interviewed agreed that they suspended all the students who were involved in such cases. This is in line with Kacwamu (2010) findings where she reports that, students would be dismissed indefinitely if found red-handed with alcohol or drugs.

The interview aimed at finding out if their strategies were effective and all of them agreed that they had expelled and suspended the culprits but more students were reported and others suspected of abusing these substances. They reported that it was due to the fact that some parents do not mind what happens to their children while others are strict but due to unknown factors to these teachers, students continued to abuse the substances thus rendering their strategies ineffective.

They further suggested that parents are involved in the struggle to fight this vice since they have an upper hand in disciplining their children especially during holidays where teachers are absent. This is in agreement with Uganda Youth Development Link (2008), report that there were an increasing number of parents seeking help for their students to overcome alcohol and drug-abuse related problems. It is further in agreement with Mohasoa (2010), when she reports that there is need for intensive intersectoral intervention strategies to address the substance abuse problem before it escalates even further.

Testing Hypothesis

The hypothesis - there is no significant relationship between the exposure to television programs and substance abuse among secondary students in Mukono Municipality. As reflected in Table 4 the P-value of 0.000 which was less than 0.05 (level of significance) the Null Hypothesis was rejected and the alternative one was accepted. Hence concluding that, there was a significant relationship between the exposure to television programs and substance abuse among secondary school students. This meant that if the exposure to television were high, then the level of substance abuse will go high.

Conclusion

It was concluded that there was a high level of exposure to television, there was a high level of substance abuse among secondary school students in Mukono Municipality. It was also concluded that there is positive and moderate significant relationship between exposure to television programs and substance abuse. The Null Hypothesis which stated that there is no significant relationship between the exposure to television and substance abuse among secondary school students in Mukono Municipality was therefore rejected and the alternative one was accepted.

Recommendations

Based on the informal interview and the result, the researcher discovered that the real situation on ground revealed that the secondary schools lack professional counselors. Therefore, the researcher recommends that school administrators employ qualified and professional counselors. The school administrators are recommended to sensitize students about the dangers involved in abusing drugs.

The researcher recommends parents to monitor their children and to regulate the television programs watched by their children especially during their holidays.

Further Research

The study recommended that a similar research be carried out on other important factors that significantly influence students to substance abuse not only in Mukono Municipality but also in Uganda and other parts of the world. The researcher recommends that the following is studied.

A comparative study on heavy viewers and lighter viewers of television in relation to substance abuse

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**SCHOOL ENVIRONMENT AND ITS IMPLICATIONS ON STUDENTS
DISCIPLINE IN SELECTED SECONDARY SCHOOLS IN
MOSOCHO-DIVISION OF KISII COUNTY- KENYA**

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Abstract

This study sought to investigate the effects of school environment on discipline of secondary school students in Mosocho Division. School environment in terms of geographical, social and school culture was the independent variable and student discipline being the dependent variable. The study sought to assess the extent to which school environment affected the discipline of secondary school students in Mosocho Division, by examining how geographical, social and school culture environments contributes to the discipline of secondary students.

Data was collected from students, teachers, and principals through a questionnaire tool and analyzed using descriptive statistics for objective 1 and 2 and multiple regression for objective 3. The findings showed that geographical environment affected indiscipline moderately while social environment and school culture affected it highly 3.26, 3.76 and 3.86 respectively. The discipline status of students was found to be moderate with a mean of 2.65. The study found out that school environment would predict the discipline of students by 53.7%. The study showed that there was significant relationship between school environment in terms of school culture, geographical environment and social environment in the schools which influence the discipline of the students.

Introduction

Discipline plays a fundamental role in a school setting. Many institutions of learning have faced challenges with indiscipline cases due to varied reasons. As a result, several reasons have been advanced by different stakeholders as the underlying root causes of indiscipline cases in schools. These includes: overloaded curriculum; autocratic school administration; drug and substance abuse; poor living conditions in schools; excessive use of corporal punishment;

lack of an effective school guidance and counseling service; pressure for excellent academic performance; abdication of parental responsibility; incompetent board of governors, culture of impunity in the society; adolescence identity crisis; mass media campaigns and the prefect system (Moreiras, 2003).

Juma (2008), observed that many countries in Sub-Sahara Africa are not acting fast enough towards issues of indiscipline and that this might be perhaps the reasons why more schools are

being affected. Furthermore, he observed that the Children's Act has been pointed out as one of the causes that contribute to indiscipline since "you can neither cane nor punish children." This has obviously created an impression amongst the students that they could break school rules and go scot-free.

In the recent times, Kenya has witnessed a wave of violence in many schools. Several secondary schools' dormitories and administration blocks have been set on fire by students whose indiscipline continues to be a source of concern in many parts of the country. Characterized by the destruction of school property running into millions of Kenyan shillings, loss of study time and even death, this unrest spread spontaneously like a bush fire in the dry season. Similar to some of the violent episodes witnessed during the post-election violence, over 300 secondary schools were closed following violent students' unrest between July and September of 2008 (Institute for Security Studies, 2008). Hardly a school term goes by without incidences of violent behavior being reported in the mass media. For instance, students of Rwathia Girls high school went on strike over the lengths of their skirts, sparking controversial debate that sucked in Education minister Mutula Kilonzo (Sunday Nation August 5, 2012).

When new rules are introduced in a school, students may reject and protest against them. This indeed poses a challenge to the enforcement of student discipline. This supports the November 2006 at Ortum Secondary in West Pokot, where students went on a rampage

Based on the sample size, a sample of 361 students and 120 teachers was randomly selected using simple random sampling technique from all the selected schools in Mosocho Division. The technique gave each student and teacher an

complaining of inadequate food, strict rules, and suspension on flimsy grounds and accused some of their teachers of being habitual drunkards (Rono and Gichana, 2006). Thus, for the last five years there have been strikes in many of the schools in Mosocho division, which have led to a number of culprits being suspended or expelled from school (Mathiu, 2008).

Determined to arrest the situation, the Minister for Education listed a ban on cell phone use in schools; removal of videos and DVDs from school buses; the expulsion of student culprits; and belatedly; a ban on extra tuition (Afrol News report, 23rd July 2008). Despite all these measures, the situation has not normalized, as there are strikes in schools from time to time.

Methodology

Sample

The researcher carried out the study in seven schools from the twenty-two secondary schools, using purposeful sampling to select the said schools and generalized the findings. Stratified sampling was used to achieve a desired representation of schools from mixed day, mixed boarding, and single sex schools in Mosocho division. A representative sample was arrived at after using the formula suggested by Taro (1973) to determine the sample.

The sample respondents 481 were drawn from teachers and students. The respondent among the students and teachers was randomly selected. Hence, the sample size as shown in Table 1 below:

opportunity of being chosen in the sample to avoid biasness.

Instruments

The researcher used questionnaires and interview schedules to collect data in the field. A

self-administered questionnaire, which had both open and closed ended questions was used to collect data from the respondents. This was done to allow respondents give in their feelings and opinions. A face-to-face interview was also used

as an alternative method of data collecting among some few respondents who were teachers found to be busy and had no time to respond to the questionnaires.

Table 5: Sample distribution

SCHOOL	STUDENTS	SAMPLE	TEACHERS	SAMPLE
Kanunda	432	42	20	14
Riotero	512	50	25	17
Cardinal Otunga	601	59	30	21
Kioge Girls	593	58	23	16
Nyatieko	535	52	26	18
Daraja Mbili	538	53	21	15
Kiogo	487	48	27	19
TOTAL	3698	361	172	120

Data Analysis

Data was analyzed using descriptive methods of analyzing data with the use of SPSS. Frequencies were used to denote the number of despondences. The frequency was changed into percentages. Objectives 1 and 2 was analyzed using descriptive statistics namely frequency count, mean and percentages so as to show the status of school environment in terms of geographical, social and culture, as well the status of discipline.

Objective 3 was analyzed using both step-wise and multiple regressions. Step-wise regression was used to analyze the individual variables of geographical, social and school culture environments and their relationship with student discipline of secondary school students of Mosoch Division. While, multiple regressions was used to summarize the relationship between School environment in terms of geographical, social and school culture and student discipline. According to Tofallis, C (2009), Regression analysis helps one to understand how the typical value of the dependent variable changes when any

one of the independent variables is varied, while the other independent variables are held fixed.

RESULTS AND DISCUSSIONS

This chapter presents, analysis, interprets and discusses the study findings on the effects of school environment on discipline of secondary school students in Mosoch Division.

Socio-Demographic Characteristics

The study sought to describe the socio-demographic characteristics of the students' respondents in terms of sex, age bracket, and class, the type of school and location of the school.

Sex

In relation to the sex of the students respondents it was noted that 212 (58.7%) of the respondents were females, while 149 (41.3%) were males. This implied that the females were majority in participating to the study. This further signifies that female views dominated the study

Age bracket

The study also surveyed the age bracket of the respondents in which it was noted that 303 (83.9%) of the respondents were aged between 16-19 years, 56 (15.5%) were aged between 12-15 years and 2 (.6%) were 20 and above years. This

implied that majority were between 16-19 years of age. Those who were aged between 16-19 dominate the views of the study; as well they represent the real age bracket of the students at secondary level.

Table 6: Socio-demographic characteristics of the respondents

	Frequency	Percent
Gender of the respondents		
Male	149	41.3
Female	212	58.7
Age bracket of the respondents		
12-15 years	56	15.5
16-19 years	303	83.9
20 and above	2	.6
Class of the respondent		
Form I	25	6.9
Form II	103	28.5
Form III	168	46.5
Form IV	65	18.0
Type of school of the respondent		
Boarding	64	17.8
Day school	297	82.3
Location of the school		
Rural	223	61.8
Urban	138	38.2

N=361

Class of the respondents

As pertains to the classes of the respondents, 168 (46.5%) of the respondents were in Form III, followed by 103 (28.5%) who were in Form II, 65 (18%) were in Form IV and 25 (6.9%) were in Form I. This shows that majority 46.5% of the respondents were in Form III. In most cases Form IV were busy as they were being prepared for Mocks examinations.

Type of school

The study sought to identify type of school the respondents came from. In this case, the respondents were identifying in terms of either boarding or day school. The findings shows that 297 (82.3%) of the respondents came from day schools whereas 64 (17.8%) were in boarding school. This portrays the reality of the scenario at ground since there are very few boarding schools and majority of the schools are day schools.

Location of the school

The study furthermore, assessed the location of the schools on whether they were in rural or urban. The findings shows that 223 (61.8%) of the respondents were in rural schools whereas 138 (38.3%) were in urban schools.

School Environment

The first objective of the study was to assess the status of school environment in terms of geographical, social and school culture among the selected secondary schools in Mosoch division.

To meet the objective and answer research question indicators were used to analyze geographical social and school culture. The findings are presented in the sub-section of the report. The sub-section is sub-divided into geographical, social and school.

Geographical environment

The first indicator of school environment that was assessed was geographical environment which is measured in terms of proximity to market, road, location of the school- urban/ rural and school's general surrounding.

Table 7: Geographical environment

	Mean	Interpretation
The location of our school near the market place promotes indiscipline	2.73	Moderate
The busy highway/road near our school influences student indiscipline	2.46	Low
Schools in rural setting have disciplined students	3.21	High
Enough space for curricular and co-curricular activities promotes student discipline	4.03	Very High
The school's aesthetic environment promotes discipline	3.86	High
Average mean rating	3.26	High

N=361

Legend

Scale Interpretation

4.21- 5.00 Very High

3.41- 4.20 High

2.61-3.40 Moderate

1.81- 2.60 Low

1.00- 1.80 very Low

The location of the School and student discipline

In assessing whether the location of school that is near to the market place promotes indiscipline, the findings generated a mean rating of 2.73 which implied a moderate agreement. This means that those schools that were located near the market place contributed towards indiscipline of the students in Mosoch Division. From the interviews among the teachers and principals, it

was found out that schools that are located near or next to market places cause indiscipline as many of the students tend to dodge classes to go the market and make money. It was also pointed out from one of the teachers that half of the cases they have handled in disciplinary was based on market issues where students fail to attend classes, dodge, are involved commercial sex, drug abuse and other related issues. Of the schools surveyed three were located near the market places since

issues were reported from the interviews with teachers of the schools. It was found out that some students go to clubs, and discos which in turn affect their morals standards negatively. As a result they contribute towards misbehavior among the students at school. The findings supports the work of Pascoe (2008), alludes that physical location of a school has an impact on student discipline such that schools in an urban setting with media influence, influences students with the information derived from the media

School Proximity to the Road/Highway and Student Discipline

The study further used the indicator of location on busy highways or roads to investigate geographical environment. The findings with a mean of 2.46 meant that respondents disagreed. This implied that location of schools on busy highways or roads do not promote indiscipline. Some schools that is Cardinal Otunga, Riotero, Daraja Mbili and Nyatieko are located near the highway, thus, respondents' believed that issues of being on a highway or main roads rarely promoted indiscipline among the students. The findings are in line with Pascoe (2008) schools established along major roads and highways expose students to new sets of behavior especially day scholars like drug taking, obscene languages and even immoral behaviors.

Schools' rural setting and student discipline

The study further inquired whether schools in rural setting have disciplined students, in which the findings showed a mean of 3.21 which implied that respondents moderately agreed. This means that rural schools moderately are disciplined compared to urban schools. This was pointed out from the interviews that urban settings or locations have a number of social issues that attract students such as clubs, discos, alcoholic

issues, drug abuse and other social evils which attract students who end up indulging in them. As various scholars have suggested this is drawn from the fact that with globalization process community members appreciate the role of education Ceiddens, (2000). Based on public relations theories and the conception, five dimensions of school and community relations have been identified (Tam, 2005

Curricular and co-curricular activities student discipline

Another indicator of geographical environment investigated was space for curricular and co-curricular activities that promotes discipline. The findings generated a mean rating of 4.03 as shown in Table 3 which implied a high agreement among the respondents that enough space for curricular and co-curricular activities promotes student discipline.

Krueger, (2003), stresses that students' participation in activities such as sports, art, drama and music helps students do well in school and hence avoid getting committed to doing school prohibited acts. He asserts that on a typical school day, majority of students participate in activities, such as sports, dance, drama and music programs, school homework programs. About half of students who participate in activities believe that their participation help them do well in school and also avoid indiscipline cases. From the interview it was found out that space for co-curricular and curricular activities are essential towards ensuring discipline of students. In most cases, students fail to have stress removers which complicate their ways of doing things hence they end up indulging in indiscipline cases.

The school's aesthetic environment and students' discipline

Another aspect that was used to ascertain geographical environment was school's aesthetic

environment, which the results revealed a mean rating of 3.86 that was an agreement among the respondents that the schools surveyed had a good aesthetic environment. This implied that the schools' aesthetic environment promotes discipline. Once the schools have a good space and with no shrubs that may be used to hide among the students to perform their own things, then it becomes clear that it is hard for the students to misbehave.

The findings with a mean rating of 3.26 of geographical environment showed that respondents moderately agreed that there is geographical environment that promotes discipline among the selected schools in Mosocho Division. The status of school environment in terms of geographical, social and school culture among the selected secondary schools in Mosocho division was measured in three ways: The geographical environment was found to be moderate with a mean of 3.26, which implied that geographical environment promoted or affects students' discipline.

The geographical environment was reflected through the location of school nearness

to the market place, being located on busy highways or roads, being in rural or urban setting, availability of enough space for curricular and co-curricular activities that promotes discipline, and availability of school's aesthetic environment.

Schools are part of communities and the conduct of students always affects the community in one way or another. Therefore, the geographical setting of the school does not affect this relationship as long as students do not interfere with the community member's affairs. For this reason, the subject of school and community relations mainly falls into the arena of public relations of schools. Based on public relations theories and the conception, five dimensions of school and community relations have been identified (Tam, 2005). These dimensions are geographical, structural, relational, cultural and political. Geographical dimensions describe the physical boundaries and geographical location of a school either in rural or urban as well as its nearness to the road networks and its community.

Social Environment

Table 8: Social environment

	Mean	Interpretation
The teachers' teamwork in implementing school activities promotes discipline in the school	4.24	Very high
The school Motto enhances student discipline	3.88	High
The interactions of students and teachers through clubs and societies promotes discipline	3.88	High
The availability of information communication technology (ICT) in school influences student indiscipline	2.64	Moderate
The good relationship between the school and the community promotes student discipline	4.15	High
Social environment mean rating average	3.76	High

N=361

Legend

Scale	Interpretation
4.21- 5.00	Very High
3.41- 4.20	High
2.61-3.40	Moderate
1.81- 2.60	Low
1.00- 1.80	very Low

The student used social environment as an indicator of school environment in which it was measured in terms of team work, school motto, interactions, and ICT and school/community relations.

The teachers' teamwork and students' discipline

In ascertaining whether the schools have team work which in turn promotes discipline, the findings with a mean rating of 4.24 showed that respondents strongly agreed. This meant that schools have teamwork among the teachers which implement schools activities such as rules and regulations, and other related activities. In this case, the level of teachers' participation among the teachers and how they related with the school was perceived to be high.

From the interviews all the principals that were interviewed noted that they had done their best to ensure that there is teamwork among the teachers. They also revealed that they have empowered the teachers to carryout their activities without interference from top management. Furthermore, a number of teachers who were involved in disciplinary activities among the schools surveyed revealed that they do their duties well and they are helped by fellow teachers to ensure that all is well at the school.

The school Motto and student discipline

Another indicator of social school environment was the school motto, in which it

was rated with a mean of 3.88 which meant that respondents agreed that the school motto enhances discipline. Most of the school mottos that were used in schools had the issue of striving to excel, others were in relation to moral issues whereas other were in relation to brain development. This implied that schools had different mottos that in turn were used to impart discipline in one way or another.

The interactions of students and teachers

The issue of interactions of students and teachers through clubs and societies promotes discipline was another indicator of social aspect that was investigated in which the findings generated a mean rating of 3.88 which implied that interactions of students and teachers through clubs and societies promotes discipline of students. The involving of teachers and students helps to deal with students problems and raise their self-esteem.

Through the interviews, it was pointed out that the nature of teaching methods by teachers, instructional materials and the relationship of the teachers to the students are some of the important factors in dealing with the student discipline. Teachers, who help students to constructively focus on their discipline, encourage the students to become involved in school activities and identify specific student learning needs and show them how to become useful persons of the future.

As well having caring, quality teachers who bring meaning into their relationship with students provide students with respect, high

expectations and trust students' intellect, find solutions to problems and this encourage them to abandon indiscipline acts. This is in line with Saeed (2005) that highly qualified and engaged teachers passionately believe that they make a difference in the lives of students who are indiscipline by changing them to be persons of substances because of their teaching practices and their personal concern for their students.

The Information Communication Technology (ICT) and Students' Discipline

As well the availability of information communication technology (ICT) in school influences student indiscipline was another indicator of social environment that was investigated. The findings generated a mean of 2.64 which shows that respondents rated in to be moderate or sometimes. It was found out that most of the schools lack the ICT facilities that would promote discipline. Though some of the interviews revealed that ICT sometimes contributes to indiscipline in that many of the students who have access to internet use it for phonograph and other issues that affect their discipline level at school.

Relationship between the School and the Community and Student Discipline

In assessing whether the good relationship between the school and the community promotes student discipline, the findings indicated a mean of 4.15, which implied that respondents agreed that good relationship between school and community foster good discipline. The interviews carried out pointed out that the moment the community is in harmony with the school the students discipline is enhanced. The community reports bad behaviors, complaints and other issues that students misbehave in which enables the school to take measures. On the contrary poor relationship among the community and the school affects students' discipline negatively.

In general, the social environment was measured to be high with a mean rating of 3.76. The social environment in this case was ascertained through aspects like schools have team work which in turn promotes discipline, school motto, interactions of students and teachers through clubs and societies promotes discipline, of information communication technology (ICT) in school influences and relationship between the school and the community.

School Culture

Table 9: School culture

	Mean	Interpretation
The schools' language policy enhances student discipline	4.16	High
Students who are always in proper school uniform are disciplined	3.58	High
Motivation of students and teachers encourages discipline	4.17	High
The spiritual programs in the school promote discipline	4.01	High
Democratic elections of student leaders enhances student discipline	3.41	High
Average Mean rating School culture	3.86	High

N=361

Legend

Scale	Interpretation
4.21- 5.00	Very High
3.41- 4.20	High
2.61-3.40	Moderate
1.81- 2.60	Low
1.00- 1.80	very Low

The school environment was also investigated using the culture of the school, which involved language policy, school uniform, motivation, spiritual programs and democratic elections. The findings are presented in this subsection of the report.

The schools' language policy enhances student discipline

The first aspect of the school culture that was addressed was school language policy, in which the results showed a mean of 4.16. This implied that respondents agreed that the school had language policy that was followed, which were meant to induce discipline among the students. From the interviews the teachers pointed out that mother tongue was prohibited in school, hence the official languages that were encouraged to be used were English and Kiswahili. Offenders were punished accordingly.

One interviewee noted that however, that although there are language policy there are some students who are known as notorious since they often use mother tongue. They have been given punishments and now they are used to them. This was a challenge since most students would not talk fluently in English or Kiswahili. This are norms that students need to adhere to which make a school what it is. The findings reflects Healy (1995), who asserts that in a school environment where school management institutes school rules that are too rigid, strict, punitive and unnecessary;

this may psychologically instigate students to become in disciplined.

Students in proper school uniform

The study as well investigated school uniform as a school culture element, in which the findings showed a mean rating of 3.58 that showed that respondents agreed that students who are always in proper school uniform are disciplined. This implied that one of the school cultures among the surveyed schools was school uniform that was mandatory among all the students. Schools always would like to see students in full school uniform, which promoted discipline. Although through the interviews with teachers' specifically those in disciplinary offices noted that there are many cases of students avoiding to put on school uniform. It was further noted that some of those who were involved in misbehavior were in most cases not in uniform.

Motivation of students and teachers encourages discipline

Furthermore, the study assessed whether motivation of students and teachers is given in schools. The findings with a mean of 4.17 revealed that respondents agreed that the schools provided motivation to students and teachers which in return encouraged discipline. This was further affirmed by the teachers and principal who were interviewed, when they pointed out that there is motivation such as rewarding smart

students, and other related issues that would promote discipline in the school.

Teachers were also motivated to help students behave well, since lack of such would contribute to teachers inciting students to misbehave. For instance, one principal noted that lack of motivation in his early periods in the school had contributed to teachers to incite students to participate in a strike that was carried. The findings upholds Hanushek *et al*, (2004) who argues that use of prizes, field trips, words like good and well-done have a great impact

The spiritual programs in the school promote discipline

Spiritual issues were also investigated to ascertain school culture, in which the findings with a mean of 4.01 indicated that respondents agreed that the schools had spiritual programs which promoted discipline. Most of the schools that were surveyed had their students participate in spiritual programs such as prayers before classes, mid-week prayers and Christian Union clubs. These would help to promote discipline among the students.

Democratic elections of student leaders enhances student discipline

In assessing whether democratic elections of student leaders enhances student discipline the findings with a mean rating of 3.41 revealed that respondents agreed. This implied that schools carry out democratic elections of student leaders. Since this is the role of the students' body to conduct free and fair elections without much of staff interference. Although this was the case, the teachers pointed out that they always help to put in place guidelines that promote freeness and fairness in the process. Involving students governing bodies like students' councils in the discipline process and promoting students' reflection about their own behavior is the key to effective discipline.

In summary, the school culture indicators generated a mean rating of 3.86 which implied that respondents agreed that the school had norms such as language policy, school uniform, motivation, spiritual programs and democratic elections. These are pertinent towards promoting discipline in schools as they direct students in one way or the other

Relationship between School Environment Student Discipline

The third objective of the study was to find out the relationship between school environment and discipline of students in selected secondary schools in Mosoch division. The findings are presented in this sub-section of the report.

Table 10: Influence of School environment on students discipline Model summary

M Summary	R	Change Statistics		
		R Square Change	Sig. Change	F
Geographical Environment	.706 ^a	.498	.031	
Social Environment	.701 ^a	.491	.035	
School Culture	.793 ^a	.629	.041	
1	.733 ^a	.537	.040	

Table 7 above interprets the step-wise results from the highest variable to the least. Thus, school culture influences the discipline level by 62.9% which was high with F being .041, which is less than .05 implying that there was a significant relationship between school culture and student discipline in Mosocho Division. Geographical environment, on the other hand explains it by 49.8% which is moderate with F being .035 that is less than .05 level of significant implying that there was a significant relationship between geographical environment and student discipline in Mosocho Division. Whereas, social environment expresses it by 49.1% which is moderate with F being .031, which is less than .05 level of significant implying that there was a significant relationship between social environment and student discipline.

The multiple R for school culture being .629 implies that the influence of school culture on student discipline in Mosocho Division is positively high. This implies that the discipline is also high. This accounts for 62.9% of the influence of school culture on discipline. The implication attached may be that the schools in Mosocho Division contribute 62.9% of discipline of which the 38.1% remaining account for other factors such as, the proximity of schools to market or urban as well as proximity to the road network as stated in the descriptive data.

In addition to the above, F of school culture was .041 which is below the level of significance. This implies that the Null Hypothesis is rejected which states that there is no relationship between school environment in relation to geographical, social and school culture is rejected and the alternative accepted. This is to say, School culture influences student discipline in Mosocho Division. Hence, an agreement with Gleason, (1999), who asserts that students discipline at school largely, determines their performance in class. Indiscipline cases in school are partly because of socio-cultural norms and beliefs but others are copied norms from fellow students. When a student indulges in drug and alcohol abuse as they have always seen from their village, is exposed to lack of socio-competence, mental health difficulties and poor physical health. Such a student is utmost susceptible to poor performance academically and other school activities. Indiscipline, therefore, may lead to drop out of school whose consequences are well documented.

In the geographical environment as indicated in Table 7 which has multiple $R=.498$ implies that the influence of geographical environment is positively moderate which means that it moderately affects discipline of students. The $R^2 = .498$ explains 49.8% of the influence of geographical environment on student discipline. The implication attached may be that Geographical environment contributes 49.8% to discipline of students in Mosocho Division. This is moderate as shown in table 3, implying that geographical factors such as rural setting of the school which had a mean of 4.03; the school's aesthetic environment had a mean of 3.96 and curricular and co-curricular activities with a mean of 3.20 moderately influenced student discipline in Mosocho Division. Thus, the residual of 50.2% may result due to other factors responsible such as location of the school near market and urban centers or schools located near roads/highways which had slightly low means of 2.73 and 2.56 respectively. As well some teachers interviewed alluded that schools near roads and highways were indiscipline due to some boys being temporary employed as Motor cyclists and even girls befriend the cyclists so as to be given free rides to and fro school. This results into fighting for the girls and some boys missing classes quite often.

Hence, an implication that geographical environment affects student discipline as alluded by Pascoe, (2008) that physical location of a school has an impact on student discipline such that schools in an urban setting with media influence influences students with the information derived from the media. Such information from videos, films television, internet and magazines promote immorality, fighting, bullying and drug use among students. On the same note schools established along major roads and highways expose students to new sets of behavior especially day scholars like drug taking, obscene

languages and even immoral behaviors, upon this background the researcher seeks to establish the relationship of a geographical setting of a school and discipline in Mosocho division.

In addition to the above, F of geographical environment being .031 which is below the level of significance, implies that the Null Hypothesis that there is no relationship between school environment in relation to geographical environment is rejected and the alternative accepted.

According to table 7 the social environment has $R = .071$ which is relatively high with a mean rate of 3.76 as shown in Table 3. It implies that student discipline is also high. This may be as a result of the team work of teachers with a mean of 4.24, good relationship between the school and community with a mean of 4.15 as shown in table 4. Also school Motto as well as interaction of students and teachers through clubs and societies enhanced student discipline. Some schools did not have Information communication technology in schools hence, a low mean of 2.64 as regards to influencing student discipline. In this case, the level of teachers' participation among the students and how they related with the school was perceived to be high. The involving of teachers and students helps to deal with students problems and also raise their self esteem.

$R^2 = .491$ explains 49.1% influence of social environment on student discipline in Mosocho Division. The implication attached here implies that social environment contributes 49.1% to student discipline in Mosocho Division whereby 50.9% remaining account for other factors such as teachers having affairs with students of the opposite sex as was expressed by the students as to other factors influencing the indiscipline of students. Others which came out through the open ended questionnaires of students include: lack of open forums for discussion between students and teachers, peer pressure, availability of local brews near schools, insufficient guidance and counseling sessions and not rewarding disciplined students to mention but a few.

In addition to the above, the F of social environment was .035 which is below the level of significance. Hence the null hypothesis is rejected and the alternative which states that there is no relationship between school environment in terms of social environment and student discipline in Mosocho Division and the alternative accepted. This is in line with UNESCO (2005), findings which allude that family characteristics are a major source of disparity on student's educational outcomes and discipline.

Further, the findings from Table 7 show the summary of the findings of Multiple R. Multiple R shows the determined relationship between independent variables- school environment and dependent variable- discipline of students among the selected secondary schools in Mosocho Division. The regression model summary shows a significant relationship of 0.537 which implies that school environment in terms of school culture, geographical environment and social environment of the schools influence the discipline of the students. The multiple R implies that the three variables School culture, Geographical environment, Social environment influence the discipline level of students among the selected secondary schools.

Here, the findings imply that the discipline of students in Mosocho division can be predicted as 53.7% by the school environment (school culture, geographical and social environment). On the other hand, the left residual of 44.3% may be argued that other factors not included in the analysis accounted for this residual value. The findings suggest that most of the impending factors have explained the variance moderately well since they explain 53.7%. This signifies that discipline of students can be predicted from the variable of: school culture, geographical environment and social environment of the school.

However, a significant part of the discipline could not be explained by the variables analyzed in this study. This means that there would be other factors not captured in the study that calls for other

researcher to ascertain. The F statistic is the regression mean square divided by the residual mean square. If the value of F statistic is smaller than 0.05 then the independent variables explains the variation in the dependent variable and if the value of F is larger than 0.05 then the independent variables do not explain the variation in the dependent variable.

In the model summary the value of $F = 5.264$ is greater than 0.05. This implies that there is a significant relationship between school environment indicators and the discipline of the students. Thus, the hypothesis that there is no relationship between school environment in terms of geographical, social and school culture and the discipline of secondary school students of Mosoch Division is rejected and the alternative accepted.

The findings are in line with Center for social and emotional education (2009) that school environment contributes to students' knowledge and skills for success in school, work and life. School environment refers to the quality and character of school life. It is based on patterns of school life experiences and reflects norms, goals, values, interpersonal relationships, teaching, learning and leadership practices, and organizational structures.

A sustainable, positive school environment fosters youth development and learning necessary for a productive, contributing and satisfying life in a democratic society. Environment includes norms, values and expectations that support people feeling socially, emotionally and physically safe. People are engaged and respected. Students, families and educators work together to develop, live and contribute to a shared school vision. Educators' model and nurture attitudes that emphasize the benefits and satisfaction gained from learning. Each person contributes to the operations of the school and the care of the physical environment.

In fact, "school connectedness," or the extent to which students feel attached to at least one caring and responsible adult at school, is an area of increased attention among risk prevention and school environment researchers. School connectedness is a powerful predictor of adolescent health and academic outcomes, violence prevention and is a protective factor against risky sexual, violence, and drug-use behaviors.

Conclusions

The study found out that the geographical, social environment and school culture of the surveyed schools influenced discipline among students in Mosoch division. This included the location of school, being near to market place, being located on busy highways or roads, being in rural or urban setting, space for curricular and co-curricular activities that promotes discipline, and availability of school's aesthetic environment. The social environment in terms of teamwork, which in turn promotes discipline, school motto, interactions of students and teachers through clubs and societies, promotes discipline; of information communication, technology (ICT) in school influences discipline of students and relationship between the school and the community was perceived to be high. At the same time school culture like the norms such as language policy, school uniform, motivation, spiritual programs and democratic elections of student leaders was high.

The study found out that school environment would moderately influence the discipline of students. Thus, there, was a significant relationship between school environment in terms of school culture, geographical environment and social environment which influence the discipline of the students in Mosoch Division.

Recommendations

Based on the findings, conclusion drawn the following recommendations are made:

Schools need to address their school environment in terms of geographical, social and school culture so as to have good discipline among the students. At the same time, School Management Boards should provide enough facilities for curricular and co-curricular activities to make the students break monotony.

The respondents suggested that there is need for enlisting the support of parents in guiding and counseling the students to improve the discipline level of the students. In addition, the sponsors should also be enlisted to provide adequate spiritual programs to promote moral standards among students.

Areas for further research

1. The impact of strikes on the academic performance of students in schools
2. The relationship between discipline and student academic performance in secondary schools
3. The relationship between single sex and mixed schools and discipline of students in secondary schools
4. The relationship between boarding and day schools and discipline of secondary school students.

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**STOCK MARKET REGULATIONS AND INVESTORS' PARTICIPATION IN UGANDA: A
CASE OF UGANDA SECURITIES EXCHANGE****Omonge Joseph*****Abuga Mokono Isaac, PhD******Moses Kibirango, MA*******Jeremiah Nyende, MBA********MBA (Accounting) Student, School of Graduate Studies, Bugema University, Kampala, Uganda****Lecturer, Graduate School Bugema University.Email:*****Lecturer, Graduate School Bugema University.Email:mmkibirango@yahoo.com******Lecturer, Graduate School Bugema University.Email:***ABSTRACT**

The study was on Stock Market Regulations and Investors' Participation in Uganda's Securities Exchange in Kampala, Uganda. The specific objectives of the study were to examine the stock market regulations, to determine the level of investors' participation and to establish the relationship between stock market regulations and investors' participation in Uganda Securities Exchange.

The study hypothesized that there is no significant relationship between stock market regulations and investors' participation in Uganda. The study employed quantitative and qualitative approach, a cross-sectional census survey, and correlation research design.

Results revealed that there is a high level of investor participation in the USE with regard to the scale used in the study. The null hypothesis was rejected as the p value 0.042 is less than the level of significance of 0.05.

It was concluded that, the stock market regulations used in the USE are highly utilized. This was attributed to the existence of good management structures and compliance with the CMA regulations.

Recommendation was that the USE should put in place policies and activities which will promote investors to participate in Stock Market.

Keywords: *Stock Market, Regulations, Investors, Participation, Uganda's Securities Exchange*

Introduction

Internationally, stock market regulations are intended to impact on the returns and/or risk of those holding claims on the underlying assets with the purpose of increasing the portion of truth in the world and to prevent or punish fraud (Paul, Grout and Zalewska, 2004). For example, competition law, price controls, investor protection, market entry restrictions, among others, are all intended to transfer wealth between parties either as an end in its own right or to achieve specific objectives. The direct and indirect regulation of quoted companies is a

common and growing feature of stock market economies, and yet regulatory arrangements have also been the object of significant change. Such regulations like listing, membership rules, eligibility requirements for market, transparency, and disclosure requirements are at the centre of attention at international venues for investors to participate in stock market sector (Di Noia and Di Giorgio, 2006).

A number of countries like the United States, the United Kingdom, Australia, and Japan are in fact presently changing their regulatory systems (Freixas, Giannini, Hoggarth and Sousa,

2003). In other European countries, evolutionary trends are moving in the same direction. In the USA, the State Securities regulations, called “blue sky” laws, were initially enacted nearly a hundred years ago and over time, have been adopted, amended and extended by virtually all 50 states (Berk, 2002).

Keong (2005) point out that stock market regulation measures are universally acknowledged with the protection of investor interests, broader public interest in the securities, and the economic performance of securities markets. While protection of investors and economic performance of securities markets may include a vast number of measures, both economic and financial theory suggests that among the chief are -the total real returns of investment opportunities and their associated risks for investors.

In the past 15 years (1990-2005), liberalization and privatization have become dominant themes in development strategies in Africa. The changing attitude towards the role of the private sector in the development of African economies has facilitated the development of the stock markets. In the year 1990s many countries in Africa set up stock exchanges. This was a precondition for the introduction of market economies under structural adjustment programs propagated by the international institutions to facilitate the privatization of state owned enterprises (Asea, 2003).

Currently there are 20 stock exchanges in Africa located in Botswana, Côte d’Ivoire, Egypt, Ghana, Kenya, Malawi, Mauritius, Morocco, Mozambique, Namibia, Nigeria, South Africa (three exchanges), Swaziland, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe. However, there is need for African governments and Uganda in particular to establish coherent policies, to push forward the capital markets agenda and build a formidable substantial investor base. Once the investor base emerges, outperformance will be

significantly magnified (Claessens, Klingebiel, and Schmukler, 2005).

Uganda’s stock market is known as Uganda Security Exchange (USE) incorporated in June 1997 as a company limited by guarantee without the share capital. It became operational in January 1988. The USE is therefore, a non-profit making body created to facilitate the government implementation of the reforms and in future to encourage wider share ownership of the privatized and other companies in Uganda. Both USE and CMA serve as regulators of the market with the authority involves three parties; the issuer of the financial products, a company that offers shares or issue of a bond to the investor. The party that purchases the products issued with the hope of making a return and the marketing intermediaries such as brokers/ dealer and investment advisors who help the investor in purchasing the securities (Kiwanuka, 2006).

Methodology

Sample

The target population for the study was 33 comprised of market research officers, legal officers of nine listed companies, financial analysts, administrators, investment agents from six brokerage firms, research officer from Capital Markets Authority, and a legal officer from USE. All the respondents were interviewed.

The sample size was the same as the target population and census was used for the population because they were few to give primary information that was required within the each company as per the topic under investigation.

A self-administered questionnaire and the interview guide were employed to collect data from the respondents. The questionnaire was given to the respondents to read and fill in responses. The completed schedule was collected

from the respondents individually or in groups as suggested by (Kothari, 2004). This method of data

collection was preferred because the respondents were alone when filling-in the questionnaire.

Table 1: Target population

S/N	Category of Resp.	Population	Sample size
1	Legal Officers	05	05
2	Market Research Officers	09	09
3	Financial Analysts	06	06
4	Investment Agents	06	06
5	Administrators	06	06
6	Research Officer	01	01
	Total	33	33

Source: Developed for this research

The questionnaire comprised of close-ended and open-ended questions. The researcher developed close-ended questions on a 5 point Likert Scale which was developed by utilizing the item analysis approach wherein a particular item

is evaluated on the basis of how well it discriminates between those persons whose total score is high and those whose score is low (Kothari (2004)).

Table 2: Definition of Scale to Evaluate and Scoring the Questionnaires

Scale	Mean range	Interpretation
SA	5 4.24-5.00	Very High
A	4 3.43-4.23	High
N S	3 2.62-3.42	Moderate
D	2 1.81-2.61	Low
SD	1 1.00-1.08	Very Low

Developed for this research with parts from Renis Likert (1932)

The researcher adopted this type of scale so as to give respondents a wider chooses of answers and therefore, gathering different views of respondents. The interview guide was used to get data from both executives in USE and CMA. This was to assist get more data from the respondents who are busy by their nature of work

and could not have time to fill in the other questionnaires.

Design

The study employed both quantitative and qualitative approach because of the need for convergence of evidence from qualitative and

quantitative methods (Donald, chaser and Sorensen, 2010; Bell, 2008). The study was quantitative because the researcher made an inquiry into a problem based on testing a theory composed of variables, measured with numbers and analyzing with statistical procedures in order to determine whether the predictive generalizations of the theory hold true.

The study was qualitative because it sought to understand a problem, based on a holistic picture, formed with words reporting detailed views of informants. This was used in objectives one and two of the study. The study took a cross-sectional survey research design because the study was designed to give an explanation to the problem at a particular time. With cross-sectional survey research designs, the researcher takes all censuses of the respondents, and tries to understand the “cross-section” of interest. This design enabled the gathering of data from a large number of people, and comparing these data since

they are not affected by changes overtime. Correlation designs were used in objective three of the study to establish relationships between stock market regulations and investors participation in Uganda (Bajpai, 2003).

Data Analysis

Data from questionnaires and interview guides was organized and coded by categorization, and then input into the SPSS computer software analysis. Specifically objective 1 and 2 were analyzed using descriptive statistics such as frequency distributions, percentages and objective three was analyzed using Pearson correlation analysis to generate Correlation coefficient (r) and Coefficient of Determination r^2 .

RESULTS AND DISCUSSION

Sample Characteristics

Table 4: Profiles of the Respondents

Items	Description	Frequency	Percentage
Length of Service(Years)	< 1	4	12.1
	1-5	19	57.6
	6-11	7	21.2
	12-17	1	3
	17>	2	6.1
Age of the Firm(years)	1-5	4	12.9
	6-11	10	32.3
	12-17	4	12.9
	18-22	5	16.1
	22>	8	25.8

Source: Primary data.

N=33

The results in Table 4 indicated that majority (87.9%) of the respondents, had worked for a relatively a longer period. They were therefore in position to objectively comment on the firms' investor participation trends while 12.1% had worked for a period less than one year.

Table 4 further indicates that the majority of respondents (32.3%) were (6 – 11) years old, followed by slightly over 25.8% with the age of over 22 years of service ;16.1% with the age of(18 – 22) years, and 12.9% with the age of (12 – 17) years . It was also discovered that others did not respond as they did not know for how long the company has been in existed. Such are the respondents

working in cross listed companies as indicated in appendix table 4.

Stock Market Regulations Applied in Uganda Securities Exchange

The first objective of the study was to identify the stock market regulations employed in USE. The specific variables investigated under this objective included listing rules and member rules, eligibility requirements for market profiles, and transparency and disclosure requirements. This objective was analyzed using the mean and standard deviation. Table 5 provides the summary of the findings.

Table 5: Stock Market Regulations

Item	Description	% age	Pooled μ	SD	Interpretation
Type of Stock Market regulations	Listing Rules	73.3			
	Membership Rules	10.0			
	Both Listing & Membership	16.7			
Company Issues prospectus prior to getting listed on USE	Yes	79.2			
	No	20.8			
Listing Rules/ Membership Rules in USE			3.99	0.83	High
Eligibility Requirements for Market Profiles in USE			3.61	0.93	High
Transparency and Disclosure Requirements			3.60	0.99	High

Source: Primary Data

Legend 1

Mean scale Interpretation

Rating

4.24-5.00 Very High

3.43-4.23 High

2.62-3.42 Moderate

1.81-2.61 Low

1.00-1.80 Very Low

Findings in Table 5 indicated that majority (73.3%) of respondents knew of the listing rules and their application at USE, 10% knew only membership rules and 16.7% knew both listing and membership rules. However, 9.1% missed results according to Appendix Table 3.

Further, respondents were asked if their companies issue a prospectus prior to getting listed on the USE. Findings indicate that majority (79.3%) of respondents said that their firms issued prospectuse before getting listed on the Uganda Securities Exchange (USE), while 20.8% said no, and none respondents were 27.3%

according to Table 6 in the appendix. This indicated the awareness of some of the procedures followed before listing on the USE.

With regard to the objective one listing and member rules, the results indicated that the application of listing rules and member rules in USE is high because most of the respondents agreed with the existence and application of these rules at a mean ($\mu = 3.99$, $s = 0.83$), implies a high application of listing rules.

Eligibility Requirements for Market Profiles

With eligibility requirements for market profiles, the findings show that majority of the respondents agreed with the existence and application of the eligibility requirements at a mean of ($\mu = 3.61$, $s = 0.93$). This implied high use of eligibility requirements in USE.

Transparency and Disclosure Requirements

In the bid to ascertain whether or not transparency and disclosure requirements are used in the USE, the respondents were requested to indicate the extent of their agreement to the statements on transparency and disclosure requirements.

The findings indicated a high use of transparency and disclosure requirements in USE with a mean of ($\mu = 3.596$, $s = 0.99$). Generally, at USE the stock market regulations are highly used or implemented as shown by the pooled mean of ($\mu = 3.60$) indicating a high mean as per legend 1 used in the study. This is further supported by the scores of standard deviation ($s = .991$) which were high, showing how these different stock market regulations deviate from the mean indicating high usage of the stock market regulations in the USE. This meant that respondent's opinions about the stock market regulations used by USE were almost similar (same opinion about the regulations), suggesting that respondents agreed that stock market regulations are highly employed in USE. This was further observed from the mean (μ) values of the different stock market regulations which are almost similar and high.

Implying that they are crucial regulations applied in USE. This was attributed to the existence of management structures in USE and compliance with CMA regulations as a regulatory body for capital markets in Uganda.

Level of Investors' Participation in USE

The second objective of the study was to determine the level of investor participation in USE. The specific variables investigated under this objective included return on investment, active trading volumes and magnitude of share ownership. Pooled mean and standard deviation was derived as summary details are covered in Appendix Table XIII. Table 6 provides the summary of the findings.

As can be seen from Table 6, the study findings revealed that there is high level of investors' participation in USE (pooled mean ($\mu = 3.567$, $SD = 0.94$) which are high levels with regard to legend 2 or scale used in the study. This shows how the different investor participation aspects of USE deviate from the mean, indicating good and favorable regulations that are conducive to investor participation in the USE. This is further evidenced from the high mean values of the different attributes of investor participation used in the study (ROI $\mu = 3.41$, Active trading volumes $\mu = 3.24$ and Magnitude of share ownership $\mu = 3.64$)- all somewhat similar and implying that they are highly used to measure their success in USE as indicated in appendix tables XIII. However, study findings contradict Franuel (2009) who stated that, there is a low level of investor participation in Uganda.

Table 6: Level of Investors Participation

Item	Pooled Mean	Standard Deviation	Interpretation
Level of Investors Participation	3.57	0.938	High

Source: Primary Data

Legend 2

Mean scale

Rating

	Interpretation
4.24-5.00	Very High
3.43-4.23	High
2.62-3.42	Moderate
1.81-2.61	Low
1.00-1.08	Very Low

Relationship between Stock Market Regulations and Investors' Participation

The third objective of the study was to establish the relationship between stock market regulations' and investor participation in the USE.

The objective was analyzed using Pearson Correlation to establish the relationship. Findings on the relationship between stock market regulations and investor participation are contained in the Table 7.

Table 7: Stock Market regulations and Investors Participation

Pearson Correlation (r)	.380*
Sig. (2-tailed) (P-value)	.042
Coefficient of determination (r^2)	14.4%

N=33

*Significant at 0.05 level

In the Table 7 above, there is a weak statistical positive linear ($r=0.38$) between stock market regulation and investor participation which significant at ($p=0.042$). this implied that improvement in stock market regulation slightly result in increased investor participation.

The Coefficient of determination ($r^2=14.4\%$) derived from $r^2 = (0.380 \times 0.380)$ *

100%= 14.4% indicated that the 14.4% variation of investor participation could be explained by the stock market regulations. Therefore giving an explanation that, the contribution of stock market regulations on investor participation was at a minimal of 14.4%. Other factors contributing 85.6% could be availability of other investments, change in composition of investors, economic

stability of the country, market demand, the history of the firm, and lack of knowledge of the sector.

Relating to the above regulatory changes face particular problems. Bajpai (2003) identifies three common problems. He noted that major regulatory events usually involve no single unique announcement date, regulation changes often favor some firms but harm others- protects small firms at the expense of large ones, and that regulation usually affects firms in the same industry at the same calendar time thus difficult to separate from industry specific shocks. The first problem, it is a real concern for all major regulatory changes. In some cases it is possible using daily data to identify some effects of individual regulatory announcements and publications. However, for a major regulatory change there will be many such dates, and it is usually the net effect of the regulation that is sought, but not changes in expectations along the way.

The announcement problem is less of an issue though for a study purpose (such as this) that seek to address the impact on risk than to identify the transfers of wealth that arise from a major regulatory change, We were instead concerned whether the time-varying risk for the relevant companies was lower for a significant period of time coinciding with the time that the regulatory change was expected. In the case of this study we used daily and monthly data, and dealt with a period of 'expectation' that is about 25 months within a full sample period of over six years. For this reason our results are less sensitive to the choice of precise dates, however, we need to define the period of expectation and now turn to this problem.

Testing Hypothesis

The hypothesis - there is no relationship between Stock Market regulations and investors' participation in the Ugandan economy. As reflected in Table 7, calculated p- value is 0.042. Since p- value is less than 0.05 level of significance, the null hypothesis was rejected. Hence it can well be asserted that stock market regulations are significantly related with the investor participation in Uganda.

Conclusion

With regard to the study findings, it was generally concluded that stock market regulations used in the USE were highly utilized. This was mainly attributed to the existence of good management structures at USE and compliance with CMA regulations.

Further there was a high level of utilization of stock market regulations at USE which implied that there were technical personnels, to apply all the professional stock market regulations that enhanced investor participation in stock market dealings. Further, this may imply that staffs in the USE are aware of how to measure stock market success.

In conclusion also, there was a weak positive relationship between stock market regulations and investor participation in USE at a correlation coefficient $r = 0.380$. Based on the foregoing, the null hypothesis was rejected since the critical value was greater than level of significance of (0.05). This implied that in any stock market, stock market regulations were important to stock market dealings. because the USE is investor oriented entity much as there can be other regulations and the listing rules are favorable to the investors which make them to participate in the stock market sector.

Recommendations

With regard to the stock market regulations, USE should further improve on its

structure to check the aspects that need more technical personnel more especially in the regulatory section if they are to enhance investor participation in the USE dealings.

With regard to level of investor participation, the USE should make sure that all major investment aspects should be highlighted for investors to effectively participate in.

Sensitization seminars on stock market operations should be carried out throughout Uganda so that people can know the importance.

The government through CMA & USE should improve the methods of advertising thorough various media and new techniques available to the people since there is lack of knowledge.

Areas for further research

Market research needs to be carried out to find out ways in which stock market should be used for more investors to participate in investment in Uganda Capital Market.

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**MEDIA AND FAMILY HEALTH CARE OF WOMEN IN MAKERERE III PARISH,
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Abstract

This study sought to provide empirical evidence about Media and Family Health Care of women in Makerere III Parish, Kawempe Division. It was carried out on 300 women with the intention of establishing whether a relationship exists between electronic media, TV/Radio and Print Media in relation to women's family healthcare management.

The study set out to establish the social economic characteristics of family health care - sanitation, and immunization of women, and to assess the level of access to print and electronic media. This study further sought to establish whether a significant relationship exists between electronic media and family health care of women in Makerere III Parish and relatedly to establish whether the Print media has any significant influence on the family Health care. The study employed a semi structured questionnaire and key informant interviews to gather information that was analyzed using descriptive statistics and Pearson's Product Moment Correlation.

These findings indicated a high level of awareness regarding immunization and sanitation shown in the number of children who completed the cycles of immunization, washing of hands after toilet, and boiling of drinking water. Statistical Pearson analysis revealed that media programmes on TV/Radio had more significant influence on women than newspaper articles. Also, there is quite strong positive correlation ($r=0.601$) between access to radio educational programmes family healthcare management of the women in the study. The results from the study indicated that P value 0.000 was less than 0.05 level of significance. Results in table 8 also indicated a strong positive correlation ($r=0.518$) between access to educational television programmes and family health care of the women in the study. P value 0.000 less than 0.05 level of significance. A weak but positive correlation ($r=0.032$) between access to educational articles in the newspapers and family health care of the women in the study was realized.

Further analysis using regression, revealed a fairly strong relationship between Radio and the women's Family Healthcare of 0.563 while television and print media had a positive but weak relationship of 0.488 and 0.276 respectively.

Keywords: *Media, Family Health Care, Women, Kawempe Division*

Introduction

Communication media including the press, cinema, radio, television, the music industry, and computer networks, represents the modern forum where information is received and transmitted rapidly to a global audience, where ideas are exchanged, attitudes are formed and, where a new culture is being shaped. The media is therefore, destined to exercise a powerful influence in determining whether society fully recognizes and appreciates the rights and also the special gifts of women.

In an attempt to find out the relationship between people and the media Katz et al, (1985) replaced the question "what do media do to people?" with the question "what do people do with the media?" According to the study it was found that media is used by individuals to meet the specific needs- cognitive which involves acquiring information, knowledge and understanding; affective for emotional and pleasurable experience; personal integrative for strengthening individual self image; social integrative geared towards strengthening self image and tension release to help one escape, and relax or get diverted.

World wide the media has set trends of debates on global concerns like the environment, HIV/AIDS, terrorism and the economy, among others. Zayani (2011) states that media played a crucial part in exposing the former president of Tunisia Ben Ali by broadcasting video downloads from social media on France 24 TV Channel and Aljazeera. This forced him to flee the country following an uprising by the nationals.

Liberalization of the media is one of the benefits of development. However, the use media for social change is yet to be fully realized. The arrival of new commercial cable and satellite television channels as well as the privatization of old state-run media have led to a more market

oriented content in several countries on the region. This development in turn, has introduced new tensions and conflicts in the representation of women. Similarly, with media structures and hierarchies still dominated by men, content continues to reflect a masculine vision of the world and of what is important.

As a result, issues that are particularly crucial to women's lives are low in scale of what is regarded as newsworthy. With increasing urbanization, television can be an important means to reach women audiences who have come to the city from rural areas (FAO Report, 2000).

In their November 2001 measles campaign, The Ugandan Red Cross communicated with hard to reach populations through a mix of communication channels including interpersonal communicators, mass media, volunteers, and community theatre. One of the behavioural results was to ensure that every mother or primary caregiver in a particular district understood the need for their children to be immunized, and subsequently took them to the health centre for the shot.

In spite of all these developments in the media, educational materials and advocacy for pertinent issues like health care are still lagging behind. Uganda is a pioneer in the liberalization of media in Africa. Private Radio and TV stations as well as newspapers mushroomed after the government loosened controls in 1993.

Traditional communication methods can be important channels for facilitating learning, behavioural change, people's participation and dialogue for development purposes. Indigenous media have been successfully adopted by change agents to rural development issues of relevance to women. They have been used, for instance, to promote influence attitudes towards family size, female genital mutilation, teenage pregnancies, unsettling lifestyles and HIV/AIDS. They have also been applied in health care, environmental

protection and women's literacy programmes as well as in teaching mothers about child nutrition and in introducing new agricultural practices.

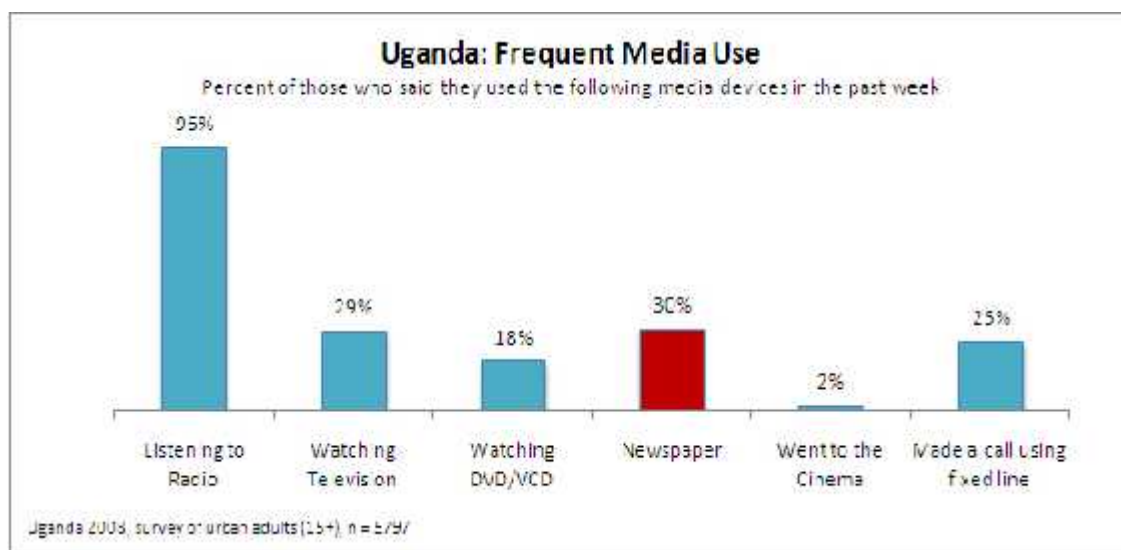
In Uganda during the early 1980s the media was used to create awareness on the HIV/AIDS scourge that later led to reduced prevalence levels (WHO report, 2000). During the 1980s people's protracted war "Radio Katwe" a loose station operated by anti-government activists played a major role in mobilizing people to support the "rebels" which resulted in the defeat of government forces.

Misanvu (2010) in his paper on the Media History in Uganda said that much as the increase in media channels is a welcome change, a new challenge has emerged; that of adequately catering for the needs of all sectors of the community.

Pertinent issues like education and health are always allocated less air time and given off pick slots compared to sports and entertainment which always air in paid slots.

As of July 2010, Uganda had 244 registered TV Channels with 45 in Kampala alone; 220 registered radio stations with 188 operational and 12 newspapers 6 of them dailies. In addition to this is the new wave of social media through internet and telephones leaving the urban community saturated by media (UCC records, 2010).

The Uganda 2008, survey of urban adults (15+) placed radio as a favorite medium with 96 percent, followed by newspaper at 30 percent and television at 29 percent. Below is a graphic presentation of media use in 2008.



Source: Uganda 2008, Survey of Urban Adults

Figure 1: Showing people's weekly media use.

Health Bulletin (2010) showed that most environmental staff in urban centers lack knowledge of the current policies and strategies and do not receive information regarding healthcare yet these are the very people who are

supposed to educate the communities on good practices, the woman being the main target.

Immunization and sanitation are inextricably linked as lack of sanitation leads to poor health status of the child even in cases where immunization has taken place. Measles is

common and especially dangerous in emergencies because populations are displaced, live in overcrowded conditions, sanitation and shelter are poor, food and safe water are in short supply. All these primarily affect the woman as a primary healthcare giver in a family.

Nearly half the population of the World's 49 least developed countries is under the age of 18. They have the highest rates of child mortality and out-of-school children and the lowest rates of access to basic health care, maternity services, safe drinking water and basic sanitation (WHO report, 1999).

The same report continues to say, poor sanitation in Uganda impacts on the health status, education, trade and employment. In this way poor sanitation is a drain on the national economy and a major obstacle to poverty eradication and sustainable development in Uganda (WHO Report, 1999). More than any other human right sanitation raises issues of human dignity, safety and convenience especially for girls and women.

The President of Uganda while launching the mass immunization campaign in Pader one of the District said that immunization against polio and measles has gone down and called on mothers to take their children for immunization (Presidential Speech, 2010). As a result of this advocacy Ministry of Health registered a 95 percent turn up nationwide (New Vision Newspaper, 2012).

Information has always been a basis for knowledge; and the latter is power (Hameso,1995). Lack of information implies a form of empowerment, signifies freedom from ignorance, freedom from servitude and ultimately freedom to choose.

The use of different media as an informer, and an advocate for change elsewhere and in Uganda has been highlighted in this chapter. Advocacy in promotion of women's family health care

management can therefore, not be over emphasized.

The research however, recognizes that there is a knowledge gap about media use in the promotion of healthcare management by women more so in an urban setting like Makerere III Parish. Relatedly, the researcher sought to undertake this study to establish the influence of media on the women's family healthcare management.

Methodology

Sample

A sample size of 300 women that is 10% of the target population was selected in support by Newmann (1995) who recommends that a sample size of 10% of a large population above 1000 is adequately representative.

The study employed stratified and purposive sampling procedures to improve the representativeness of the sample by reducing sampling error. Each zone was represented by strata to ensure even representation of the different zones. There are six zones in Makerere III parish namely; Kibe, Good Hope, Mayinja, Sebina, Dobbi and Kigundu.

Stratified sampling enabled to representatively sample even the smallest and most inaccessible subgroups in the population. Sample respondents were determined by purposive sampling within each stratum as recommended by Sellers (2009) because the study required respondents with specific characteristics. The researcher selected women who had children under their care irrespective of whether they were biological or not and were between the ages of 25-60 years.

Instrument

A Semi structured questionnaire was used divided into sections A general information of the correspondents, who were women with children under their care, section B questions

about Health care (Immunization), section C questions about Sanitation, section D about women's access to Radio, section E about women's access to TV, and F about women's access to Print medium.

Table 11: Results from Purposive Sampling indicating Zones.

Zones In Makerere III Parish	Number Of Women Selected
MAYINJA	62
SEBINA	80
KIBE	52
GOODHOPE	37
KIGGUNDU	29
DOBBI	40
TOTAL NUMBER OF ZONES = 6	TOTAL NUBER OF WOMEN = 300

This was in line with Oates (2000) to get information from the respondents in a consistent manner. With the educated women- teachers and nurses a self-administered questionnaire was used to fill in the answers. The other category of uneducated women like market vendors, stall and kiosk owners the questionnaire was administered face to face by research assistants.

Key informant interviews were carried out to complement the main instrument with a semi-structured questionnaire. Information gathered provided an insight into the nature of social reality and unexplored dimensions of the problem. Four

people all residents and working in the same area were chosen- a woman councilor, a market master, the chairman Community Health Concern, and a landlady in the area.

Data Analysis

Data collected from the field was cleaned, coded and entered in the computer using SPSS Computer Soft Ware. Descriptive Statistics (Means, Frequencies and Percentages) were generated to answer objective 1,2 and 3. Correlational analysis using Pearson's Product Moment Correlation Coefficient was done to

generate inferential Statistics to answer objective 4 and 5.

status of occupancy, occupation, level of income and education. Table 2: Covers the respondents' zones of residence in the study area.

RESULTS AND DISCUSSION

Characteristics of the Respondents

The study assessed the characteristics of women based on the following; Zone of residence,

Table 12: Respondent's Area of Residence

Zone	Frequency	Percent
KIBE	52	17.3
MAYINJA	62	20.7
GOODHOPE	37	12.3
KIGUNDU	29	9.7
SEBINA	80	26.7
DDOBI	40	13.3

N = 300

From the Table 2 above, results show that the majority of respondents are residents of Sebina zone who were (26.7%) of the sample, (20.7%) were from Mayinja zone, (17.3%) were from Kibe zone, (13.3%) were from Ddobi zone, (12.3%) were from Good Hope zone and only (9.7%) of the respondents were from Mayinja zone.

The majority of women had stayed in the area for more than ten years (56.3%) while a few (13.3%) had stayed in the area for a period of two years and below. This implies that the women were well conversant with the area and could give valuable and reliable information.

Marital Status

Results in Table 3 show that majority of women 181(60.3%) are single and 119 (39.7%)

are married. Among the respondents who are single are those who are widowed, separated or in relationships which are not stable. This could explain the large families the households had since the married ones were assumed to be in stable homes.

Level of Education

Results revealed that majority of women 101 (33.7%) attained upper secondary level, 70 (23.3%) had upper primary level, 60 (23.3%) attained lower primary while very few (19.7%) had attained lower secondary. This shows that majority of respondents were fairly educated and could understand the questions asked and give logical answers.

Table 13: Showing Respondents Characteristics

Characteristics	Frequency	Percent
Marital Status		
Married	119	39.7
Single	181	60.3
Education Level		
Lower primary	60	23.3
Upper primary	70	23.3
Lower secondary	59	19.7
Upper secondary and above	101	33.7
Occupation		
Bar Attendant	47	15.7
Politicians	60	20.0
Land Lords	22	7.3
Self Employed	121	40.4
Hoteliers	10	3.3
Education / Teachers	10	3.3
Health worker	30	10.0
Level of Income		
Below 50,000	40	13.3
50,000 – 100,000	100	33.3
100,000 – 200,000	59	23.0
Above 300,000	91	30.4
Status of Occupancy		
Permanent resident	149	49.7
Tenant	151	50.3

N = 300

Results in Table 3 show that the majority of women (40.4%) are self employed, while the least number of women, (3.3%) are engaged in hotel business and teaching.

Self Employed

Retail business owners engage in a range of activities, Table 1 from petty trade to retail shops and hawking. This category takes most of the women (40.4%). Some women own small shops

while others work from verandas, lockups and by the roadside. They are young, and just starting out in the business world. Some were operating personal phones, while others were employed.

Teachers

According to study findings as summarized in Table 3 women (3.3%) were teachers of primary and secondary schools. The schools they were teaching in were those situated in Makerere III parish itself. Some of these women also operated kiosks at their respective schools to earn an extra income.

Landlords

This category took 22 (7.3%) of the women and includes those who own houses for rent. (Table 2). Interviews with these women revealed that although they get income from these rental units they don't consider it as a job since it does not involve labor. These are mostly small rooms rented at a fee of 20,000 to 30,000 shillings a month. A single landlord own between five toten units depending on space. The landlords also owned kiosks near the houses and sold food items for extra income. Two of the landlords interviewed also worked as traditional healers or tailors.

Hotel Attendants

According to results Hotel attendants, are 10 (3.3%). These women operate mobile restaurants where they cook food and sell to people by the verandas and make shift structures. Others work as waiters in small restaurants, where they serve food and drinks as well as participate in preparing food and washing plates. These are sometimes paid daily, weekly or monthly.

Bar Attendants

According to Table 3, Bar attendants (15.7%) were women who work in bars to serve beer and other drinks as well as cleaning. These women, mostly young in age were paid daily, weekly or monthly between 150,000 and 200,000 shillings. In a Key Informant Interview with Mrs. Yiga, a woman Councilor in the area, these women often get tips from customers who are mostly men, but this is dependent on the customers' financial stand and the time of the month.

Health Workers

According to findings in table 3, health workers (10%), comprise of nurses and midwives of different grades who offer health services in small private clinics or division health centers. These are also engaged in training people regarding health and sanitation at community level.

Politicians

Results in Table 3 indicate that (10%) of the women are politicians involved in community administration at different levels like LCI, II and III. These women comprise of older women who have been in the area for some time and are relatively better off. Some of these women are also landlords owning a number of housing units for rent. These women also own small kiosks, for example telephone booths or lock up shops where they employ younger girls to run them. Interview also revealed that there are women who had no permanent job.

Respondents' Level of Education

Results in table 3 indicate that most of the women were moderately educated whereby (53.4%) had attained lower to upper secondary level of education and above. This is also

reflected in their occupation and monthly income whereby, majority are engaged in small businesses which don't fetch much money. According to the National Census (2002), Makerere Parish is located in a slum area and the characteristics of these women reflect those of a slum dweller.

Status of Occupancy

Research findings revealed that majority of women 151 (50.3%) were tenants while 149 (49.7%) were permanent residents. These included the landlords who have rental houses in the area.

Status of Family Health Care of the Respondents

This took into account the number of children under the respondent care, the age of the children. As regards health care, the study was about immunization against measles and whooping cough and whether the respondents completed the cycle of immunization or not.

Under sanitation the study considered whether respondents boiled drinking water and washed hands after toilet. Summary of the Study findings are in Table 4.

Immunization results show that 90.0 % of respondents' had their children immunized the six killer diseases and only 10.0% had not immunized their children. This is likely due to the area being in close proximity to Mulago Referral Hospital as well as other smaller clinics which make immunization easily accessible. It also means that they can access media messages regarding healthcare.

Measles

Results from Table 4 indicate that 86.7% of the women had their children completed immunization against measles while 13.3% were still on dose. This shows that a very big number of women took their children for immunization partly due to the health campaign messages in the media.

Table 14: Showing Respondents Family Healthcare Status

Item	Frequency	Percent
Immunization of Children against killer diseases		
Yes	270	90.0
No	30	10.0
Completed cycle of measles and whooping cough		
Yes	270	90.0
No	30	10.0
Boiling Drinking Water		
Never	20	6.7
Rarely	10	3.3
Sometimes	20	6.7
Always	250	83.3
Washing Hands after toilet		
Never	20	6.0

Rarely	10	6.7
Sometimes	10	3.3
Always	260	84.0
Availability of Hand washing facility		
Yes	290	96.7
No	10	3.3

N= 300

Whooping Cough

Regarding immunization against whooping cough, 90.0% of the correspondents said that their children completed immunization against whooping cough while 10% said that their children were still on dose.

Boiling Drinking Water

The study revealed that 83.3% of respondents always boiled drinking water, 6.7% sometimes boiled water, 6.7% never boiled water respectively and only 3.3% of the respondents rarely boil drinking water.

Most people boiled drinking water because there have been continuous campaigns at all fronts by the media, the health teams about the dangers of drinking un boiled water. A few respondents revealed that they take mineral water, especially those who are single and mostly eat out. But some of those who confessed to not boiling water cited lack of money for charcoal as one of the main hindrance (Yiga, 2010).

Regarding information on medical care results indicate that 37.0% of respondents' get information from the media, 30.0% from medical centers', 16.7% from no one and only 16.3% of respondents' get information from volunteers and workshops. Interviews with community leaders revealed that most women are aware of the importance of immunization, boil drinking water and wash hands after visiting the toilet however, not many use soap (Personal interaction 2010).

Washing Hands after Toilet

In the case of washing of hands after visiting the toilet, results from the study indicate that 93.3 % of respondents' said they always wash their hands after visiting the toilet and only 6.7% never wash their hands as per the findings. 90.0 % of respondents' always washed their hands with soap after visiting the toilet, 6.7% never washed with soap and 3.3% sometimes washed their hands with soap. This means that majority are aware of the need to wash hands after visit the toilet. The awareness can also be attributed to the level of education which is moderate, family set up where almost 40% are married and leading stable lives.

Availability of Hand Washing Facility near the Latrine

In Table 4, study findings revealed that 96.7 % of respondents had a hand washing facility near the latrine and only 3.3% didn't. From field observation most of the respondents had small jerry cans or bottles. For purposes of this research all those were categorized as hand washing facility. Some respondents who were relatively well off had taps, about 3%. Almost 40% of the respondents said that they prefer to use small jerry cans because they are portable and can be used for ablution for those who are Moslems, while stationery facilities like locally manufactured metallic hand washing cans have always fallen prey to scrap metal dealers who steal them. (Nambi 2010).

Level of Access to Electronic media

Level of Access to Radio

According to results in Table 5, majority of women 171 (57%) listened to education programmes through out the week, 140 (46.7%) listened to business programmes, 139 (46.4%) listened to Sports and entertainment and few 79 (26.3%) listened to current affairs and news.

Results also show that the education category of programmes had most listeners tuned in 3-5 days in a week with 99 (33.0%) followed by Sports and Entertainment with 51 (17.0%), 41 (13.5%) for News and Current affairs while only 20 (6.7%) tuned in to business.

In general results show that women regularly listened to radio although the frequency varies widely for different categories of programmes.

Table 15: Level of Access to Radio in a week

Name of Prog.	Access Days/Week	Frequency	Percentages
Sports& Entertainment	1-2	44	14.6
	3-4	66	22.0
	3-5	51	17.0
	6-7	139	46.4
Education	1-2	10	3.3
	3-4	20	6.7
	3-5	99	33.0
	6-7	171	57.0
Current Affairs/News	1-2	70	23.3
	3-4	110	36.7
	3-5	41	13.7
	6-7	79	26.3
Business	1-2	50	16.6
	3-4	90	30.0
	3-5	20	6.7

6-7

140

46.7

N = 300

Results show that there was a relatively low number of women listening 1-2 days in a week with 70 (23.3%) tuning in to the News and Current affairs programmes, 50 (16.6%) tuning in to business, 44 (14.6%) for sports and Entertainment while education had only 10 (3.3%).

This is in line with the Audiencescapes National Survey (2008) where 96% of respondents (adults) said they use radio while 91 % said they listened to radio at home. The survey also cites radio as a favorite medium for people with lower levels of education and most women in the area 140 (46.6%) stopped school between Upper primary and lower secondary.

Ibanda (2010) supports the findings when he says that Radio is the most subjective of all

media, its is mobile and a one on one medium. He continues to say that because of the variation in formats most people consistently listen to three or four different radio stations representing different types of programming.

Personal interaction with women revealed that most of them have small radio sets which they carry to their places of work to follow up on their favorite programmes. However, the interview results revealed that the respondents don't listen to programmes the whole day but tune in at the broadcast time mostly during the day and later in the evening they may revert to other media like TV.

Level of Access to Television

Table 16: Access to TV in a Week

Name of programme	Access Days/Week	Frequency	Percentage
Education	1-2	110	36.7
	3-4	50	16.6
	3-5	30	10.0
	6-7	110	36.7
Sports & Entertainment	1-2	20	6.7
	3-4	30	10.0
	3-5	100	33.3
	6-7	150	50.0
News & C/A	1-2	35	11.7
	3-4	15	5.0
	3-5	91	30.3

	6-7	159	53.0
Business	1-2	27	9.0
	3-4	43	14.3
	3-5	121	40.3
	6-7	109	36.4

N == 300

Research findings show that of the respondents who watched through out the week, the majority 159 (53.0%) were for news and current affairs, Sports and entertainment had 150 (50.0%), education had 110 (36.6%) and business had 109 (36.4%). Respondents who watched programmes 3-5 days were 121 (40.3%), for sports and entertainment they were 100 (33.3%), 91 (30.3%) watched news and current affairs while only 30 (10.0%) watched educational programmes. Results also show that majority of respondents 110 (36.7%) watched educational programmes 1-2 days in a week, news and current affairs had 35 (11.0%); 27 (9.0%) of respondents watched business programmes while only 20 (6.7%) watched sports and entertainment.

Results show that most respondents regularly watched News and current affairs followed by sports and entertainment. Educational and business had fewer women tuning in. This could be attributed to issues like socioeconomic factors of the respondents as well as the presentations of these programmes. According to

Nabakka (2010), women mainly watch television in the evening according to informant interviews.

The results for News and current affairs however, tallies with Morley's theory (1996) that women's listenership and viewership habits are molded by a sense of responsibility where they are concerned about what the media says about their region, country or location and plight as women.

The researcher's personal interaction with women leaders revealed that watching television is one of the major ways of entertainment for women. Personal interaction with the women revealed that they watch serialized soaps to follow a story that might be similar to theirs or of someone they know. This is in line with Katz et al (1985) theory that people watch TV for integrative need, while Maslow hierarchy of needs for media (2000) says that people use media for self esteem and social gratification. Women also revealed during the interaction that some get so attached to the stars in the soaps and even name their children after them.

Influence of Media on Family Healthcare among the respondent

Table 17: Pearson's Correlation of Access to Radio, TV and Family Health care of respondents

Medium	Pearson's Correlation	P- Value
--------	-----------------------	----------

Radio		
Education	0.601(**)	0.000
Sports & Entertainment	0.344	0.000
Business	0.0160	0.006
Television		
Education	0.528	0.000
Sport/Entertainment	0.139	0.000
Business	0.137	0.017

N=300

Correlation is significant at the 0.05 level

As indicated in Table 8, the study findings indicate that there is quite strong positive correlation ($r = 0.601$) between access to radio educational programmes family healthcare management of the women in the study. The results from the study indicate that P value (0.000 is less than 0.05) level of significance of ($\alpha < 0.05$). Hence concluding that electronic media significantly influences women's family healthcare.

This is in line with the results of the audiencescapes (2008) which says that people who had no or low level of education listened more to radio. The results also tally with Jones (2003), that media can undeniably create social change. This view is also supported by the KAP study (1998) which cited the major source of information to communities about immunization as health workers and the media particularly radio.

As seen in Table 8, the study findings indicate that there is quite strong positive correlation ($r = 0.518$) between access to educational television programmes and family health care of the women

in the study. The results from the study indicate that P value (0.000) is less than (0.05) level of significance.

This implied that the electronic media significantly influenced the women's family healthcare. In addition it means that by tuning in to educational messages on TV and radio, women's healthcare practices changed for the better. However, this research has also revealed that other factors contribute to these habits like personal character, religion, ethnic and background (Yiga 2010).

Research findings revealed that TV had a slightly lower influence compared to Radio at ($r = 0.518$) because it is more expensive and can only be used by those who have got electricity and TV sets either at home or at their places of work.

Further analysis using regression was done to determine the degree or extent of relationship between access to media and women's Family Healthcare. The findings are summarized in Table 9.

Table 9: Regression Analysis of Access to Media and Women's Family Healthcare of respondents

Medium	R Square
Radio	0.563
Television	0.488

According to results in table 9, there is a fairly strong relationship between Radio and the women's Family Healthcare of 0.563 while television had a positive but weak relationship of 0.488 respectively. According to Gupta (2000) a regression of 0.5-1 is deemed strong while 0.00-0.5 is categorised as weak. The findings are in agreement with audience scapes 2008 and National Census 2002 which state that radio is the most popular communication medium among people with low income followed by television and print respectively. The same surveys say that radio is cheaper, portable, mobile and television as entertaining but quite expensive and static making it a very expensive medium of communication for a woman of low income as the respondents.

Conclusion

According to results, there was a significant relationship of the media electronic and family healthcare in terms of immunization and sanitation especially boiling water and washing hands after toilet. This implies that women's behavior concerning immunization and sanitation is highly influenced by electronic media Radio and Television. This implies that there is a relationship between Media and Women's Family healthcare. On a broader scale it implies that media can be effectively used as a tool to improve sanitation and immunization.

However, the general sanitation in the area is still far too below the desired standards. Further research is therefore, recommended to find out the factors influencing behavior change to improve the lives of women in Makerere III Parish.

Recommendation

Media, practitioners need to involve women in the production of items for broadcasting so as to attract them tune in. For participation and effective communication, media owners can take mobile vans to the community to target a specific audience and repackage the programmes more attractively to attract viewers and listeners.

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FARMERS' CHARACTERISTICS AND ADOPTION OF NERICA RICE VARIETY GROWING. A CASE OF FARMER FIELD SCHOOL IN OGUR AND AGWENG SUB COUNTIES, LIRA DISTRICT, UGANDA

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Abstract

The study assessed the relationship between farmers' socio demographic/economic characteristics and adoption of NERICA Rice variety growing among the farmers in Ogur and Agweng Sub Counties in Lira District. Specifically, the study described farmers' socio demographic/economic characteristics, level of adoption of NERICA Rice variety growing, relationship between farmers' characteristics and adoption of NERICA Rice variety growing and challenges faced by NERICA Rice variety growing farmers. Quantitative and qualitative types of research were employed.

Cross sectional and descriptive survey designs also called mixed research design were used to collect data employing a semi – structured questionnaire that was face – to – face administered. Descriptive and inferential statistics were employed for data analysis. The study revealed that majority of the respondents was female, aged averagely with no formal education. Household size and experience in NERICA Rice variety growing were both very low. Majority of the respondents earned below minimum and rated profitability of NERICA Rice variety growing as very low. Family labour and land availability were both rated very low.

Adoption of improved technologies (line planting, spacing, fertilizer and pesticide use) was very low. Sex, education level, farming experience, monthly income, profitability of the innovation and land availability were significantly associated with the adoption of method of planting, spacing, fertilizer and pesticide use. Age, household size, and availability of family labour were significantly associated with the adoption of method of planting. Consequently, the Null hypotheses were rejected.

Keywords: *Farmers' characteristics, Adoption, NERICA Rice variety, Farmer Field School*

Introduction

New Rice for Africa (NERICA), an interspecific hybrid between the local African rice (*Oryza glaberrima*) and the Asian rice (*Oryza sativa*) offers new opportunities for upland rice farmers. The NERICA Rice varieties are mostly short-duration, high yielding, disease and pest resistant, acid tolerant and able to withstand drought and other stressful field conditions (ADF Report, 2003). NERICAs have also been reported to have stable yields under different management conditions (Martin, Aliou & Olusegun, 2010).

A study by Kariyasa and Dewi (2013) shows that Farmer Field School (FFS) is one of the efforts managed by the Ministry of Agriculture to boost rice production in Indonesia. It was basically an approach in accelerating the process of technology transfer through a learning process directly from a field laboratory, participatory and non-formal learning as well as engaging farmers as the main subject of that activity. In Kariyasa and Dewi's (2013) study (as cited in Ministry of Agriculture-MoA, 2010), Farmer Field School approach was a success as evidenced by an increase in rice productivity of around 5.91% in Indonesia. In the same study (Kariyasa and Dewi, 2013), it was further observed that age and level of education significantly influenced the adoption of integrated crop management using Farmer Field School approach.

According to Martin et al., (2010) "NERICA adoption rate in Nigeria is generally low and this is mainly due to lack of NERICA awareness". "They further stress that several socioeconomic/demographic characteristics play an important role in determining NERICA awareness and adoption in Nigeria". Among those factors are age, gender, major occupation and years of experience.

Although there was an earlier adoption of NERICA technology in Uganda, the nation-wide survey of about 900 farmers in Uganda conducted in 2005 by Kijima et al., (n.d) reveals that the adoption rate of NERICA is disappointingly low, ranging between 1% and 2%.

The low NERICA adoption rate is also reported in the District of Lira, Ogur and Agweng Sub Counties by FAO official, Lira field office whom the researcher informally interacted with.

In an effort to increase food security and enhance adoption of NERICA Rice variety growing in Ogur and Agweng sub counties in Lira District, Farmer Field School (FFS) approach was instituted to help farmers grow NERICA Rice variety. In Farmer Field School, farmers were trained in key agronomic practices like spacing, method of planting, fertilizer and pesticide use. Despite the effort, the adoption of NERICA Rice variety growing is still low.

Although there was evidence (Ocrican, personal communication, 2012, Oweta, 2013), that adoption rate of NERICA Rice variety growing was low and varied among the different categories of farmers, there was no study carried out to assess the relationship between farmers' characteristics and adoption of NERICA Rice variety growing in Ogur and Agweng sub counties, Lira district. This prompted the researcher to carry out a study to assess the relationship between farmers' characteristics and adoption of NERICA Rice variety growing in Ogur and Agweng sub counties, Lira district.

The study hypothesized that there is no significant relationship between farmers' demographic and socio-economic characteristics and adoption of NERICA Rice variety growing among farmers in Ogur and Agweng Sub Counties, Lira District.

Theoretically, the study was based on Everett Rogers (1995) Diffusion of Innovations theory which states that "each individual's innovation-decision is largely framed by personal

characteristics". Conceptually, the study was able to assess the relationship between farmers' demographic and socio-economic characteristics and adoption of NERICA Rice variety growing among farmers in Ogur and Agweng Sub Counties, Lira District by examining the following variables, sex, age, education level, house hold size, farming experience, monthly income, profitability of the innovation, availability of family labour, land availability, method of planting, plant spacing, fertilizer use and use of pesticides.

Methodology

The researcher used cross sectional, descriptive survey (mixed research, Creswell, 2004) and Correlational research designs. Cross sectional and descriptive survey designs were used because they describe characteristics that exist in a population and also to make inferences about possible relationships. Correlational research design was used as it tests for statistical relationships between variables.

The study population was 952 farmers under Farmer Field School (FFS) in Ogur and Agweng Sub Counties. 618 in Ogur Sub County

and 334 in Agweng Sub County. These are the farmers who participated in the Farmer Field Schools (FFS).

The sample size was 274 respondents derived from Krejcie & Morgan, (1970). Krejcie and Morgan, (1970) recommend that a population of 952, the appropriate sample size is 274. The study employed purposive sampling to identify NERICA rice farmers who were members of Farmer Field School (FFS). The study further used simple random sampling based on the parishes to identify the respondents.

After getting the sample size from Krejcie & Morgan, (1970), the researcher got the respondents to work with as follows; the researcher gave a number to every subject of the accessible population. The numbers were mixed up and then the researcher started picking the numbers at random. The subjects that corresponded to the numbers picked were included in the sample. All the respondents were cooperative except for those who were not found at home, a second visit was arranged to meet them.

The details of the sampling procedure are summarised in the Table 1.

Table 18: Sampling Procedure

Parishes	No. of FFS	Membership (population)
Abala	10	134
Adwoa	8	163
Apoka	5	58
Ogur	7	127
Orit	8	136
Akano	8	118
Akangi	5	68

Angolocom	7	148
Total		952

A semi structured questionnaire was administered face to face during data collection by the trained research assistants. A set of questions were designed by the researcher for purposes of collecting data. Each item in the questionnaire was able to address a specific objective, research question or hypotheses of the study as below;

Section A, contained background information and B, contained social demographic characteristics of the farmers in Ogur and Agweng Sub Counties. The scale used in the measurement of variables in section B was nominal scale.

Validity was measured using Content Validity Index (CVI). A CVI of 0.9 was obtained by the researcher. This indicated validity of the items. Reliability was determined by Cronbach's alpha coefficient Method. Cronbach's alpha of 0.7 was achieved after pilot test indicating reliability of the instrument.

Data was analysed using descriptive, inferential statistic and trend or thematic analysis. Descriptive statistics was used during data analysis because the researcher wanted to organize and meaningfully describe data collected from the sample using a few indices or statistics. Inferential statistics called Chi-square test analysis was used because the researcher wanted to establish the relationship between two variables and these variables are categorical in nature (Olive et al, 2003). Trend or thematic analysis was used in order to generate percentages and frequencies.

Using a Chi-square statistical data analysis, the Null hypotheses were rejected when the P-value was less than 0.05 level of confidence.

RESULTS AND DISCUSSIONS

Data were analysed as per the four study objectives and the results presented in the following tables:

Results in Table 2 indicate that majority of the respondents 210 (75%) were female and few 70 (25%) were male. The implication of these findings is that most farmers were female. This is due to the fact that the major labour-intensive activities involved in rice production namely, land clearing, weeding, bird scaring and harvesting are mostly carried out by women and children. The study findings are in line with Dibba et al., (2012); Okuthe et al.,(2013) who revealed that the majority of the respondents were female.

According to the study findings in Table 2, half of the respondents 141 (50.3%) were in age range of 26-45 while very few 27 (9.6%) were in age range of 18-25. This implies that most farmers were in the middle age group (average of 35.5 years). This average age of the respondents is still in the productive age group. This condition indicates that there is an opportunity to enhance the performance of rice productivity through applying FFS technology in those study areas. The findings of Dandedjrohoun et al., (n.d); Abebe, (2007); Sarker et al.,(n.d);Okuthe et al., (2013) who stated that the majority of the respondents were in the age range of 34-37 years and Diagne, (2005);Odogola,(2006); Martin et al.,(2010);Dibba et al.,(2012); Fowler,(2012);Awotide et al.,(2012) who also in their studies revealed that the majority of the

respondents were in the age range of 40-47 years are in line with the study findings. The findings of other researchers as seen above are in the age bracket of the study findings.

Education Level

As seen in Table 2, the study revealed that the majority of the respondents 127 (45.5%) had no formal education (not educated), while only 6 (2%) attained tertiary and University education. The implication of the study findings is that majority of the respondents who participated in NERICA Rice variety growing did not attain any formal education. This condition existed possibly because of the insurgency which was in that place

for over 20 years whereby accessing education was not possible. This is one of the serious negative impacts of war in a particular area. This negatively affects the area where the research was carried out and the country at large as the rate at which one can assimilate and idealize new knowledge could depend on the educational level of the individual. Thus, low level of education tends to foster unfavourable attitudes towards the acceptance of improved farm practices. The study findings are in agreement with the studies of Dandedjrohoun et al.,(n.d) ;Awotide et al.,(2012);Dibba et al.,(2012);Diagne,(2005) who noted that the majority of the respondents had no formal education.

Table 19: Farmers' Socio -Demographic Characteristics

Characteristics	Frequency	Percentage
Sex		
Male	70	25
Female	210	75
Age(years)		
18-25	27	9.6
26-35	76	27.1
36-45	65	23.2
46-60	83	29.6
>60	28	10.5
Education level		
Primary	119	42.5
Secondary level	28	10
Tertiary	3	1
University	3	1
No formal education	127	45.5
Household size		
1-3 members	143	51
4-6 members	114	41
7-9 members	16	6
10-12 members	3	1

>12 members	2	1
Farming Experience		
1-2 years	160	57
3-4 years	99	35.5
5-6 years	15	5.5
7-8 years	1	1
>8	2	1

Source: Primary data

N = 280

Household size

According to the study findings in Table 2, majority 143 (51%) of the respondents had 1-3 adolescents or old members and only 2 (1%) had more than 12 adolescents or old members. The implication of the findings is that the majority of the farmers had 1-3 adolescents or old members who could provide labour. The condition is contrary to the African family setting. Many of the African families have very many members. This low number also could be attributed to insurgency which left many people dead and the few who survived moved to urban areas. Rice being a labour intensive crop, it therefore implies that adoption of NERICA Rice variety growing was not possible with the range of 1-3 members who could provide farm labour. Yet the more the number of people in household, the higher the rate of NERICA adoption and the less the number of people in a household the lower the rate of NERICA adoption (Dibba et al, 2012). This could call for hired labour which is also another challenge as it requires funds for hiring labour. The study findings are in contrast with the studies of other researchers as below; Whereas studies by Martin et al., (2010); Awotide et al., (2012) indicate that the average household size was 10 persons per household, studies by Dibba et al.,(2012);Fowler,(2012) show that the average household size was 16. Abebe, (2007) has it differently, 6 persons per household.

Farming Experience

The study in Table 2, revealed that the majority of the respondents 160 (57%) had 1-2 years of experience in the NERICA Rice variety growing while only 3 (2%) had 7 and above years of experience. This implies that most of the farmers had little experience of 1-2 years in the NERICA Rice variety growing. This explains the fact that rice growing was a new introduction in the area as people had just resettled from camps. The condition therefore contradicts the apriori expectation that the more experienced the farmer was the more he/she would be willing to face risks associated with a new farming method. The study findings contrast with the Studies by Sarker et al.,(n.d); Abebe,(2007);Fowler,(2012) whose findings revealed that the majority of the respondents had over 8 years of farming experience.

Socio-demographic Characteristics and Adoption of NERICA Rice variety growing.

In the study, the variables under socio-demographic characteristics were, sex, age, education level, household size and farming experience.

Sex of the farmers

Study findings in Table 5 indicate that sex of the rice farmer was significantly associated

with the adoption of fertilizer and pesticide use during growing of the NERICA Rice variety. However, it was not significantly associated with the adoption of method of planting and spacing.

Fertilizer use

Chi - square test analysis results of sex and fertilizer use by the NERICA Rice variety farmers ($\chi^2 = 9.579$, $df = 1$, $p = 0.002$) imply that sex of the farmer was a significant factor that could influence the farmers' decision to adopt the use of fertilizers. This is because the P-value was less than 0.05 level of confidence. Hence, the null hypothesis was rejected. Although the chi-square does not show the direction of the relationship, cross tabulation information indicated that male respondents (55.60%) have a higher degree of adoption of fertiliser use than female respondents. The observation could be that male farmers have strong asset base as compared to female farmers. They can afford to purchase fertilizers for use in their farming activities. The study findings are in agreement with the findings of (Awotide, 2012; Owusu, 2013) who revealed that rice production was dominated by male, indicating that rice production was a male dominated environment.

Use of Pesticides

Chi - square test analysis results of sex and pesticide use by the NERICA Rice variety farmers ($\chi^2 = 5.331$, $df = 1$, $p = 0.021$) imply that sex of the farmer was a significant factor that could influence the farmers decision to adopt the use of pesticides. This is because the P-value was less than 0.05 level of confidence. Hence, the null hypothesis was rejected. Although the chi-square does not show the direction of the relationship, cross tabulation information indicated that male respondents (54.50%) have a higher degree of adoption of use of pesticide than female respondents. As with fertilizer use, the observation with pesticide use could be that male farmers have strong asset base as compared to female farmers. They can afford to purchase pesticides for use in their farming activities. The study findings are in agreement with the findings of (Awotide, 2012; Owusu, 2013) who revealed that rice production was dominated by male, indicating that rice production was a male dominated environment.

Table 5: Chi-square Results of Farmers Characteristics (socio-demographic, socio-economic) and Adoption of NERICA Rice Variety

Variable	Methods of planting			Spacing			Fertiliser use			Pesticide Use		
	χ^2	df	sig.	χ^2	df	sig.	χ^2	df	sig.	χ^2	df	sig.
Social-Demographic												
Sex	3.79	1	0.051	0.36	1	0.551	9.58	1	0.002**	5.33	1	0.021*
Age	8.48	4	0.032*	5.85	4	0.211	5.05	4	0.282	2.86	4	0.582
Educational level	8.48	4	0.076	2.14	4	0.71	38.36	4	0.000**	18.61	4	0.001**
Household income	34.65	4	0.000**	5.21	3	0.157	1.33	4	0.856	1.44	4	0.836
Farming experience	45.91	5	0.000**	2.98	4	0.562	34.46	5	0.000**	2.55	5	0.769

**** $p < 0.003$, * $p < 0.05$**

Age of the farmers

Study findings in Table 5 indicate that age of the rice farmer was significantly associated with the adoption of method of planting during the growing of the NERICA Rice variety. However, it was not significantly associated with the adoption of spacing, fertilizer and pesticide use.

Method of planting

Chi - square test analysis results of age and method of planting by the NERICA Rice variety farmers ($\chi^2 = 10.522$, $df = 4$, $p = 0.032$) imply that age of the farmer was a significant factor that could influence the farmers' decision to adopt the method of planting. This is because the P-value was less than 0.05 level of confidence. Hence, the null hypothesis was rejected. According to cross tabulation information which indicated the direction of the relationship, the older members (57.10%) tend to adopt the recommended method of planting (line planting) as opposed to the younger members. The reason for this could be that older members have gained enough experience in farming and because of this experience, they have known the importance and gained the benefits of line planting, hence adoption. The study findings are contrary to the findings of (Kariyasa & Dewi, n.d; Brempong et al., 2011; Dibba et al., 2012; Awotide, 2012; Akudugu, Guo & Dadzie, 2012; Adedeji, 2013; Owusu, 2013) who indicated that the middle aged group mainly adopted new farming technologies.

Education Level of the farmers

Study findings in Table 5 indicate that education level of the rice farmer was significantly associated with the adoption of fertilizer and pesticide use during the growing of the NERICA Rice variety. However, it was not significantly associated with the adoption of method of planting and spacing.

Fertilizer Use

Chi - square test analysis results of education level and fertilizer use by the NERICA Rice variety farmers ($\chi^2 = 38.362$, $df = 4$, $p = 0.000$) imply that education level of the farmer was a significant factor that could influence the farmers' decision to adopt the use of fertilizers. This is because the P-value was less than 0.05 level of confidence. Hence, the null hypothesis was rejected. Whereas the chi square does not show the direction of the relationship, cross tabulation information indicated that the higher the education level of the respondent, the higher the rate of adoption (66.70%) of NERICA Rice variety growing. The reasons for the above occurrence could be that educated farmers adopt more than the less educated or none educated ones. This agreed with apriori expectation; education enhances the ability to derive, decode and evaluate useful information for agricultural production. The rate at which one can assimilate and idealize new knowledge could depend on the educational level of the individual. Thus, low level of education tends to foster unfavourable attitudes towards the acceptance of improved farm practices. Also, it could be that those who adopted these practices possessed some assets as they are

educated. The asset base could enable them get some money to buy fertilizers and pesticides for use. The study findings are in harmony with the research findings by Kariyasa and Dewi, (n.d); Brempong et al.,(2011); Awotide,(2012); Dibba et al., (2012); Owusu,(2013) who concurred in their findings that the educated farmers adopted new technologies more than the less or none educated ones.

Use of Pesticides

Chi - square test analysis results of education level and pesticide use by the NERICA Rice variety farmers ($\chi^2 = 18.612$, $df = 4$, $p = 0.001$) imply that education level of the farmer was a significant factor that could influence the farmers' decision to adopt the use of pesticides. This is because the P-value was less than 0.05 level of confidence. Hence, the null hypothesis was rejected. Although the chi square does not show the direction of the relationship, the cross tabulation information indicated that the higher the education level of the respondent, the higher the rate of adoption (33.3%) of NERICA Rice variety growing. As with fertilizer use, educated farmers adopt more than the less educated or none educated ones. This agreed with apriori expectation; education enhances the ability to derive, decode and evaluate useful information for agricultural production. The rate at which one can assimilate and idealize new knowledge could depend on the educational level of the individual. Thus, low level of education tends to foster unfavourable attitudes towards the acceptance of improved farm practices. Also, it could be that those who adopted these practices possessed some assets as they are educated. The asset base could enable them get some money to buy fertilizers and pesticides for use. The study findings are in harmony with the research findings by Kariyasa and Dewi, (n.d); Brempong et al.,(2011); Awotide,(2012); Dibba et al., (2012);

Owusu,(2013) who concurred in their findings that the educated farmers adopted new technologies more than the less or none educated ones.

Household Size of the farmers

Study findings in Table 5 indicate that house hold size of the rice farmer was significantly associated with the adoption of method of planting during the growing of the NERICA Rice variety. However, it was not significantly associated with the adoption of spacing, fertilizer and pesticide use.

Method of Planting

Chi - square test analysis results of household size and method of planting by the NERICA Rice variety farmers ($\chi^2 = 34.653$, $df = 4$, $p = 0.000$) imply that household size of the farmer was a significant factor that could influence the farmers' decision to adopt the method of planting. This is because the P-value was less than 0.05 level of confidence. Hence, the null hypothesis was rejected. Although the chi square does not show the direction of the relationship, the cross tabulation information indicated that household size in the range of 4-6 members adopted NERICA Rice variety growing (53.5%) more than any other range. The explanation for this could be that smaller household cannot handle line planting as it is labour intensive. Also household size in the range of 7 members and above could not handle as per the results. The reason for this could be that as people were many, they also had many other things to do other than farming. The study findings are in line with the research findings by Yoko and Sserunkuma, (n.d); Kariyasa and Dewi, (n.d); Awotide, (2012); Dibba et al., (2012); Owusu, (2013) who indicated that household size positively influenced adoption of NERICA.

Farming Experience of the farmers

Study findings in Table 5 indicate that farming experience of the rice farmer was significantly associated with the adoption of method of planting and fertilizer use during the growing of the NERICA Rice variety. However, it was not significantly associated with the adoption of spacing and pesticide use.

Method of Planting

Chi - square test analysis results of farming experience and method of planting by the NERICA Rice variety farmers ($\chi^2 = 45.911$, $df = 5$, $p = 0.000$) imply that farming experience of the farmer was a significant factor that could influence the farmers' decision to adopt the method of planting. This is because the P-value was less than 0.05 level of confidence. Hence, the null hypothesis was rejected. Although the chi square does not show the direction of the relationship, the cross tabulation information indicated that those with experience in the range of 3-4 years adopted the recommended method of planting (line planting). The reason for the significant relationship could be that those who have a long experience have known the importance of method of planting. Actually use of recommended method of planting, give higher yields than random planting. The study findings are consistent with the studies by Kariyasa & Dewi, (n.d); Dibba, (2010); Nguetzet et al., (2010); Brempong et al., (2011) who showed that adopters

of new technologies were found to have higher number of years of experience in farming.

Fertilizer Use

Chi - square test analysis results of farming experience and fertilizer use by the NERICA Rice variety farmers ($\chi^2 = 34.460$, $df = 5$, $p = 0.000$) imply that farming experience of the farmer was a significant factor that could influence the farmers' decision to adopt the use of fertilizers. This is because the P-value was less than 0.05 level of confidence. Hence, the null hypothesis was rejected. According to the cross tabulation information, the higher the experience the higher the fertilizer use (100%). The reason for the significant relationship could be that those who have a long experience have known the importance of fertilizer use. Fertilizer use gives higher yields than non fertilizer use. The study findings are consistent with the studies by Kariyasa & Dewi, (n.d); Dibba, (2010); Nguetzet et al., (2010); Brempong et al., (2011) who showed that adopters of new technologies were found to have higher number of years of experience in farming.

Challenges faced by farmers during NERICA Rice variety growing

During the study, using open ended questions, farmers' challenges related to rice growing were given as per table 6.

Table 6: Challenges faced by farmers during NERICA Rice variety growing

Challenges	Frequency	%	Ranking
Un favourable weather (drought, floods and hailstones)	104	18.24	2
Pests (birds, weeds, insects and diseases)	175	30.7	1
Lack of market (low prices, low demand, price fluctuations)	93	16.31	3
Lack of farm inputs (tools, taurplines, fertilizers and pesticides)	49	8.59	4

Lack of capital	33	5.78	6
Line planting	28	4.91	7
Itching	15	2.63	8
Low yields	11	1.92	9
Lack of labour	10	1.75	10
Poor transport system (bad roads, no suitable vehicles)	39	6.84	5
Lack of knowledge in rice production	7	1.23	11
Insecurity	6	1.1	12
Total	570	100	

Source: Primary data

The study findings revealed a number of challenges faced by farmers during NERICA Rice variety growing in Ogur and Agweng sub counties. The challenges included the following as per table 6:

The most pressing challenges were pests (birds, weeds, insects and diseases)- 175 (30.70%) and un favourable weather (drought, floods and hailstones) while the least pressing challenge was insecurity 6 (1.05%). The implication of these findings is that researchers have to continue improving on the existing NERICA varieties so that they are more tolerant to birds, insects, diseases and drought.

The study findings are in line with the challenges outlined by many researchers including, Oikeh et al., (n.d); Tareke, (2009); FAO, (2009); CGIAR, (2013); Kudi et al., (2010). The challenges they outlined were; insect pests, diseases, weeds, toxic soils, lack of farm inputs (seeds, machinery), inadequate input markets, lack of extension services, poor infrastructure, conflict, insufficient investment in agricultural production value chain development, high cost of chemical fertilizers leading to low yields, birds, bad road network, lack of capital, lack of storage facilities, labour bottlenecks during weeding and drought.

Conclusions

In conclusion, the study results showed that, majority of the respondents were female,

aged averagely with no formal education. The household size and experience in NERICA Rice variety growing were both very low. The study results further showed that, the majority of the respondents earned below minimum and rated profitability of NERICA Rice variety growing as very low. Family labour and land availability were both rated very low. Adoption of improved technologies (line planting, spacing, fertilizer and pesticide use) was very low.

Sex, education level, farming experience, monthly income, profitability of the innovation and land availability were significantly associated with the adoption of method of planting, spacing, fertilizer and pesticide use. Age, household size, and availability of family labour were significantly associated with the adoption of method of planting. Consequently, the Null hypotheses were rejected indicating that there is a significant relationship between farmers' socio-demographic and socio-economic characteristics and adoption of NERICA Rice variety growing.

The major challenges were pests (birds, weeds, insects and diseases) and un favourable weather (drought, floods and hailstones).

Recommendations

According to study findings in general and conclusions, the following recommendations are developed:

- Since women dominated the NERICA Rice variety growing and the major labour-intensive activities involved in rice production are mostly carried out by them, government and other development partners should empower the women in terms of access to knowledge, information and inputs needed to adopt new technologies for increased rice production.
- For increased NERICA Rice variety production and productivity, the Local Government through the extension workers should sensitize the farmers about the importance of using improved farming technologies like line planting, proper spacing, fertilizer and pesticide use. This can be done using Farmer Field School approach where farmers are intensely taught improved farming practices.
- Researchers should develop cultivars which are more tolerant to drought, diseases and pests as these are the most pressing challenges faced by NERICA Rice variety growing farmers.

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**DETERMINANTS OF THE WILLINGNESS TO ADOPT SAFE MALE CIRCUMCISION
AMONG YOUNG MALE ADULTS IN NYIMBWA SUB COUNTY IN LUWERO DISTRICT,
UGANDA**

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Abstract

The study set out to identify the determinants of willingness to adopt safe male circumcision among young male adults in Nyimbwa Sub County. The study specifically set out to; find out the demographic profile of young male adults in Nyimbwa Sub County; assess the level of knowledge and perception by young male adults towards safe male circumcision; assess the level of willingness by the young male adults to adopt safe male circumcision, and to establish the influence of knowledge and perception of safe male circumcision on the willingness to adopt safe male circumcision by young male adults.

Employing a cross sectional survey design data were collected from 373 respondents using the questionnaire and interview methods. The study found out that respondents' knowledge of SMC in respect to health benefits was high (agg. mean=3.92, std. =1.20). Also, respondents' perception about pain and complication arising from SMC was moderate (agg. mean = 3.37 std. = 1.39). Willingness to adopt safe male circumcision was high (agg. mean = 3.81, std. = 1.16). The study found that the knowledge about physical cleanliness by the respondents in the study area had significant influence to

their willingness to undertake SMC ($b = 0.148, p = 0.018$); knowledge about sexual benefits as result of SMC significantly influences ($b = 0.152, p = 0.021$) their decision to adopt the SMC. However, the study found that perception about sexual dis functionality by the respondents did not significantly influence their decisions to adopt the SMC. Perception of the respondents about vulnerability to STIs as result of SMC did not significantly influence their decision to adopt willingness to adopt SMC ($b = 0.042, p = 0.506$); perception about pain complication as result of SMC also did not significantly influence willingness to adopt SMC ($b = 0.05, p = 0.44$).

Keywords: *Determinants of Willingness, Adopt, Safe, Male Circumcision, Young Male Adults*

Introduction

Male circumcision is one of the oldest surgical procedures known, traditionally undertaken as a mark of cultural identity or religious importance. Circumcision was practiced among ancient Semitic peoples, including Egyptians and Jews with the earliest records depicting the practice coming from Egyptian tomb work and wall paintings dating from around 2300 BC (WHO & UNAIDS Report, 2007). Male circumcision began during the ancient Egyptian era, and it has been practiced as a ritual (Aggleton, 2007). This practice came into Public Health towards the end of the 19th century. In addition, male circumcision was more practiced among Jews and Muslims as part of their religious values but was practiced less among Christians. Male circumcision can be traced in the biblical era (Genesis 17: 9-14).

In the USA, Canada and Australia, the practice of circumcision is more of hygienic and therapeutic reasons. In Africa, in some societies it was perceived as an initiation into manhood (South African Human Research Council, 2009). Historically, male circumcision has been associated with religious and cultural identity. Worldwide, the primary determinant of male circumcision is religion, with almost all Muslim and Jewish males being circumcised because of the belief that a covenant was made between Abraham and God (WHO & UNAIDS Report, 2007).

Circumcision has been practiced for non-religious reasons for many thousands of years in sub-Saharan Africa, and in many ethnic groups around the world, including aboriginal Australasians the Aztecs and Mayans in the Americas (Tierney, 2003), and inhabitants of the Philippines and eastern Indonesia (Hull & Budiharsana, 2001) and of various Pacific Islands, including Fiji (WHO & UNAIDS, 2007) and the Polynesian islands (Thomas, 2003).

According to the World Health Organization and the United Nations Joint Program on HIV/AIDS Report (2007), approximately 30% of the world's males aged 15 years or older are circumcised (WHO & UNAIDS Report, 2007). Of these, around two thirds are Muslim (living mainly in Asia, the Middle East and North Africa), 0.8% is Jewish, and 13% are non-Muslim and non-Jewish men living in the United States of America. The same report reveals that male circumcision is common in many African countries, and is almost universal in North Africa and most of West Africa. Other countries where it is practiced include; South Africa, Botswana, Namibia, Swaziland, Zambia and Zimbabwe, Mozambique and Madagascar among others

In some ethnic groups in East Africa, MC is a rite of passage from childhood to adulthood, but is only practiced in some tribes. Some peoples in East Africa do not practice male circumcision (for example the Luo of Western Kenya (WHO &

UNAIDS Report, 2007). Amongst the Gikuyu (Kikuyu) people in Kenya and the Maasai people in Kenya and Tanzania, male circumcision has historically been the graduation element of an educational program which taught tribal beliefs, practices, culture, religion and history to youth who were on the verge of becoming full-fledged members of society. In Uganda, traditional circumcision is practiced by some ethnic groups they include; the Sabiny, Bagisu, Bankonzo, and Baamba.

Although it has been practiced in the past for various reasons listed above, male circumcision is nowadays considered as a preventive medical intervention against heterosexual HIV sexually transmitted infections (Van Dam & Anastasi, 2003). In some societies, male circumcision has been associated with health benefits such as prevention of local foreskin problems, cancer of the penis, urinary tract infections, STIs and genital hygiene enhancement (Cichocki, 2008; Morris, 2007). Female partners of circumcised males have also reported a lower risk of acquiring Human Papilloma Virus (HPV) and cervical cancer (Castellsague, *et al.*, 2003; Morris, 2007). Following the growing innovations for control of sexually transmitted infections, several approaches have been adopted of recent. Among them is safe male circumcision as one way to control the infection and spread of STIs (WHO & UNAIDS Report, 2007).

One concern around the potential for male circumcision as is that it may not be acceptable in communities that do not traditionally circumcise. Ecological studies have shown that there is low prevalence of safe male circumcision in sub-Saharan Africa (Westercamp, 2007). Male circumcision is less common in southern Africa, where self-reported prevalence is around 15% in several countries (Botswana, Namibia, Swaziland, Zambia and Zimbabwe) (Demographic and health surveys. 2006; Drain et al, 2006; Langeni, 2004)

although higher in others (Malawi 21%, South Africa 35%, Lesotho 48%, Mozambique 60%, and Angola and Madagascar > 80%) (Demographic and Health Surveys. 2006; Drain et al, 2006; Connolly et al, 2004). Prevalence in Central and East Africa varies from approximately 15% in Burundi and Rwanda to 70% in the United Republic of Tanzania, 84% in Kenya and 93% in Ethiopia Demographic and health surveys, 2006).

In Uganda, the prevalence of male circumcision among the non-circumcising groups is lower about 15% (MOH, 2008c). According to the Ministry of Health (2012) almost 85% of Ugandans remain uncircumcised. In 2009, the Ugandan Ministry of Health began to discuss a national plan for voluntary mass circumcision of adult males despite this; a big proportion of Uganda males are uncircumcised.

In Nyimbwa Sub County, the adoption of male circumcision is still very low standing at about 15%, this is still way below the target of having 70% of sexually active taking males taking up the practice (Luwero District Health Office, 2012). The current study therefore, seeks to examine the determinants of willingness to adopt safe male circumcision in the sub county with a view of proposing recommendations to increase uptake.

METHODOLOGY

Sample Size

The sample size of the population was comprised of 287 respondents. The sample size was arrived at using the predetermined sample size Table by Krejcie and Morgan (1970) as cited in Amin (2005) and Kothari's (2004) formula for obtaining a proportionate sample allocation. The study was also comprised of 8 key informants who were health workers in charge of safe male circumcision at Nyimbwa Health Center IV.

Procedure

The study sample was drawn from all the 5 parishes of Nyimbwa Sub County to allow the generalization of findings across all the parishes. From each parish, young adult males of between 15 and 30 years were selected to participate in the study using simple random sampling technique. Simple random was used because it ensures

generalizability of findings and minimizes bias (Sekaran, 2003). A sampling frame was obtained from the Parish Chiefs' Offices. The names of the young adult males in each of the parishes were put in a rota to ensure that each of them stood an equal chance of being selected to participate in the study. After this, simple random sampling was used to select the young adult males to participate in the study.

Table 20: Sample Size Table

Category	Population	Sample Size
Kiyanda Parish	2091	78
Nakatonya Parish	2077	77
Buvuma Parish	801	30
Sambwe Parish	1931	72
Banjo Parish	809	30
Total	7709	287

Source: Nyimbwa Sub County Head Offices

Instruments

The study employed a survey questionnaire method. A structured questionnaire was used to collect data from the respondents because it allows easy collection of data that can be correlated and regressed to establish the influence of the independent variables on the dependent variables as observed by Amin (2005). The questionnaire consisted three sections, section A social demographic characteristics, B presented the knowledge about safe male circumcision, C focused on perception about male circumcision, and D presented the willingness of young adults to take safe male circumcision.

The study used the key informant interview method were an unstructured interview

guide was used to collect in depth information from the key informants who included the In Charge of the Health Center IV and Nurses who were responsible for safe male circumcision. The guide was drawn with the questions soliciting for the perception of the key informants regarding the influence of knowledge and attitudes on willingness by young adult males in the Sub County to take up safe male circumcision. These could not be possible obtained by the self-administered questionnaires as suggested by Mugenda & Mugenda (1999) and Kakoza (1999).

Data Analysis

Data from the field was sorted, cleaned and entered in the computer by use of SPSS computer software both descriptive and inferential statistics were generated. Descriptive statistics-frequencies, percentages, and means were used to answer objective 1, 2 and 3. Multiregression analysis was used to identify the significant determinants of willingness to adopt SMC by the young adult males in Nyimbwa Sub County. Data from the key informants was thematically analyzed to determine trends in order to supplement the results from the main instrument.

RESULTS AND DISCUSIONS

Respondents Characteristics

This sub section presents the demographic characteristics of the respondents in terms of age

category, marital status, religion, education level, employment status and tribe. The results are summarized in Table 3. Chisquare test of was also used to explore the relationship between respondents characteristics and willingness to adopt safe male circumscion

Age Category

According to Table 3, more than half 164 (57.14%) of the respondents were in age category of 18 to 24 years and 42.86% were in the age bracket of between 25 and 35 years. Age was not significantly associated with willingness to adopt SMC. This could be because SMC communication programs in Uganda target all men regardless of age.

Table 21: Demographic Characteristics of respondents

Characteristics	Description	Frequency	Percent
Age Category	18 -24	164	57.14
	25 -35	123	42.86
Marital Status	Married	110	38.32
	Single	155	54.00
	Divorced/Separated	14	4.87
	Widowed	8	2.79
Educational Level	None	21	7.31
	Primary	31	10.80
	Secondary	117	40.76
	Certificate	27	9.40
	Diploma	31	20.80
	Bachelors degree	42	14.63
Employment Status	Masters degree	18	6.27
	Employed	141	49.13
	Unemployed	146	50.87
Religion	Anglican	97	33.79

Characteristics	Description	Frequency	Percent
Age Category	18 -24	164	57.14
	25 -35	123	42.86
	Roman Catholic	65	22.64
	SDA	37	2.89
	Pentecostal	52	18.13
	ATR	29	10.11
	Moslem	7	2.43
Tribe	Baganda	121	42.16
	Lou	69	24.04
	Banyankole/Bakiga/ Batooro/Banyoro	50	17.43
	Rwandese	35	12.19
	Basoga	12	4.18

$N = 287$

Marital Status

Results in Table 3 indicate that more than half 155 (54.00 %) were single, and many 110 (38.32%) were married. A small number 8 (2.79%) reported that they were widowers. Marital status was significantly associated with the willingness to adopt SMC ($\chi^2 = 1.09$, $df = 78$, $p = 0.012$). This is possibly because it is believed that sex is more enjoyable when the husband is circumcised so men may embrace it to impress and satisfy their wives in bed as observed by Nnkoet al (2007).

Religion

Findings in the Table 3, reveal that majority of respondents in the study were Christians; where Anglicans were the majority 97 (33.79%) and, Seventh Day (SDA) religion was least represented, 52 (18.13%) among the Christians. Only 7 (2.43%) were Muslims in the

study. Religion of the respondents was significantly related to perception about SMC ($\chi^2 = 3.55$, $df = 214$, $p = 0.008$). This could be attributed to the fact that the majority of the respondents were Christians and among the Christians, circumcision is not mandatory like it is under Islam. The study findings contradict the conventional knowledge that MC is not common among Christian community. This could be attributed to the fact that in the area, SMC was adopted for health reasons other than for religious reasons. This findings supports an earlier observation by the WHO and UNAIDS Report (2007) that MC among Christians is adopted for health rather than religious reasons.

Education Level

Study findings in Table 3 reveal that few 18 (6.27 %) of the respondents had had their highest educational attainment above University Education. The study findings also indicate that there were respondents 21(7.31%) who had not

never been to school for formal schooling. Educational background of the respondent was significantly associated with knowledge of SMC and willingness to adopt SMC, [($\chi^2 = 3.35$, $df = 249$, $p = 0.049$), ($\chi^2 = 2.51$, $df = 182$, $p = 0.001$)] respectively. The study findings support earlier findings of Halperin, Fritz, McFarland & Woelk, 2005; Nnkoet al., 2007), in which it was revealed that the rate of circumcision was higher among men with higher levels of education. In their study, it was found out that, higher levels of education may imply social contact with a broader mix of different ethnic and religious groups.

Employment Status

As can be seen in the Table 3, more than half 146 (50.87%) of the study respondents were unemployed and close to half 141 (49.13%) were employed. Further analysis using, Chi-square analysis revealed that employment status of the respondents was significantly associated with willingness to adopt SMC ($\chi^2 = 40.232$, $df = 26$, $p = 0.037$).

Tribe

The results in Table 3 indicate that, whereas Baganda as a tribe dominated the study 121 (42.16%), several tribes were represented in the study. One would imagine that since, Nyimbwa Sub County is in Buganda region, an overwhelming majority respondents would be Baganda. However, it is not the case in this study. For instance, 69 (24.04%) were from the Luo ethnic group. Probably the proximity of the study area to Bombo Military Army barracks may contribute to the heterogeneous composition of the tribes in essentially a Buganda region. Tribe of the respondents was significantly related to willingness to adopt SMC ($\chi^2 = 3.69$, $df = 312$, $p = 0.014$). This finding is line with Nko, et al., (2007) who found evidence from a study among the Sukuma ethnic group in North-west Tanzania, that MC is practice in traditionally non-circumcising groups because of the HIV prevention programs implemented in those areas.

Knowledge of Sexual Male Circumcision and Young Adults in the Study Area

Table 22: Knowledge of Sexual Male Circumcision by Young Adults In the study Area

Items	Mean	std.	Interpretation
Health Benefits			
Safe male circumcision reduces the risks of contracting HIV/AIDS	4.18	1.10	Very high
Safe male circumcision reduces the risks of contracting other sexually transmitted infections like syphilis, Gonorrhoea	3.96	1.09	High
Safe male circumcision reduces the chances of getting penile cancer for men	3.84	1.25	High
Safe male circumcision reduces the chances of circumcised men partners from getting cervical cancer.	3.70	1.35	High
Agg. mean and std.	3.92	1.20	High
Physical Cleanliness			
Penile hygiene is improved when men are circumcised	4.54	0.82	Very high
Safe male circumcision makes it easier to keep the	4.42	0.81	Very high

penis clean			
Safe male circumcision keeps away bad smell from the men's' private parts	4.35	0.95	Very high
Agg. mean and std.	4.43	0.86	Very high
Sexual Benefits			
Sex is more enjoyable when the man is circumcised	4.04	1.15	High
Women prefer sex with circumcised men	3.83	1.29	High
Men who are circumcised last longer in bed [Take long to ejaculate]	3.58	1.39	High
Agg. mean and std.	3.81	1.28	High
Grand mean and std.	4.04	1.12	High

N = 287

Legend: 1.00-1.79 (very low), 1.80-2.59 (low), 2.60-3.39 (moderate), 3.40-4.19 (high), 4.20-5.00 (very high)

Health Benefits

Results in Table 4 indicate that respondents assessed the knowledge of SMC in respect to health benefits as high (agg. mean =3.92, std. =1.20). When asked whether SMC reduces the risk of contracting HIV/AIDS, results in Appendix Table 1 show that, more than half 147 (53.6%) strongly agreed, and only 9 (3.3%) disagreed. Many 116 (42.3%) strongly agreed that SMC reduces the chances of getting penile cancer for men and a small number 19 (6.9%) strongly disagreed. The study findings imply that knowledge in respect to health benefits derived from SMC among respondents was high. This finding is in line with studies which have found MC with health benefits such as prevention of local foreskin problems, cancer of the penis, urinary tract infections, STIs and genital hygiene enhancement (Cichocki, 2008; Morris, 2007). Female partners of circumcised males have also reported a lower risk of acquiring Human Papilloma Virus (HPV) and cervical cancer (Castellsague, Bosch, Munoz, Meijer et al., 2002; Morris, 2007).

Physical Cleanliness

As can be seen in Table 4, in respect to physical cleanliness as a result of SMC, the knowledge by the respondents was very high (agg. mean = 4.43, std. = 0.86). When asked whether penile hygiene is improved when men are circumcised, majority, 187 (68.2%) strongly agreed so and, more than half, 157 (57.3%) strongly agreed that SMC keeps away bad smell from the men's' private parts. Given the findings, knowledge about importance of SMC in view of physical cleanness was high among the respondent in this study. The study is in line with a study conducted in Nyanza province of Kenya among 107 men and 110 women found that 91% of men in Nyanza province associated MC with better penile hygiene, even among those who preferred to remain uncircumcised (Mattson et al., 2005).

Sexual Benefits

According to study findings in Table 4, respondents' knowledge of SMC in view of sexual benefits was high (agg. Mean=3.81, std. =1.28). According to the results in Appendix 1, majority of respondents 169 representing 70% both agreed and others strongly agreed that SMC

makes sex with female partner more enjoyable and very few 14 (5.1%) were of the view that it does not. In a related assessment about the sexual benefits, respondents were asked wherever, female partners prefer sex with circumcise men, many 130 (43.1%) strongly agreed so and only 20 (7.3%) strongly disagreed.

There was a lower score on whether SMC makes men last longer in bed, few 98 (35.8%) strongly agreed to that statement and unlike other assessment on the knowledge about SMC, more respondents, 37 (13.5%) strongly disagreed that SMC improves a man's sexual prowess. In some societies, MC is believed to influence sexual performance and sexual pleasure for the man himself and for his female partner.

According to Westercamp & Bailey (2007), the perception that circumcision influences sexual drive, sexual performance, and sexual pleasure for the man and for his partner, which is likely to influence the decision to circumcise. Nevertheless this belief was found to vary between societies. In a survey with 217 men and women in Kenya, a high proportion of men (43%) and the majority of women (76%) believed that circumcised men enjoy sex more and confer

pleasure to their female partners more than uncircumcised men (Mattson et al., 2005).

The study further revealed that women enjoy sex more with circumcised men. In 12 FGDs with both young and adult men in South Africa, MC was believed to enhance sexual performance, enlarge the penis and make the penis more appealing to women (Rain-Taljaard et al., 2003).

Furthermore, in a qualitative study in Malawi, all sex workers and younger men interviewed reported that circumcised men enjoy sex more and give more pleasure to their partners (Ngalandeet al., 2006). In contrast, older and married participants believe that a circumcised penis is dry, not warm, and less sensitive and induces pain (pricking) during penetration (Ngalandeet al., 2006). Scott et al. (2005) concluded that beliefs around sexual pleasure is more influential in some societies, thus a MC promotion campaign within the societies with influential belief about sexual pleasure, might have more impact if it were to promote better over safer sex.

Perception about Safe Male Circumcision by Young Adults in the Study Area

Table 23: Perception about Safe Male Circumcision by Young Adults in the Study Area

Items	Mean	std.	Interpretation
Perception about Sexual Dys- functionality			
Safe male circumcision reduces sexual pleasure for men	3.11	1.54	Average
Circumcised men may fail to get an erection	2.82	1.47	Average
Circumcised men may fail to sustain an erection	2.70	1.54	Average
Circumcised men may fail to make a woman pregnant	2.42	1.56	Low
Circumcised men cannot masturbate	2.49	1.55	
Agg. mean and std.	2.71	1.53	Average
Perception about Vulnerability to STIs			
Circumcised men easily contract sexually transmitted diseases	3.18	1.54	Average
Circumcised men can easily transmit sexually	3.03	1.37	Average

transmitted infections to their partners			
A man may get infected with STIs during the circumcision procedure	3.01	1.43	Average
In case a circumcised man has sex before he is completely healed, he can easily contract STIs	3.25	1.45	Average
Agg. mean and std.	3.12	1.44	Average
Perception about Pain and Complication			
Circumcision is painful	3.86	1.37	Average
Treating the circumcision wound is painful	3.65	1.30	Average
Circumcision may lead to too much bleeding	3.29	1.35	Average
A man may lose his penis during the circumcision procedure	2.67	1.57	Average
Agg. mean and std.	3.37	1.39	Average
Grand mean and std.	3.03	1.46	Average

$N = 287$

Legend: 1.00-1.79 (very low), 1.80-2.59 (low), 2.60-3.39 (moderate), 3.40-4.19 (high), 4.20-5.00(very high)

Perception about Sexual Dis – functionality

Study findings in Table 5 reveal that, the respondents' perception about sexual dis functionality due to SMC in the study was moderate (agg. mean = 2.72, std. = 1.52). This can be supported by the results in Appendix Table II, where fewer 82 (29.9%) strongly agreed that SMC reduces sexual pleasure and, when asked whether SMC men may fail to sustain an erection, only 61 (22.3%) strongly agreed and more 84 (30.7%) strongly disagreed. Many 110 (40.1%) disagreed when asked whether circumcised men cannot masturbate and only 15 (9.1%) strongly agreed. However, in respect to whether safe male circumcision may result in men failing to sustain an erection and failing to make a woman pregnant, the respondents perception was low (agg. mean = 2.42, std. = 1.56) respectively. This could be attributed the high levels of sensitization about SMC through the media and other stakeholders. This is in line with Williams and Kapila (2003) who reported that the possibility of sexual dysfunctionality after SMC can be allayed with mass sensitization.

Perception about Vulnerability to STIs

Study findings in the study indicate that the respondents' perception about vulnerability to STIs was moderate (agg. mean = 3.25, std. = 1.42). When asked whether circumcised men easily contract STIs disease fewer 81 (29.6%) and few 60 (21.9%) disagreed. In related assessment, when asked whether in case circumcised men have sex before he is completely healed he can easily contract STIs, more than half 130 (51.1%) agreed and strongly agreed so. Female partners of circumcised males have also reported a lower risk of acquiring Human Papilloma Virus (HPV) and cervical cancer (Castellsague, Bosch, Munoz, Meijer et al., 2002; Morris, 2007).

Perception about Pain and Complication

Study findings in the study indicate that the respondents' perception about pain and complication arising from SMC was moderate (agg. mean = 3.37 std. = 1.39). According to the results in Table II in appendix II, when asked circumcision is painful, many 131 (47.8%)

strongly agreed and very few disagreed 27 (9.9%). However, fewer 100 (36.5%) strongly disagreed that circumcision may lead to too much bleeding. Williams and Kapila (2003) contend that complications of MC procedures are an issue that is raised by respondents. Complications generally include bleeding, infection and surgical accidents, including penile necrosis and penile amputations (Williams & Kapila, 2003). These complications are mostly associated with poor health care or traditional circumcision by untrained personnel under non-sterile conditions.

A retrospective review of the incidence of complications of 1279 cases 407 cases performed by unlicensed traditional circumcisers and 782 circumcision cases performed at a urology clinic by licensed surgeons) in Turkey found that 85% of the complications arose from cases performed by unlicensed traditional circumcisers (Atikeler, Gecit, Yuzgec & Yalcin, 2005).

Several barriers have been cited which are thought to limit the uptake of MC. These include: 1) health related barriers; 2) fear of pain, death, or complications; and 3) and MC procedure cost. A recent qualitative research study involving 46 FGDs with both males and females in Namibia found that some men perceived the foreskin to be a physical barrier or a protective covering for the

penis (Halperinet al., 2005; Lagardeet al., 2003; Rain-Taljaardet al., 2003).

Predictors of Safe Male Circumcision in the Study Area among Young Adults

According to Table 7, study findings based on standardized coefficients (beta) and p – value, indicate that, physical cleanness (b = 0.148, p = 0.018) and sexual benefits (b = 0.152, p = 0.021) are significant predictors of SMC among the young adults in the study area. However, in respect to health benefits, perception about sexual dysfunctionality (b = -0.013, p = 0.856), vulnerability to STIs (b = 0.042, p = 0.506) and, pain and complication (b = 0.053, p = 0.440) were not significant predictors of willingness to adopt SMC (p > 0.05).

Physical Cleanliness

Findings in Table 7, provide that the knowledge about physical cleanliness by the respondents in the study area had significant influence to their willingness to undertake SMC (b = 0.148, p = 0.018).

Table 24: Predictors of Safe Male Circumcision among Young Adults in the Study Area

Model	Unstandardized		Standardized Coefficients Beta	p - Value
	Coefficients			
	B	Std. error		
(Constant)	2.718	0.295		0.000
Physical cleanness	0.131	0.055	0.148	0.018*
Health benefits	0.054	0.042	0.086	0.199
Sexual benefits	0.086	0.037	0.152	0.021*
Sexual dysfunctionality	- 0.006	0.034	- 0.013	0.856
Vulnerability2STI	0.024	0.035	0.042	0.506
Pain complication	0.029	0.037	0.053	0.440

N= 287, *Significant at 0.05 level of significance

The study findings imply that a unit increase in the knowledge about SMC in respect to physical cleanliness improves the young adults willingness to adopt SMC by about 15% when the factors in the model are held constant. The findings of the study are in line with Nko et al., (2007) who found that perceived health-related reasons such as enhanced penile hygiene and reduced STI risk among those communities popularize the MC practice.

Health Benefits

Study findings in Table 7 indicate that the respondents knowledge about SMC in respect to health benefits does not significantly influence ($b = 0.086$, $p = 0.199$) their decision to adopt SMC. The findings of this study contradict earlier findings which found that health benefits were determinants of willingness to adopt safe male circumcision. Generally, in these studies penile hygiene was believed to be a major facilitator of MC in both traditionally circumcising and non-circumcising communities (Halperinet al., 2005; Kebaabetsweet al., 2003; Lukobo & Bailey, 2007; Mattson, Bailey, Muga, Poulussen et al., 2005; Ngalande, Levy, Kapondo, & Bailey, 2006; Niang & Boiro, 2007; Rain-Taljaard, Lagarde, Taljaard, Campbell et al., 2003).

Sexual Benefits

Results in Table 7 reveal that knowledge about sexual benefits as result of SMC significantly influence their decision ($b = 0.152$, $p = 0.021$) to adopt the SMC. The study findings imply that a unit increase in the knowledge about sexual benefits as a result of SMC, improves their willingness to adopt SMC by about 15.2%. This could be probably the young adults believe that MC enhance sexual performance and sexual pleasure for the man himself and for his female partner. According to Westercamp & Bailey

(2007), the perception that circumcision influences sexual drive, sexual performance, and sexual pleasure for the man and for his partner, which is likely to influence the decision to circumcise. Nevertheless this belief was found to vary between societies. In a survey with 217 men and women in Kenya, a high proportion of men (43%) and the majority of women (76%) believed that circumcised men enjoy sex more and confer pleasure to their female partners more than uncircumcised men (Mattson et al., 2005).

The study further revealed that women enjoy sex more with circumcised men. In 12 FGDs with both young and adult men in South Africa, MC was believed to enhance sexual performance, enlarge the penis and make the penis more appealing to women (Rain-Taljaard et al., 2003).

Furthermore, in a qualitative study in Malawi, all sex workers and younger men interviewed reported that circumcised men enjoy sex more and give more pleasure to their partners (Ngalande et al., 2006). In contrast, older and married participants believe that a circumcised penis is dry, not warm, and less sensitive and induces pain (pricking) during penetration (Ngalande et al., 2006). Scott et al. (2005) concluded that beliefs around sexual pleasure is more influential in some societies, thus a MC promotion campaign within the societies with influential belief about sexual pleasure, might have more impact if it were to promote better over safer sex.

Sexual Dis Functionality

Study findings in Table 7 indicate that perception about sexual dis functionality by the respondents in the study did not significantly influence their decisions to adopt the SMC. Whereas the influence ($b = -0.013$, $p = 0.856$) was not statistically significantly, the negative

regression coefficient (beta) may imply that youths perception in this study about sexual dysfunctionality is likely to affect negatively their willingness to adopt SMC. This could be attributed to the widely held perception among some sections of the population that SMC may lead to sexual dysfunctionality similar findings were reported by Nko et al (2007) who found out that the fear of sexual dysfunctionality negatively affected the willingness of men to take up SMC.

Vulnerability to STI's

Study findings in Table 7 provide that, perception of the respondents about vulnerability to STIs as result of SMC does not significantly influence their decision ($b = 0.042$, $p = 0.506$) to adopt SMC. The study findings contrast earlier findings from qualitative research on the acceptability of MC as an HIV prevention strategy in 8 of the 13 traditionally non-circumcising communities provided information on the knowledge, attitudes and beliefs of MC in Namibia (Pappas-DeLuca, &Kustaa, 2008). Using 46 focus group discussions (FGD) of males and females, the study revealed that, regardless of whether or not MC was typically done in the culture or area, participants had a general understanding that the moist and closed environment of the foreskin contributes to the growth of bacteria and that this may be related to negative health consequences.

In Kenya, a study conducted in Nyanza province among 107 men and 110 women found that 91% of men in Nyanza province associated MC with better penile hygiene, even among those who preferred to remain uncircumcised (Mattson et al., 2005). The same study found that the majority of women, irrespective of their partners' circumcision status, believed that uncircumcised men are more likely to contract STIs and even HIV (Mattson et al., 2005). In some African countries such as Zambia and Malawi, there is a

belief that women's STI transmission is linked to their husbands/partners circumcision status (Lukobo& Bailey, 2007; Ngalandeet al., 2006). Women in Malawi mentioned that maintaining proper penile hygiene of a circumcised partner is easier and reduced a women's chance of STI infection including HIV (Ngalandeet al., 2006).

Pain and Complications

The study findings in Table 7 indicate that perception about pain complication as result of SMC does not significantly influence their decision ($b = 0.05$, $p = 0.44$) to adopt SMC. The barrier to adopting safe male circumcision is the possibility of complications of the MC procedure. Complications generally include bleeding, infection and surgical accidents, including penile necrosis and penile amputations (Williams &Kapila, 2003). These complications are mostly associated with poor health care or traditional circumcision by untrained personnel under non-sterile conditions.

A retrospective review of the incidence of complications of 1279 cases 407 cases performed by unlicensed traditional circumcisers and 782 circumcision cases performed at a urology clinic by licensed surgeons) in Turkey found that 85% of the complications arose from cases performed by unlicensed traditional circumcisers (Atikeler, Gecit, Yuzgec&Yalcin, 2005).

Several barriers have been cited which are thought to limit the uptake of MC. These include: 1) health related barriers; 2) fear of pain, death, or complications; and 3) and MC procedure cost. A recent qualitative research study involving 46 FGDs with both males and females in Namibia found that some men perceived the foreskin to be a physical barrier or a protective covering for the penis. For these men, becoming circumcised was perceived as leaving one physically vulnerable to injury (Pappas-DeLuca et al., 2008). Other health related barriers included bleeding, and infections

such as HIV transmission due to the use of one surgical blade used on various males in traditional MC settings (Halperinet al., 2005; Lagardeet al., 2003; Rain-Taljaardet al., 2003).

There is evidence that there is a great deal of trust of western medical practitioners and a strong preference for circumcision services to be made available in public health facilities by trained health professionals (Westercamp& Bailey, 2007). In many non-circumcising communities, fear of pain during and after the procedure was perceived by people as a major barrier to MC acceptability (Kebaabetsweet al., 2003; Lukobo& Bailey, 2007; Mattson et al., 2005; Ngalandeeet al., 2006).

In traditionally circumcising communities this was not a barrier as circumcision was meant to be painful especially if it is practiced as rite of passage from child to adulthood for the reason that endurance to pain indicates the sign of adulthood (Ngalandeeet al., 2006; Westercamp& Bailey, 2006). However, for the societies that are not required to practice MC, fear of pain was seen as a reason to avoid circumcision.

In another review involving a sample of 1007 males aged 5-25 in Western Kenya, the overall rate of adverse events was approximately 25%, with 35% of those circumcised traditionally experiencing at least one adverse event, compared to 17% of those circumcised medically (Bailey &Egesah, 2006).

Testing Hypothesis

For hypothesis testing, results from Table 7 provide p-value of 0.025 which is less than 0.05 (level of significance). The null hypothesis was ejected in respect to physical cleanness ($b = 0.148$, $p = 0.018$) and sexual benefits ($b = 0.152$, $p = 0.021$). However, it is upheld in respect to health benefits, perception about sexual dysfunctionality ($b = -0.013$, $p = 0.856$), vulnerability to STIs ($b =$

-0.042 , $p = 0.506$) and, pain and complication ($b = -0.053$, $p = 0.440$), are not significant ($p > 0.05$)

Conclusion

More than half of the respondents were in age category of (18 - 24) and more than half were single; a small number reported that they were widowers. Marital status of the respondents was significantly related to willingness to adopt SMC. Majority of respondents in the study were Christians, where the Anglicans were majority and Seventh day (SDA) religion was least represented among the Christians. Religion of the respondents was significantly related to perception about SMC. Few respondents had had their highest educational attainment above university education. Educational background of the respondents was significantly related to knowledge of SMC and willingness to adopt SMC respectively

Employment status of the respondents was significantly related to willingness to adopt SMC. Tribe of the respondents was significantly related to willingness to adopt SMC.

The knowledge of safe male circumcision in respect to health benefits was high. In respect to physical cleanliness as a result of safe male circumcision, the knowledge by the respondents was very high. Respondents' knowledge of safe male circumcision in view of sexual benefits was high. There was a lower score on whether SMC makes men last longer in bed.

The respondents' perception about sexual Dis – functionality due to SMC in the study was moderate. The respondents' perception about vulnerability to STIs was moderate. The respondents' perception about pain and complication arising from SMC was moderate. The respondents' acceptance of safe male circumcision was high. Readiness to adopt safe male circumcision was high. Respondents' eagerness to adopt to adopt safe male

circumcision was high. The perception about safe male circumcision by the respondents in respect to vulnerability to STIs was moderate.

Physical cleanness and sexual benefits are significant predictors of safe male circumcision among the young adults in the study area. However, health benefits, perception about sexual dysfunctionality, vulnerability to STIs and pain and complication, are not significant predictors of the willingness of SMC among the respondents

The null hypothesis was rejected in respect to physical cleanness and sexual benefits, but upheld in respect to health benefits, perception about sexual dysfunctionality, vulnerability to STIs and pain and complication.

Recommendations

- The government with other stakeholders like NGOs should sensitize the public most especially the youth about the advantages of safe male circumcision as requested by a vast majority (81.1%) of respondents (see appendix 8)
- The Ministry of Health should work towards allaying fears of pain and complications that the youth fear could occur to them during SMC. This can be achieved through sensitization and counseling.
- There is need to provide incentives the young adult male who are willing take up safe male circumcision as recommended by 2.3% of the study respondents (see appendix 8). Such incentives should include capital to start income generating activities.

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INFLUENCE OF MASS MEDIA ON FAMILY PLANNING METHODS USE AMONG COUPLES IN GASHENYI SECTOR, RWANDA

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ABSTRACT

The aim of this study was to examine the influence of mass media on family planning methods use among couples in Gashenyi sector, Gakenke district in Rwanda. The study used descriptive cross-sectional design with both quantitative and qualitative approaches of data analysis. Data was collected using self-administered questionnaire and interview guide from 351 couples, and analyzed using both descriptive and inferential statistics.

The findings of the study revealed the level of radio listening was very high, whereas that of reading posters, watching TV and reading newspapers were very low. In addition, the use of family planning methods was reported to be low, and there existed a very low positive relationship between mass media strategies and the use of family planning methods ($r^2 = 0.038$, equivalent to 3.8%). This is clear evidence that mass media has not influenced the use of family planning methods among Gashenyi residents.

Key words: *Family planning, Gashenyi, Mass media, Contraceptives, Couples*

INTRODUCTION

The world population has been growing rapidly since the 1960s to reach close to 7 billion today, and future projections show that the world will exceed 8, 9 and 10 billion by 2023, 2041 and 2083, respectively (Rosenberg, 2012). This remarkable development in population is a product of increasing fertility and the unprecedented decline in death rates among the developing countries due to

improved medical and health care facilities (Manali, 2012). In 2009, fertility rate was reported to be 2.5 worldwide, 2.2 in America and Asia, 1.6 in Europe, 4.6 in Africa, 6.4 in DRC, 4.6 in Kenya, and 5.25 in Rwanda. Rwandan population density grew from 321 people per square kilometer in 2002 to 416 in 2012, the highest in Africa. This makes Rwanda the second most densely populated

country in the world, after South Korea, which has about 490 people per square kilometer (World Bank, 2012).

The rate at which the world population is growing creates a great concern to the international community. It is for this reason that the United Nations held a number of conferences to discuss the means to control world population growth. The most influential conference was the 1994 International Conference on Population and Development (ICPD) held in Cairo; the conference reached an agreement on the urgent need to control global population growth. Among others, the 20 year ICPD Program of Action declared Family Planning Methods use as one of the critical approaches to be initiated by United Nations member states as a way of regulating world population. In 2009, contraceptive level was 62 in the world, 75 in America, 66 in Asia, 70 in Europe, 82 in Oceania, 29 in Africa, and 21 in Sub-Saharan Africa (World Bank, 2012).

Concerns about high fertility and low contraceptive prevalence in sub-Saharan Africa have stimulated policy and program efforts aimed at promoting Family Planning in the region. Substantial money and time are currently being expended for the purpose of educating people about the advantages of fewer children and motivating them to adopt family limitation. The use of mass media to achieve these objectives has recently increased and both government and private agencies are in developing and implementing programs through the use of media facilities. The proponents of this approach have argued that the increasing availability of radio, television and print media in developing countries can be

effectively used to influence people's behavior (Akinrinola, 2011).

Mass media is a key strategy for increasing demand for use in health services. It is a process that helps communities to identify their own needs and to respond to and address these needs. Gaining the participation of community members can help providers raise awareness both of health issues at the community level and of social and cultural issues that may promote or inhibit use of information and services, as well as improve clients' understanding of the methods or services being offered. Specific barriers to service access and use can be addressed and service utilization increased (Howard and Snetro, 2003).

Community mobilization promotes consideration of the needs of specific populations and localities. In particular, underserved populations, such as youth and men, can be reached more effectively through community mobilization. Mobilization also leads to greater sustainability, as communities are empowered and capable of addressing their own needs. A number of studies show that a sense of ownership is crucial in building sustainability (Howard and Snetro, 2003).

There is social legitimization of reality as depicted in the media. Regarding the use of contraceptive methods, the study done in Tanzania has shown that current use of modern methods was far greater among women who recalled Family Planning messages on mass media (18%) than among those who did not (3%) (Simbakalia, 1994). There is a high dependency on media for information in an urban industrial society, which increases

significantly in times of social upheaval or change. The greater the need society has for the information provided by the media and the more functions the media serve, the greater dependence individuals in that society will have on the media and the greater the media's influence will be on that society. Mass media have cognitive, affective and behavioral effects on the society it serves.

Affective effects of mass media, according to DeFleur and Ball-Rokeach (1975), involve the feelings and emotions of individual members of society. As images of violence routinely appear in the media, people may become desensitized to scenes of violence encountered in reality. They may experience different levels of fear, anxiety, hostility, frustration and related emotions as events are processed through media channels. Ultimately, the behavioral effects of mass media, according to the dependency theory, are described in terms of individuals doing something that they otherwise might not do if it were not for the influence of the media on which they are dependent (DeFleur & Ball-Rokeach, 1975). Mass Media is widely appreciated to promote Family Planning Programs in various areas.

Television is a powerful medium for appealing to mass audience. It reaches people regardless of age, sex, income, or educational level. In addition, television offers sight and sound, and it makes dramatic and lifelike representations of people and products. Studies revealed that women exposed to television messages about Family Planning, used the methods more (2.44 times) than those who are

not exposed to television in India (Kulkarni, 2005).

Radio is an older form of electronic media than TV, and is far better adapted to abstract thought and also reaches mass and diverse audiences. The specialization of radio stations by listener age, taste, and even gender permits more selectivity in reaching audience segments. Since placement and production costs are less for radio than for TV, radio is able to convey public health messages in greater detail. Thus, radio is sometimes considered to be more efficient. Radio health message campaigns have been effective in developing countries, especially when combined with posters and other mass media (Littlejohn, 1989).

Unlike radio and TV, posters and newspapers are a direct way of communicating with people. They are used to spread a message, to promote an event and to support a cause. Choosing the location of posters is very important. The message and the place should be changed occasionally. If a poster is left in one place too long, they become part of the environment and no one will pay attention to them, they should be easy to read and attractive (Witkowski, 2003). Newspapers are read daily in 70 percent of U.S. households, and in as many as 90 percent of high-income households (Shea, 2011). Newspapers permit a higher level of detail in health reporting what is not feasible with other broadcast media. Whereas, one can miss a television broadcast about breast cancer, and thus, lose its entire message, one can read the same (and more detailed) message in a newspaper at one's choice of time and venue. Although

newspapers permit consumers flexibility concerning what is read and when, they do have a brief shelf life. In many households, newspapers seldom survive more than one or two days. Newspapers are available in daily and weekly formats, and local, regional, and national publications exist. In addition, there are numerous special audiences for newspapers (e.g., various ethnic groups, women and feminist related, gay and lesbian, geography-specific, neighborhood). Consequently, health messages contained in newspapers can reach many people and diverse groups (McDermott, 2000). According to Weinschenk (2013), reading newspapers about Family Planning Program can influence positively the adherence to this program. Stories have power to shape personalities, to change beliefs, behaviors, and lives.

A sample of 871 currently married urban Bangladeshi women was used to assess the impact of mass media programs on current contraceptive use. The analyses suggested that radio had been playing a significant role in spreading Family Planning messages among eligible clients; 38% of women with access to a radio had heard of messages while the figures for TV and newspaper were 18.5% and 8.5%, respectively (Amirul, 2012). In Egypt, television contributed decisively to the rise in contraceptive prevalence from 37.8% in 1988 to 47.1% in 1992. The 1992 Egyptian Demographic and Health Survey (EDHS) quoted by El-bakly and Hess (1994) showed that 73% and 71% of men and women, respectively, cited television as their first source of information about Family Planning.

In Tanzania, the more types of media that women are exposed to, the more likely they are to practice contraception. Women who recalled six media sources of Family Planning messages were 11 times more likely to be using modern contraceptives than women who recalled no media sources. Even women who recalled only one media source with a Family Planning message were twice more likely to be using a modern method than women who recalled no media source. Women who recalled Family Planning messages in the media were also more likely to have discussed with their spouse and to have visited a health facility than women who could not remember any such intervention. After introduction of controls for other variables, women who recalled radio messages about Family Planning were 1.7 times more likely as women who reported no exposure through radio programs to have discussed with their spouse and were 1.9 times more likely to have been currently using Family Planning Methods (Miriam, 1999).

In Kenya, analyses of data from the 1989 Kenya Demographic and Health Survey, demonstrate a strong statistical association between women's reports of having heard or seen messages about Family Planning through various media outlets and their use of contraceptives and their reproductive preferences. While 15% of women who say they have neither seen nor heard media messages on Family Planning are currently using a contraceptive method, this proportion rises to 25% among those who have heard radio messages, to 40% among those exposed to both radio and print messages and to 50% among those exposed to radio, print and

television messages. These associations persist even when a variety of life-cycle, residential and socioeconomic controls are imposed, so that women exposed to no Family Planning messages report an average of 5.5 children as their ideal family size, while those exposed to three types of messages report 4.7 children as ideal. Given the persistence of these strong relationships, the results suggest that the mass media can have an important effect on reproductive behavior (KISR, 1989).

Rwanda initiated its first population program that included Family Planning in the early 1980s. As Family Planning has become an increasingly important priority for the country, the government has supported and encouraged contraceptive use by making contraception more widely available and affordable (Mukamanzi and Vekemans, 1990). The contraceptive prevalence (percentile of women ranging between 15-49) was last reported at 51.60 % in 2010 (World Bank Report, 2012).

Rwanda Demographic Health Survey Report (RDHS) of 2010 indicated that 33 percent of women did not see or hear a Family Planning message in newspapers/magazines or on radio or television. However, 66 percent of women heard a Family Planning message on the radio, and 5 percent saw one on television. Only 4 percent of women had seen a Family Planning message in a newspaper or magazine in the past 12 months (NISR, 2010). The same demographic health survey (DHS), showed that exposure to Family Planning messages in the media varied by background characteristics. Women age 15 to 19 were least likely to see Family Planning messages in the

media during the 12 months preceding the survey (40%). The results also showed disparities by residence, with women in rural areas having higher rates of non-exposure than women in urban areas (34% and 30%, respectively). Similarly, women with no education were less exposed (43% with no exposure) than those with a secondary education or higher (21% with no exposure), and women in the poorest households were less exposed (50% with no exposure than women in the wealthiest households (24% with no exposure). In Gakenke District, statistics shows that contraceptive prevalence is 44%, and 36% in Gashenyi Sector (Gakenke District report, March 2013).

This study explored the influence of mass media on Family Planning Methods use among couples in Gashenyi Sector, Gakenke district, and sought to answer the following questions: What is the level of the mass media use among couples in Gashenyi Sector? What is the level of the use of Family Planning methods use among couples in Gashenyi Sector? How has mass media influenced the use of Family Planning methods among couples in Gashenyi Sector?

METHODOLOGY

The study was based on two theories: 'Population Growth' Theory of Neo-Malthusian which asserts that overpopulation should be controlled by introducing and implementing policies and strategies that shall act to regulate population growth and consequently eliminate the negative effects and

the unintended consequences of population growth. It contradicts the Malthusian theory stipulated in 1798 that overpopulation should be controlled by nature. In this line, International community, in the International Conference on Population and Development (ICPD) held in Cairo in 1994, agreed that there must be an effective strategy to control the population growth.

The variables in this study include mass media (independent), namely; radio, TV, posters and newspaper; and Family Planning methods (FP)(dependent) which include the use of natural and modern methods.

According to Merriam-Webster Online Dictionary (2013), mass media is a way of communication (as newspapers, radio, or television) that is designed to reach the mass of the people or a large audience. In this study mass media refers to the ways of reaching the couples such as, radio, television, posters and newspaper.

Family Planning Methods are the birth control measures used to determine the number of children there will be in a family and when those children will be born. In this study FPM is divided into *natural methods* (continuous abstinence, the control of fertility through symptoms-based, calendar-based or lactational amenorrhea and the coitus interruptus also called withdrawal), and *modern methods* (barrier methods - contraceptive sponge; diaphragm, cervical cap, and cervical shield, condoms; hormonal methods - oral contraceptives or pills; the patch methods - shot or injection; vaginal ring; implantable

devices - implantable rods and intrauterine devices; permanent birth control - sterilization: vasectomy and tubal sterilization; implant; and emergency contraception method. To measure the level of use of these methods, couples were asked how many times they have used one or another method in last six months. These were rated as follows: (1) 0=Never (very low); (2) 1-5 times, Rarely (low); (3) 6-20 times, Sometimes (average); (4) 21-60 times, often (high); and (5) 61 and above, Always (very high).

Design, Locale and Sample size

The study employed cross-sectional and correlational designs with both quantitative and qualitative approaches of data analysis. The correlation design used multiple regression to determine influence of predictor variables on adherence to the FP methods.

The study was conducted in Gashenyi Sector, Gakenke District, Northern Province in Rwanda. Gakenke is one of five districts that compose Northern Province. It has 338,586 people, 19 sectors, 19 health centres and 10 health posts established in order to facilitate access of medical services among local communities. The study took place in Gashenyi Sector which has two health centers, namely; Rukura and Rutenderi. A sample of 351 couples was drawn from 3805 couples in Gashenyi Sector as recommended by Krejcie, R. and, Morgan, D (1970). The sample size in each cell (Table 1) was calculated based on proportionate allocation sampling technique by Kothari (2004). Also all the two heads of health centers and the Executive Secretary were considered.

Table 1: Sample size of Respondents

Number	Cells	Population	Sample
1.	Taba	981	91
2.	Nyacyina	807	74
3.	Rutenderi	716	66
4.	Rutabo	698	64
5.	Rukura	603	56
Total		3805	351

Adapted from Kothari (2004)

Research Instruments

The study used a self-administered questionnaire as the main tool to collect primary data from couples. For respondents who could not read and write it was administered as interview. The questionnaire had closed ended questions which were intended to establish the extent of mass media usage and semi-structured questions intended

for FPM usage. Couples were asked how many times in the last six months they have listened, watched or read in mass media about Family Planning and the frequency were rated as shown on table 2a; while those related to FPM usage were measured using a different scale (Table 2b).

Table 2a: Operationalized rating of access to media

Medium	Frequency				
<i>Radio & Posters:</i>	(1) 0-5	(2) 6-15	(3) 16-20	(4) 21-40	(5) 41+
Radio:	Very Low	Low	Average	High	Very High
Posters:	Very Low	Low	Average	High	Very High
<i>TV & Newspapers:</i>	(1) 0-1	(2) 2-4	(3) 5-10	(4) 11-15	(5) 16+
TV:	Very Low	Low	Average	High	Very High
Newspapers:	Very Low	Low	Average	High	Very High

Table 2b: Level of Family Planning Methods usage

Scale	FPM use	Frequency	Interpretation
1	Never	1.00-1.80	Very low
2	1-5 times	1.80-2.60	Low
3	6-20 times	2.60-3.40	Average
4	21-60 times	3.40-4.20	High
5	60 and above	4.20-5.00	Very high

The interview guide was used to collect data from the Executive Secretary of the Sector and the Heads of the health centres. The purpose of using key informants interview was to complement the main instrument, the semi-structured questionnaire.

Data collection and analysis

Data was collected following the written permission from the Executive Secretary of Gashenyi sector. The participation in this study was strictly voluntary. Measures were taken to ensure respect, dignity, freedom of expression and confidentiality for each respondent. Objectives 1 and 2 were analysed using description statistics (percentages and mean), while objective 3 and the hypothesis were tested using Pearson's Product Correlation coefficient to determine the influence of mass media strategy on the adherence to the methods. The information from key informants was analysed using thematic analysis.

RESULTS AND DISCUSSION

Demographic characteristics of the respondents

The study looked into the demographic characteristics of the respondents and how they influenced the results. The findings indicate that female respondents were dominant, 238 (67.8%), thus they greatly influenced the findings. The possible explanation can be that while distributing questionnaires, females were mainly the ones at home. Males are normally out of the household for different activities such as business, travels, jobs, and so on. Young couples between 26-35 years were the majority as they constituted 159 (45.3%), followed by 36-45 years, 105 (29.9%), above 45 (16%) and below 25 years only 31 (8.8%).

Furthermore, the majority of the respondents had no education, 170 (48.4%); while 129 (36.8%) had primary education, 39 (11.1%) secondary, and 13 (3.7%) had tertiary education. This shows that a big number of the respondents had no education, which is normal since in Rwanda, as one of developing countries, the majority of the population never attend school. These findings are in agreement with Aliko (2013) who said that the current statistics paint a gloomy picture. 30 million children in sub-Saharan Africa receive no education whatsoever.

In regard to religion, it was noted that, 120(34.2%) of respondents were Catholics, 114(32.5%) of respondents were Adventists, 113(32.2%) were protestants and 4(1.1%) were Muslims. As observed, Christians dominated the study, a feature that was expected as the study was conducted in rural areas where usually Christianity dominates in sub-Saharan Africa.

Level of the use of Mass Media

The first objective was to determine the level of mass media use in Gashenyi Sector. Descriptive statistics parameters, such as mean (μ) and standard deviation (SD) were used to analyze this variable.

The findings reveal that the level of radio listening was very high ($\mu = 4.53$; $SD = 0.78$); where 106(30.2 %) and 226(64.4%) respondents listened to radio 21-40 and above 41 times, respectively. This was followed by using posters ($\mu = 1.23$; $SD = 0.69$); reading newspapers ($\mu = 1.21$; $SD = 0.8$), and finally watching TV ($\mu = 1.20$; $SD = 0.55$) (table 3 and appendix 1). All media except listening to radio translate to very low (mean range, 1.23 – 1.20) and are far below the grand mean value ($\mu = 2.04$, $SD = 0.71$). This shows that using the radio is a good strategy of mass media, because more than 50% of the populations use it as source of information for FP. This finding is in line with Rwanda Health Demographic Survey Report (NISR, 2010), which shows that 66 percent of women heard an FP message over the radio, 5 percent watched television and only 4 percent had seen a FP message on a newspaper or magazine in the past 12 months.

Also the findings are in agreement with the study of 871 currently married urban Bangladeshi women on the impact of mass media on programs and current contraceptive methods use. The analyses suggested that radio had been playing a significant role in spreading FP messages among eligible clients than TV at 38% and 18.5%, respectively (Amirul, 2012). However, this finding contradicts El-bakly and Hess (1994), who said that in Egypt, television contributed decisively to the rise in contraceptive prevalence from 37.8% in 1988 to 47.1% in 1992. The 1992 Egyptian Demographic and Health Survey cited by El-bakly and Hess (1994) showed that 73% of men and 71% of women cited television as their first source of information about FP.

Several factors can be attributed to the low scoring of other media such as TV, posters and newspapers. According to Witkowski (2003), choosing the location of posters is very important. Witkowski proposes that, the message and the place of posters should be changed occasionally if they are to be effective. If the posters are left in one place for too long they become part of the environment and no one looks at the many more. They should be easy to read and have attractive images. Posters, newspapers and TVs are very rare in rural areas and homes of the people in villages. The interview with the key informants, especially the Executive Secretary of the sector revealed that there are no posters relating to FP in Gashenyi. In fact, posters were not mentioned by the head of health facilities among strategies they use to promote FPM in the sector. Furthermore, the Rwanda Health Demographic Survey Report (NISR, 2010), reports only 4% of women to have had

seen an FP message in a newspaper or magazine in the past 12 months. This calls for a need to increase the level of use of these less represented variables because it has been demonstrated that reading newspaper can

influence positively the adherence to FP program. According to Weinschenk (2013), stories have power to shape personalities, to change beliefs, behaviors, and lives.

Table 3: Level of the use of Mass media

Mass media strategy	Mean (μ)	SD	Interpretation
Radio	4.54	0.78	Very high
Posters	1.23	0.69	Very low
TV	1.20	0.55	Very low
Newspaper	1.21	0.80	Very low
Grand mean	2.04	0.71	Low level

Level of Family Planning Methods Use

The second objective was to assess the level of Family Planning methods use among couples in Gashenyi Sector, in terms of natural methods, and modern methods. These findings are presented in Table 4 and Appendix 2.

Natural Methods

The Natural methods studied include; continuous abstinence, calendar-based, symptoms-based, lactation amenorrhea and withdrawal. The finding revealed a low level of overall usage of natural methods at grand mean, $\mu=1.92$ (Table 4). This finding contradicts the answers from the Executive Secretary of Gashenyi Sector and center officers from Rukura and Rutenderi health centers who stated that couples do not use natural contraceptive methods. However, the

finding is in congruent with the study carried in Kenya in 2007, where the use of natural methods had declined from 43% in 1989 to 28% in 1998. The same is reiterated by Rogow (2005), who said that worldwide, only 3% of women of childbearing age rely on withdrawal as their primary method of contraception. Worldwide usage of natural methods varies widely, from 1% in the African continent to 16% in Western Asia. In the United States, it is indicated that 56% of reproductive women have had a partner using withdrawal and by 2002, only 2.5% were using withdrawal as their primary method of contraception. In Rwanda, only 6% of married women use traditional methods (Bashir, 2012).

Considering individual natural methods, lactational amenorrhea revealed a high level of usage ($\mu=4.96$; $SD=0.75$). This is because, naturally, mothers breastfeed their

children, especially in the rural areas, where mothers have plenty of time for their babies. The rest of the methods under this study recorded a very low mean ranging from $\mu=1.00$ to 1.23.

What is surprising is the mean score of calendar-based method ($\mu=1.19$, $SD=0.58$) in a place where the big number of respondents is Catholics. In the early 20th century, the calendar-based method known as the "the rhythm method" was promoted by members of the Roman Catholic Church as the only morally acceptable form of family planning. Methods accepted by this church are referred to as natural (NFP), and so at one time, the term "rhythm method" was synonymous with NFP. Today, NFP is an umbrella term that includes symptoms-based fertility awareness methods and the lactational amenorrhea method as well as calendar-based methods such as rhythm method (Mayo Clinic, 2013).

Modern Methods

Thirteen modern methods were included in this study, namely; contraceptive sponge, diaphragm, female condoms, male condoms, pills, patch, short injection, vaginal ring, implantable rod, intrauterine device, sterilization implant, surgical sterilization, and emergence contraception.

The finding (Table 4) reveals an overall very low level of usage of modern methods ($\mu=1.52$; $SD=0.45$). In addition, some modern methods are not used in Gashenyi Sector at all, such as contraceptive sponge, diaphragm, patch, vaginal ring, cervical cap, cervical

shield, female condom and sterilization implant. The statistics obtained from the Executive Secretary of Gashenyi sector showed that couples rely only on injections (15%), pill (10.5%), male condoms (4.9%), implant (4.2%), intrauterine device (0.4%), and surgical sterilization (0.2%). This is only 35.2% adherence to modern contraceptive methods. It implies that the greater percentage either use natural methods or not at all. Some cultures and religious entities deliberately limit access to contraception because they consider it to be morally or spiritually undesirable.

Harvey (2003) supports this finding by propounding that in UK, only 2% of women between 17-49 years use diaphragm, sponge, and condoms, while in South Africa, of the 554 subjects participated in baseline interviews, only 16% had used both condoms and another form of contraception. In addition, in Kenya the use of barrier methods and intra-uterine devices (IUDs) or implants has remained low among all types of users. Although an appreciable proportion of younger married couples (21%) were using IUDs or implants in 1989, this proportion dropped significantly to 6% by 1998. The use of barrier methods is rapidly gaining popularity among the unmarried women, though the level is still relatively low at about 11% (Stanback and Griffey, 2007).

On considering individual modern methods, pills scored high ($\mu=3.59$; $SD=1.36$), whereas male condom and emergence contraceptive scored moderate, with $\mu=2$ and 2.61, respectively. This is evident that the three methods are commonly known among the couples in Gashenyi Sector

Table 4: Level of Family Planning methods use

Methods of FP	Mean (μ)	SD	Interpretation
<i>Natural methods:</i>			
Continuous abstinence	1.00	0.00	Very low
Calendar-based	1.19	0.58	Very low
Symptoms-based	1.21	0.70	Very low
Lactation amenorrhea	4.96	0.75	Very high
Withdrawal	1.23	0.68	Very low
<i>Aggregate μ and SD</i>	<i>1.92</i>	<i>0.54</i>	<i>Low</i>
<i>Modern methods:</i>			
Contraceptive sponge	1.00	0.00	Very low
Diaphragm	1.00	0.00	Very low
Female condoms	1.00	0.00	Very low
Male condoms	2.99	1.25	Moderate
Pills	3.59	1.36	High level
Patch	1.00	0.00	Very low
Short injections	1.12	0.33	Very low
Vaginal ring	1.00	0.00	Very low
Implantable rods	1.44	0.55	Very low
Intrauterine device	1.08	0.27	Very low
Sterilization implant	1.00	0.00	Very low
Surgical sterilization	1.03	0.18	Very low
Emergency contraception	2.62	1.64	Moderate

<i>Aggregate μ and SD</i>	1.53	0.45	Very low
Grand mean	1.73	0.50	Very low

Influence of Mass Media on Family Planning Methods Use

The third objective aimed at establishing the influence of mass media on family planning methods usage, using Pearson product-moment correlation coefficient.

Overall Influence of Mass Media

As shown in Table 5, there is a low positive relationship between mass media and Family Planning Methods use in Gashenyi Sector ($p=0.000$, $r=0.195$ at $\alpha=0.05$). Such relationship is observed in the Kenya DHS report of 1989 (Wenjuan, 2012), which showed a statistical association between women's reports of having heard or seen messages about family planning through various media outlets, their use of contraceptives and their reproductive preferences. While 15% of women who report to have neither seen nor heard media messages on family planning are currently using a contraceptive method. This proportion rises to 25% among those who heard radio messages, 40% among those exposed to both radio and print messages, and 50% among those exposed to radio, print and television messages, respectively. These associations are reported to persist even when a variety of life-cycle, residential and socioeconomic controls are imposed (Wenjuan, 2012). Such relationships suggest that proper use of mass media can highly influence on reproductive behavior.

Further analysis of the results of this study shows that the mass media have influence family planning methods usage to an extent of 3.8%; that is, based on the coefficient determination ($r^2 = .038$). That means usage of family planning is influenced to a greater extent by other factors not considered in this study such as: Education background, Economic status, Social status, Polygamy, Social support through the use of kinship networks to share the costs and benefits of children and having older children. The result of Rwanda DHS report (NISR, 2010) asserts that exposure to family planning messages in media varied depending on the background characteristics. Females under 19 and women in rural areas were least likely to be exposed to messages in the media; Those with no education and those in the poorest households were also less exposed.

Hypothesis Test

The Pearson product-moment correlation coefficient results (Table 5) provide Pearson's correlation, $r=0.195$ and $p=0.000$, which is less than 0.05 (level of significance) indicates that there is significant relationship between mass media and FP methods usage. Therefore, the null hypothesis is rejected. This influence is supported by DeFleur and Ball-Rokeach (1975) who said that mass media have cognitive, affective and behavioral effects on the society it serves.

Table 5: Influence of mass media on family planning methods use

Description	Measure
Pearson Correlation (r)	0.195**
p-value	0.000
Coefficient of Determination (r^2)	0.038

** Correlation is significant at the 0.05 level (2-tailed)

n = 351

Strength of Contribution of Each Mass Medium

The four predictors (independent variables, namely; radio, TV, newspapers and posters) were subjected to multiple regression to determine how strong each medium influences the use of family planning methods. The results (Table 6) indicate that all variables under the study, except posters have significantly influenced the use of FP methods. The extent of strength is such that radio ($\beta=0.402$, $p=0.000$) is more

effective than TV ($\beta=0.326$, $p=0.000$) and newspaper ($\beta=0.203$, $p=0.027$). This is in agreement with the findings in Bangladesh where radio had been playing a significant role in spreading messages among eligible clients; 38% of women with access to a radio had heard of messages, while TV and newspaper stand at the levels of 18.5% and 8.5%, respectively (Amirul, 2012). Radio also reaches mass and diverse audiences. The specialization of radio stations by listeners' age, taste, and even gender permits more selectivity in reaching audience segments

Table 6: Contribution of each of the mass media on the use of FP methods

<i>Regression Coefficients^a</i>			
	Unstandardized Coefficients	Standardized Coefficients	Sig. (p)
	B	(Beta)	
<i>Mass media</i>			
(Constant)	10.401		0.000
Radio	0.245	0.402**	0.000
Posters	-0.010	- 0.026	0.655

TV	0.036	0.326**	0.000
Newspaper	0.034	0.203*	0.027

** The level of significance is 0.01 *Significant at 0.05

In addition, since placement and production costs are less for radio than for TV, radio is able to convey public health messages in greater detail. Thus, radio is always considered to be more convenient and efficient. It is good to note that, although Television is a powerful medium for appealing to mass audience and it can reach people regardless of age, sex, educational level (Littlejohn, 1989), still not all families can afford to buy and operate it as it requires electricity. TV, newspapers and posters alike are more readily available in urban than in rural areas

CONCLUSION AND RECOMMENDATIONS

The use of mass media in promotion and sensitization of the society on the use of FP methods is very crucial. Many families are unaware of the existence of the methods, this leads to unplanned pregnancies and a large number of children which contribute to the escalating costs of living. This results to increased cases of abortion and separations, especially when fathers find it hard to cater for the family's needs. As it has been revealed in this study, radio is the most accessible and affordable media in rural settings. It must be used extensively to promote the adoption of FP methods. The average usage of natural FP methods was low, whereas the level of modern methods was even lower. There is a need for concerted effort by the government to

reinforce and sponsor the availability of media, especially in rural areas. This will boost the accessibility of the FP messages and consequently increase the use of family planning methods, thus controlling the increased population. The government has to sensitize community to try the use of the different methods of FP instead of relying on the three methods observed in this study

It is recommended that such study be extended to other sectors and districts to ascertain whether the same results will hold. Since the use of mass media strategies has contributed to only 3.8% adherence to FP methods, there are other factors which play the bigger role. Further study should be done to identify and establish the extent of influence of those hidden factors to usage of FP methods. Also there is a need to determine why some methods are more used than others in Gashenyi Sector.

It is also recommended that an investigation of the following factors: Education background, Economic status, Social status, Polygamy, Social support through the use of kinship networks to share the costs and benefits of children and having older children; may shed significant light on the determinants Family Planning use.

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About Bugema University-School of Graduate studies

Mission Statement for the University

To offer excellent and distinctive holistic Christian education to prepare our students through training, research and scholarship for productive levels of useful services to God and the society with uncompromising in terrify, honesty and loyalty.

Vision of the School of Graduate studies

A self-sustaining School of Graduate studies producing skilled manpower for diverse development

Mission Statement of the School of Graduate studies

A seventh-day Adventist institution on higher learning providing holistic and sustainable education through imparting quality skills to graduate students and community members for excellence in service.

Objectives

Guided and propelled by the general objective of backstopping Bugema University in undertaking efforts to make more meaningful contribution to the realization of the goals of national development through human resource development, the Bugema University-School of Graduate studies trains its efforts and resources towards the achievement of the following specific objectives:

1. To develop graduate students' ability to undertake research or scholarly work in business administration, development studies, counselling psychology, education management, public health, and international business.

2. To develop highly trained human resources imbued with universal values and professionalism, work and discipline.
3. To offer programs that are responsive to the needs of the learners and of their communities through holistic education.
4. To institutionalize a system of continuing education to sustain professional growth and promote long life learning.
5. To establish an education network through collaborative arrangements, institutional linkages and other appropriate mechanisms to enhance the delivery of education programs and to generate awareness of and support to Bugema University-School of Graduate studies program.
6. To foster a culture of performance excellence, accountability and stewardship consonant with Bugema University's values, objectives, institutional identity and culture.

Goal of the School of Graduate studies

Improve access to post graduate studies among SDA scholars

Values of the School of Graduate studies

1. Commitment
2. Self reliance
3. Team spirit
4. Professionalism and Competence
5. Transparency
6. Equity and fairness

Courses offered by Bugema University-School of Graduate studies (only offered at Kampala Campus & Arua Center on Weekend)

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- Finance & Accounting
 - Human Resource Management
 - Entrepreneurship and Strategic Management
 - Procurement & Logistic
 - Project Management
 - Marketing
2. Masters of Science in Counselling Psychology
 3. Masters of Art in Development Studies
 4. Masters of Art in Educational Management
 5. Masters in Public Health
 6. Post Graduate Diploma in International Business Management offered in partnership with Galilee International Management Institute, Israel