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# **Global Dynamics in Africa**

**Editors: Maurice N. Amutabi and Dr. Linnet Hamasi**

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## **Dedication**

This book is dedicated to CEDRED secretariat headed by Dr. Linnet Hamasi Henry, deputized by Dr. Magdalene Ndeto Bore, Secretariat members Dr. Pamela Akinyi Wadende, Sr. Dr Anne Lucy Achieng, Tony Jonanga, Kelways Chimoto, Abigael Asiko Kutwa, Alex Jackan, Alma Sikanga, Julia Enoi, Eliud Opwoche, Selly Sikanga, Betty Nambala, Noel Okoto, Jane Nambiri Ouma, Samuel Baraka, Mercy Bore and Victor Amiani.

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## **Acknowledgements**

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Work for this book started many years ago by the dedication of many people, through research work and planning for conferences, accepting abstracts and peer reviews and editing of articles. The various efforts cannot be gainsaid. We thank Professor Engineer Abel Mayaka, and Prof. Maurice Nyamanga Amutabi and our CEDRED secretariat headed by Dr. Linnet Hamasi Henry, deputized by Dr. Magdalene Ndeto Bore who have been great, as well as members of the Secretariat who include Dr. Pamela Akinyi Wadende, Sr. Dr Lucy Achieng, Tony Jonanga, Kelways Chimoto, Abigael Asiko Kutwa, Alex Jackan, Alma Sikanga, Julia Enoi, Eliud Opwoche, Selly Sikanga, Betty Nambala, Noel Okoto, Jane Nambiri Ouma, Samuel Baraka, Mercy Bore and Victor Amiani who are all committed to CEDRED mission of research and publishing good quality books.

May God bless you all.

Prof. Maurice N. Amutabi, PhD (ed) and Dr. Linnet Hamasi Henry, PhD  
**Nairobi, May 20, 2021**

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## Introduction

By

Prof. Maurice Nyamanga Amutabi, PhD and Dr. Linnet Hamasi Henry, PhD  
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This book, *Global Dynamics in Africa* is a significant contribution to the bibliography on the discourses on the continent's development. The chapters in this provide useful outputs of researching taking place on the African continent and abroad. The chapters cover current research themes as well as cutting edge research methods. There is an incredible mix of senior scholars and junior scholars which brings out the best blends of scholarship. Readers from many disciplines such as African studies, women and gender studies, education, geography, literature, political science, environment, history and sociology will find the book insightful. Senior researchers, academicians and students will find the chapters useful.

The first chapter examines "The Medical Male Circumcision Practice as a Global Health Strategy for HIV and AIDS prevention in Uganda" by Bernard Omukunyi. It examines the Joint United Nations Programme on HIV (UNAIDS) which strongly recommends that developing countries regard medical male circumcision as a biomedical intervention for HIV and Aids prevention. It uses Bugisu sub-region as case study. He notes that the Bamasaaba regard their cultural practice of traditional male circumcision (TMC) as prestigious. Findings show that the Bamasaaba see this as a step in the process of weakening cultural practices and eradicating imbalu in the Bugisu area. Many believe that, in future, there will be no young men to circumcise traditionally if new-born children are being circumcised in hospitals. The primary recommendation is that health officials stop trying to enforce SMMC and instead aim to influence the practice of TMC by ensuring that specific health protocols are observed.

The second chapter is titled "Overview of Innovative Crop Production Strategies for Sustainable Food Security in Kenya" by Alice Kosgei and Jones Agwata. The chapter gives an overview of innovative strategies used by farmers in food security and the government's role in supporting access and availability of food and recommends the way forward regarding sustainable food security in Kenya.

The third chapter titled "Role of Private Academies in Provision of Basic Education in Kenya: A Case of Kwanza Sub-County of Trans Nzoia County, Kenya" by Aggrey Asitiba Okutu seeks to establish whether private schools' input was consistent with the principle of education as a human right, especially as appertains to quality. It also examined whether private schools were being started in adherence to provisions of the Basic Education Act 2013, using Kwanza Sub-County in Trans Nzoia County of Kenya as a case study. The study found that most private primary schools were having temporary buildings. Furthermore, most schools did not have legal documents to operate, yet they were in full operation. Most proprietors started academies as business venture aimed at making profit. The study recommended that Private Primary Schools should put up permanent structures to guarantee good learning environment and the security of learners. Government should not allow any private school without legal documents to operate. Proprietors should prioritize supplementing government's effort to provide quality education to deserving children rather than prioritizing profit making.

The fourth chapter is titled “Gender Differentials in Borrowing of Loans and Effects of the Loans on Households’ Livelihood Improvements in Kenya” by Jane Wanjiku Wanjihia, Lawrence Njoroge & Leah Wanjama. The chapter investigated gender differentials in borrowing of finances from Sidian Bank in Kenya, in relation to improvement of livelihoods. The study established that the effects of loans on livelihoods were greatly affected by the structure of a house hold due to different gender roles in households. It concluded that though there are more women borrowers their utilization of loans led only to temporary livelihood improvements as they mainly did not invest in income generating projects and strained in repayments and sometimes lost household items when they could not repay the loans in time. Men had advantages over women in accessing loans as regulations were discriminative. Stakeholders should make sure that the gender policies in place are considered and reviewed from time to time for example the issue of being guaranteed and signed for by the spouses whether men or women. Lending institutions should give more training to the borrowers for proper utilization.

The fifth chapter is titled “Competency Based Curriculum: Launching and Perception of Primary Teachers on its Implementation: A Case study of Trans -Nzoia County, Kenya” by David Wafula Wakoli. The study investigated launching of CBC and perception by primary teachers towards its implementation. The study established that teachers were not thoroughly prepared for implementation of CBC due to limited funds. The facilitators/ trainers were not competent to teach the new curriculum ,time stipulated for in service training was only 4 days that appeared to be too short to empower teachers with relevant CBC knowledge, the curriculum was also facing challenges in terms of inadequate instructional materials. The chapter recommends that more funds should be set aside to facilitate in service training process and more days be given for training curriculum support officer to empower teachers in the needful CBC areas. The Ministry of Education should channel more instructional or learning materials, such as CBC teachers’ guide and course textbooks for use in implementing competency based curriculum.

The sixth chapter is titled “Influence of Competitive Aggressiveness on the Performance of Youth-led Micro and Small Enterprise in Lake Basin Region, Kenya” by Evelyn Bosire, Gregory Namusonge and Samson Nyang’au Paul. The chapter aimed to establish the influence of competitive aggressiveness on the performance of youth-led Micro and Small Enterprise in Kenya, with special reference to Lake Basin region. The findings revealed that majority of the youth-led micro and small enterprises prefer to outsource affordable labour in order to save on operational costs. The study established that youth-led micro and small enterprises do not outsource their workers from better competitors to gain their skills despite this being a key strategy towards gaining competitiveness and enhancing performance. From the findings, the study concluded that most youth-led micro and small enterprises use cheap means of production in order to reduce the costs of their products and bargain for better prices on input materials to ensure lower costs of production.

The seventh chapter is titled “Influence of Buyer-Supplier Collaboration on Organizational Performance in Food and Beverage Manufacturing Companies in Kenya” by Bartoo Dorothy Chebichii, Gregory Namusonge and Elizabeth Nambuswa. The main purpose of the study was to determine the influence of buyer-supplier collaboration on organizational performance in food and beverage manufacturing companies in Kenya. The study concludes that effective buyer-supplier collaboration enhances organizational performance of food and beverage manufacturing companies. The study recommends that the managements of food and beverage manufacturing

companies should enhance buyer -supplier collaboration at all levels of its operations and with stakeholders so that it may meet its goals and achieve competitive advantage.

The eighth chapter is titled “The Role of Learning Resource Project in Teacher Education in Kenya” by Ezekiel Nyambega Omwenga and Omosa Elijah Mochama. The chapter aimed at finding out the role of infusion of LRP in teacher training in Kenya. The study established that the teacher trainees are made to learn on the job, come to see how to link their teaching with the learners’ environment, understand how to apply Project-based learning (PBL) that is engaging, rigorous, teacher-facilitated, student-centered, and standards-based. The chapter recommends the need to equip the lecturers teaching special subject methods and their cooperating teachers with the necessary knowledge, skills and attitudes with the recent trends of project-based learning.

The ninth chapter is titled “Use of information and Communication Technology tools for Capturing Indigenous Farming Knowledge for Sustainable Development” Anderson Kahindi and Zipporah W. Gichuhi. The chapter proposes the need to use information and communication technologies (ICTs) for documenting indigenous knowledge to help meet the needs of the current generation without undermining the ability of future generations. The chapter recommends the need indigenous knowledge repositories and databases to be developed and be accessible online for use by practitioners in various fields for sustainable development.

The tenth chapter is titled “Towards Reducing Gender-Based-Violence within Higher Learning Institutions: The Case of St John’s University of Tanzania” by Milka Otieno, Elizabeth Msoka and Sheila Mziray. The chapter investigated gender based violence at a private university in Tanzania. The findings revealed that, there is prevalence of GBV in schools in Tanzania. The chapter established that, lack of awareness of the legal rights among respondents. Moreover, findings revealed that, the institution has neither gender policy nor operational systems and structures, purposely designed to address issues of GBV. Based on the findings, the chapter concluded that there is no much intervention happening at St. John’s University of Tanzania towards reducing gender-based violence. Following that, researchers recommend for urgent establishment of gender sensitive policies and structures in HLI.

The eleventh chapter is titled “Public Procurement Ethics and Procurement Performance: The Case of Kakamega County Government, Kenya” by Jackline Akoth Otero and Kelvin Mogere Machuki. The main purpose of the study was to ascertain the influence of public procurement ethics on procurement performance of Kakamega County Government, Kenya. The specific objectives were to examine the effect of integrity, accountability and transparency on procurement performance of Kakamega County Government, Kenya.

The twelfth chapter is titled “The Effect of Initiation Rituals on Secondary School Students’ Academic achievements in Chemba District, Tanzania” by Munjori, Mwanahamisi, O. and Elizabeth M. Msoka. The chapter investigated the initiation rituals commonly practiced on students and its effects on students’ academic achievements. The study found that, male circumcision and seclusion (boys and girls), are the most common rites of passage among the studied ethnic groups while female genital mutilation ranked the least. The study also found that, these traditional rites of passages when practiced on students, may not directly impede their school completion, but rather indirectly, by exposing them to other risk factors and psychosocial behaviors’ that define their sexual identities and gender role in the

community. Basing on the study findings, the study recommends that, the government and other stakeholders should provide education to the communities that still embracing the culture of initiation rituals so as to avoid interfering school timetable and helping their children to finish their study.

The thirteenth chapter is titled “Influence of Flexible Workload Strategies on Performance of Nurses in Regional Hospitals in Tanzania” by Elisifa Ezekiel Nnko, Samson Nyang’au and Romanus Odhiambo. The chapter examined how job sharing, part time working and seasonal working practices influenced performance of nurses in hospital settings. The findings indicated a significant correlation between job sharing, part time working and seasonal working practices with nurses’ performance. The study found that, leadership support and workload explained 48% of nurses’ performance. The chapter concluded that nursing workload was affected by staffing levels, rigid working practices but also by the design of the nurses’ work system. This chapter suggests ways in which hospitals can improve nurses’ performance by increasing flexibility in working practice, reorganizing work structure to respond to the uncertainty in patient-care needs while respecting work rules.

The fourteenth chapter is titled “Two Ways of Understanding the Climate: Economy Link and Designing Climate Change Policies” by Firimoni Rweere Banugire. The chapter examines two approaches to the analysis and design of economic policies for climate change mitigation and adaption with Special focus on choice of appropriate policies and strategies. The aim is to highlight the role of structural-institutional and governance strategies and policy instruments that are often underrated or ignored.

The fifteenth chapter is titled “The Analysis of Value Chain for Irrigated Horticultural Crops around Sand Dams and Water Ditches in Dodoma and Bahi District, Dodoma, Tanzania” by David Kasian Msola, Elizabeth M. Msoka and Clarence Hugo Nyoni. The chapter presents information on the value chain of irrigated horticulture products in Dodoma. The study was conducted as a result of the felt need of having information regarding the linkages of the actors of the horticultural sector along the value chain and their associated impacts to the livelihood of the farming communities who are experiencing poor livelihood conditions despite the available opportunities. The study found that producers are working under isolation; they are rarely exchanging production ideas or seeking for government assistance for improvement. The chapter recommends that stakeholders such as the government, nongovernmental organizations and development partners should empower the producers to improve the linkages to stakeholders along horticultural value chain.

The sixteenth chapter is titled “Trends in Livestock Grazing in the Protected Forests at Mount Kenya Region: Evidence from year 2013 to 2018 using Time Series Analysis” by Paul Mwari Maina & Daniel M Nzengya. The objective of this research conducted in Mount Kenya West protected forest was to analyze seasonality patterns of smallholder dependence on protected forest for livestock grazing. Findings indicated that there were significant differences in the magnitude of peaks of influxes and low seasons across the three forest blocks. It was found that all the three forest blocks experienced highest cattle influxes during the month of July, with Kahurura experiencing the highest cattle influx, compared to Hombe and Chehe. The study recommends that proper forest management by KFS and Community Forest Associations might be required to ensure the influx during the peak season is well managed to minimize conflicts between forest conversation benefits and costs. On policy issues, the government and stakeholders need to incentivize smallholder’s

farmers during high season peaks to provide alternatives livelihood sources for rural households.

The seventeenth chapter is titled “Strategic Marketing, a Technical Approach for Company Performance in the Telecommunications Industry in Rwanda” by Kirabo Joyce, Gregory Namusonge and Mike A Iravo. The study established that companies benefits tremendously when the strategic marketing practice was taken into account for the efficient performance of the telecommunication industry in Rwanda. The research managerial recommendations emphasized the need for telecom policy makers Rwanda Utility and Regulatory Authority (RURA) to ensure a successful evolution towards competing markets, regulate and properly supervise the relations between the incumbent telecom companies and the new comers, who are known to depend on the incumbent’s services.

The eighteenth chapter is titled “Voice, Agency and Silences: Traditional African Women’s Tools for Accessing Centers of Power Shaping the Development Agenda” by Godard Busingye. The chapter argues that African custom, values, and virtues, which are not written, were, and remain women empowering. They recognize the force of voice, agency, and silences by women, whenever invoked. Consistent use of the tools of voice, agency and silences to resist oppression of the ideology of patriarchy has yielded positively towards women’s integration in the development agenda. Some men, even in high political offices have yielded to the pressure exerted by women in a drive to flattening the curve of inequalities in favour of equal rights for all. Much as the feminists fight for women’s rights, some men have facilitated realization of the women’s dreams. The chapter concludes that the invasion of African values and virtues spaces by the western powers did not only disempower African women, but equally disempowered African men, leading to the current low levels of participation of Africans in the overall global development agenda. It recommends a reincarnation of the lost African values and virtues that are now conspicuously absent from the discussions that shape the global development agenda.

The nineteenth chapter is titled “Gendered Finance for Peace, Solidarity and Social Injustice in Southern Africa” by Tinuade Adekunbi Ojo. The chapter examines gender financial inclusion as a key to resilience and post-disaster recovery amongst Southern Africa countries. The chapter focuses on identifying the benefits and challenges affecting gender financial inclusion. Furthermore, the study analyses the existing government measures and the effectiveness of shared approaches on financial inclusion amongst the countries. The derived result yields significant insight into the southern economies trajectories in gender politics and the importance of further research in gender economic policies affecting the economies.

The twentieth chapter is titled “Analysis of Mechanisms Used to Handle Conflicts in Public Primary Schools in Geita “District, Tanzania” by Newton M. Kyando and Sarah M. Ulimboka. The chapter provides analysis of the mechanisms used to handle conflicts in primary schools in Geita District. The study aimed at analyzing the nature of conflicts at school environment, evaluating the experiences of school stakeholders in managing conflicts and how school leaders managed conflicts. The study revealed that head teachers only and school board chairperson have participated in formal training for conflict resolution. The chapter recommends that seminars, training and workshops should be provided for improving rapport between heads of schools and their staff and building good working relations between them and to acquire leadership skills and conflict resolution strategies so as to improve their managerial effectiveness.

The 21<sup>st</sup> chapter by Ezekiel Wechuli Wanyama is titled “Strategic Leadership for Effective Resource Mobilization: A Case of Public Universities in Kenya.” It examines why Strategic leadership has been lauded as the new agent of transformation of organizations, yet little is known about its efficacy in resource mobilization of Kenyan universities. This chapter is important for universities given the shrinkage funding avenues.

The 22<sup>nd</sup> Chapter is titled “The Polemics of Policies and Institutions Governing Unreserved Forests: Forest Sustainability Practice in Tanzania” by Fadhili Bwagalilo. The chapter provides a critique of the management controversy between communities and the state regarding open area forests and the threat it places on their sustainability drawing from fieldwork in Kilwa District. Findings provide empirical evidence of the threat to forest sustainability and the dilemma brought by contradicting policies to forest management. The chapter concludes that undefined land use is a threat to forest sustainability for it invites multiple actors of different interests resulting to land use antagonism such of that between the state and the community. It is recommends for review of forest and land institutions as well as encouraging the establishment of village land forest reserves for the aim of protecting village land and supporting forest sustainability.

Chapter 23 is titled “Influence of Globalization on Pre-school Teacher Pupil Ratio in Relation to Education for Sustainable Development in Uasin Gishu County, Kenya” by Everlyne Chebet, Justina Ndaita and Esther Bitok. The study sought to determine the factors influencing pre-school teachers’ perception on pupils’ ability to read and write in public pre-schools in Uasin Gishu County namely: the teachers’ experience, teachers’ qualification, teacher-pupil ratio, the adequacy and quality of the teaching /learning resources on the acquisition of literacy skills. Findings indicated that teacher /pupil ratio is critical at this level for effective learning. The study recommended that small classroom population size leads to stronger social skills and enjoyable learning.

The final chapter is titled “From Ngaka Cooperative Society to Mlango Mmoja Cooperative: The Case of Coffee Production and Marketing in the Matengo Highlands, Tanzania” by Osmund M. Kapinga. The main objective was to examine the evolution and development of coffee farming and marketing in the Matengo Highlands. The main argument of this chapter is that cooperative life in the Matengo Highlands has been shifting, making its fortunes to fluctuate through series of changes emanating from legislations, directives and policies statements instituted by respective political power. The transition from the colonial state to the postcolonial state provides interesting historical trajectories and fortunes which readers will find exciting.

The book provides a feast for the reader with chapters coming from many countries in Africa. The chapters raise and answer new questions. Readers from all disciplines will find the book of great value. Senior and junior scholars from African studies, development studies and all other disciplines will find the chapter not informative but insightful.

## Chapter 1

### **The Medical Male Circumcision Practice as a Global Health Strategy for HIV and AIDS prevention in Uganda**

By

Dr. Bernard Omukunyi

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#### **Abstract**

The Joint United Nations Programme on HIV (UNAIDS) strongly recommends that developing countries use medical male circumcision as a biomedical intervention for HIV and Aids prevention. However, these health reforms are heavily influenced by Western cultural practices and globalization in Africa. It discourages traditional male circumcision and promotes safe medical male circumcision (SMMC) as a solid contributor to reductions in HIV transmission. This has introduced conflict in traditional African societies such as the Bugisu, where male circumcision is culturally motivated, symbolising a rite of passage from boyhood to manhood. In the Bugisu sub-region, the Bamasaaba regard their cultural practice of traditional male circumcision (TMC) as prestigious. I recruited 70 participants from the three selected districts for in-depth individual interviews and focus groups (FGs). I obtained data from cultural and clan leaders, traditional surgeons, medical officers, and 2016 initiates in Bududa, Mbale and Manafwa Districts in the Bugisu sub-region. Processing the audio recorded responses and data analysis involved transcribing, interpreting, coding, categorizing and generating findings using the qualitative computer application Atlas Ti. The study used the gender theory of masculinity. The article argues that global health practices have resulted in circumcising newborns under the SMMC programme in the hospital setting in Uganda. The results show that the Bamasaaba see this as a step in the process of weakening cultural practices and eradicating imbalu in the Bugisu area. Many believe that, in future, there will be no young men to circumcise traditionally if new-born children are being circumcised. The primary recommendation is that health officials stop trying to enforce SMMC and instead aim to influence the practice of TMC by ensuring that specific health protocols are observed.

**Key Word:** Medical Male Circumcision, Global Health, HIV and AIDS, prevention, Uganda

# The Medical Male Circumcision Practice as a Global Health Strategy for HIV and AIDS prevention in Uganda

By

Dr. Bernard Omukunyi, PhD

## Introduction

This article presents the unpublished summary of findings from an investigation of the Bamasaaba people's response to implementing the Safe Medical Male Circumcision Policy (SMMCP) in Uganda. In order to achieve this, the concept of male circumcision is explored from the African traditional and medical perspectives, each of which has its own 'lens' through which the practice is viewed. Although the SMMCP was introduced primarily to stem the flow of HIV and Aids infections, the control of disease is not a focus in this study. Instead, the area of interest is the intersection of two distinct approaches to male circumcision; the traditional or cultural approach, referred to as traditional male circumcision (TMC) and the clinical or medicalized approach, encapsulated in the policy and implementation of Safe Medical Male Circumcision (SMMCP). SMMC has been widely rolled out amongst communities that practice circumcision in Uganda, stirring up considerable controversy and outright rejection amongst some quarters. The study investigates the impact of the SMMCP on the rituals and traditional values of the Bamasaaba. I also explore the extent to which SMMC has affected the philosophical constructions of masculinity among selected Bamasaaba men.

Among the Bamasaaba, those who undergo traditional male circumcision (TMC) rituals are regarded as *basaani burwa* or 'brave men'. In contrast, uncircumcised and medically circumcised men are not seen as real men and are prohibited from playing various traditional events. Given this social reality, it was crucial to analyze the meanings that Bamasaaba men ascribe to circumcision from an ideological perspective rather than simply viewing it from a functional point of view. To do so, I combine knowledge of indigenous beliefs and practices with the sociological gender theory of masculinity to achieve an in-depth understanding of Bamasaaba's response to contemporary health policies on male circumcision. The study questions the discourse on circumcision presented through the media in Uganda, which views male circumcision as an entirely medical matter and strips it of all cultural and religious associations central to the Bamasaaba's understanding of the practice.

The study uses qualitative methods to analyze the conflicting etic (outsider) and emic (insider) data, which view male circumcision from a medical and traditional perspective. The literature reviewed fails to raise fundamental questions regarding the clash between two socially constructed understandings of the practice; the traditional and the medical. From the traditional perspective, male circumcision is closely intertwined with the Bamasaaba men's construction of masculinity. The selected participants insisted that one needed to undergo TMC or *Imbalu* to be regarded as a 'brave man' (*umusaani burwa* (singular), *basaani burwa* (plural)).

Significant stigmatization and social exclusion are still attached to uncircumcised or medically circumcised men in the Bugisu sub-region. Having investigated the various objections held by the Bamasaaba men toward SMMC, I argue for an appropriate strategy of implementing SMMCP among the Bamasaaba, showing why stakeholders need to familiarize themselves with the traditional, cultural

understanding male circumcision before they attempt to implement SMMC. Such an understanding may enable them to design a more appropriate strategy for effecting hygienic, safe and medically acceptable male circumcision amongst the Bamasaaba. This strategy somehow bridges the divide between the two approaches.

In this study, a related area of interest is the dominant construction of masculinity amongst the Bamasaaba and how they may have to adapt this construction because of encroaching Western notions of masculinity and a more 'medicalized' approach to TMC.

### **Statement of the Problem**

The government, under the influence of global concerns, committed itself to roll out SMMC, and the Bamasaaba, like many other traditional groups in Africa, are resisting it. The cultural landscape is not, however, with pockets of the Bamasaaba community choosing to abandon TMC in favour of SMMC. This dissent leaves unanswered questions about how the Bamasaaba construct masculinities, given that the TMC ritual has always been a significant expression of the hegemonic masculinity that is held up as the idea of manhood among the Bamasaaba. Within a group that once prided itself on its strength and unity, such rifts are of particular concern to the traditionalists, rather than to the modernists.

### **The Research Questions and Rational**

Sociologically, the term 'response' refers to social action or reaction to a social phenomenon. Male circumcision is a social phenomenon that takes place in the context of power relations between actors. In the Bugisu and other communities practising male circumcision traditionally, TMC is viewed as a rite of passage from boyhood to manhood. Those who go through this cultural practice are generally regarded as initiated family members of 'brave men'. The broad research aim of the study was to investigate the Bamasaabas' response to the implementation of the SMMCP. The following sub-objectives support the primary research aim:

1. To analyze the impact of SMMCP on the Bamasaabas' cultural practices
2. To explore the social and political implications of SMMCP for the Bamasaaba

The rationale for this study may be traced to Western political pressure to reinforce the implementation of the Sustainable Development Goals (SDGs) and the European Consensus on Development in developing countries (Langan, 2018). These agreements express a shared vision and framework for development initiatives in developing countries amongst European Union (E.U.) member states. The Republic of Uganda continues to be among the least developed countries in the world. Therefore, through its development programmes, the E.U. seeks to help address critical social challenges such as the spread of HIV and Aids, fledgling democracy and issues of gender discrimination (The Republic of Uganda, 2015). Due to this influence, the developing countries such as Uganda have developed the policies that do not consider the cultural practices of the people. Some of these policies developed are the Safe Medical Male circumcision (SMMCP).

Niang and Boiro (2007) have questioned how governments in sub-Saharan Africa, including Uganda, will credibly implement the Safe Medical Male Circumcision Policy (SMMCP) because of the firmly held belief in traditional male circumcision. Kaufman (2003) concurs, stating that convincing traditional

communities to accept SMMC may be problematic because of the many cultural and spiritual values associated with TMC. Arowolo (2010) states that traditions are those human philosophies, activities and general principles that guide groups of people from specific communities. Traditional activities include traditional male circumcision practices, which are generally maintained and passed down the generations of a particular society. The literature reviewed for the study showed that the U.N., WHO, UNAIDS and UNHRC all acknowledge cultural practices in developing countries, yet maintain that certain cultural practices are a health risk and, in some cases, a violation of human rights (Waiswa et al., 2008).

The Ugandan Ministry of Health has portrayed and explained male circumcision from a Western perspective. Kalichman et al (2018) believe that this view of circumcision has influenced African governments to develop and implement health policies that largely ignore the practices and beliefs of minority groups. This fact motivated me to understand how the Bamasaaba, whose method of *Imbalu* is so central to their identity and the construction of masculinity, respond to the SMMCP. It is hoped that this study will understand the implications of implementing the SMMCP for the culture and identity of the Bamasaaba people.

Empirical investigations by Kibira (2017), Kironde (2016), Kripke et al (2016), Mugwanya et al. (2010) and Nanteza et al (2018) have not adequately engaged with how the Bamasaaba notion of masculinity has been affected by the implementation of the SMMCP. Angurini (2017) reported that the performance of the health policy had caused conflict between practitioners of medicalised and traditional male circumcision, pointing out that local communities are historically attached to the traditional approach. This creates a need in the literature for information that will explain SMMC from the Bamasaabas' perspective.

### **Review of Related Literature**

In general, Several UNAIDS scholars, especially Ebrey (2013) and King (2006) have perceived that, socially, traditional male circumcision is practised in African societies as a custom with a representative significance of a transitional experience from boyhood to manhood. In addition, UNAIDS (2007) also states that this transitioning custom is referred to as young men getting ready to comprehend and maintain the religious values instilled in them by the traditional or cultural practitioners. Gollaher (2001) affirm that through traditional male circumcision (TMC), important morals and beliefs, such as family morals, religious morals, and social morals, are imparted into adolescent males. Generally, TMC has been attached to spiritual practices and cultural identity (WHO & UNAIDS, 2007), which is believed to have been practised by the early Jewish and the Egyptian people. Biblically, Vaidyanathan (2011) stated that, unless the male children in the Jewish religion are born with medical complications, male circumcision will be performed on them after eight days.

In Islam, traditional male circumcision generally occurs between infancy and the start of puberty. The recommended age is usually before the age of ten years. Leadbeatter (2012) was adamant that in some Muslim communities, male circumcision is performed in medical settings, especially amongst Muslims in developed countries. However, he further stated that male circumcision is mainly incorporated into traditional African rituals in most African Muslim communities. Examples of such cases are the Yao people of Southern Africa and the local Bamasaaba people of East Africa.

In African Christian communities, the clan leaders appointed to anoint the initiates are chosen to pass their good morals, qualities, and personalities to the new men (Ngxamngxa, 1971). He added that the shedding of blood and killing animals during initiation involves dedicating the young boys to their ancestors. In addition, the meat eaten during these rituals is believed to sustain courage and protection against evil influence (Soga, 1931). Leadbeatter argued that:

Christianity does not usually promote male circumcision as a religious practice; there are churches such as the Orthodox Christians in Ethiopia, who almost universally practice male circumcision. This does not mean that other Christians do not get circumcised or circumcise their children, but male circumcision is done for reasons other than a religious obligation (Leadbeatter, 2012:37).

In African societies, there are cultural meanings or significance behind traditional male circumcision. TMC in African communities is used as a mechanism for transmitting three main aspects of crucial cultural information to boys. Vincent (2008) identified these aspects as the secret code of the bush, building certain character traits and understanding the meaning of manhood. As indicated by Vincent (2008), the secret code of the bush is used as an instrument to attain control by the local Bamasaaba boys wishing to be real men in the Bugisu context. Mshana *et al.* (2001) argued that during this process, the local people, such as the Bamasaaba males, assume control, influence and are obligated to undertake the family responsibilities as real men. This process requires that boys develop the attractive personalities of forbearance, courage, fortitude, and strength in preparing themselves as men to face real life in the future (Schenker, 2007).

In the Western community, traditional male circumcision is perceived as a mechanism for HIV and AIDS transmission, especially when the cutting tools are shared. This has led to the promotion of clinical male circumcision to prevent the spreading of the disease, ignoring TMC (Lukobo & Bailey, 2007). At this level, clinical male circumcision is believed to be a mechanism that eliminates the cells which contribute to HIV infection. Coates (2005) hailed the findings of the apparent protective effects of male circumcision against HIV and AIDS infections as the most significant achievement for HIV prevention, recommended for developing countries, especially the African ones. Wambura *et al.* (2011) reported that globally the scale-up plans for clinical male circumcision are considered a strategy against HIV and Aids prevention with the continued function of traditional service providers recognized globally.

However, Milos & Macris (1992) and Lagarde *et al.* (2003) stated that the recommendations by the WHO & UNAIDS were disingenuous since the appropriate response to HIV and Aids should be prevented by reducing physical contact with specific organisms or sexual intercourse with an infected person. In recent studies on male circumcision, it has been argued that the implementation of such reformed health policies on male circumcision may cause a declining rate of condom use globally (Waskett & Morris, 2007). Lukobo and Bailey (2007) also claimed that there was a perception that women prefer marriage to circumcised rather than uncircumcised men in the sub-Saharan African region. Westercamp and Bailey (2006) stated that "circumcision is perceived to influence sexual drive, sexual performance, and sexual pleasure for the man and his partner who is likely to influence decision making around MC" (Westercamp & Bailey, 2006:8).

Jung (2012:105) suggested that “considering the low perceived acceptability of male circumcision for most Malawian males, with the exception of Muslims and Yaos, the pilot program needed to start with a sensitization program. This sensitization program could help to provide villagers with information about the health benefits of male circumcision and a free operation at the hospital.” Furthermore, Bengo, Joseph & Mfutso *et al.* (2010), in their situational analysis of male circumcision in Malawi, recorded a total disappointment by the Malawian government with the response to the male circumcision policy by the local people. Jung (2012:106) reported that “sensitization programs at the health centers were ineffective because only four patients visited during the first two weeks of the program. All of them were unaware that the operation was free of charge.”

### **Theoretical Explanations and Application in the Study**

This study adopted the theory of masculinities to underpin the issues investigated, which centre on the culture and traditions of male circumcision rituals regarding manhood. Mfecane (2010) states a particular normative aspect of masculinity that constitutes the most honoured way of being a man. This normative form is known as hegemonic masculinity, which requires all men to position themselves somewhere within it. This practice pattern primarily represents Western society, where the dominant form of masculinity, or the cultural ideal of manhood, has always been reflective of mainly white, heterosexual, middle-class males (Connell, 1995).

On the other hand, Harper (1996) considered that masculinity was constructed and located itself within the feminist theory that critically studied men's behaviour, social practices, and values, such as might be reflected in the tradition of male circumcision. Giddens (2001) argued that sociology acknowledges issues promoted by traditional male circumcision practices such as class, culture, rituals, customs, and ethnicity, which significantly impact the social construct of masculinity. These social issues are instruments that shape the institutions in which men and women are established. Thus, both local Bamasaaba men and women are embedded in the social practice of traditional male circumcision.

For this reason, masculinity may be related to social practices that have commitments to develop a process involving behaviour and relations, which seem to instigate the developmental process of society. This process recognizes the people's freedom to practice and interact with their traditional or cultural practices in the community (Barber, 2004). Subsequently, the local Bamasaaba people's traditional male circumcision is believed to have been introduced by the local Bamasaaba ancestors. It is believed to be playing a significant role in the development of their modern descendants. *Imbalu* (TMC) involves religious and cultural practices among the local Bamasaaba people. It is considered a duty for all local Bamasaaba people to be knowledgeable about this cultural practice.

### **Research Methodology**

The current study adopted the qualitative research approach, which Christensen, Johnson and Turner *et al* (2017) refer to as the process of exploring issues that aim at understanding specific explanations, thoughts, and motives for generated research themes. It was essential to consider using this approach because qualitative investigating methods are more appropriate for exploratory studies such as the current one (Creswell, 2003). Scholars such as De Vos *et al* (2011) justified that in the studies such as the current study which addressed the sensitivity and the topic that is not commonly using the contemporary theories for an explanation. Therefore, the

qualitative research approach helped to investigate the problem identified by the researcher deeply.

Furthermore, purposive stakeholder sampling was used to explore the understanding of the targeted population about traditional male circumcision and the health policies in Uganda. The local Bamasaba people who were stakeholders and had a specific responsibility concerning traditional male circumcision were selected. The social group targeted included traditional and religious practitioners (surgeons), health personnel as policy implementers and district cultural leaders, including clan leaders as custodians of this social practice.

In addition to in-depth qualitative face-to-face interview, there were sessions with the recruited participants as the individual and key informants, the researcher organized other participants for seven (7) Focus Group Discussion (FGD) to obtain more data. Apart from creating the FGDs, the researcher selected the participants described regarding the size and interview methods as proposed for data collection. Therefore, in the FGD (the focus group discussion), the investigator created an attentive, permissive environment, provided the ground rules and set the tone for the group discussion with the participants (Blanche, Durrheim, & Painter, 2006). The study adopted the focus group discussion because it was realized that this research method would generate the ideas for investigating and developing a hypothesis.

Following the ethical principles, the researcher considered the ethical guidelines that involved the permission, confidentiality, informed consent and safety of participants. After securing permission from the University of the Western Cape to proceed to the research field for data collection, the researcher designed letters addressed to Umukhuka II Inzu Ya Masaaba (the King of the Bugisu kingdom) and the director of the Safe Male Circumcision Program at the Mbale regional hospital. The purpose of the letters was to seek for authorization to direct the investigation in their establishments. The researcher requested participants to consent by signing a developed form paying little heed to the study setting. Therefore, a completely communicative, intentional (voluntary) and informed agreement (consent) was subordinated to the instrumental inspirations driving observation and control in quantitative and qualitative study designs.

The transcribed information obtained from audio-recorded interviews was submitted to the Atlas software application to apply a qualitative data analysis approach, which helped code each paragraph into themes and sub-themes. The thoughts and insights deriving from data were also analysed, coded and recorded into a memo file attached to the participants' files for later interpretation (Katherine, 2005). In addition, to approve the results or outcomes of the first analysis, they were re-analysed by considering the biographical details of the participants, such as age, gender, location, occupation, and experience. These were thematically analysed by coding significant sentences and paragraphs into themes using the Atlas software.

### **Presentation and Discussion of Findings**

The study has highlighted the ambivalence that the Bamasaba group feels about implementing the SMMCP in the Bugisu communities. This ambivalence arises due to the various views that individuals may hold concerning both tradition and modernity at the same time. The approaches of the SMMCP and TMC frame the act of circumcision differently, with the former viewing it in terms of the medical and health benefits, the latter viewing it as an inseparable part of a people's culture and identity. The difference in views is expressed in tension and conflict, manifesting in a failure of the SMMCP programme to enjoy widespread adoption. Two findings from

this study exacerbate this tension; first, there is a significant political component to implementing the SMMCP, sensed and resisted by the Bamasaaba; second, there is profound and long-held cultural influence at play in the response of the Bamasaaba to the implementation of the SMMCP.

The study has shown that despite numerous explanations offered to the Bamasaaba about the SMMC, a significant number of them remain unwilling to adopt the medical or clinical approach to male circumcision. At the same time, they struggle to maintain their traditional practices of *Imbalu* due to external cultural and political influences brought about by a 'medicalised modernity' that is steadily encroaching upon traditional communities everywhere. Due to this medicalised modernity, some of the Bamasaaba men advocate for social change in their cultural practice of male circumcision. The evidence shows that this small group of people has joined the government in calling for radical enforcement and up scaling the SMMC.

Evidence shows that if the Bamasaaba do eventually accept the implementation of the SMMCP, there would need to be a potential shift in the notion of *Imbalu* as a test of bravery and pain endurance. Furthermore, receiving SMMC as a biomedical intervention would drastically strip the process of its spiritual connotations as an act that demonstrates initiates' links with their ancestors. This issue would remain unresolved for those who hold to such beliefs. Concerning their understanding of masculinity, the acceptance of the SMMCP would require that the Bamasaaba men reconstruct their cultural ideas of *umusaani burwa* ('brave man') and *bumakhoki* ('brother' or 'mate') and adopt a Western concept of masculinity. Currently, the implementation of the SMMCP is seen as a threat to this extensively organized tradition, which naturally has provoked resistance. It goes to the heart of what a man is, in the view of the Bamasaaba.

The chapter has revealed the concern of the Bamasaaba regarding the circumcising of male children under the SMMC programme, which they see as a step in weakening cultural practices in the Bugisu area. Many believe that, in future, there will be no young men to circumcise traditionally. The Bamasaaba reflected that what was currently happening through the SMMCP was a continuation of historical efforts to eradicate *Imbalu* so that it was not entirely new to them. There is evidence that there have been many attempts to abolish traditional practices of male circumcision over the years (Assimwe, 2011).

The participants believed that the government of Uganda had the objective of developing and implementing the SMMCP to promote SMMC. This objective included the determination to eradicate the traditional and cultural practices of *Imbalu*. This thesis has shown a light on the fact that cultural institutions and leaders have become increasingly politically motivated, often abandoning their role of protecting the traditions and customs of the Bamasaaba. These cultural leaders are paid and afforded security by the government to use their traditional influence to urge the acceptance of the SMMCP in the Bugisu communities.

This divisive government influence has polarized the Bamasaaba men, promoting the formation of two cultural groups. One group now call themselves Babukusu, under the leadership of *Umukhongo w' Babukusu*, who support the implementation of SMMC. The remaining majority group, consisting of the indigenous Bamasaaba under *Umukhuka Inzu Ya Masaaba*, has mixed feelings on implementing the SMMCP. On the whole, they resist what they see as cultural weakening and undue political interference in their affairs. They have demonstrated their unhappiness through resisting SMMC and believe that the strategy has unfairly

positioned the Bamasaaba men as potential social risks to society. The empirical evidence indicates that the messages used to campaign for the up-scaling of SMMC infer that communities who do not accept it are potential agents of HIV and Aids infections. It was instructive to investigate the Bamasaaba's reaction to the SMMCP concerning maintaining their traditional practices of *Imbalu*. This investigation helped establish that the SMMCP had made no difference to how the Bamasaaba constructs masculinity. Their patriarchal outlook remained steadfast in response to the rise of medicalised modernity among African traditions.

Finally, the study has provided empirical evidence that shows stigmatization of medically circumcised men by traditionally circumcised men, which continues to exist. Even though SMMC is now a component of the government's national health policy, the evidence clearly distinguishes medical and TMC practices. The thesis indicates that most of the Bamasaaba men disregard and reject the implementation of health policies regarding male circumcision, particularly in the Bugisu communities. This thesis, therefore, makes a clear distinction in its conclusion from conclusions drawn by Colvin and Robins (2009) and Lissouba et al. (2010) in South Africa. These scholars suggest that the extensive implementation of SMMC programmes would negatively affect African people's cultural and traditional practices. The health policies on male circumcision are regarded as a challenge to the Bamasaaba's belief system, which significantly influences the implementation and response to the health policies.

For this reason, despite the mixed feelings of the Bamasaaba towards SMMC, the thesis has revealed that a significant process of social change is underway amongst this group in the Bugisu sub-region. The Bamasaaba are struggling to maintain the cultural practices of *Imbalu* in the face of external social forces caused by modernization. These external social forces of modernization affect all areas of life, including education, religious practices, economics and health. Furthermore, the study found that *Imbalu* is a tradition that stands as an independent and self-managed traditional practice, not open to external influence and highly resistant. It plays such a vital role in the identity of the male in a patriarchal society culture.

The study has revealed the significance of the traditional practice of penile alteration amongst the Bamasaaba, showing that it is felt to uphold manhood and its very identity. It expresses a core tenet of patriarchy and illuminates the centrality of the male to the culture as a whole. It is also a pillar of patriarchy, which is still the dominant cultural ideology in many traditional African communities. This was made particularly clear when most participants did not consider it significant that the consulting surgeon could be female. The ritual of *Imbalu* remains a long-standing tradition related to the patriarchal practices of the Bamasaaba. The study did not establish to what extent the patriarchal system had influenced the response of the Bamasaaba to the implementation of the reformed health policies on male circumcision. This could be a topic for further study, which could also investigate the position of women in the medical occupation concerning the implementation of the SMMCP.

Despite inherent resistance to change, the practice of *Imbalu* has changed in recent years, with the Bamasaaba having abandoned some of the rituals and traditions performed during TMC. However, these changes may not be ascribed to the influence of the SMMC programme since the changes began years before the implementation of the SMMCP. The study finds that the core belief system of the Bamasaaba, as expressed through the traditional ceremony of *Imbalu*, remains resistant to change,

predicated as it is on hegemonic masculinity and deeply held spiritual and cultural beliefs. The Bamasaaba men assert that only traditionally circumcised men are worthy of *Bassaani burwa* ('brave men' or 'real men').

### **Conclusion and Recommendations**

The article highlights that for government health officials to convince members of the Bamasaaba to participate in the SMMCP, they need to consider both evident and covert barriers to acceptance that currently exist amongst the Bamasaaba. These barriers might explain the ambivalence that the study reveals with regards to the implementation of the SMMCP. Firstly, I have discussed the covert barriers, the emotional or pain component associated with the traditional practice of circumcision. The global and national pressure exerted on the Bamasaaba concerning their cultural practice of *Imbalu* may well be ignored by local people because campaigns for SMMC emphasize that the procedure is 'pain-free'. A pain-free procedure would remove the very component that is central to the process of becoming a man. The evidence from this study shows that standard procedures and requirements of acquiring masculinity uphold the supremacy of the cultural belief that pain endurance is part of the definition of a man.

However, the Bamasaaba's opposition to the implementation of the SMMCP has its foundations in an intricate web of many indigenous knowledge systems, beliefs and attitudes. The evidence shows that most participants could not link the modern explanation of medical circumcision with TMC. To them, the two concepts – TMC and medical concerns – have nothing in common. As a result, the participants disregard SMMC as a relevant practice for the Bamasaaba. Wabwire-Mangen et al (2009) argue that over 90% of the Bamasaaba men are already traditionally circumcised. Yet, HIV and Aids continue to spread, showing that circumcision alone has almost no value in curbing the spread. Most participants saw the value in the principles of the SMMCP but believed it should be implemented in other parts of Uganda, as it was no solution for their social and health problems.

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## Chapter 2

### Overview of Innovative Crop Production Strategies for Sustainable Food Security in Kenya

By

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#### Abstract

Agriculture plays a critical role in enhancing food security in Kenya. It is considered the backbone of economic growth through the provision of food, employment, agro-industrial products, and a huge foreign earner, among others. The rural population, which forms the majority of Kenya's total population, engages in farming both for subsistence and commercial purposes. However, the quantity and quality of nutritious food produced do not meet the ever-growing population. This has been further aggravated by climatic change leading to floods, drought, and biotic stress in the form of diseases and pest outbreaks for example armyworms, locusts, and human pandemics such as the current Covid-19. These factors have negatively impacted farmers' livelihoods in various parts of the country. To address challenges of food security, farmers have adopted various innovative strategies to improve their increasing food requirements. The strategies range from innovative crop production, pest and disease management, abiotic stress management, marketing and post-harvest practices, climate smart agriculture and handling pandemics. This chapter gives an overview of these innovative strategies and the government's role in supporting access and availability of food and recommends the way forward regarding sustainable food security in Kenya.

**Keywords:** Climate change, farming strategies, food security, innovation, pandemics

# Overview of Innovative Crop Production Strategies for Sustainable Food Security in Kenya

By

Alice Kosgei and Jones Agwata

## Introduction

The world population growth is projected to reach 9 -11 billion in 2050 (Röös *et al.*, 2017) with an increase in food requirement projected at 59%–102% (Fukase *et al.*, 2017). This requires at least \$80billion of additional financing annually (Holle, 2017). The growth in population in Kenya mirrors that of global population with the current population standing at 47.6 million according to 2019 census, an increase of 9.6 million people compared to 2009, representing a 2.2% increase (KNBS, 2019). As the population rises agricultural production must keep up with this pace hence food production needs to double by 2050 to meet the increasing demand (Pawlak and Kołodziejczak, 2020) and by about 60% –70% (Silva, 2018) and an average annual increase in production of 43 million Mg (Sayer and Cassman, 2013). The agricultural sector plays a strategic role in improving availability of food and achieving food security (Otsuka, 2013) through provision of food and hence ensuring Kenyans are not malnourished.

Agriculture contributes approximately 33% of Kenya's Gross Domestic Product (GDP) and employs more than 40% of the total population and 70% of the rural population (USAID, 2021 and FAO, 2021). Employment is a source of income that farmers use for purchasing farming inputs and increase food purchasing power. Agriculture contributes USD 1.37 billion in annual exports (Singh *et al.*, 2021). Agriculture plays a role in water purification and waste management, biofuel, fiber, chemical production, conservation of biodiversity, and recreation (Sayer and Cassman, 2013). Agriculture is one of the pillars in achieving the United Nations Sustainable Development Goals (2) on zero hunger, Africa's Science Technology and Innovation Strategy-2024 focusing on Agriculture and food systems for nutrition, Agenda 2063 anchored on promoting modern agriculture for increased productivity, value addition and food security, and IFAD Strategic Framework 2016-2025 for promoting nutrition-sensitive agri-food systems, the Kenya Vision 2030 and the recent Big Four Agenda on Food and Nutrition Security and manufacturing (agro-processing). Food insecurity is a major cause of conflicts for resources, under-nutrition, poverty, income inequalities (USAID, 2020a), and environmental degradation (Shah and Wu, 2019). Farmers especially those in the rural setup bear the consequences of food insecurity despite their role in ensuring food supply to the country.

## Statement of the Problem

Agriculture plays a critical role in sustaining food security in the county, through provision of food, income, employment, and environmental conservation. Further, agriculture is important in meeting development goals outlined in various policies and agendas. With the increasing population, there is a threat to maintaining food security in Kenya. Food insecurity has led to conflicts for resources, malnutrition, and poverty, and other risks. Farmers, majority of whom are in the rural areas, bear these risks and challenges. This has led to adoption of several innovative strategies to overcome food insecurity and associated challenges. The government also plays a role in ensuring

sustainable food security. The chapter give an overview of the innovative strategies adopted by farmers and the way forward in achieving food security in Kenya.

## **Review of Related Literature**

### **Food Security Situation in Kenya**

Food and nutrition security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for active and healthy life (FAO, 2008). Food security comprises food availability, access, and distribution, utilization, and stability. It is estimated that over 10 million people in Kenya suffer from chronic food insecurity and poor nutrition, and between two and four million people require emergency food assistance at any given time while nearly 30% of Kenya's children classified as undernourished, with widespread micronutrient deficiencies (Kamenwa, 2017). Further, 1 in every 3 individuals do not meet the minimum daily calorific requirement of 2,250 kilocalories and that food poverty was higher in rural areas with 35.8% of the population living below the food poverty line, compared to 28.9% in peri-urban and 24.4% in core-urban (KNBS, 2018). The situation of food insecurity in Kenya requires all players in ensuring the mitigation measures put in place succeed.

### **Challenges Facing Food Security and Supply in Kenya**

Several challenges have been identified to cause food insecurity and distribution. These challenges range from climatic, crop production, and management challenges, access to information through extension services, post-harvest, and marketing. Climatic factors such as floods and drought affect agricultural activities in several ways. Kenya's climatic temperature and rainfall patterns have been changing (GoK, 2018). This has led to extreme weather-related patterns that lead to frequent floods, pests and disease outbreaks, droughts leading to famine, and weed infestation. Intense rainfall for example after a period of drought results in flooding (Tandzi and Mutengwa, 2020) causing crop, livestock, and environmental destruction.

Crop production factors are resources related such as land, inputs, labor, and capital and farmer practices such as production and crop management. Land access and ownership is a critical issue in food security. Women for example do not own land, but are the majority involved in farming. This denies them the power to use and establish permanent structures. Further, due to population pressure land has been subdivided into small farms making them difficult to run sustainably (GoK, 2015). This has been aggravated further by subdivision of agricultural farmlands for commercial and residential estates and urbanization, shrinking agricultural land, and putting unprecedented pressure on farmers to produce more food from this depleting resource (Shah and Wu 2019). Around a quarter of world arable land has been declared unproductive, unfertile, and unsuitable to perform agricultural activities (Lakhiar *et al* 2018), due to several challenges as outlined by Popp *et al.*, (2014).

Inputs challenges such as unaffordable fertilizers or poor timing and incorrect rates or product, lack of improved seed varieties and chemicals. Inappropriate agronomic management practices directly affect food quantity and quality. For example, poor farming practices such as delayed planting and harvesting, incorrect plant spacing, wrong method of planting, poor sowing depth, delayed weeding (Tandzi and Mutengwa, 2020), overuse of chemicals and in some instances, overuse of fertilizers has led to declining soil health, land degradation and environmental challenges (Shah and Wu, 2019), improper soil and water conservation measures, poor post-harvest handling practices including poor transportation network, limited

agricultural extension services and unequal distribution of food. These require different innovative strategies that should be environmentally sustainable, minimizing environmental degradation consequences.

### **Innovative Ways of Addressing the Food Security Situation in Kenya**

Agriculture has a higher impact on reducing poverty and improving food security than other economic sectors (Majid, 2004)) and thus any factor or innovation that improves agriculture leads to increased food security. To address the burden of food insecurity several interventions are put in place. Agricultural practices are the key determinants of the level of food production and impact on environment. These strategies range from crop production to marketing.

### **Crop Agronomic Production Practices**

#### **Crop Nutrition**

Increased yields that translate to more food are farmers' concern and practices that enhance this is quickly adopted. Farmers increase production through application of fertilizers. However, majority of farmers apply but incorrect rates and blanket application on crops (Rware *et al.*, 2014). This has led to reduced crop yield and environmental challenges. Farmers have been trained on fertilizer optimization tools for calculation of specific fertilizer requirements per crop (Oduor *et al.*, 2016) minimizing excess usage. Farmers are also shifting from use of synthetic fertilizers to bio-fertilizers, such as Shubhodaya-mycorrhizal (Gichumu *et al.*, 2020) available at National Cereals and Produce Board (Kenya News Agency, 2021). Bio-fertilizers are cost-effective, user and ecologically friendly, and guarantee sustainable agricultural production (Raimi *et al.*, 2021). The government has been at the forefront in ensuring safe importation and use of bio-fertilizers (Tarus *et al.*, 2015). Further, there is a need for collaboration between the government and private sector in sustainable investment and technical support to increase commercialization and adoption. Other bio-fertilizers in the market include Rhizobium inoculant (BioFix) and KEFRIFIX (Odame, 2014 and Raimi *et al.*, 2021).

#### **Organic and Conservation Agriculture**

Farmers are also shifting from conventional farming to organic farming for safe and healthy food (Kledal *et al.*, 2010). Organic farming mainly through agro-biodiversity, composting and double digging was found to increase food production and food security (Njeru, 2010). According to Nieuwsbericht News (2020), over 182,000 hectares of land are under organic management. This has also been necessitated by growing demand for organic produce in the EU market. The practice of organic agriculture was associated with higher agricultural income, access to information, more diverse diets, and higher levels of gender equity (Kamu *et al.*, 2018). The CA was shown to enhance soil fauna abundance and richness improving soil nutrient status, soil structure, and control soil erosion (Ayuke *et al.*, 2019).

More beneficial results are realized in the long term if the CA is not altered by use of agrochemicals (Isenring *et al.*, 2010 and Ayuke *et al.*, 2019). Utilization of compost manures is increasingly adopted to avert the consequences of inorganic fertilizers. The utilization of current technology of composting and vermicomposting using red earthworm's vermiculture (Live Green, 2018). Application of organic fertilizer in soil reduces use of inorganic fertilizer and improves soil (Gabriel *et al.* 2015).

The government plays a role in ensuring the regulation of organic farming through certification and registration of organically produced crops based on International Federation of Organic Agriculture Movements (IFOAM) standards, under the National Organic Agriculture Policy framework, and in establishment of policy on reducing greenhouse gas emissions from agricultural practices (Kimemia and Oyare, 2006). The government work in collaboration with Kenya Institute of Organic Farming (KIOF), to train and sensitize farmers on organic farming. Ministry of Agriculture Livestock and Fisheries (MOALF) collaborates with Kenya Organic Agriculture Network (KOAN) to promote Organic Agriculture.

### **Pests, Diseases and Weed Management**

These are biotic factors that threaten food security globally. Climate change has been attributed to some outbreaks such as locusts (Salih *et al.*, 2020), Maize lethal necrosis (MLN) (Isabirye and Rwomushana, 2016), armyworms, and striga. Diseases such as Aflatoxin was confirmed with high levels up to 830 ng/g in western Kenya (Mutegi *et al.*, 2018) threatening food security. Farmers manage these biotic factors through cultural practices such as early planting, clean seed, fertilizer application, crop rotation, mixed cropping, and fallowing. Mechanical ways like roguing, cultivation and uprooting weeds, use of scarecrows, burning infected plants are some of the strategies utilized.

Farmers use chemicals, mostly misused due to poor application methods and in excess, threatening ecosystem. Half of the smallholder producers in Kenya use more than three times the prescribed volumes of pesticides posing health risks (Bekele *et al.* 2013). The adoption of biological means has been utilized by farmers e.g. use of predatory insects, disease infection agents, trap crops and live mulches. Successful control of cassava mealybug using parasitoid, *Apoanagyrus lopezi*, in Western Kenya (Neuenschwander, 2001) and management of Aflatoxin using Aflasafe KE01 biocontrol product (Migwi *et al.*, 2020). Farmers use a combination of traditional and modern strategies in managing pest e.g. mango fruit fly (Wangithi *et al.*, 2021), storage pests in maize (Midega *et al.*, 2016), aflatoxin (Hell and Mutegi, 2011), and blast and weed management (Mgonja *et al.* 2013). However, farmers lacked knowledge on implementation of integrated management strategies coupled with fewer extension officers.

### **Climate-Smart Agriculture**

Analysis of climate change impacts in Kenya indicates that it is already taking a heavy toll on the economy. The continued annual burden of extreme climatic events could lead to economic costs amounting to about US\$ 500 million a year (GoK (2012). Due to climate change, resource-poor farmers are rendered vulnerable and face crop failures, income losses and livelihood collapses. Rain-fed agriculture accounts for 98% of the agricultural activities in the country but it is very vulnerable to increasing temperatures, droughts, and floods, reducing agricultural productivity (UNDP, 2012). Projections by the IPCC (2013) show that the warming trend and changes in precipitation patterns will continue into the 21<sup>st</sup> century.

The agriculture sector in Kenya is vulnerable to the impacts of climate change and a major contributor to emissions of greenhouse gases accounting for about 41% of total national emissions (GoK 2015). Climate-Smart Agriculture (CSA), as a solution to the challenges of food security in Kenya, is composed of three main pillars, namely; adaptation, resilience, and mitigation (FAO, 2013). CSA efforts revolve around soil, tillage, water, pests, crop, biodiversity, harvest, and post-harvest

interventions and the main focus of the concept is to conserve and produce suitable varieties (FAO, 2015). Agricultural practices are central to creating synergies on food and nutrition security, poverty reduction, adaptation, and mitigation (Radeny *et al.*, 2020).

In Kenya, CSA started in coffee and tea subsectors focusing on carbon trading through Public-Private Partnerships (PPP) aimed at addressing climate change adaptation and mitigation in addition to climate simulation. Several studies done indicate that it is possible to measure and reduce agricultural greenhouse gas emissions or enhance carbon sequestration while maintaining and even increasing food supply. The most promising priority low-carbon development options for the agricultural sector are agro forestry, conservation tillage and limiting use of fire, and cropland management. Agro forestry is the most preferred because of its largest abatement potential, lowest cost, and most significant sustainable development benefits and has the highest increase in climate resilience. Practices in Climate-Smart Agriculture (CSA) such as agro forestry have the potential to abate 4.2 MtCO<sub>2e</sub> by 2030 and could offer climate resilience benefits of improved soil quality and health, improved water retention in the soil, and reduced erosion and land degradation (Radeny *et al.*, 2020). According to Tandzi and Mutengwa (2020), CSA is regarded as a solution to increasing crop yield through ways such as type of inputs utilized during production combined with adapted high-yielding genotypes, use of cover crops that provide weed and pathogen control, decreased soil erosion, reduced loss of soil nitrogen, phosphorus and carbon. Others include manure management through biogas and pasture management (Brown *et al.*, 2012; Shames and Onyango, 2012 and Shames *et al.*, 2012a, b).

Farmers implementing CSA practices in Kenya are expected to comply with the basic rules that apply to various forms of agricultural practices, such as National Resource Management regulations. Several existing policies support the principles of CSA in the country. These include the Agricultural Sector Development Strategy, National Food and Nutrition Security Policy, Vision 2030, National Climate Change Response Strategy, and National Climate Change Action Plan (FAO, 2015). Payment for Environmental Services (PES) has been piloted in Lake Naivasha catchment since 2006 (Nyongesa, 2011) as an opportunity for downstream water users to encourage adoption of better land management practices by upstream farmers. The benefits accrued included: reduced soil erosion, increase in farm productivity, an indicator of improved soil fertility which means improved food security, increased income for landowners, increased water clarity-confirming silt load reduction, community-acquired skills, and knowledge on good land management practices to protect land water ecosystems for future sustainable agricultural activities.

### **Soil and Water Conservation**

Improvement of irrigation performance and water management is critical to ensure the availability of water both for food production and competing for human and environmental needs (Tandzi and Mutengwa, 2020). Measures towards managing soil and water losses enhance nutrient availability for high crop productivity hence food availability. These measures aim at water conservation, harvesting, and management. Farmers adopt different measures in water harvestings e.g. roof catchment and water pans. Several measures such as bench terracing, tied ridges, cut off drains, mixed cropping, fallow, contour fallows, mulching, rotations, contouring, conservation tillage techniques as well as soil fertility improvement practices such as cover

cropping, strip cropping, green manuring, agro forestry broad beds and furrows among others (Karuku, 2018).

Majority of farmers have adopted these practices in an integrated system. Conserved water serves for irrigation where the practices include furrow, basin, and sprinkler. However, most of these practices require large quantities of water and some lead to soil erosion. Conservation measures such as use drip irrigation are water efficient and reduce erosion. Farmers have adopted various forms of drip irrigation such as bucket, drum, and eight-acre system, with the most common small-scale system being the bucket kit, manually operated pumps, pedal pumps, such as Super MoneyMaker pump. An innovative strategy used by small-scale farmers especially in urban centers is the use of used plastic bottle irrigation (Xinhua News, (2019). The Ministry of Agriculture through National Soil and Water Conservation Program (NSWCP) in Soil and Water Conservation Branch (SWCB, 1997) initiated the soil and water management activities to ensure efficient utilization of water for food production, livestock, and domestic use.

### **Post-harvest Management Strategies**

Post-harvest losses (PHLs) account for direct physical and quality losses that can be up to 80% of the total production (Fox, 2013) and the associated income opportunities for small-scale food producers (Stathers *et al.*, 2020). The losses could be due to pests and rodents' damage, secondary disease infections such as mycotoxin such as aflatoxins, bruises due to poor handling, and poor storage. Fifty percent (50%) to sixty percent (60%) of cereal grains can be lost during storage due to the lack of technical inefficiency (Kumar and Kalita 2017). Losses are also incurred during pre-drying due to birds, rodents, theft, and pests (Njoroge *et al.*, 2019) and as food waste. Potato value chain reports indicate that 24.4% of losses are at open market, 12% due to processing, and 24% at supermarkets (GIZ, 2014). Efficient postharvest management can tremendously contribute to food security by reducing losses while reducing pressure on natural resources, eliminate hunger and improve farmers' livelihoods (Kumar and Kalita, 2017). Several strategies have been adopted by farmers to reduce post-harvest losses such as sorting and cleaning (Adhiambo *et al.*, 2017). Drying either natural (sun or shade) or mechanical dryers, where natural drying is the most commonly used traditional method. However, losses can be incurred due to seasonal weather, contamination, and pest damage. Mechanical drying can reduce these losses; however, cost implications deter a majority of farmers in the rural areas from adopting.

Most farmers use chemicals such as actellic to manage storage pests. However, after drying farmers traditionally store harvested produce especially grains in granaries, gunny bags, ash, sand, botanicals, jerricans, cocoons, metal drums, and insecticides, each with shortcomings (Baributsa and Ignacio, 2020). The utilization of hermetic storage technologies has been adopted by farmers to control losses due to pests, especially in maize and bean. These are Purdue Improved Crop Storage (PICS) bags reported to have a high return on investment in maize (Baributsa and Njoroge, 2020). This saves on the loss of food and income as most farmers save seed for food and future sale when the price is higher. They are chemical-free and cost-effective methods. Other hermetic bags include GrainPro, Elite bags, Zerofly, and AgroZ bags, and they range from single to triple bags (Baributsa and Igancio, 2020). Alternative to Pics are sealed plastic bottles for farmers with small volumes of grains (Williams *et al.*, 2017), the use of metal silos preventing damage by larger grain borer (LGB), and maize weevil (Gitonga *et al.*, 2015), and use of plastic drum silos.

Losses in potatoes under storage have been managed by using diffused light stores (DLS) and cold rooms though not widely adopted, contract farming and working with crisp manufacturers (GIZ, 2014). Other measures include planting varieties resistant to pests, diseases, prolonged shelf life, and ability to withstand physical damage. To reduce the post-harvest losses for example in potatoes the government, National Potato Council of Kenya (NPCK), and county governments introduced a maximum of 50kg bags in line with the requirements of the International after the earlier 110Kg bags failed to cause any change (GIZ, 2014). This was intended to reduce the damage due to transportation of heavier bags. The government also established the standards for plastic hermetic grain silos with specifications for manufacturers (KEBS, 2019).

### **Value addition and Marketing**

Farmers lose produce to factors such as lack of ready market or flooding in the market (excess supply) of the produce in the market especially the perishable farm produce such as vegetables and fruits, sometimes losses are transferred to the sellers. Produce can be changed or transformed from its original state to a more valuable state, without affecting its nutritional value. Produce has been preserved through processes such as drying, salting, cold storage, canning, juice production from fruits, and packaging. Precooking of beans or making flour and making peanut butter from groundnuts (Business Daily, 2021), production of amaranth for grains (Omulo, 2016). Farmers add value to mango by making juice, slicing and drying, and desserts (Musyoka *et al.*, 2020). The government through the MOALF established the Kenya Youth in Agribusiness Strategy 2018-2022 (MOALF, 2018). Others include KALRO, Kenya Agricultural Productivity Programme (KAPP), and Traditional Food Crops Project (TFCP) (Adhiambo *et al.*, 2017).

Marketing for small-scale farmers is becoming important as a result of market liberalization and growth of urban centers. However, those in the rural setup face several challenges including poor transportation network, lack of storage facilities, high perishability of horticultural crops, and exploitation by middlemen. Brokering for example was reported as a very lucrative business especially during times of low supplies (Mbata, 2019). Farmers use mobile phones to access market information (Kihoro *et al.*, 2016) reducing transport costs and in marketing of their produce. Contract farming such as supermarkets (Ochieng *et al.*, 2016) prefers fresh produce especially those that are highly perishable hence procuring them directly from farmers (Neven, *et al.*, 2009). However, challenges and risks are unavoidable (Ochieng *et al.*, 2016). Farmers are also engaged through contract farming by companies dealing with crop produce (Wainaina *et al.*, 2012), such as East African Breweries Limited and Bidco Oil Refineries but benefiting mainly large-scale and less of smallholders (Mwambi *et al.*, 2014).

Farmers sell produce through farmer cooperatives or organizations e.g. crops such as coffee, cotton, and horticultural produce (Farmbizafrica, 2019). These cooperatives assist farmers in accessing production inputs, processing, packaging, and marketing cushioning them against losses. Farmers also secure produce from losses through crop insurances although uptake is very slow due to lack of awareness, capital, and trust among other factors. As part of the Big 4 Development Agenda, the Government of Kenya implemented agricultural insurance schemes to promote food security in the country. This led to the formation of Kenyan Agricultural Insurance Programme (KAIP) (Microinsurance Network, 2017).

## **Managing Food Security During the Covid-19 Pandemic**

Covid-19 pandemic has led to measures to manage it such as social distancing, stay-at-home, lockdown, border controls, suspension of international travels among others which has resulted in unstable food prices, less access to nutritious food, lower incomes, and less long-term profitability, and poor access to information and products (USAID, 2020b) and food value chain including safety, which resulted due to low staff and market surveillance (Mutua *et al.*, 2021). The most affected value chain were livestock, vegetables, fruits, and cereals. The Pandemic has not only disrupted commercial businesses and social lives but also agricultural productivity due to lack of sources of income for inputs and other farming practices e.g. labor for various farm activities (Mercy Corps, 2021). This has resulted in low crop productivity, threatening food security.

Farmers resorted to using savings, selling assets, or borrowing or selling less produce to save for the family (Mercy Corps, 2021) and adoption of digital technologies to link farmers to markets and avail food commodities in urban areas (MOALF, 2020) such as Twiga Foods and Jumia partnership (FAO, 2020). The government supported the sector by waiving its mandatory inspection fee on seed, pesticides, and veterinary medicine at the country of origin for some six months and setting aside funding for farm inputs and flower and horticultural producers (FAO, 2020). Through the Ministry of Agriculture, the government came up with the National COVID-19 Nutrition and Healthy Diets Guidelines (MALF, 2021). Other players in supporting farmers during the pandemic include private companies and individuals and the EU-funded NExT Kenya programme that assessed use of solar-powered drip irrigation and coaching on integrated management of false codling moths (Eurofruit, 2021). The farmers will still bear the consequences and hence need continuous support for sustainable food security.

## **Conclusion and Recommendations**

It is evident from the review that majority of the farmers who are in the rural areas face food security challenges including poor nutrition and or under-nutrition. Majority of these farmers have adopted several innovative strategies to overcome these challenges. These range from agronomic practices, dealing with biotic and abiotic factors, post-harvest practices, soil and water factors, climate-smart agriculture, value addition and marketing among others. It also includes factors related to pandemics and how farmers manage them. Farmers handle these challenges by adopting an integrated approach taking into consideration environmental conservation measures, which can also lead to food losses if not well managed, further aggravating food security. The government also plays a role through establishment of policies related to food security and environmental conservation and their implementation, civic education, and funding, especially during the Covid-19 pandemic. To enhance sustain food security, it is recommended that farmers need training on adoption of innovative strategies such as use of bio-fertilizers which despite availability, there is low uptake, use of integrated approach than standalone strategies. There is also a need for government role in funding research into sustainable innovative programmes and support roll out to farmers. This needs close working with the private sector and other agriculture-based non-governmental organizations.

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## Chapter 3

### **Role of Private Academies in Provision of Basic Education in Kenya: A Case of Kwanza Sub-County of Trans Nzoia County, Kenya**

By

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#### **Abstract**

Education is a human right as declared by the United Nations (1948), in article 26 (1) on the UN's universal declaration of human rights. The same is echoed in the Constitution of Kenya (2010), in articles 43(1) (f) and 53 (1). Despite global focus on improving access to education, nearly 60 million children in developing countries remain out of primary schools (UNESCO, 2015). Even with increased domestic expenditure, the financial gap for delivering good quality universal basic education by 2030 in low-income countries will be 10.6 billion US dollars, which is over four times the level currently provided by official donors, which is 2.3 billion US dollars (UNESCO, 2015). Closing acute financing and delivery gaps that prevent access to quality education is a major challenge (Liesbet, et. el, 2015). This background has seen the rise of private or non-state actors in provision of basic education. In Kenya, the Government, which shoulders the responsibility of providing basic education to its citizens, is overwhelmed. The private sector has been allowed to supplement government's efforts. There are many academies in Kenya that have kept on increasing every year both in rural and urban areas. In Rural areas, some of these schools are poorly constructed and ill equipped. Cases of some of them collapsing, killing and injuring pupils have been reported! It is not clear whether the poorly constructed private schools are sanctioned by the government. This chapter aimed at finding out whether private schools' input was consistent with the principle of education as a human right, especially as appertains to quality and whether private schools were being started in adherence to provisions of the Basic Education Act 2013. It used Kwanza Sub-County in Trans Nzoia County as a case example. The study was guided by selected relevant principles from Classical Economic Theory. It used descriptive survey as research design. It used Questionnaires, Interview Schedules and Document Analysis Guides as research tools to collect data. Quantitative Data was analyzed using Descriptive Statistics, while Qualitative Data was analyzed thematically. The study found that most private primary schools were having temporary buildings. Furthermore, most schools did not have legal documents to operate, yet they were in full operation. Most proprietors started academies as business venture aimed at making profit. The study recommended that Private Primary Schools should put up permanent structures to guarantee good learning environment and the security of learners. Government should not allow any private school without legal documents to operate. Proprietors should prioritize supplementing government's effort to provide quality education to deserving children rather than prioritizing profit making.

**Key Words:** Basic Education, Private Schools, Public Schools, Access to Education, Quality Education, Proprietors of Academies, Low-Cost Schools, School Going Children, Kenya

**Role of Private Academies in Provision of Basic Education in Kenya: A Case of Kwanza Sub-County of Trans Nzoia County, Kenya**

By

Aggrey Asitiba Okutu

## **Introduction**

Education is a human right as declared by the United Nations in 1948, in Article 26 (1). Kenya has echoed UN's declaration and recognized basic education as a human right, as articulated by the Constitution of Kenya (2010). Article 43(1) (f) of the Constitution acknowledges that every person has the right to education. More so, article 53 (1) states that, every child has a right to free and compulsory basic education.

Despite global focus on improving access to education, nearly 60 million children in developing countries remain out of primary schools. Increased investments have not translated to better education quality or improved learning outcomes (UNESCO, 2015). Over the years, demand for education at all levels has greatly outpaced supply, a gap that has been reduced by private schools (World Bank, nd). According to UNESCO (2015), even with an increase in domestic expenditure, the financial gap for delivering good quality universal basic education by 2030 in low-income countries will be 10.6 billion US dollars, which is over four times the level currently provided by official donors, which is 2.3 billion US dollars. Closing acute financing and delivery gaps that prevent access to quality education is a major challenge (Liesbet, et. el, 2015). This background has seen the rise of private or non-state actors in provision of basic education.

Private sector engagement in education has intensified globally in recent years (Menashy, 2018). This rapid shift towards private participation in a traditionally public service has elicited responses and associated recommendations from a human rights standpoint, in particular concerning the roles of private for-profit providers of schooling (Menashy, 2018). Rooted in a legal framework, a human rights perspective draws attention to the role of the State as holding the primary duty for fulfilling and protecting the right to education and the government's responsibility for ensuring its educational obligations, even within private schools. It is therefore a concern of human rights' crusaders that rather than supplementing governments' efforts private providers are supplanting public education and commercializing education in the process (Singh, 2015). Human rights bodies are also protesting against inequitable access to education due to fee-based private schooling.

In Kenya, just like other developing countries, the Government, which shoulders the responsibility of providing basic education to its citizens, is overwhelmed. That is why it has invited private sector to supplement its efforts. Article 49 of the Basic Education Act 2013 allows any person to establish and maintain a Private school in Kenya. A tremendous growth of private schools has been observed in Kenya since the introduction of the free primary education (FPE) programme in 2003 (Hakijamii & GI-SCR 2015). This massive increase in development of private schools has been mostly attributed to the massive influx of students into public schools and resultant deterioration in quality due to overstretched facilities.

A tremendous growth of private schools raises the concern on the quality of education being offered in such schools. Aware of this scenario, Kenyan government has shown the need for increased regulation of private schooling, including designing regulatory frameworks and monitoring of quality of learning within privately-run schools. Such regulatory mechanisms include: registration, certification, and requiring

of data reporting from private providers (Menashy, 2018). Article 50 (1) of the Basic Education Act 2013 states that, “A person shall not establish or maintain a Private School unless it is registered under this Act.” Article 50 (2) (c) of the same Act states that “No Private School shall be registered unless the school premises, or any part of those premises, are suitable for a school.” More so, Article 52 (1) (d) says that: “A Private school shall maintain premises that meet the requirements of the occupational health, safety regulations and building standards”.

Despite these legal provisions by the government, some of the private schools operating in Kenya and by extension, Kwanza Sub-County, have sub-standard structures. It is not clear whether such schools have been sanctioned to operate in line with the requirements of the Basic Education Act 2013.

### **Statement of the Problem**

Despite global focus on improving access to education, nearly 60 million children in developing countries remain out of primary school. Increased investments have not translated to better education quality or improved learning outcomes (UNESCO, 2015). In Kenya, the Government, which shoulders the responsibility of providing basic education to its citizens, is overwhelmed. Demand for schooling exceeds supply. The private sector has been allowed to supplement government’s efforts. This background has seen the rise of private or non-state actors in provision of basic education. There are many academies in Kenya that have kept on increasing every year both in rural and urban areas. Some of these schools are poorly constructed and ill equipped. Cases of some of them collapsing, killing and injuring pupils have been reported! It is not clear whether the poorly constructed private schools are sanctioned by the government. Are the provisions of Basic Education Act 2013 being adhered to in allowing these poorly constructed Private Primary School to operate? What is the driving force behind mushrooming of these schools? Is it to genuinely supplement government’s efforts of creating more opportunities for children to access education, or otherwise?

### **Objectives of the Study**

Objectives of this study were to:

1. Find out whether Private Schools’ input in Kwanza Sub-County is consistent with the principle of education as a human right;
2. Establish whether Private schools in Kwanza Sub-County are established according to provisions of the Basic Education Act 2013;

### **Theoretical Framework**

The study was grounded on some relevant principles of Classical Economic Thought – a school of thought that flourished in Britain in the late 18<sup>th</sup> century to mid19<sup>th</sup> century. Its main thinkers or proponents were Adam Smith, Thomas Malthus and Ricardo. Principles adopted to guide this study were: Markets enhanced the efficiency with which goods and services are provided simply by providing customers the services they prefer; Producers have an incentive to create products for which there is a demand and abandon those that have little appeal to customers; Market stimulates productivity not only by better matching goods and services to consumer preference, but also by finding more efficient ways of producing high quality of these goods and services; Choices breed happiness. Customers are expected to be happy if they make a choice for themselves, for it raises their satisfaction levels; & both push and pull

factors affects or influences customers' choice of goods and services available for them at the market.

In this context, private schools survive only if parents prefer to admit their children in them due to good services they provide which are on high demand. Public schools are less likely to be responsive. Private schools normally reach out and communicate with their customers (parents), and involving them in school affairs in order to maintain their customer base. Pupils are pushed away from public schools when they find them unsatisfactory and are pulled by private schools when they are guaranteed quality services that are appealing.

### **Review of Related Literature**

Education is a human right as declared by the United Nations in 1948. Goal number four, of the United Nation's Sustainable Development Goals (SDGs) aims at "Ensuring that each country realizes inclusive and equitable quality education and promotes lifelong learning opportunities for all" by 2030. Since many developing countries are having challenges in ensuring that the goal on education is realized and by extension, UN's declaration of education as human right which must be respected, private actors have been allowed to supplement governments' efforts. According to the Abidjan Principles (2019), the application of human rights framework to private involvement in education contains a potential tension between state obligations to ensure the provision of free quality education to all without discrimination, and liberty to choose and establish a private school. This and other tensions often surface in education policy debates, in particular in the context of growing privatization and commercialization of education, where private interests and profit making are sort over and above respecting, promoting and fulfilling the right to education (The Abidjan Principles, 2019). Current study aims at finding out whether private primary schools in Kenya and particularly, Kwanza Sub-County are genuinely supplementing government's efforts to provide quality basic education to deserving children.

The Private sector was the initiator of formal education in Kenya. The Church Missionary Society established the first formal school in Kenya in 1846 (Nafula et al, 2007). As a result of strong partnership between religious organizations and government, number of private schools and enrolment has increased over time (Government of Kenya, 2003). In response to the challenges of promoting access to education, the state has allowed private schools to complement its efforts. In this context, it can be argued that the state has upheld the right to private education (UNESCO, 1960). Private sector involvement in education has been justified on the grounds that public provision of education is inadequate compared to demand. Also public expenditure on education has stagnated or shrunk due to fiscal constraints (Nafula et al, 2007). According to Sessional Paper number 14 of 2012, the government acknowledges the need to create incentives to encourage private sector investment in education. Does private supply of education enlarge the circle of opportunity? Has private supply of education translated into greater inclusion or increased exclusion? (Wanjiru, 2013). The current study aims to provide answers to Wanjiru's concerns.

A stronger participation of private enterprises in public service provision and the introduction of public-private partnerships depend to a high degree on the institutional quality of a country. The important role of private enterprises can play in provision of infrastructure and services are in particular given for all countries that face severe budget constraints in the public sector (Schomaker, 2014). Kenya is among countries facing budgetary constraints to the extent that it cannot fully fund its

education sector, a fact that private actors have been allowed to supplement it. Questions have been raised as to whether the private players are making the situation better or worse, which is the concern of the current study.

Increase in number of private schools was witnessed in the year 2003 as a result of introduction of Free Primary Education (FPE) programme. Following implementation of Free Primary Education (FPE) Policy, enrolment in Kenya's Private Schools tripled, from 4% students in 2005 to 12% in 2013 (Education Analytics Service, 2016). This increase is attributed to the massive influx of students in public schools and resultant deterioration in quality due to over-burdened facilities in public schools. One of the main advantages of private school is that most private schools have smaller classroom sizes which in its turn allow students to receive more attention from their teachers (Ali, 2014).

The United Nations' Committee on the Rights of the Child, in its concluding observation on Kenya (2016) stated that, "The low quality of Education and the rapid increase in private and informal schools, including those funded by foreign development aid, providing sub-standard education are deepening inequalities." Physical facilities in educational institutions play a key role in the development and provision of educational services. Inadequate school facilities impact negatively on the quality of education. A study conducted by Nafula et al, (2007) found that majority of private schools in low potential areas had both permanent and temporary structures, which in most cases were ill, equipped, and lacked sufficient space for expansion and provision of sports facilities. The growth of private actors has continued without the requisite monitoring and regulation by the state and demonstrates a tendency for inadequate planning and preparedness with the role out of education reforms.

The growth of private schools in Kenya creates or deepens inequalities (Hakijamii & GI-ESCR, 2015). Children from high income families attend expensive high quality schools which are known to perform well, while children from the poorest and most vulnerable families are relegated to public and low-cost private which are grossly under sourced (Hakijamii & GI-ESCR, 2015). This in turn increases inequality in accessing education and also deepens cycles of poverty and exclusion by strengthening social classes through segregation. More so, privatization brings market mechanisms into education and allows education to be treated as a commodity, which attracts profit-oriented investors (UNESCO, 2016). Negative impacts of education marketization may include a decline of quality, lack of standardization, monitoring challenges and inequalities due to higher fees (Barry, 2009).

The Abidjan Principles (2019) provide that, "States must take all effective measures, including particularly the adoption and enforcement of effective regulatory measures, to ensure the realization of the right to education where private actors are involved in the provision of education." Further, the Global Initiative for Economic, Social and Cultural Rights (2015), in its framework on analysis of human rights states that, While private providers of education are permitted, States must ensure that the involvement of private actors in the provision of education:

1. Does not lead to the creation of extreme disparities in access of quality education or discrimination of any kind, and does not lead to segregation or division in society in general or education in particular;
2. Provides for a true alternative choice to quality free education, and does not replace the public system, as the state retains the responsibility to offer quality, free education for all;

3. Does not lead to marketization of education such that education is no longer directed to full development of a child's personality, talent and mental and physical abilities, but instead only to profit-making and achieving measurable outcomes – which would be contrary to the aims of education recognized in human rights law;
4. Maintains the highest quality standards and is adequately regulated, both in law and practice, with adequate inspection staff, effective accountability mechanism and without corruption; and
5. Is the result of participatory policy formulation process and continues to be subject to democratic scrutiny and to the human rights principles of transparency and participation.

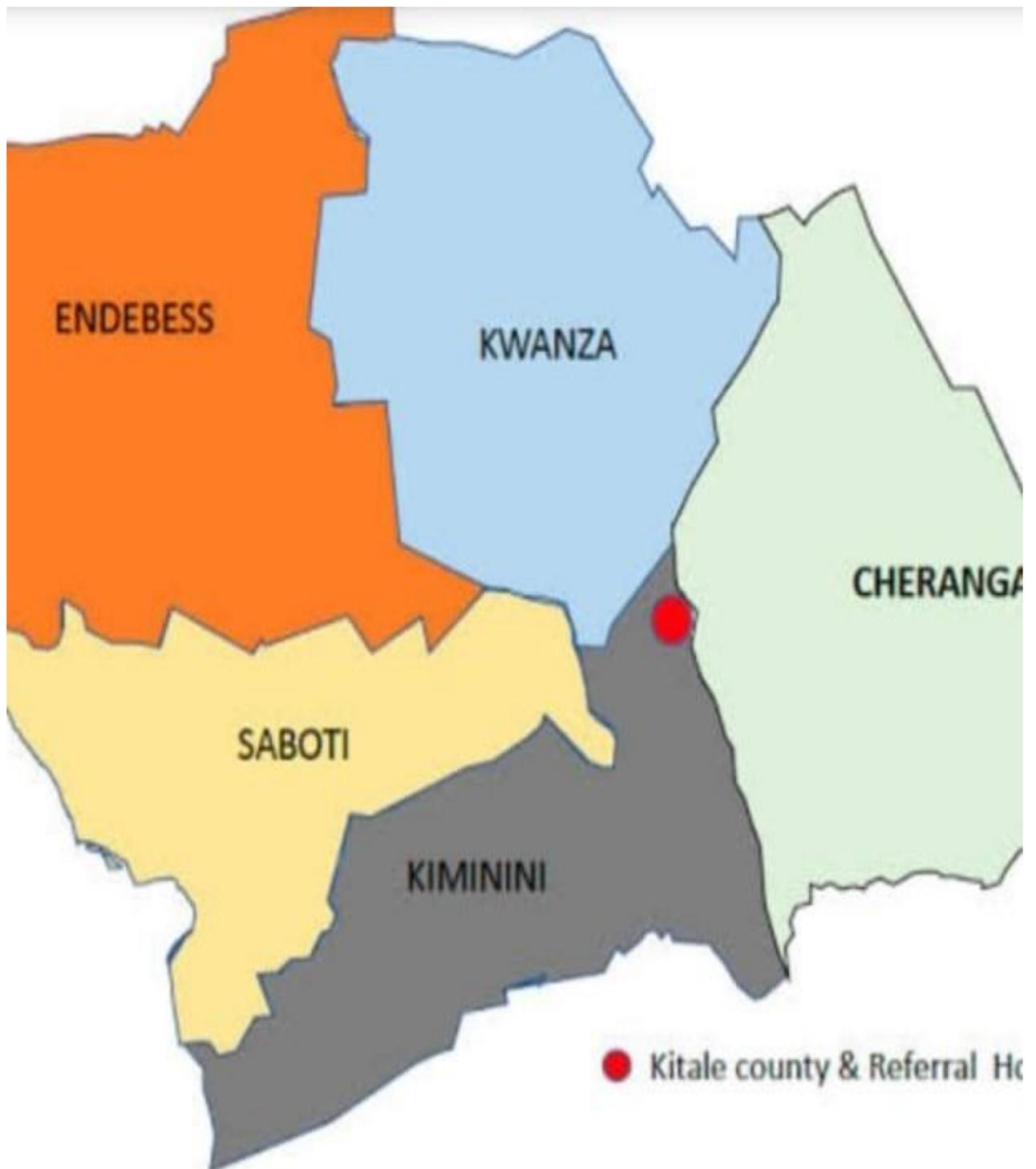
## **Methods and Materials**

### **Research Design, Research Sample and Research Instruments**

The study used descriptive survey design to collect data from respondents, analyze and present data. Some respondents were purposively sampled, while others were obtained through simple random sampling. Respondents included: the Sub-County Director of Education; Sub-County Quality Assurance and Standards Officer (SCQASO); Private Primary Schools Proprietors; Parents; Private Primary Schools' Head Teachers and Teachers. Questionnaires, interview schedules and document analysis guides were the main research instruments that were used to collect the necessary data for this study. Parents and teachers filled questionnaires; while the rest of the respondents were interviewed by the researcher.

### **The Study Area**

The study was conducted in Kwanza Sub-County found in Trans-Nzoia County. Kwanza Sub-County's surface area is 466.9 square kilometers. It has a population of 203,821 (KNBS, 2019). It borders Endebess Sub-County to the west, Saboti and Kiminini Sub-Counties to the south, Cherangani Sub-County to the east and West Pokot County to the north. Below are the maps of Trans Nzoia County and Kwanza Sub-County respectively



**Figure 1: Trans Nzoia County.**

*Source: Google Maps*



**Figure 2: Kwanza Sub-County.**

*Source: Google Maps*

## **Results and Discussions**

### **Respondents**

Respondents of this study were as indicated in table 1 below:

**Table 1: Categories of respondents**

<b>Respondents</b>	<b>Target Population</b>	<b>Sample</b>	<b>Percentage</b>
<b>1</b> Sub-County Director of Education	01	1	-
<b>2</b> Sub-County Quality Assurance & STDS Officer	01	1	-
<b>3</b> Proprietors	42	13	30%
<b>4</b> Head Teachers	42	13	30%
<b>5</b> Teachers	420	126	30%
<b>6</b> Parents	12,000	1,200	10%
<b>TOTALS</b>	<b>12,506</b>	<b>1,354</b>	<b>10.83%</b>

**Source: Field Survey 2021**

The target population was 12,506. Respondents selected to participate in the study were 1,356, constituting a percentage sample of slightly above 10%. There were 12,000 parents. Since parents were the majority, Ten percent (10%) of them, thus 1,200, was selected to participate in the study. The sample for school proprietors,

head teachers and teachers was 30% of their respective total population. The Sub-County Director of Education and The Sub-County Quality Assurance and Standards Officer were purposively selected.

### **Pupils' Enrolment**

There were a total of 84 public primary schools compared to 42 private primary schools in Kwanza Sub-County (Sub-County Director of Education, 2021). Total enrolment for Public Primary schools was 67,210 pupils, while that of private schools was 12,598 pupils. This gave an average of 800 and 300 pupils per public and private primary schools respectively. This implied that there was over-enrolment in public primary schools in Kwanza Sub-County. Private schools had manageable numbers of learners, which gave teachers ample time to engage individual learner well. This was one of the reasons why private schools performed better than public schools in national exams (KCPE).

**Table 2: Pupil Enrolment**

Category of School	Number of Pupils	Percentage
Public	67,210	84.215%
Private	12,598	15.785%
<b>Total</b>	<b>79,808</b>	<b>100%</b>

**Source: Field Survey 2021**

**Table 3: Schools' category percentage**

School Category	Number of Schools	Percentage Average
Public	84	66.7
Private	42	33.3
<b>Total</b>	<b>126</b>	<b>100</b>

**Source: Field Survey 2021**

### **Teachers' Adequacy, Qualifications and Remuneration**

Concerning adequacy of teachers in private primary schools in Kwanza Sub-County, whereas 50% of respondents said that teachers were enough, the same percentage (50%) said that teachers were not enough. This implied that some schools were not well staffed. Small and upcoming schools did not attract many teachers, due to low remuneration of teaching staff. Such schools had few pupils. Consequently, they raised small amount of money in form of fees, which was used to pay teachers among other requirements.

All teachers had the necessary qualifications to teach in a primary school. They had all trained as primary school teachers. They all had TSC Registration Numbers. This could be attributed to TSC's new policy that for anybody to be hired, either on permanent or temporary basis, to teach in a primary or secondary school, must register with it (TSC). For one to qualify to register with TSC as a teacher, he or she must be having the requisite certificate(s) from recognized institution(s).

Virtually all teachers who participated in the study claimed that they were poorly paid. Most proprietors said that they were paying their teachers reasonably well. Other respondents, especially parents, were of the opinion that teachers were not well remunerated. One of the Principals said that, "*teachers were not well remunerated because of financial constraints and environmental challenges.*" Probed further, he said that communities being served by some private schools were not well off financially, a fact that made them not to pay fees promptly, affecting teachers' pay, among other financial obligations.

### **Category of Schools and Payment of Fees**

Most private schools in Kwanza Sub-County can be categorized as low cost. Most schools' physical structures were temporary and charged relatively low fees per child per year. Those schools that charged relatively high fees and had permanent physical structures were few. Information from head teachers indicated that most parents were having challenges in paying school fees. Only about a third of parents were able to pay fees comfortably. Parents whose children were in low-cost private primary schools situated in rural settings of Kwanza Sub-County were the ones that had serious challenges of fees payment. This implied that as much as parents would like to have their children in Private schools due to perceived good results, they could not afford to pay fees. This echoes a principles of Classical economic thought which says that, "both push and pull factors affects or influences customers' choice of goods and services available for them at the market". Fees payment was an impediment to acquiring free basic education which is a human right as declared by United Nations in 1948.

### **Kenya Certificate of Primary Examination (KCPE) Results**

Most private primary schools in Kwanza Sub-County performed much better compared to Public primary schools. In KCPE results released early this year, private primary schools had a mean score of 275 marks, compared to a mean score of 245 marks of public primary schools. Virtually all parents said that they preferred private schools to public schools due to good performance in national exams. This was in line with one of the principles of the Classical Economic Thought which states that, "Choices breed happiness". Customers, who in this case are parents, were happy to have chosen private schools for their children. This had raised their satisfaction levels due to good KCPE results they were bound to get.

### **Schools' Infrastructure**

Most private schools in Kwanza Sub-County did not have adequate class-rooms and offices. Private schools found in rural settings of the Sub-County were the worst hit. Many of them had temporary physical structures. Some had walls made of iron-sheets, while others had walls made of tree off-cuts. This contravened article 52 (1) (d) of basic Education Act of 2013 which says that: "A Private school shall maintain premises that meet the requirements of the occupational health, safety regulations and building standards."

Schools that were located in urban setting of Kwanza Sub-County had good Permanent structures. Proprietors whose schools had temporary structures said that they were responding to communities' pressure to have schools near them to assist their children. They wanted schools that could enable their children to perform better. Public Primary schools were located far from them and they performed poorly in national exams. Proprietors said that they were making plans to put up permanent structures immediately they got funds.

### **Legal Documents**

Many schools that participated in the study did not have legal documents to operate. Some had interim certificates while some were in the process of registering their schools. This was contrary to article 50 (1) of the Basic Education Act 2013 which states that, "A person shall not establish or maintain a Private School unless it is registered under this Act." It is not clear why schools were allowed to operate

without legal documents. It was this scenario that caused substandard schools to be in operation, putting pupils' lives at risk. Buildings of such schools like class-rooms have been reported to collapse, killing and injuring pupils.

### Inspection of schools

Sub-County quality Assurance and Standards Officer (SCQASO) said that he occasionally visited schools in the Sub-County (both public and private) for routine inspection. However, the Office of the (SCQASO) was ill equipped to adequately handle this enormous task of regular visit to all schools for routine inspections. There was lack of enough personnel to effectively handle this task.

### Why Proprietors Established Private Primary Schools in Kwanza Sub-County

Proprietors were requested to indicate what prompted them to start their private schools in Kwanza Sub-County. Their Responses were as indicated in table 4 below:

**Table 4: Why Proprietors Established Schools**

Items on what prompted establishment of schools		Proprietors' responses	
		n=13	
		<i>f</i>	%
1	As an investment for profit making	Yes	09 69
		No	04 31
2	To assist the government to provide basic education	Yes	05 38
		No	08 62
3	Availability of land	Yes	09 69
		No	04 31
4	Availability of loan facilities	Yes	03 23
		No	10 77
5	Community's pressure to have schools near them	Yes	07 54
		No	06 46

**Source: Field Survey 2021**

Table 4 above clearly shows that majority of proprietors interviewed (69%) said that they established their schools for business purpose. Only 31% had an intention of providing learning opportunities for deserving children and hence, assisting the government to provide education to deserving children. That could be the reason why majority of private primary schools in Kwanza Sub-County had temporary structures, for they were hurriedly constructed for profit making venture. Such schools endanger lives of children since their proprietors were not keen on creating conducive learning environment for they were keen on making profit. This scenario echoes the concern of human rights' crusaders that rather than supplementing governments' efforts private providers are supplanting public education and commercializing education in the process (Singh, 2015).

### Conclusion

Private primary schools in Kwanza Sub County constituted about 33% of all primary schools in Kwanza Sub-county. They had an enrollment of about 16% of all pupils in primary schools in the Sub-County. The schools' staffing situation was above average. The private schools had qualified teachers who were doing a good job-posting good results compared to their counterparts in public primary schools, despite

the fact that they were not remunerated well. Physical infrastructure of most private primary schools in Kwanza Sub-County was wanting. Most private primary schools were having temporary buildings. Furthermore, most schools did not have legal documents to operate, yet they were in full operation. Due to lack of adequate personnel, private primary schools were not regularly inspected. It was found that most proprietors had started private schools in Kwanza Sub-County as business ventures. Most parents were not able to pay fees, even for the low cost schools.

### **Recommendations**

1. Teachers in Private Primary Schools should be well remunerated by proprietors, since they were posting good results which marketed the schools;
2. Private Primary Schools should put up permanent structures to guarantee good learning environment and the security of learners;
3. Government should not allow any private school without legal documents to operate;
4. Government should provide adequate Quality Assurance and Standards Officers at the Sub-County level to make it possible for regular inspection of all schools to ensure quality provision of education;
5. The main aim of proprietors starting private primary schools should be to supplement the government's efforts in providing quality basic education to deserving children. Making profit should come second.

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## Chapter 4

### Gender Differentials in Borrowing of Loans and Effects of the Loans on Households' Livelihood Improvements in Kenya

By

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#### Abstract

The thrust of this study was to investigate gender differentials in borrowing of finances from Sidian Bank in Kenya, in relation to improvement of livelihoods. The study specifically set out to establish the amounts of money accessed by any one gender from Sidian bank from 2013 to 2019; find out how men and women have utilized the borrowed money from Sidian Bank; investigate the relationship between access and livelihood improvements of households. This study was guided by the capability theoretical approach and the Gender-Related Development Index (GDI). The study adopted mixed method approach, convergent design. The target population was men and women borrowers of Sidian Bank, their spouses, government officials and Sidian Bank staff. The research targeted 324 borrowers, 51 men and 273 women. The researcher used systematic sampling to classify the subjects into men and women as individuals and also as members of joint liability groups. Research was conducted using hybrid questionnaire; semi structured questions consisting of both open and close ended questions, observation schedule and interview guides to collect data. Secondary data was collected from, articles, and websites of microfinance banks and institutions. Quantitative data was analysed using Statistical Program for Social Scientists (SPSS) and presented in simple statistics using graphs, charts, tables, percentages, while qualitative data was reported in prose. The study found out that there was a gender dimension in the amount of loans borrowed from Sidian bank with fewer men than women borrowers but with most men borrowing bigger loans. Differentials in utilization of loans between men and women were also noted with most women spending their money in the consumables while men invested in income generating projects and permanent investments. The study established that the effects of loans on livelihoods were greatly affected by the structure of a house hold due to different gender roles in households. It concluded that though there are more women borrowers their utilization of loans led only to temporary livelihood improvements as they mainly did not invest in income generating projects and strained in repayments and sometimes lost household items when they could not repay the loans in time. Men had advantages over women in accessing loans as regulations were discriminative. Stakeholders should make sure that the gender policies in place are considered and reviewed from time to time for example the issue of being guaranteed and signed for by the spouses whether men or women. Lending institutions should give more training to the borrowers for proper utilization.

**Key words:** Kenya, Gender, differentials, microfinance, loans, livelihoods

### Gender Differentials in Borrowing of Loans and Effects of the Loans on Households' Livelihood Improvements in Kenya

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<sup>1</sup>Jane Wanjiku Wanjihia; <sup>1</sup>Professor Lawrence Njoroge & <sup>2</sup>Professor Leah Wanjama

## **1.1 Introduction**

The main assumption is that enabling poor households' access to credit supports them in establishing small businesses. This, it is assumed would enable them to increase their incomes and eventually improve their livelihoods. This may be measured in terms of economic empowerment and the social aspect of livelihood improvement. Social scientists measure livelihood in terms of parameters such as housing and cleanliness of the house, food security, health, clothing and acquisition of assets. However, these parameters are greatly influenced by access to loans and utilization patterns. Utilization of the borrowed money is most likely influenced by the roles assigned to each gender.

There are different types of institutions that offer loans. Microfinance is one of them. Microfinance borrowing is a concept that is accepted worldwide. In Africa there have been a lot of microfinance activities in the last few decades using different models including the Joint Liability Lending (JLL) microfinance program which is the most popular with private MFIs in Kenya, Uganda, Ethiopia and Tanzania (Kiiru, 2007). Joint liability lending is the sort of microfinance model that is targeted to the presumed poor in society who cannot borrow individually but must borrow within a group of other borrowers. Access in this case is determined by the amount of money one has saved and the household property that group members can guarantee your loan against.

Accessing credit from financial institutions is determined a lot of times by ownership of some property is needed to act collateral. Gender concerns in micro-finance lending relate to this fact. Empirical studies have shown that unless women are specifically targeted, numerous factors hinder them from accessing credit from microfinance institutions (Fletschner D., 2009). There is the effect of the African patriarchal society.

## **1.2 Statement of the Problem**

Poverty alleviation results to livelihood improvement. Most approaches to poverty alleviation focus on income and subsidy measures; however, there is a growing realization that these measures alone are not sufficient. Although several strategies have been put in place in Kenya, including, microfinance, Women Enterprise Fund and Uwezo Fund, poverty levels seem to remain high. Poverty 'eradication' has been on Kenya's national Agenda since independence. Efforts have been made to address the situation but a lot gender concerns have arisen since accessing to any credit from financial institutions calls for ownership of some property to act as collateral. Due to the nature of the African patriarchal society, women have been disadvantaged in their efforts to improve the livelihoods of the households. According to a report by the government of Kenya, in spite of the high contribution of microfinance to the country's economy, the number of women and men accessing financial resources was low (GOK, 2009).

The situation has changed since 2010 with Micro finance institutions providing US \$ 1.5 billion to approximately 1.5 million active borrowers. According to a lot of researches conducted in many countries, the issue of access seems to have been addressed and it is evident that more and more men and women are able to

access loans though not at 50:50 basis. It is more disturbing to note that Currently Sidian bank is giving out loans of over six hundred million Kenya Shillings (600,000,000) per year, with 56% of its membership being women. The question is, why then are there disparities in ownership of resources and empowerment between men and women? This study therefore investigated the disparities in the amount of loans borrowed by men and by women which could be the cause of gender skewed empowerment. The study also set to find out whether utilization of the accessed loans has an effect too.

### **1.3 Objectives**

General objective

The study investigated differentials in access and utilization of loan.

Specific objectives:

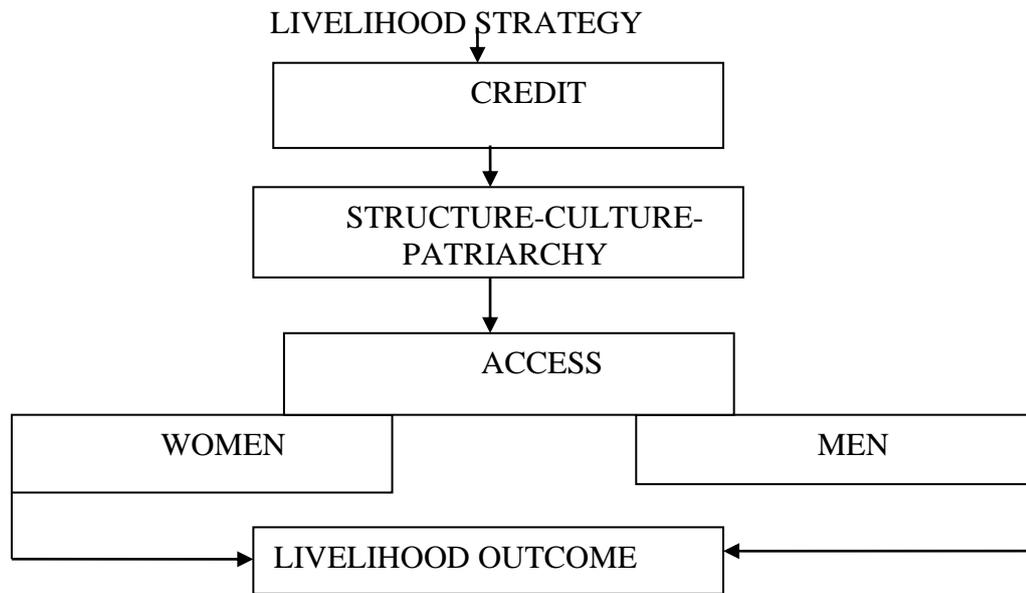
1. The study set out to establish the amounts of money borrowed by any one gender from Sidian bank from 2013 to 2019
2. Find out how men and women have utilized the borrowed money from Sidian Bank
3. Investigate the relationship between access and livelihood improvements of households

### **1.4 Theoretical Framework**

This study was anchored in the Capability approach and the Gender-related Development Index (GDI) which gave guidance to the study. The capability approach was conceived in the 1980s as an alternative approach to welfare economics (Sen, Amartya, 1985). In this approach, Amartya Sen brings together a range of ideas that were previously excluded from (or inadequately formulated in) traditional approaches to the economics of welfare. The core focus of the capability approach is on what individuals are able to do and in this study what individual borrowers are able to do with the loans they access regardless of their gender for the good of their households. The approach has five folds (Sen, 2004). The study focused on the second fold which is the fact that the approach views poverty from deprivation of capability point of view. Looking at access of loans, you find that women are disadvantaged in access to loans due to various reasons and circumstances.

Formulations of capability have two parts: functioning and opportunity freedom-the substantive freedom to pursue different functioning combinations (Alkire, 2009). Gender is a construction of the society; the society therefore has a lot of influence on the choices one makes regardless of their capability. In this study, 'capabilities' will be examined from the point of view of the ability for either men or women to access loans and achieve freedom of utilization of loans considering the options that each of them has individually.

## CONCEPTUAL FRAMEWORK



**Source: Author, 2021**

Credit is one of the many livelihood strategies. Its effect on livelihood improvement is influenced by structures such as patriarchy which is cultural based. The amount of money given is not based on capabilities but on structures.

### 1.6 Methodology

The study used mixed research approach and convergent research design. The two methods complemented each other in a concurrent mixed method approach. In this design, as Creswell (2018) states, the investigator collects both forms of data at the same time and then integrates the information in the interpretation of the overall results. Quantitative research helped get data to answer all questions related to numbers. The study was conducted in Kitui County in the South Eastern region of Kenya. The study targeted people involved in borrowing. Purposive sampling was done in order to balance rural and urban population. The population of the study was sampled from the total population of 2100 women and men microfinance borrowers of Sidian Bank and the spouses of the married ones. The research instruments used were questionnaires, interview guides and observation checklist. Data were coded and analyzed with the aim of answering the research questions and consequently drawing conclusions in relation of the study. Quantitative data was presented in descriptive statistics which included frequencies and percentages. Qualitative data was presented in narrative form taking into consideration the study objectives.

## Findings and Discussions

### 1.7 Amount of loans accessed by men and women

#### Results

The first objective of the study was to establish the amount of money borrowed by any one gender from Sidian bank from the years 2013 to 2018. In a bid to establish the amount borrowed from Sidian bank, the study found out that 98.0% of men respondents were active individual customers of Sidian bank compared to 0.8% of women as most women borrow through joint liability lending groups.

**Table 1: A Cross Tabulation of Gender and the Amount Borrowed**

		Range of the Amount Borrowed				Total
		1000-10000	10001-50000	50001-100000	Over 100000	
Gender	Men	11 50.0%	7 5.8%	1 .8%	24 52.2%	43 13.8%
	Women	11 50.0%	113 94.2%	122 99.2%	22 47.8%	268 86.2%
Total		22 100.0%	120 100.0%	123 100.0%	46 100.0%	311 100.0%

Source: Own survey, 2021

As shown in Table 1, both 50.0% of male and 50.0% female respondents borrowed 1000-10000 Kenya shillings, only 5.8% of male and 94.2% of the female borrowed 10001-50000 Kenya shillings and 0.8% of male as compared to 99.2% of the female respondents borrowed 50001-100000 Kenya shillings. The study further revealed that 52.2% of male respondents borrowed over 100,000 Kenya shillings as compared to 47.8% of their female counterparts. In summary only 13.8% of male respondents borrowed some money as compared to 86.2% of female. The study further sought to establish whether there was a relationship between the respondents' gender and the amount borrowed. A chi-squared test was run to establish the same and Table 2 presents the finding.

**Table 2: The relationship between Gender and Amount Borrowed**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	104.853(a)	3	.000
Likelihood Ratio	90.756	3	.000
Linear-by-Linear Association	5.119	1	.024
N of Valid Cases	311		

Source: Author, 2021

**Table 3: Amount of money borrowed by men and women between the year 2013 and 2018**

Year	Loans borrowed by women	Loans borrowed by men	Total
2013	162,320	608,605	770,925
2014	358,180	790,715	1,148,895
2015	332,060	556,611	888,671
2016	282,250	289,610	571,860
2017	11,218,250	19,731,682	30,949,932
2018	4,447,300	6,499,000	10,946,300
<b>Total</b>	<b>16,800,360</b>	<b>28,476,223</b>	<b>45,276,583</b>

**Source: Own field survey, 2021**

### **Amount of loans accessed by men and women**

#### **Discussion**

This study realized that although there are more women borrowers, the few men who are there are able to borrow higher loans individually as compared to women. This has a relationship with the disparity and ownership of property between men and women. This is in line with an empirical research conducted in three Italian banks, where Calcagnini, Giombini & Lenti (2014) suggest that differences in credit access are the result of disparities and structural differences between male- and female-owned firms. In the same study it was reported that there was discrimination in the amount of loans issued and that traditionally, female entrepreneurs report either difficulties or higher costs in accessing bank credit (Calcagnini, Giombini & Lenti, 2014).

In many parts of the World, women continue to be disadvantaged in access to land, housing, property and other productive resources and have limited access to technologies and services that could alleviate their work burdens. Women's secure access to land, property and housing supports their independence and autonomy, provides for their day-to-day needs and those of their families and allows them to weather some of life's most difficult challenges (OHCHR & UN Women, 2020). In absence of this as was in the case in the area of study disparities in amounts of loans is bound to happen.

Even though women borrowed regularly, men borrowed bigger loans comparatively. Once men build their histories and accumulated more savings, they transited to individual saving and borrowing while women remained in the lending groups. The limitation on the amount of money one borrowed individually is in the amount of saving their credit history and the worth of the borrower. Microfinance institutions mostly do not ask for the traditional collateral of land title deeds or motor vehicle log books but hidden behind the joint liability group model, there are other forms of collateral. This is unlike the notion expressed by Cheston & Lisa Kuhn (2002) Microfinance institutions around the world have been quite creative in developing products and services that avoid barriers that have traditionally kept women from accessing formal financial services such as collateral requirements, male or salaried guarantor requirements, documentation requirements, cultural barriers, limited mobility, and literacy.

## **1.7.2 Utilization of Borrowed Money by men and women**

### **Results**

Objective two of the study sought to find out how both men and women utilized the money borrowed from Sidian Bank. The borrower respondents were asked to state the amount of money that was required to invest in a lending group in order to qualify to borrow. In response, there were varied requirements ranging from as little as 300 and as much as 100,000 Ksh. The study however did not establish any gender differentials on the amount required to invest in a lending group as the figures were proportionate gender wise. Sidian bank interviewed staff informed this study that there was a strong relationship between utilization and repayment of loans as majority of the borrowers were not salaried and depended on business and farming.

The researcher observed that there were a lot of traders hanging around the centers where Joint liability groups meet, selling different wares including certified seeds, water drums, cooking pots, clothes and foodstuff. Some of the group members also brought about their wares for sale including woven baskets (thungi) sisal ropes and beaded ornaments. The researcher observed that the buying patterns were engendered. Men would flock the meat vendors for roasted meat while women it was noted crowded where kitchenware and groceries were being sold. The other women bought clothes. It was however observed that both men and women bought seeds for food crops such as maize, green peas and cowpeas. For those who invested in agriculture there were sharp gender differences. There were more men growing cash crops like mangoes and avocado while women planted maize, beans green grams and cow peas in small scale.

Information gathered from the bank officials and some borrowers showed that it is a bank requirement that husbands sign for their wives before they are given loans. This the women felt interfered with their utilization plans. The study however revealed a sharp contrast on the gender differential regarding the relationship between utilization of borrowed money and loan repayment where (86.4%) of men respondent reported that there is relationship while only (36.7%) of the women respondents agreed the same. The collaboration of a couple determines the success of the loan utilization. This varies from one household to the other. In some households as gathered in this research disclosure means disaster. It leads to control over its use or diversion from the original plans of expenditure. Women used their money differently from men. Women reported that they spent their loans on maintaining the family for example educating their children, buying clothes and food. Others bought water tanks. Women construct semi permanent or temporary houses while a lot of men constructed permanent houses. On the hand men concentrated on buying cows, motor bikes and building permanent houses.

The study established that (49.0%) of the men borrower respondents defaulted in repaying their loans as compared to only (21.0%) of their women counterparts by between Ksh 15,000 - Ksh 100,000 where (65.0%) of the men borrowers were auctioned as compared to just (32.9%) of their women counterparts. The findings of the study showed that (81.1%) of the men respondents associated the default of loan repayment to poor utilization of the loan as compared to 57.0% of the women who associated it with the same.

The borrowers in township area reported a different scenario with men and women investing in businesses where men borrowers invested in big businesses like hardware shops. Most of them said that they joined Sidian bank when they were already in business but have used the loans they borrowed from bank to boost their businesses. A number of women stated that they had started their shop businesses

using their loans and have kept building it slowly through subsequent loans. Interestingly a number of women borrowers from township ward run beer bars and restaurants.

Unfortunately there were few women investing in such activities and some of those who did lost the businesses control to their husbands. This also concurs with Ravindra et al (2016) that livelihood is successfully improved when loan is properly utilized over the subsequent linkages and the same was repaid properly and on time. Though there were more men defaulters than women, the study learnt that it was easier for the groups to recover the exact item bought with the loan for men for example a lot of them bought motor cycles, cows, and iron sheets and so on. For the women they lost valuables they owned before the loan acquisition because they spent their loans on consumables such a food, clothes and school fees. Sometimes they lost the water tanks they had bought with the loans.

### **Utilization of Borrowed Money by men and women**

#### **Discussion**

From this objective, the study came up with the following: Men used their money differently from women. Women reported that they spent their loans on household basic improvement for example educating their children, buying clothes and food. Others solved a big problem of water by buying water tanks or digging wells. They also bought donkeys to ease transportation of water and farm produce. More women than men bought seeds for food crops such as maize, beans and cow peas. In housing, women constructed semi permanent or temporary houses while a lot of men constructed permanent houses. Some women reported that they started small local businesses like grocery or clothe shops and repairing clothes. Some however lamented that they lost control of the businesses to their husbands once they grew big. On the hand men concentrated on buying cows, motor bikes and building permanent houses. Some other men had moved to urban areas after they acquired loans in order to set up their businesses there. Men also invested on the business of buying bulls for ploughing their farms and their neighbours at a fee. They also bought mango and avocado seedlings for commercial farming. A lot of the men defaulters were reported to have used their loans on leisure.

The result shows some gender differentials in the utilization of the borrowed money where higher percentage of male respondent investing in physical assets as compared to their female counterparts who were a bit cautious in spending on physical assets. It is true to note that assets were acquired after obtaining loans, the study also revealed that higher percentage of men acquired more assets after obtaining loans as compared to women who did not have a lot of control of the family assets. This therefore confirms Swaminathan, Suchitra, and Lahoti (2011) who found out that women lacked ownership of valuable assets for all major asset categories and except for jewellery; women were less likely to own assets in India. It was noted given that there are gender relations in society in relation to loan uses just as noted in a previous study portraying a scenario that more often than not leaves poor women borrowers highly indebted, and not much wealth to show for it (Mayoux, 2002).

## **1.8 Conclusion**

There are gender differences in credit access resulting from disparities and structural differences in ownership of family property although at face value there were no disparities in access to loan opportunities in Kitui County. On the contrary, hidden behind this notion of equal access to credit is the amount borrowed by women and men and the gender differentials in utilization. There is a deception that microfinance borrowing is the solution to improving the livelihoods of men and women and that men and women benefit equally. This study has proved otherwise as it established that a higher percentage of men borrowed bigger loans than women. They do so based on among other things control and ownership of property and financial histories. It was also established that women did not benefit fully from the loans they borrowed because of various reasons. One is that they utilized their loans on consumables like food, clothing, school fees and non income generating items like water tanks. Though these are forms of livelihood improvement it gave a negative effect later as this money had to be repaid. One could therefore say that most of the women brought temporal household improvements.

Families have lost their livestock and other household items to JLL groups, taking away all the gains made on livelihood improvement. The study also found out that there was discrimination in the rules and regulations of the lender, married women required their husbands to sign their loan application forms for them as a way of giving consent which is not the case for married men. This disadvantages women as it influences utilization of the loans. Men borrowers are able to construct permanent houses because they have ownership of land while most of the married women feel insecure. However this does not apply for the unmarried and widows. Another perspective of microfinance borrowing is the deception that borrowers do not need collateral in order to access loans. In the real sense the JLL groups sign members' loans against household goods and visit a borrower's home and confirm availability. This again becomes an impediment for women because in a patriarchal society, everything in a household belongs to the man.

## **1.9 Recommendations**

1. Strategies should be put in place to give women freedom of utilizing their loans so that repay promptly and gradually increase the loan sizes to the same levels as men.
2. Rules and regulations should be reviewed to be fair for both men and women
3. Borrowers should be educated on how to separate social and economic matters so that they utilize the money they access wisely for returns that will enable them repay the loans and improve their livelihoods at the same time

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## Chapter 5

### **Competency Based Curriculum: Launching and Perception of Primary Teachers on its Implementation: A Case study of Trans -Nzoia County, Kenya**

By

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#### **Abstract**

Since independence (1963) Kenya, education system has been undergoing a number of curriculum reforms under Kenya Institute of curriculum Development (KICD) for the sake of improving abilities of learners skill and knowledge for better performance and even fit on the global job market, the latest, is the launching of the competency based curriculum January 2019 under the order of 2:6:3:3:3 (two years ECDE, 6 years primary, 3years junior secondary, 3 years senior secondary, 3 years University) replacing the 8:4:4 system of education (Sifuna and Obonyo 2020). The study sought to investigate its launching and perception by primary teachers towards its implementation. The study was guided by the following objective questions: were teachers thoroughly prepared for C.B.C launching? Are the teaching and learning materials adequate in implementing C.B.C in primary schools? Survey research design was adopted. A sample of 534 respondent comprised of 500 primary teachers, 20 curriculum support officials (CSO) and 4 Sub-county officers were randomly and purposive sampled. The study established that teachers were not thoroughly prepared for implementation of C.B.C due to limited funds. The facilitators/ trainers were not competent to teach the new curriculum ,time stipulated for in service training was only 4 days that appeared to be too short to empower teachers with relevant C.B.C knowledge, the curriculum was also facing challenges in terms of inadequate instructional materials. Its recommended that more funds should be set aside to facilitate in service training process and more days be given for training curriculum support officer to empower teachers in the needful C.B,C areas, Ministry of Education should channel more instructional or learning materials, such as C.B.C teachers guide and course textbooks for use in implementing competency based curriculum.

**Keywords:**Kenya, competency, curriculum, launching, implementation, perception

**Competency Based Curriculum: Launching and Perception of Primary Teachers on its Implementation: A Case study of Trans -Nzoia County, Kenya**

By

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### **Introduction**

This chapter focuses on launching and perception of primary teachers' implementation of competency based curriculum. Competency based curriculum (CBC) is where learning is based on the needs and potential of the individual learners under a flexible framework and learners demand. The competency-based curriculum is perceived as an education that develops learner's ability. Indeed, Preliminary studies on the launching of competency curriculum in primary school in Kenya seen to indicate some flawed in its rolling out. Inadequate infrastructure due to extreme high enrollment inadequate learning and teaching materials, lack of specialized training indicates how hurriedly the implementation of the curriculum might have been which is contrary to the expectation of primary teachers as far implementation of education curriculum is concerned. However with agent adjustment from the policy implementers, competence based curriculum may be the best system of education Kenya has ever had before and after independence if well implemented (Ondimu, 2018).

### **Statement of the Problem**

Curriculum reforms in education sector, is the current focus of many countries in the world today. The reforms are geared to prepare the society to meet the national and international job market demand in 21<sup>st</sup> century. Good curriculum is fundamental to develop individuals and the society. Competency based curriculum, is a new system of education in Kenya. It was launched January 2019 under the order of 2:6:3:3 replacing 8:4:4 system of education. Many countries that have embraced competency based curriculum of education, outcome has been praiseworthy. However, since its launching it appeared teachers were not adequately prepared in terms of training, many teachers who were conducted, confessed that the 4 day time frame was not adequate for in-service training. It was also observed that there was inadequate instructional materials especially course books and teaching and learning materials in schools that could not guarantee smooth transition and implementation of Competency based Curriculum. The above stated emerging challenges, therefore, compelled researcher to conduct a study on competency based curriculum launching and perception of primary teachers on its implementation.

### **Competency Based Curriculum: Launching and Perception of its Implementation by Primary in Kenya**

Competency based curriculum (CBC) is a newly introduced system of education in Kenya under 2:6:3:3 order, the system is perceived to provide a variety of opportunities for identification and maturing of learners potential and talents to meet the changing needs and aspiration of the society. According to Sifuna and Obonyo (2020) competency based curriculum is a system of instruction, assessment, grading and academic reporting which focus on student demonstrating that they have acquired knowledge and skills they expect to learn as they progress through their attitude.

Conversely, Amutabi (2020) defines competency-based curriculum as a collection of learning in which the learner and instructor act as partners in the learning process as they jointly seek answers and solutions to simple and complex learning expectations of humanity. It concurs with Barman and Konwar (2011) who define competency based curriculum as a system where learners are presented with resources

which they interact with and construct meaning out of them. Competency based curriculum is therefore a system of education where learning is based on needs and potential of individual learner under and perimeter that move and shifts according to the demand of the learner. Originally this curriculum encouraged flexibility learning process than a teacher centered or an instructor (Hodge, 2020).

While admitting the possibility of other definition of an description, Sifuna et al (2020) argue that competency based curriculum must include the basic combines learners centered pedagogy aesthetic assessment approaches and emphasis on development of competencies and application of knowledge in real life. Countries in the world are carrying out extensive curriculum reforms to prepare learners for high education and job market requirement in 21<sup>st</sup> century (World Bank 2011) countries such as Canada, Finland, Sweden, Indonesia, Netherlands, Norway, U.S.A. Newzeland, Sweden have developed their own competencies framework which acknowledge the need of local prepulance of learning program within competency (Moreles Modeze 2010). Studies have shown that flexibility of C.B.C system is popular in developed countries (Shimomura & Sato 2004), Scholars like Ogutu (2012) argues that education system that have values not only transform the learner positively but also parents are also transformed.

The competency in some African countries such as Botswana, Senegal, South Africa, Nigeria, Tanzania have adapted learner centred pedagogy , formative, authentic assessment approach and emphasis on the knowledge in real life situation this according to Sifuna and Obonyo (2020). This means that the teaching and learning process has to change its orientation from rote memorization of knowledge content to acquisition of skills and competencies useful for real life situation (Wood, 2008).

According to session paper No 14 of 2013 the East Africa Community (EAC) partners state have adopted a common policy of harmonizing of education system and training that will shift focus from standard curriculum design to competency based assessment approach (East Africa Community 2014).

In 2005 Tanzania introduced competency based curriculum which led to development of competency in secondary school education (World Bank 2011) in 2006 competency based curriculum was introduced in primary school as well. The C.B.C indented to curb the challenges facing the graduate who were products of old curriculum who did not exhibit the competency and skills locally, regionally and internationally (Tanzania Ministry of Education and Cullum 2000).

### **Launching Competency Based Curriculum in Kenya**

CBC emerged from Sessional Paper no 2012 where by the East Africa Community (E.A.C) agreed to adopt a common policy of harmonizing of education and training from standard curriculum design to competency based curriculum assessment approach (East Africa (2012). In 2012, the Ministry of Education initiated a task force which came up with competent based curriculum which emphasized more on practical based subject that had been early neglected (Republic Of Kenya 2012).

In 2012 January, the C.B.C framework on value vision was launched by the ministry of education in conjunction with T.S.C training some Teachers and developed some support materials which were books and prototypes (Amutabi 2020). In January 2016 the ministry of education in Kenya firmly launched out C.B.C which was in order of 2:6:3:3;3education system to replace 8:4:4 system of education according to Sifuna And Obonyo (2020). In Kenya, competency based curriculum focus on seven core competencies that include communication and collaboration,

creative and imagination, learning to learn, problem solving and critical thinking self-efficiency and digital literacy. It adopts learner centered pedagogy formative, aesthetic assessment and emphasis on developing competencies application of knowledge in real life situation (Wood, 2008). The curriculum design for lower primary grade one, two and three are in four areas that include the following subjects.

Kiswahili, Library, Mathematics Activities, (KICD 2016) as new curriculum teachers are the kingpin implementers of the curriculum, therefore there is needs to be re- trained. A teacher is responsible for a comprehensive range of tasks and duties for effective implementation of a new curriculum. Their effectiveness in selection and use of instructions resources needs to be positive in order to deliver C.B.C curriculum content and, for effectively purpose there is need to be re-trained through in-service courses and more so the ministry of education should also ensure there is adequate instructional resources to highly motivate teachers to enjoy teaching the lesson (Aggrawal, 1992) launching of new curriculum in any country of the world has multiple challenges among them is teacher preparedness in terms of training and availability of instructional resources (Nasimiyu 1997).

### **Teacher preparedness and availability of instructional resource s on implementation of competency school in Kenya**

In western countries such as U.S.A, Belgium, always there is proper organization when it comes to curriculum reforms preparedness and availability of some of instructional resources on implementation Of a new curriculum (Wafula 2018).

Procedurally it is kick started by the appointment of an education committee or commission which will establish the need for reforms by carrying out research to identify the problem or deficiency in existing system of education. According to Sifuna and Obonyo (2020) the committee or commission once appointed will set up technical team to conduct in depth studies of relevant sectors of education in order to provide update and reliable data to the commission. Thereafter is sensitization of the public through seminars, workshops and meeting held countrywide. The feedback about response of the public should also be disseminated to represent samples of teachers, students and other stakeholders.

The next stage is the formulation of national policy when policy makers formulate a guideline or Sessional paper that legalizes the entire reforms process. Legalization mandates the development and implementation of the new curriculum. The development of the new curriculum includes identification of the problem, situation analysis, need assessment, selection, of appropriate invention and implementation (KICD2016). At this, level the largest is to validate the curriculum component and learner outcome. Schools selected for piloting would be provided with syllabus teacher guide pupil's book and necessary teaching and learning (Sifuna and Obonyo 2020).

The outcome of pilot evaluation if identified to be solving problem in the intended needy problem this leads to execution of the curriculum on national scale. Following the decision of implementing or launching of the new curriculum country wide this is sensitive stage which needs pre-caution because all necessary condition for launching must be put in place, include teacher preparedness and availability of instructional resources to pre-determine successive take off of new curriculum implementation in school.

Indeed, measures placed before the takeoff or launching include adequate funds to provide orientation, teacher preparedness in terms of in-service training of teachers on curriculum implementation (K.I.C.D 2016). When process is strictly not

followed then it jeopardizes the entire proceeding of curriculum implementation in the field resulting into failure in achieving the main objectives of the entire curriculum implementation ( DQASO Report).

### **Research Design and Research Sample Method**

Descriptive survey design study method was executed to obtain data from respondents analyzed and presented. Some respondents were purposive sampled, while others were obtained through sample random sampling. Respondent included county director; TSC County Director Curriculum support officers head teachers and primary school teachers. Questionnaire interviews schedules and observations were the main research instruments that were used to collect the necessary data for this study teachers and head teachers filled the questionnaires while other respondents were interviewed those interviewed include Curriculum Support Officers (C.S.O), TSC County Director for convenience and efficiency the research used 10% of respondents as a sample size for head teachers and teachers while TSC County Director and Sub-county Director and curriculum support staff were purposive sampled as recommended by Mugenda and Mugenda (2003) who argue that for a small scale research, a sample of 10% is an adequate. Data was analyzed using the applicable statistical tools in statistical package for social studies (SSP).

### **The study Area**

The study was conducted in Trans - Nzoia County whose surface is 2495.5km square Kilometer. It has population of 990341 (KNBS, 2009) the county share a boarder with Republic of Uganda to the west, West Pokot and Elgeiyo Marakwet to the North Bungoma county and Uasin Gishu in the West. It has four Sub-Counties: Cherangany, Kiminini, Kwanza and Sabaot sub-Counties. In this article, the concern of the research is on preparedness of teachers and instructional resources in the implementation the C.B.C in Kenya whether if it was systematically followed. The concerns were teachers adequately trained on matters concerning new curriculum. Were instructional resources such as teaching and learning resources adequately provided for effective learning in schools?

## Research Questions

The study was guided by the following two research questions:

1. Did CBC trainers thoroughly prepare you in advance for new curriculum implementation through training?
2. Are instructional resources such as Teaching and learning materials adequate to provide effective learning in primary schools?

**Table 1:2 Study Sample**

Sub-County	Head teacher		Teachers		CSO	Sub-County	TSC County Director
	pop	10% sample	pop	10% sample			
KWANZA	185	18	1130	113	4	1	
ENDEBESS	193	19	1120	112	3	1	1
KIMININI	140	14	1000	100	2	1	
CHERANGANY	130	13	1200	120	7	1	1
	64		445		16	5	

Source- Target from Study Area (TRANS-NZOIA COUNTY)

**Table 1:3 Respondents Percentages**

	Categories of respondent	Number of respondent	Percentage of respondent
1	Head Teacher	64	12.07
2	Teacher	445	83.9
3	CSO	16	3.01
4	Sub County Director	5	0.9
5	TSC County Director	1	0.2
TOTAL		530	100%

Source: Target from study area (TRANS-NZOIA COUNTY)

## The Study Target Population

The target population of all teachers, all primary head teachers, Sub-county Director and TSC County Director of Trans-Nzoia County.

**Table 1:Target Population**

SUB-COUNTY	HEAD SCHOOL	TEACHERS	CSO	TSC SUB-COUNTY	TSC COUNTY DIRECTOR
KWANZA	115	1300	4	1	
ENDEBESS	113	1200	3	1	1
KIMININI	111	1000	2	1	
CHERANGANY	130	1200		1	

Source: Target population from study area (TRANZOIA COUNTY)

### The Study Sample

The total sample of study was 4450 respondents the teachers formed a large number of respondents of 445 (10%) of respondents as indicated in TABLE 1:2

**Table 1: I attached C.B.C In-service Training  
N=400**

	Respondents opinion	Distribution	Percentage
1	Strongly agree	56	15%
2	Agree	241	59.5%
3	Disagree	102	25.5%
4	S.D	1	0.01%
<b>TOTAL</b>		400	100

### Source-resource 2021

**Table:1** shows the opinion of respondent about C.B.C in service training attendance 514% slowly argue 60% agree 25.5% percent disagree and 0.01% disagree.

Table two we had singled instructional resource of C.B.C.

**N=400**

	Respondent opinion	Distribution	percentage
1	Strongly agree	22	0.28%
2	Agree	28	0.07%
3	Disagree	150	38%
4	Strongly disagree	200	50%
<b>Total</b>		400	100

**Table2:** shows the opinion of despondence when asked about adequate instruction resources for implementing C.B.C in school. It shows that 0.28% percent strongly agree 0.07% agrees, 38% disagree and 50% strongly disagree.

**Table 3: Have adequate knowledge about C.B.C**

	Respondent opinion	Distribution	percentage
1	Strongly agree	40	0.1%
2	Agree	60	1.5%
3	Disagree	32	0.09%
4	Strongly disagree	268	67%
<b>Total</b>		400	100

**Table 3;** Illustrates that 67 percent strongly disagree that they do not have adequate knowledge about C.B.C, 0.09% Percent disagree, 1.5% percent agree and 0.1 percent strongly agree.

**Table 4: I have to implement C.B.C**

	<b>Respondent opinion</b>	<b>Distribution</b>	<b>percentage</b>
1	Strongly agree	16	0.04%
2	Agree	56	14%
3	Disagree	168	42%
4	Strongly disagree	150	40%
<b>Total</b>		400	100

Illustrate that 40 percent strongly disagree, 42 percent disagree, 14 percent agree and 0.04 percent strongly agree.

### **Findings**

The data collected was represented in tables in frequency percentages .However there were open items in questionnaires which had direct question from the sample respondent .The following are some of direct quotes from two female teachers and two male teachers about their perception about C.B.C.

One: The female Teacher 1:

The in-service Training for C.B.C time schedule was too short to make use and fully understand the competency based curriculum though many of us assumes that we understand C.B.C but the reality is we don't know practically about it because the time scheduled of four days in-service training was too short and ineffective to allow us get equipped with knowledge about C.B.C.

Two: Female Teacher 2:

The C.B.C Trainer or facilitators didn't give time to paramount training areas such schemes of work, lesson plan, learning outcome, teaching and assessment and key competencies.

Similarly one male Teacher (Teacher 4) said, "the facilitators were not effective and thorough in their lesson delivery, since they had not fully understood the competency based curriculum" (Teacher 4)"

Then the second male teacher (Teacher 5) said: "We did not have enough books and other learning materials in our schools to enable us effectively teach the C.B.C curriculum."

### **Conclusion and Recommendations**

The discussion based on the first objective was to establish the perception of primary teachers towards C.B.C in service training. The following observations were deliberated from four respondents: One: The in-service Training for C.B.C reality is we don't know how practical it is because time scheduled was too short and ineffective to get us equipped with knowledge and skills pertaining C.B.C.

Two: The C.B.C training facilitators (Curriculum Support Officers) did not give time to paramount learning areas such, teaching and learning outcome, lesson plan preparation and scheme of work.

Three: The facilitators were not effective and thorough in their lesson delivery as it seemed had not mastered C.B.C The lesson was boring hence demoralized us to enjoy the session. This was therefore an indicator of unpreparedness and readiness of curriculum support officer in their model of equipping in service primary teachers with pedagogical knowledge as concerns C.B.C. It therefore co-occur with research conducted in Tanzania by Kya and Hung (2019) who established , that limited preparedness and readiness in pedagogical knowledge during teaching and learning can derail the learning process.

Secondly, the discussion was based on objective two , to evaluate the launching and perception of primary teacher on in-service Training of C.B.C. Therefore, the data interrogated if satisfactory steps in curriculum reforms were correctly undertaken , included appointment education policy, piloting and then launching.

In the first stage/preliminary entails research appointment of education committee or commission which is to establish the need for reforms by carrying out research to identify the problem or deficiencies in existing system of education the committee or commission once appointed will be set up a technical team to conduct in depth studies of relevant sectors of education in order to provide up-date and reliable data to the commission this is according to Sifuna (2020). They would also receive presentations of different stakeholders such as head teacher, principals, teachers, quality assurance and standards officer's student parents /guardians and others in order to sensitize the public about the issues involved. Awareness creation seminars, and meetings would be held in different parts of the country, in addition the commission would and collect public views on the education reforms and come up with a different report such report would be disseminated to represent sample of teachers parents students and others key shore holders.

The second stage would be formalization of national policy. Based on the education commission, policy makers would formulate a Sessional paper, which would guide and legalize the entire education reforms. This would normally be followed with the implementation of education policy during which the new curriculum is developed and implementation would include: identification of problem, situation analysis, needs assessment, selection appropriate innovation and their implementation ( KICD 2010) samples of the target audience to validate the curriculum components and expected learning in terms of pilot schools would be provided with syllabus, teachers guide, pupils books and necessary teaching/learning resources. The final stage is once the piloting evaluation indicate that the innovation are effective to solve identified problem then the at this stage implementations is to commence on a national scale.

To implement the curriculum on national scale has to follow the following procedure first there would be adequate funds to provide for orientation of in service training of teachers in any case all teachers should be facilitated to attend in-service training .

Table 1 shows the opinions of respondents who attended C.B.C training. Of these attended 14 present slowly agree, 41 percent agree, 29 percent disagree and 10 percent strongly disagree.

In the second level is the training personal the quality assurance and curriculum support officer should organize the learning to look effective and through for this to happen, they should be fully informed about the having curriculum in service program should have relevant content , competency in lesson delivery and more importantly all lesson objectives must be achieved creating room for all teachers trainee achieved, happy and ready to implement the curriculum. This indicated in

table 4 that 40 percent simply disagree 42 percent disagree and 14 percent agree and 0.04 percent strongly agree. The last stage is learning the learning depends on the preparedness of the implementation (lessons)

After thoroughly trained teachers on how to implement the curriculum they are discharged with the mandate of launching the learning process when they are also well supported with education instructional materials such as books and teaching and learning materials such as books and teaching and learning materials as illustrated in table 2. 0.028 percent strongly agrees, 0.07 percent agree, 38 percent disagree and 50 percent strongly disagree. The in service training should not be just be once but often calculated until all have adequate knowledge about C.B.C as stated in table 3. 64 percentage strongly disagree, 0.07 percent disagree 0.5 percent strongly agree and 1.5 percent agree.

The purpose of enough instructional resource and regular in-service training is for successful implementation of curriculum implementations.

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## Chapter 6

### **Influence of Competitive Aggressiveness on the Performance of Youth-led Micro and Small Enterprise in Lake Basin Region, Kenya**

By

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#### **Abstract**

Competitive aggressiveness has been described as the propensity of a business to challenge its rivals intensely and explicitly in order to outperform them on the market by using extraordinary strategies. In Kenya, several studies indicate that youth led micro small enterprises are characterized by high mortality rate with 60% and 85% failure in the first three years and five years from inception respectively. This is compounded by the fact that 70% of the population are youth who are without a meaningful source of income. This study therefore aims to establish the influence of competitive aggressiveness on the performance of youth-led Micro and Small Enterprise in Kenya, with a scope of Lake Basin region. The study employed a descriptive research design and targeted 771 registered youth led Jua Kali Artisans MSEs in Nyanza region. Questionnaires were used as data collection instruments. Content analysis was used to analyze the qualitative data. The findings revealed that majority of the youth-led micro and small enterprises prefer to outsource affordable labour in order to save on operational costs. Also, these enterprises use cheap means of production in order to reduce the costs of their products and bargain for better prices on input materials to ensure lower costs of production. Likewise, the study established that youth-led micro and small enterprises do not outsource their workers from better competitors to gain their skills despite this being a key strategy towards gaining competitiveness and enhancing performance. From the findings, the study concluded that most youth-led micro and small enterprises use cheap means of production in order to reduce the costs of their products and bargain for better prices on input materials to ensure lower costs of production.

**Keywords:** Competitive Aggressiveness, Entrepreneurial Finance, Micro and Small Enterprise

# **Influence of Competitive Aggressiveness on the Performance of Youth-led Micro and Small Enterprise in Lake Basin Region, Kenya**

By

Evelyn Bosire, Prof. Gregory Namusonge and Dr. Samson Nyang'au Paul

## **Introduction**

Competitive aggressiveness has been described as the propensity of a business to challenge its rivals intensely and explicitly in order to outperform them in the market by using extraordinary strategies (Kothari, 2010). Giachetti (2015) studied the effect of competitive aggressiveness on results and described it as a more general management disposition reflected in the ability of an organization to take on and want to dominate rivals through a combination of constructive movements and creative efforts. In order to combat marketplace developments that threaten a firm's existence or market place, competitive aggressiveness requires a great deal of investment in marketing strategies. It is also demonstrated by being the industry leader and following the policy of "first in the market" (Wirtz & Tang, 2017).

Henry, Hill and Leitch (2010) perceive entrepreneurs as enthusiastic individuals who take initiative and push forward ventures. It is also assumed that these entrepreneurs are individuals who are diligent and actively looking for and seeking opportunities. To endorse the importance of competitive aggressiveness as an EO dimension, Dean (2013) shows a high correlation of competitive aggressiveness with entrepreneurship on all levels of risking a study that compares companies in low- and high risk environments.

Three drivers for competitive conduct are outlined by Liu and Hou (2010): knowledge, motivation and capacity. Knowledge, motivation, and capacity are manifested as firm processes (Lin, Turkier & Chang, 2015) and propose that these processes make certain businesses more aggressive than others competitively. Knowledge involves analyzing the rivals of an organization, monitoring the strategic behavior of its rivals in real time, and disseminating this information (Nadkarni, Pan & Xiao, 2014).

## **Statement of the Problem**

Most Micro Small enterprises managed by youth in developing countries are faced by constant threat of failure, high collapse rate and most do not graduate into large enterprises (World Bank, 2018; GoK, 2018). Recent reports indicate that youth led micro small enterprises are characterized by high mortality rate with 60% and 85% failure in the first three years and five years from inception respectively, (PWC; 2017, KNBS, 2017). The high mortality rate of youth-led MSEs, has been associated with lack of employment, economic development and high social injustices among the youth, (UNDP, 2018). According to prior studies done by Quince and Wittaker (2003:13), entrepreneurial orientation is directly linked to business success and performance. competitive aggressiveness whose parameters are pricing, resource sharing, technology adoption and customer focus should therefore be investigated to determine why up to 80% of YMSEs are not sustainable and how this construct of competitive aggressiveness can be helpful for these youth to achieve success. This therefore leaves the question; could competitive aggressiveness influence the performance of youth-led Micro and Small Enterprise in Kenya?

## **Specific Objectives**

The specific objectives of the study were to;

- i. To establish the influence of competitive aggressiveness on the performance of youth-led Micro and Small Enterprise in Lake basin region, Kenya.
- ii. To analyze the moderating effect of Entrepreneurial finance on the relationship between competitive aggressiveness and performance of youth led micro and small enterprises in Lake Basin region, Kenya

## **Review of Related Literature**

### **Competitive aggressiveness and MSE performance**

Competitiveness can be defined as the Strength of the ability of an institution to offer better product/services than its rivals (Kuivalainen, Puumalainen, Sintonen, & Kyläheiko, 2010) and aggressive responses to its and competitors' actions and competitive threats (Nazri, Wahab & Omar, 2015). Traditionally, competitive advantage was achieved by adding a new product feature, having lower costs than competitors, better quality or new product overall performance, more choice or better service to customers, (Kuratko, 2011). However, it was later realized that these strategies can no longer produce sustainable advantage and this made businesses to think of other ways to continually reinventing themselves so as to compete favourably.

Some previous studies have pin pointed the advantages of a competitive environment for an enterprise by arguing that the lack of competitive pressure may lead to stunted business growth and managerial slack, and hence reduce productivity growth. More recent studies have learned that lack of competitive pressure may result in paying workers low wages and also allow for excessive number of firms survive in any given industry and hence result in poor quality productivity at the industry level. These being the reasons why there is competition in almost every industry, there is need for a firm to device ways of offering competitive edge so as to enable it stand tall relative to its competitors. To achieve this, the organization must have focused management who can identify gaps early enough, which can be exploited to the firm's advantage. A study by Derfus, Maggitti, Grimm and Smith (2008) noted that successful competitive attacks lead to rapid and stronger competitive responses which in turn lead to a reduced performance gain for the competitor.

Price - conscious clients always weigh even their own sacrifice (what they have to pay) most of them strongly evaluate the value that a company installs in its product. The desires of such customers are rather predictable since their main focus is on the price. For this reason, a firm must continually minimize its own cost of production so as to achieve cost advantages which in turn will make it to attain a competitive advantage in price-conscious markets. The firm should also be vigilant on its competitors to identify their sources of cost advantage (Zhou, Brown & Dev., 2009).

Zhou, Brown, and Dev (2009) believed that by greater understanding its relative market position in which a company works, a competitive company can create a competitive economic advantage via continuous technology innovation or even mimic the brand of its competitors rather than developing innovative services and goods as a means of reducing the huge cost of product development. Have an end goal to assess the key role of the CEO's aggressive assertions and the truly competitive aggressiveness of companies on the part of a company performance, Blackford (2010) found out that the CEO aggressiveness had no influence on the

aggressiveness of the organizations they lead nor on the organization's performance, directly or indirectly. In order to remain truly competitive, medium and small - sized enterprises (SMEs) should keep increasing their competitiveness by announcing new products or services as consumer demands and real competition from several other businesses.

The other ways in which it can increase its competitive advantage would be through ensuring prompt delivery, dependability and time to market (Bashor & Purnama, 2017). (Bourbita, 2015) sought to establish the effect of highly competitive viciousness on Netherland's factor-global market rivals ' relative production capacity market position. The survey realized this in an attempt to promote even their own relative market position; managers usually focus mostly on strategic misdeeds and truly competitive assaults also in product markets. It was apparent from the survey that the relatively supply international market role of the killing company is positively pertaining to a higher volume, more unpredictability, longer duration and more unpredictable nature of a highly competitive attack.

Bashor and Purnamae (2017) noted that manager performance also positively influences competitive advantage of a firm. The study researched on SMEs at large, and with focus on those that are partisans in the shoes industry, hence a research needs to be done specifically addressing youth-led micro enterprises. Baraza and Arasa (2017) highlighted those competitive strategies like cost leadership, differentiation and focus which highly contributes to performance of quite a number of organizations performance and influences decision making, thus leading to performance improvement. The study is biased towards Jua kali artisan who is a subsector in the manufacturing sector.

### **Research Methodology**

The study adopted a descriptive research design as the research methodology. The main data collection instrument was a defined questionnaire consisted of formatted open-ended and completely closed-ended questions. The survey consisted of a series of questions, so either providing space for answering the quiz or offering a number of adjusted options from which the interviewee made a choice. This exposed into details the youth SMEs in terms of their aspects of entrepreneurial orientation and performance trend.

## **Research Findings and Discussions**

### **Analysis of the Demographic Information**

This study sought to establish the background of the respondents. This was in line with Robson (2011) that in a real-world study, there sought to be an active interaction between the researcher and the respondents and this has to take a normal mode of interaction where demographic information comes first. Also, the study aimed at establishing a deeper understanding on the demographics of the respondents prior to the main questions of the study as a way of developing prior judgments and the diversity of the responses. The main demographic data sought in the study included; gender, age bracket, level of education, period the firms had been in operation as well as the skills possessed by the entrepreneurs.

### **Distribution of the Respondents by Gender**

The study sought to assess the distribution of the respondents by their gender. MSEs have been highly categorized based on the gender of the owners of the initiators. This

therefore sought to assess whether in the lake basin part of Kenya MSEs are mainly owned by males than females.

**Table 1: Gender of the Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	154	69.7
Female	67	30.3
<b>Total</b>	<b>221</b>	<b>100</b>

**Source: Field data, 2021**

The findings as shown in Table 1 revealed that majority of the respondents were male (69.7%) while 30.3% were female. This was an indication that most of the youth MSEs in Nyanza region were owned by males. This is a wakeup call to the females and particularly those in leadership positions in the region to be in the frontline of pushing for women empowerment and doing this by starting with the youth. This will play a key role in pulling more youth women into this sector in entrepreneurship and this may steer sustainability of their livelihoods (Bula & Tiagha, 2012).

#### **Distribution of the Respondents by Age**

The study sought to determine the distribution of the respondents by their age. The study findings were presented below; -

**Table 2: Age of the Respondents**

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
Below 20 Years	31	14
20 - 25 Years	37	16.7
26 - 30 Years	100	45.2
31 - 35 Years	53	24
<b>Total</b>	<b>221</b>	<b>100</b>

**Source: Field data, 2021**

While youth are aged between 18 and 35 years as per the Kenyan constitution, it would be important to establish the earliest age at which most of the youth are exposed to entrepreneurship. It is believed that the earlier one gets into entrepreneurship, the more he or she gets attached to being dynamic and able to steer business into success. The findings as shown in Table 2 revealed that 45.2% of the surveyed youth-led MSEs in Nyanza region were owned/managed by youth aged between 26 and 30 years, 24.0% were aged between 31 and 35 years while 16% were aged below 20 years. This is an indication that younger youth in Nyanza region are not effectively exposed to entrepreneurship as compared to older ones who are over 26 years of age. This could be as a result of focus on education, lack of capital or the continued perception of too young to start a business or be self-reliant (Kanyari & Namusonge, 2013).

#### **Descriptive Results of the Performance of Youth-led Enterprises**

The study sought to establish the performance of youth-led small and micro enterprises in the lake region, Kenya. As the findings in Table 3 show, most of the respondents (55.8 percent) disagreed that the sales volume of their enterprises had been on the increase since the inception of their enterprises while majority (65.2

percent) indicated that they had not employed more workers to meet the growing demand of their products and services. Majority of the respondents indicated that their firms had not increased their profits over the years of operation (71.1 percent) while most of the respondents agreed that they had embraced better strategies of minimizing costs and maximizing the profits in their enterprises and 59.4 percent indicated that the number of customers in their enterprises had increased significantly since they started the business. This shows that most of the youth enterprises could be enhancing their customer base but still not making enough profits due to operational expenses and other related costs.

**Table 3: Performance of Youth Micro Small Enterprises**

Statements	SD	D	N	A	SA	Mean	Std. Dev.
1. The level of sales volume in my enterprise have been on the increase since the inception of the business	21.3%	34.5%	2.7%	22.6%	18.9%	2.43	1.61
2. I have employed additional workers to meet the growing demand of my products and services	34.4%	30.8%	0.5%	13.8%	20.6%	2.46	1.56
3. The profits recorded from the business are higher from what I started with	40.7%	30.4%	6.8%	10.9%	11.2%	2.23	1.52
4. I have embraced better strategies of minimizing costs and maximizing the profits in my enterprise	5.3%	14.9%	19.5%	44.0%	26.3%	2.61	1.26
5. The number of customers in my enterprise have increased significantly since I started the enterprise	3.5%	19.5%	17.6%	30.8%	28.6%	2.81	1.32
6. I have opened other branches so as to meet the demand and as a way of reinvesting profits	20.4%	19.5%	37.1%	7.2%	15.8%	2.78	1.29

**Key:** SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

**Source:** Field data, 2021

### **Descriptive Results of Entrepreneurial Finance**

The second objective of the study was to analyse the moderating effect of entrepreneurial finance on the relationship between entrepreneurial orientation and the performance of youth-led micro and small enterprises in the lake basin region, Kenya. Entrepreneurial finance has been a critical aspect affecting the performance and sustainability of small businesses in Kenya including the youth enterprises. This study assessed entrepreneurial finance through accessibility, source of entrepreneurial finance and awareness.

The respondents were asked to indicate the source of funding that had access to or accessed in the course of establishing their enterprises. This was so as to assess the awareness of the available funds and the extent to which the youth entrepreneurs were will and capable to outsource for funds in order to steer the success of their enterprises. The findings as shown in Figure 4.6 revealed that majority (75.1 percent) of the respondents funded their enterprises from their personal means such as personal savings.

Government sources of funding were the least accessed by the surveyed respondents where women fund had been accessed by 24.4 percent of the respondents, youth enterprise fund had been accessed by 20.8 percent while Uwezo fund had been accessed by 13.6 percent of the youth entrepreneurs surveyed. The findings imply that the main sources of funding accessed by the youth entrepreneurs in the lake basin region (family and friends and personal savings) are those that are not reliable (Mtecpiti, 2017) hence this could be a negative factor affecting the performance of youth-led MSE's.

**Table 4: Source of YMSE Entrepreneurial finance**

<b>Source of Fund</b>	<b>Frequency</b>	<b>Percent</b>
Personal Funding (Savings)	166	75.1
Family/Friends	154	69.7
Bank/SACCO Loans	131	59.3
Women Fund	54	24.4
Youth Enterprise Fund	46	20.8
Uwezo Fund	30	13.6
<b>Total</b>	<b>221</b>	<b>100</b>

**Source: Field data, 2021**

### **Competitive Aggressiveness and the Performance of Youth-led Micro and Small Enterprise in the Lake Basin Region, Kenya**

The research hypothesis formulated from the specific research objective was.

*H<sub>01</sub> Competitive aggressiveness has no significant influence on the performance of youth-led micro and small enterprise in the lake basin region, Kenya*

To test the above hypothesis, linear regression was used to test the relationship between competitive aggressiveness and performance of youth-led Micro and Small Enterprise in the lake basin region, Kenya. Path coefficients were used to determine the direction and strength while T statistics provided information on the significance to the relationships. The results are presented in Table 5.

**Table 5: Model Summary of Competitive Aggressiveness**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.909 <sup>a</sup>	.827	.826	5.22463

a. Predictors: (Constant), Competitive Aggressiveness

b. Dependent Variable: YMSE Performance

**Source: Field data, 2021**

The R<sup>2</sup> for the regression model between competitive aggressiveness and performance of youth-led Micro and Small Enterprise in the lake basin region, Kenya was 0.827 meaning that competitive aggressiveness explains 82.7 % variation in the performance of youth-led Micro and Small Enterprise in Lake Basin region, Kenya while the remaining variation is explained by the error term.

Further test on ANOVA shows that the regression model was a good fit as indicated by a significant F statistic (F=1046.021, p<0.05) as shown in Table 5. This implied that competitive aggressiveness can statistically predict the performance of youth-led enterprise in the lake basin region, Kenya.

**Table 5: Analysis of Variance (ANOVA) of Competitive Aggressiveness**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	28552.972	1	28552.972	1046.021	.000 <sup>b</sup>
1 Residual	5977.987	219	27.297		
Total	34530.959	220			

a. Dependent Variable: YMSE Performance

b. Predictors: (Constant), Competitive Aggressiveness

**Source: Field data, 2021**

The regression model obtained from the output was Performance =9.795 +0.724 competitive aggressiveness +.022 (error). The standardized regression coefficient for competitive aggressiveness was .909. This indicates that a unit increase in the competitive aggressiveness would result in 90.9% increase in the performance of youth-led enterprises in the lake basin region, Kenya. The t-statistic for the regression coefficient for competitive aggressiveness was significant at 5% level of significance (T=32.342, p<0.05) as shown in Table 6, implying rejection of null hypothesis. On the basis of these statistics, the study concludes that there is significant positive relationship between competitive aggressiveness and performance of youth-led Micro and Small Enterprise in the lake basin region, Kenya.

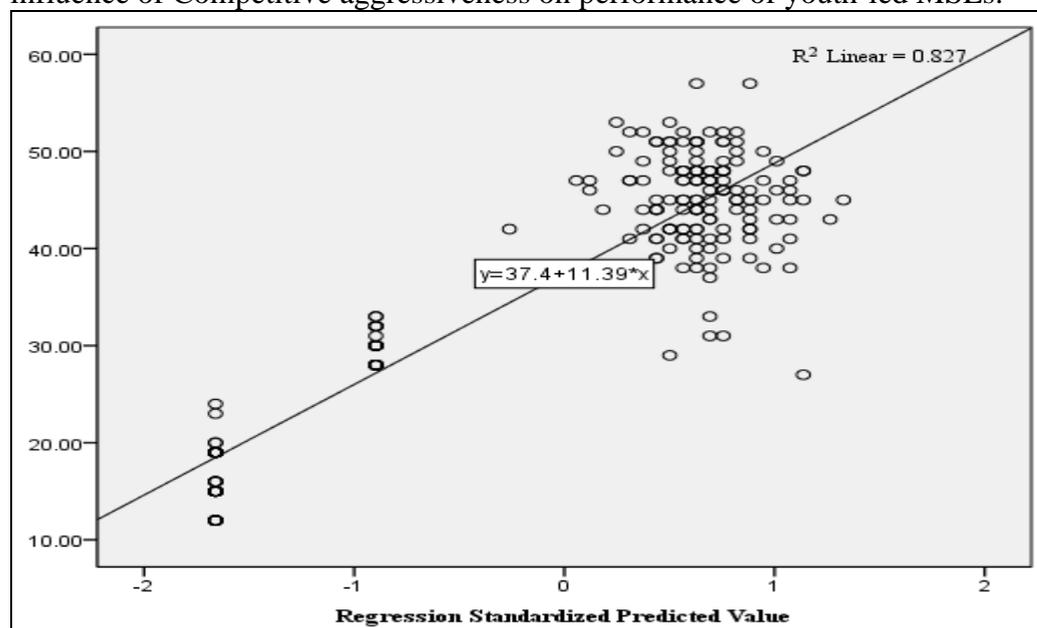
**Table 6: Regression Coefficients of Competitive Aggressiveness**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	9.795	.923		10.612	.000
1 Competitive Aggressiveness	.724	.022	.909	32.342	.000

Dependent Variable: YMSE Performance

Source: field data, 2021

A Scatter Plot was also used to further predict the relationship between innovativeness and performance of youth-led enterprises in the lake basin region. The findings as shown in Figure 1 revealed that there was a positive gradient in the plots whereby the relationship increased towards the increase in X and Y axis thus implying a positive influence of Competitive aggressiveness on performance of youth-led MSEs.



**Figure 1: Scatter Plot on Competitive aggressiveness and YMSE Performance**  
Source: field data, 2021

### Findings

From the reviewed literature in the study, competitiveness can be defined as the strength or the ability of an institution to fare better than its rivals and aggressive responses to its competitors' actions and competitive threats. Also, reviewed literature in the study have pointed out that lack of competitive pressure may lead to stunted business growth and managerial slack, and hence reduce productivity growth. In addition, these studies have discovered that lack of competitive pressure may result in underpaying of workers due to the minimal profits realised; it may also allow for excessive number of firms not to survive competitively in any given industry and hence result in lower productivity at the industry level. To increase competitive advantage of an organization, reviewed studies showed that organizations should understand its relative market position in which it works, creating a competitive economic advantage via continuous technology innovation, reducing the huge cost of product development, ensuring prompt delivery, dependability and time to market, cost leadership and product differentiation.

Based on the study findings, it was revealed that majority of the youth-led micro and small enterprises prefer to outsource affordable labour in order to save on operational costs. Also, these enterprises use cheap means of production in order to reduce the costs of their products and bargain for better prices on input materials to ensure lower costs of production. Likewise, the study established that youth-led micro and small enterprises do not outsource their workers from better competitors to gain their skills despite this being a key strategy towards gaining competitiveness and enhancing performance. Equally, the study showed that youth-led micro and small enterprises imitate their competitors as a way of gaining from their production skills and quality of products as well as giving the customers the best attention to enhance their satisfaction. However, the study noted that majority youth-led micro and small enterprises do not sought for information from the competitors through their customers to identify the customer needs and make strategies to meet such need in order to win the customers to them in future. In addition, the study revealed that majority of the youth-led micro and small enterprises offer after-sale services to their customers as a way of enhancing customer satisfaction and gain customer loyalty. Moreover, Globalization and liberalization of markets has created a situation where youth artisans must be very competitive to get a share in the market. RBV argues that a firm must gain sustainable competitive advantage by creating value in a way that is rare and difficult for competitors to imitate, (Mburu, 2019).

Also, the study found out that competitive aggressiveness showed a strong positive correlation ( $r=0.768$ ) with the performance of youth-led Micro and Small Enterprise in the lake basin region, Kenya. Further, the result on regression showed that competitive aggressiveness explain 82.7 % variation in the performance of youth-led Micro and Small Enterprise in the lake region, Kenya meaning the regression model was a good fit. Also, the standardised regression coefficient for competitive aggressiveness indicated that a unit increase in the competitive aggressiveness would result in 90.9% increase in the performance of youth-led enterprises in the lake basin region, Kenya. Thus, competitive aggressiveness was significant at 5% level of significance and the null hypothesis was rejected.

## **Conclusions**

Based on the competitive aggressiveness objective, the study concludes that majority of the youth-led micro and small enterprises outsource affordable labour in order to save on operational costs. From the findings, the study concluded that most youth-led micro and small enterprises use cheap means of production in order to reduce the costs of their products and bargain for better prices on input materials to ensure lower costs of production. This is also done to help maintain market prices because mostly products are the same and so a slight change in pricing may deny the youth a sale. Likewise, the study concludes that youth-led micro and small enterprises do not outsource their workers from better competitors to gain their skills despite this being a key strategy towards gaining competitiveness and enhancing performance.

Equally, the study concludes that youth-led micro and small enterprises imitate their competitors as a way of gaining from their production skills and quality of products as well as giving the customers the best attention to enhance their satisfaction. Although the study concludes that majority of the youth-led micro and small enterprises offer after-sale services to their customers as a way of enhancing customer satisfaction and gain customer loyalty, they however do not seek for information from their competitors through their customers to identify the customer needs and make strategies to meet such needs in order to win these customers in

future for sustainability. Youth should be encouraged to adopt current technology production strategies towards enhancing MSE performance. They should develop unique products geared towards customers' satisfaction which will lead to customer loyalty. This study also concludes that competitive aggressiveness has a strong positive correlation with the performance of youth-led Micro and Small Enterprise in Nyanza region, Kenya. Thus, the study concludes that competitive aggressiveness increases the performance of youth-led Micro and Small Enterprise in the lake basin region, Kenya.

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## Chapter 7

### **Influence of Buyer-Supplier Collaboration on Organizational Performance in Food and Beverage Manufacturing Companies in Kenya**

By

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#### **Abstract**

The purpose of the study was to determine the influence of buyer-supplier collaboration on organizational performance in food and beverage manufacturing companies in Kenya. The study employed a descriptive research design. The study used network theory. The target population was 534 respondents comprising of 217 procurement managers and 217 procurement officers from 217 food and beverage manufacturing companies. A sample size of 230 respondents comprising of 115 managers and 115 procurement officers was selected from 115 food and beverage manufacturing companies. Simple random sampling was used to get the sample for the study. Purposive sampling used to get top procurement personnel in the manufacturing firms. Primary data was collected by the use of a questionnaire. Analysis of data was done using descriptive and regression analysis. From the model, ( $R^2 = .304$ ) shows that buyer-supplier collaboration accounts for 30.4% variation in organization performance in the food and beverage manufacturing sector of Kenya. There was a significant influence of buyer-supplier collaboration on performance of food and beverage manufacturing companies. Buyer -supplier collaboration connects buyers, suppliers in all their processes in the day-to-day operations. The study concludes that effective buyer-supplier collaboration enhances organizational performance of food and beverage manufacturing companies. The study recommends that the managements of food and beverage manufacturing companies should enhance buyer -supplier collaboration at all levels of its operations and with stakeholders so that it may meet its goals and achieve competitive advantage.

**Key words:** Buyer-supplier collaboration, organizational, performance, food and beverage, manufacturing companies

# **Influence of Buyer-Supplier Collaboration on Organizational Performance in Food and Beverage Manufacturing Companies in Kenya**

By

Bartoo Dorothy Chebichii, Prof. Gregory Namusonge, Dr. Elizabeth Nambuswa

## **Introduction**

In the manufacturing sector, where production is dependent upon supply of raw materials and crucial services that are needed to ensure the product output, both operational and financial performance of the firm are dependent upon the supply of these commodities (Muller, 2010). Organizational performance refers to how well a firm achieves its market-oriented goals and objectives as well as its financial goals. It is a powerful tool for prioritizing firms' goals and attaining them (Kirkendall, 2010). It usually informs the policy makers, implementers as to the position of the firm and some of the challenges that requires attentions and allows for a progressive monitoring of the efficiency and effectiveness of the firms' operations.

The manufacturing sector is lost immensely due to lack of benefit from the research and development initiatives conducted by the suppliers concerning the supplies (Muhia & Afande, 2015). Effective supplier relationship management requires an enterprise-wide analysis of what activities to engage in with each supplier. The common practice of implementing a "one size fits all" approach to managing suppliers can stretch resources and limit the potential value that can be derived from strategic supplier relationships.

A collaborative environment requires mutual trust and inter-firm dependency, both formal and informal communication, strong commitment towards same goals, inter-organizational capability and the management creating a network culture (Adhaya, 2013). The underlying objective of these long-term relationships is delivery of substantial benefits and advantages to the involved supply chain partners.

In Europe and Asia, many businesses are powerhouses in the manufacture of goods, and therefore consider logistics as a key point of focus for simultaneously increasing shareholder and customer value (Mohanty & Gahan, 2015). In that regard, better supplier relations enhance supply chain performance and add to competitiveness of suppliers in the market.

In India, Chopra & Sodhi (2014) emphasizing on the importance of supplier relationship management of an Indian milk processing company which has been a success story of growth through direct procurement from the milk producers however small thereby eliminating the middlemen. In Asia, Hassan, Habib and Khalid (2014) carried out a study on the role of buyer-supplier relationship on buying firm's performance in the chemical sector of Pakistan. They concluded that by ensuring timely supplier payment, information sharing and being friends with suppliers, buyers can easily make their profits reach the sky.

In a survey of some manufacturing companies in Nigeria, Duru et al., (2014) found out that some of them, especially the food and beverage companies that are still in business and are listed in Nigeria stock exchange find it difficult to pay dividends to their shareholders. The food and beverage sector being dependent on suppliers for its success makes an analysis of its relationship with its suppliers important. An increasingly powerful route to achieving a cost advantage comes not necessary

through volume and the economies of scale but instead through improved logistics services (Christopher, 2016).

In Uganda Mugarura (2010) examined effect of buyer-supplier collaboration on relationship continuity in manufacturing companies in Kampala. Dimensions used were incentive alignment, joint decision making and information sharing in relation to adaptation, commitment, trust and relationship continuity most of which were found to have a positive and significant relationship. Buyer-supplier collaboration is key in bringing about adaptation, trust and commitment between buyers and suppliers and this eventually leads to continuance of relationships.

In Kenya the manufacturing industry collaboration has resulted in the globalization of supply chains and the manufacture of more complex products to be sold at decreasing prices. Thus, there is a need to manage these complex supply chains globally in order to increase performance of manufacturing firms. To the best of the researcher's knowledge no study has been done on buyer-supplier relationships linked with its impact on organizational performance on food and beverage manufacturing companies in Kenya.

According to Awino (2011) manufacturing is an important sector in Kenya and it makes a substantial contribution to the country's economic development. It has the potential to generate foreign exchange earnings through exports and diversifies the country's economy. This sector has grown over time both in terms of its contribution to the country's gross domestic product and employment (Nyaoga & Magutu 2016).

### **Statement of the problem**

The food and beverage industry is one of the most active industries in the Kenyan economy because this sector depends to a great extent on Agriculture. At the same time many people have moved to live in towns and cities in Kenya creating demand for foods that are processed and value added as agricultural products. This has driven the processing firms to struggle for sustainable competitive advantage. However, even with this struggle, the manufacturing sector in Kenya has faced big challenges in the last 15 years. This has seen its GDP drop significantly giving rise to fears of a premature deindustrialization phenomenon (KAM, 2018).

The manufacturing sector's share of the GDP has remained stagnant with only limited increases in the last three decades contributing an average of 10% from 1964 - 1973 and rising marginally to 13.6% from 1990-2007 and averaging below 10% in the recent years (KAM, 2018). One possible way of achieving competitive advantage is by having a close working relationship with the supply side. In recognizing the importance of supplier relationship management to organizational performance, Kituyi, Namusonge and Sakwa (2017), argue that among the drivers of sustainable purchasing implementation is focusing on the supply side of the sustainable purchasing transaction by emphasizing the importance of the availability of sustainably produced goods and services.

Forward looking firms collaborate with suppliers, aiming to create a collaborative supply chain that will make it a leading industry. Although the potential performance benefits have made collaboration a popular supply chain aspect, surveys show its complex structure has left Kenyan companies struggling with implementing and conducting it (Shalle, Guyo and Emuhaya 2014). Moreover (Kamau 2013) confirms that food and beverage manufacturing companies have not achieved high levels of collaboration necessary to deliver high economic benefits. This study therefore aims at determining the influence of buyer -supplier collaboration on organizational performance in food and beverage manufacturing companies in Kenya.

## **Theoretical Framework**

This study adopted the network theory whose rational self-interest school within network research can be traced back to the work of sociologist Coleman (1988). Coleman showed how, from two-actor interactions, with each actor operating out of self-interest, emerges the basis for a social system (such as a small group). While each actor is trying to maximize his or her individual interests, each is at the same time constrained because he or she is embedded in an interdependent relationship with the other. The relationship imposes a limit on both actors' behavior and regulates the extent of self-seeking (Nancy, David, Holly & Noshir, 2013). These limits are counterbalanced by the increased access to resources each actor gets via the other. NT can be used to provide a basis for the conceptual analysis of reciprocity (Oliver, 1990) in cooperative relationships.

The network theory (NT) contributes profoundly to an understanding of the dynamics of inter-organizational relations such as supply chain relationships by emphasizing the importance of “personal chemistry” between the parties, the build-up of trust through positive long-term cooperative relations and the mutual adaptation of routines and systems through exchange processes. Through direct communication, the relationships convey a sense of uniqueness, ultimately resulting in supply chains as customization to meet individual customer requirements that enhance supply chain performance.

The parties gradually build up mutual trust through the social exchange processes (Nancy *et al.*, 2014). A network does not seek an optimal equilibrium, but is in a constant state of movement and change. Links between companies in a network develop through two separate, but closely linked, types of interaction: exchange processes (information, goods and services, and social processes) and adaptation processes (personal, technical, legal, logistics, and administrative elements) (Johanson & Mattsson, 1987). NT is descriptive in nature and has primarily been applied in SCM to map activities, actors, and resources in a supply chain. The focus has been on developing long-term, trust-based relationships between the supply chain members (Gadde & Haakansson, 2013).

Spekman (2006) established that a successful buyer–supplier collaborative relationship is often characterized by a high level of trust, commitment, shared values, communication, and adaptation, positive bases of power, cooperation and relationship bonds. This theory validates collaboration and its resultant effect on competitive advantage of companies. The study anchors on the network theory because many scholars have applied the theory in the area of supplier development as a means of gaining competitive advantage in their study. Competitive advantage can be achieved through supplier development based on network theory.

In the current competitive business environment, a single enterprise acting alone cannot fully achieve all management goals. As customer demands increase and become more specific, companies must undertake initiatives to coordinate responsibilities across the supply chain in order to improve service and lower costs. Network theory is built on the same premise that companies rely not only on their relationship with direct partners but with the extended network of relationships with supply chain companies, that competitive advantage can only be achieved through efficiently and effectively coordinated supply chains (Ullah, 2012). Network relations create information sharing that enables buyers and sellers to have access to resources and knowledge beyond their abilities hence the need for long-term, trust-based relationship between supply chain companies.

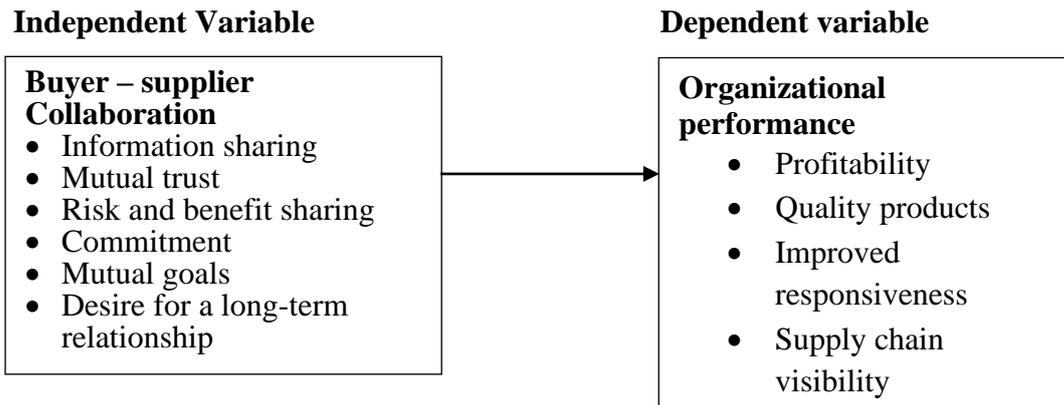
According to Gichuru, Iravo, and Iravo (2015) the performance of a firm depends not only on how efficiently it cooperates with its direct partners, but also on how well these partners cooperate with their own business partners. The firm's continuous interaction with other players becomes an important factor in the development of new resources and in situation where the resources of two organizations are combined; they tend to achieve more advantages than through individual efforts (Haakansson & Ford, 2002). The Network theory can be used to provide a basis for the conceptual analysis of reciprocity in cooperative relationships.

Network theory focuses on how elements of the entire supply chain relate (McNichols & Brennan, 2006). This theory was first introduced during the 1970s and the 1980s and developed from the focus on relationships between business entities, or strategic alliances, towards an approach which entails the entire supply chain (Wellenbrock, 2013). Harland (1996) looks at a network as a specific type of relationship linking a defined set of persons, objects or events.

When the buyer and supplier establish and transact business over a period of time based on capability and resources, they establish bidirectional business relationship and with time a buyer creates a network of reliable suppliers for business transaction (Hakansson & Ford, 2002). Chang, Chiang & Pai (2012) argue that the entire supply chain network model is complicated and its specific context depends on the relationships among the network members. Further, networks are seen as beneficial for individual members through investments in the supply chain (Hakansson & Ford, 2002). The network theory has been utilized in specific manufacturing industries across the world (Peck 2005; Zhao, Anand & Mitchell, 2005). Networks theory provides a framework for understanding and analyzing the buyer supplier relationship for increasing resources, capabilities, competencies of the suppliers to enhance organization performance.

### **Conceptual Framework**

The objective of the study was to establish the influence of buyer – supplier collaboration on organizational performance in the food and beverage manufacturing companies in Kenya. The conceptual framework for this study was based on the independent variable: buyer – supplier Collaboration which influence the dependent variable organization performance and Figure 1 shows this relationship. The buyer – supplier collaboration variable was measured using information sharing and mutual trust, risk and benefit sharing, communication, commitment, clear understanding of responsibilities, having mutual goals, and desire for a long-term relationship. The dependent variable organizational performance was established using financial wellbeing, quality of products, improved responsiveness and supply chain visibility.



## Review of Related Literature

### Concept of Organizational Performance

Corina, Liviu and Roxana (2011) defined performance as a set of financial and non-financial indicators which offer information on the degree of achievement of objectives and results. Overall organizational performance can be divided into three parts: financial performance, product performance, and operational performance (Inayatullah, 2012). Organizational performance refers to how well an organization achieves its objectives. Common organizational objectives include shareholder wealth maximization, profit maximization, increased market share and customer satisfaction (Brigham & Houston, 2014).

According to Phanet *et al.*, (2011), cost performance is measured in terms of the unit cost of manufacturing while quality performance is measured using product capability and performance. On the other hand, flexibility performance is determined by organizational flexibility while delivery performance is measured in relation to degree of timely delivery. The performance goal that is achieved through relationship management has the potential to render efficiencies, profits and services that turns out to be a pipe dream for companies that are operating as individuals (Buchholz & Appelfeller, 2011). The advancement of technology, aggressive globalization, innovation and technology, and the implementation of deregulation policies are among the drivers that have resulted in the development of the relationship paradigm which sought and establishes ways of creating long term relationship between suppliers and customers (Muller, 2010).

Subsequently, the relationship paradigm is a composition of all the activities that are channeled towards the establishment, development and maintaining of successful relational exchange claims Stevens (2011). Value in organizations is not created in isolation but through the nurturing of key competencies which spurn to the supplier relationship management. There is a belief among organizations that strategic supplier management provides the vital benefits when creativity is natured among suppliers which in turn will translate to value benefits to an organization (Taraf Dar & Qrunfleh, 2013). In the manufacturing sector, the measure of performance is in the form of different metrics such as schedule performance.

Operational performance measurement can also be on the employees through meetings and having appraisals (Moore, 2012). Abdifatah (2012) argued that performance is not uniform in all organizations and keen considerations is needed on different factors such as effectiveness and efficiency of internal operations, flexible production processes, good supplier relationship management, customer relationship management and continuous improvement in the firms' operations. The dependent

variable organizational performance was established using financial wellbeing, quality of products, improved responsiveness and customer satisfaction

### **Concept of Buyer–Supplier Collaboration**

In the past decade “collaboration” has made the transition from being a purely theoretical concept to becoming a widely adopted supply chain practice (Wiengarten, Humphreys, Cao, Fynes, & McKittrick, 2010). Pacheco & Rodrigues, (2010) states that supplier collaboration means working with decision-makers at a supplier level to determine improvements that can be made that will have a measurable, positive financial impact for both organizations. Supplier collaboration means working with decision-makers at a supplier level to determine improvements that can be made that will have a measurable, positive financial impact for both organizations.

Many companies are beginning to realize the potential benefits and importance of strategic and cooperative buyer supplier relationships. This includes improved quality of products and services, reduced cost and reduced lead-time or service completion time at the operational level and enhanced competitiveness, increased market share and innovation at the strategic level. Effective buyer-supplier relationships help both parties manage uncertainty and increase efficiency of their supply chains (Fawcett et al., 2012). There is need to have mutual cooperation between buyers and suppliers which is essential to achieve better supply chain performance in terms of increasing sales with fewer inventories in the total system and matching supply and demand as lack of cooperation can lead to delays and poor quality of goods distributed. The research did not look at the effect of these relationships on organizational performance.

### **Influence of Buyer–supplier Collaboration and Organizational Performance**

Gunasekaran, Subramanian and Rahman (2015) referred Supply chain collaboration as the relationship developed for a long time between supply chain members with a view to lowering cost and risk as well as improving quality and market value. In a basic supply chain upstream partners of a focal company are suppliers and downstream partners are customers. Supplier collaboration is the activities of collaborative relationship between the focal firm and its suppliers in order to maximize SC related performance. Buyers to a great extent depend on its supplier’s resources including advanced know-how, manufacturing competence, engineering expertise and financial backing (Yan and Dooley, 2014).

Yan and Dooley (2014) claimed that collaboration facilitates knowledge creation through internalizing partner’s knowledge. To enhance environmental sustainability partner firms, influence each other’s resources and activities to exploit learning and knowledge sharing opportunities (Grekova, Calantone, Bremmers, Trienekens & Omta, 2015). Supplier collaboration however are not always effective for improved performance (Yan and Dooley, 2014) due to lack of communication, mutually supportive environment and mutual decision making.

Plane and Green (2011) conducted a study on Buyer-supplier collaboration and the aim of Facilities Management procurement. The study established that there emerged a consensus that a more relational procurement process has a positive influence on the relationship established and also that the perceived benefits of relational approaches included clarity of service requirements, value delivery, and cultural alignment. This study, however, did not show how buyer-supplier relationships affect organizational performance.

Hassan, Habib and Khalid (2014) carried out a study on the role of buyer-supplier relationship on buying firm's performance in the chemical sector of Pakistan. It focused on the companies listed at chemical sector in Karachi Stock Exchange - KSE 100 index of Pakistan. They concluded that by ensuring timely supplier payment, information sharing and being friends with suppliers, buyers can easily make their profits reach the sky. However, the data was not representative because only six companies filled the questionnaires out of the total thirty companies listed in the KSE 100 chemical sector of Pakistan.

Buyer-supplier collaboration is key in bringing about adaptation, trust and commitment between buyers and suppliers and this eventually leads to continuance of relationships. These were the findings of a study done by Mugarura (2010) which examined effect of buyer-supplier collaboration on relationship continuity in manufacturing companies in Kampala. Dimensions used were incentive alignment, joint decision making and information sharing in relation to adaptation, commitment, trust and relationship continuity most of which were found to have a positive and significant relationship. The study fell short of answering the question of what business continuity brought about by collaborative buyer-supplier relationship, would mean to a firm's performance.

Amuhaya et al., (2014) concluded that buyer/supplier collaboration enhances procurement performance hence creating a competitive advantage through sharing information, making a joint decision, inter-organizational relationship. This indicates that the level of supply chain collaboration has an important interaction effect on the relation between external resources and buying firm performance, where collaborative forms of buyer-supplier exchange facilitate greater access to external resources. The findings are a pointer to the responsiveness; flexibility, commitment and the belief of the trading partners are willing to devote energy to sustaining the relationship.

Waithaka and Waiganjo (2015) argue that inter-organizational transactions have always been important in purchasing practice but, it is only comparatively recently that interest in buyer-supplier relationships has spread across a range of management disciplines. This reflects global changes in production methods and work organization in the late 20<sup>th</sup> century that have made the management of external relationships central to understanding contemporary organizational practices and performance. It is about working together to bring resources into a required relationship to achieve effective operations in harmony with the strategies and objectives of the parties involved thus resulting in mutual benefit. Both commitment and trust influence the level of collaboration between parties, which in turn contributes to better performance in the buyer-supplier relationships (Frödell, 2014).

Kamau (2013) conducted a study on buyer-supplier relations and organizational performance among large manufacturing organizations in Nairobi-Kenya. Five variables which result to successful buyer supplier relationships were identified and they include: Trust, communication, commitment, cooperation and mutual goals. The study concluded that most large manufacturing companies in Kenya have been embracing buyer-supplier relationships for more than ten years. Buyer-supplier relationships have assisted these companies to enhance the performance of their organizations. This study focused on food and beverage manufacturing companies in Nairobi-Kenya only and not in the entire country.

A study by Maku and Iravo (2013) on effects of outsourcing on organizational performance in Del Monte Kenya Ltd found out that Del Monte Kenya Ltd outsources its non-core functions like warehousing, transportation, information technology and distribution from suppliers. The company has not been fully committed to the

establishment of long-term relationships with its suppliers and other stakeholders. Although the potential performance benefits have made collaboration a popular supply chain practice, surveys show its complex structure has left Kenyan companies struggling with implementing and conducting it (Amuhaya et al., 2014).

A study by Kamau (2013) focused on the extent to which manufacturing companies have adopted buyer-supplier relationship. However, the study fails to demonstrate how information sharing; joint decisions and incentive alignment are enhanced to create buyer-supplier collaborative relationships.

Recently in Kenya, researchers have highlighted the multidimensional nature of collaboration. Collaboration in buyer-supplier relationships should incorporate information sharing; joint decisions and incentive alignment to enhance competitive advantage to the firms (Shalle *et al.* 2014). However, the study is limited to the buyer-supplier relationships in procurement function.

#### Research Methodology

The researcher used descriptive survey research design. Descriptive survey design enabled the researcher to summarize and organize data in an effective way (Kireru, 2014). It provided tools for describing collections of statistical observations and reducing information to an understandable form. A descriptive research design was suitable where the study sought to describe and portray characteristics of an event, situation and a group of people, community or population which is the case adopted in this study.

The target population of this study was all the 217 foods and beverage manufacturing companies drawn from all over the major towns and cities in Kenya. The target population was 534 respondents comprising of 217 procurement managers and 217 procurement officers from 217 food and beverage manufacturing companies.

The sampling frame for this study was all of the 217 foods and beverage manufacturing companies in Kenya as listed by the Kenya Association of Manufacturers. The researcher used purposive and simple random sampling technique to select the sample size. Procurement officers and managers were purposively selected from the foods and beverage manufacturing companies in Kenya. One procurement officer and one procurement manager per company was purposively selected to take part in this research. After purposively selecting the procurement officers and managers, simple random sampling was used as a major sampling technique because each respondent had an equal chance of inclusion in the sample. Simple random sampling was appropriate because the entire population is relatively large, diverse and sparsely distributed.

The researcher sampled all the 115 foods and beverage manufacturing companies in Kenya. Using Yamane's (1972) sample size formula at 95% confidence level,  $P = 0.5$ , the sample size was computed as hereunder:

$$n = \frac{N}{1 + N(e)^2}$$

Where;  $n$  = the sample size,  $N$  = the population size,  $e$  = the acceptance sampling error  
 $= 534/1+534(.05)^2$   
 $= 230$  respondents

From the target population of 534 respondents a sample of 115 managers and 115 procurement officers was selected from 115 food and beverage manufacturing companies.

A questionnaire was the most appropriate tool for collecting primary data from the respondents. The questionnaire was appropriate as it allows data to be collected in a quick and efficient manner. The researcher developed the questionnaire used in this study on the basis of previous studies. A five-point Likert scale was used for every question or statement that represents the degree of agreement to the given question. The researcher constructed closed-ended questionnaires, which was administered to 115 procurement officers and 115 managers from each of the selected companies under study.

Before embarking on the actual research, the researcher undertook a preliminary study to ascertain the validity and reliability of the research instruments. To test the validity and reliability of the questionnaire used for this study, the researcher pilot-tested the questionnaire. Piloting of the instruments was done using 12 managers and 12 procurement officers from food and beverage manufacturing companies in Kenya who were not included in the final study. The pilot study was conducted to refine the questionnaire, identify loopholes in the questionnaire and anticipate any logistical problems during the actual survey.

Validity is the extent to which a construct measures what it is supposed to measure (Saunders et al, 2007). During questionnaire development, various validity checks were conducted to ensure the instrument measures what it is supposed to measure. There are three important approaches to assessing measurement validity: content validity (also referred to as face validity), construct validity and criterion validity. The current study utilized content and construct validities.

To ensure content validity, discussions were held with experts during the questionnaire formulation stage to ensure that the measure includes an adequate and representative set of items that tap the content and ensure the questions conform to the study objectives. Content validity of the instrument was determined by the researcher using expert judgment. This was done by discussing the items in the instrument with the supervisors, lecturers from the department and colleagues. Construct validity assesses what the construct or scale is in fact measuring. Construct validity was maintained through anchoring of the constructs to the theory from which they are derived.

Reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. Reliability was measured using Cronbach's alpha method. The Cronbach's alpha coefficient was an appropriate measure of variance attributable to subjects and variance attributable to the interaction between subjects and items. A reliability coefficient of 0.7 and above was assumed to reflect the internal reliability of the instruments (Fraenkel & Wallen, 2000).

After all data has been collected, the researcher conducted data cleaning, which involved identification of incomplete or inaccurate responses and correct to improve the quality of the responses. The data was coded and entered in the computer for analysis using the Statistical Package for Social Sciences (SPSS V23). The research yielded quantitative data. Quantitative techniques such as descriptive statistics and inferential statistics were used to understand relationships between different variables.

The main descriptive statistical analysis that was used include mean, percentages, standard deviation and frequencies to cater for the Likert scales that have been used in the study. Inferential statistics was used to analyze relationship between variables using linear regression analysis. Linear regression is a parametric statistic used since the data adheres to the following assumptions (Field, 2009); data must be

on interval level, a linear relationship exists, the distributions are normal, outliers were identified and omitted. Data was presented by use of tables and graphs.

The Linear regression model assumed the following form:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \dots \dots \dots \text{Equation 3.1}$$

Y is Organizational performance.

$\beta_0, \beta_1$  -coefficients of organizational performance.

$X_1$  – Buyer-supplier collaboration

$\varepsilon$  –Error Term

## **Results**

### **Performance in Food and Beverage Manufacturing Companies**

The dependent variable was the performance in food and beverage manufacturing companies in Kenya. The study sought to find out from respondents their view on performance in food and beverage manufacturing companies. The respondent was asked to indicate their agreement on various aspects of performance in food and beverage manufacturing companies using a 5-likert scale. A total of 10 items were used to explore the respondent's views on performance in food and beverage manufacturing companies and findings are presented in Table 1.

Majority of the respondents 185(88.9%) agreed that both their company and its suppliers have the same goals, with 1.9% undecided and 9.2% disagreed ( $M=4.15$ ;  $SD=0.99$ ). Most of the respondents 200(96.2%) agreed that it was easy to solve a business problem between suppliers and their company because of the collaboration they have, with 1% disagreed and 2.9% undecided ( $M=4.33$ ;  $SD=0.58$ ). Majority of the respondents 194(93.3%) agreed that both their company and its suppliers are financially sound due to their close relationship, with 5.8% undecided and 1% disagreed ( $M=4.32$ ;  $SD=0.67$ ).

**Table 1: Performance in food and beverage manufacturing companies in Kenya**

<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>UD</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>	<b>Std. Dev</b>
	<b>Freq %</b>						
Both my company and its suppliers have the same goals.	9	4.3	10	4.8	4	1.9	102 49.0 83 39.9 4.15 0.99
It is easy to solve a business problem between our suppliers and my company because of the collaboration we have.		2	1.0	6	2.9	122 58.7	78 37.5 4.33 0.58
Both my company and its suppliers are financially sound due to their close relationship.	2	1.0		12	5.8	109 52.4	85 40.9 4.32 0.67
My company and its suppliers look forward to doing business into the distant future.		14	6.7	17	8.2	84 40.4	93 44.7 4.23 0.87
Our business has improved because of the trust we share with our suppliers.	3	1.4		22	10.6	102 49.0	81 38.9 4.24 0.75
We are able to provide better products to our customers because we work closely with our suppliers.				18	8.7	94 45.2	96 46.2 4.38 0.64
My company has been able to deliver services to its customers at a reduced cost due to supply chain integration	2	1.0	3	1.4	10	4.8	74 35.6 119 57.2 4.47 0.74
We serve our customers fast because we work closely with our suppliers.	2	1.0		15	7.2	97 46.6	94 45.2 4.35 0.70
The integration of technology, people, business and processes has enhanced the company's		35	16.8	26	12.5	79 38.0	68 32.7 3.87 1.05

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competitive edge in the current digital age	17	8.2	94	45.2	97	46.6	4.38	0.63
We have been able to deal with abrupt changes in our business environment because we share information with our suppliers.								
<b>Mean</b>							<b>4.27</b>	<b>0.40</b>

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**Source: Field data 2020**

Most of the respondents 177(85.1%) agreed that their company and its suppliers look forward to doing business into the distant future, with 6.7% disagreed and 8.2% undecided ( $M=4.23$ ;  $SD=0.87$ ). Majority of the respondents 183(87.9%) agreed that their business has improved because of the trust they share with our suppliers, with 10.6% undecided and 1.4% disagreed ( $M=4.24$ ;  $SD=0.75$ ). Most of the respondents 190(91.4%) agreed that are able to provide better products to our customers because they work closely with our suppliers and 8.7% undecided ( $M=4.38$ ;  $SD=0.64$ ).

Majority of the respondents 193(92.8%) agreed that company has been able to deliver services to its customers at a reduced cost due to supply chain integration, with 4.8% undecided and 2.4% disagreed ( $M=4.47$ ;  $SD=0.74$ ). Most of the respondents 191(91.8%) agreed that to serve their customers fast because they work closely with suppliers with 1% disagree and 7.2% undecided ( $M=4.35$ ;  $SD=0.70$ ). Majority of the respondents 147(70.7%) agreed that integration of technology, people, business and processes have enhanced the company's competitive edge in the current digital age, with 12.5% undecided and 16.8% disagreed ( $M=3.87$ ;  $SD=1.05$ ). Most of the respondents 191(91.8%) agreed that they have been able to deal with abrupt changes in their business environment because they share information with their suppliers and 8.2% undecided ( $M=4.38$ ;  $SD=0.63$ ).

A total of 10 items were used to explore the respondent's views from on the performance in food and beverage manufacturing companies in Kenya. The overall mean response score among the respondents on performance in food and beverage manufacturing companies in Kenya was 4.27 and standard deviation of 0.40. This value lies in the interval which implies that respondents appeared to agree with performance in food and beverage manufacturing companies in Kenya. Moreover, the overall standard deviation was quite small, an indication of the respondents on the performance in food and beverage manufacturing companies in Kenya in Kenya.

### **Buyer-Supplier Collaboration in Food and Beverage Manufacturing Companies**

The study sought to find out from respondents the extent to which buyer-supplier collaboration affect the performance in food and beverage manufacturing companies. The respondent was asked to indicate to what extent they agreed with various aspects of buyer-supplier collaboration using a 5-likert scale. A total of 9 items were used to explore the respondent's views on the buyer-supplier collaboration and findings are presented in Table 2. Majority of the respondents 164(78.9%) agreed there was high level of trust between their company and that of their suppliers, with 11.5% undecided and 9.6% disagreed ( $M=3.98$ ;  $SD=1.09$ ). Most of the respondents 159(76.4%) agreed that there was mutual information sharing between their company and their suppliers, with 12% disagreed and 11.5% undecided ( $M=3.98$ ;  $SD=1.08$ ). Majority of the

respondents 193(92.8%) agreed that there is a high level of commitment between their company and that of their suppliers, with 4.8% undecided and 2.4% disagreed ( $M=4.47$ ;  $SD=0.74$ ).

**Table 2: Buyer-Supplier collaboration in food and beverage Manufacturing Companies**

Statement	SD		D		UD		A		SA		M ea n	Std. Dev
	F	%	F	%	F	%	F	%	F	%		
There is a high level of trust between their company and that of their suppliers.	14	6.7	6	2.9	24	11.5	90	43.3	74	35.6	3.98	1.09
There is mutual information sharing between their company and their suppliers	8	3.8	17	8.2	24	11.5	81	38.9	78	37.5	3.98	1.08
There is a high level of commitment between their company and that of their suppliers	2	1.0	3	1.4	10	4.8	74	35.6	119	57.2	4.47	0.74
We maintain long-term relationships with their suppliers	2	1.0			15	7.2	97	46.6	94	45.2	4.35	0.70
There is good communication between their company and that of their suppliers	2	1.0	17	8.2	21	10.1	96	46.2	72	34.6	4.05	0.93
There exists clear understanding of each other's roles and responsibilities between their company and their suppliers	11	5.3	7	3.4	33	15.9	85	40.9	72	34.6	3.96	1.06
There is responsiveness towards each other's needs between their company and their suppliers			15	7.2	26	12.5	87	41.8	80	38.5	4.12	0.89
There is a mutual relationship between their company and its suppliers			23	11.1	24	11.5	77	37.0	84	40.4	4.07	0.98
Buyer-supplier	2	1.0			11	5.3	116	55.8	79	38.0	4.30	0.66

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relationships have  
improved  
performance

---

**Mean**

**4.14 0.50**

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**Source: Field data 2020**

Most of the respondents 191(91.8%) agreed that they maintain long-term relationships with their suppliers, with 1% disagreed and 7.2% undecided ( $M=4.35$ ;  $SD=0.70$ ). Majority of the respondents 168(80.8%) agreed that there was good communication between their company and that of their suppliers, with 10.1% undecided and 9.2% disagreed ( $M=4.05$ ;  $SD=0.93$ ). Most of the respondents 157(75.5%) agreed that there exists clear understanding of each other's roles and responsibilities between their company and their suppliers, with 8.7% disagree and 15.9% undecided ( $M=3.96$ ;  $SD=1.06$ ).

Majority of the respondents 167(80.3%) agreed that there was responsiveness towards each other's needs between their company and their suppliers, with 12.5% undecided and 7.2% disagreed ( $M=4.12$ ;  $SD=0.89$ ). Most of the respondents 161(77.4%) agreed that there was a mutual relationship between their company and its suppliers with 11.1% disagree and 11.5% undecided ( $M=4.07$ ;  $SD=0.98$ ). Majority of the respondents 195(93.8%) agreed that buyer-supplier relationships have improve performance in organization, with 5.3% undecided and 1% disagreed ( $M=4.30$ ;  $SD=0.66$ ).

A total of 9 items were used to explore the respondent's views from on the employee's perception on buyer-supplier collaboration. The overall mean response score on buyer-supplier collaboration was 4.14 and standard deviation of 0.50. This value lies in the interval which implies that respondents appeared to show agreement with buyer-supplier collaboration on performance of food and beverage manufacturing companies in Kenya. Moreover, the overall standard deviation was quite small, an indication of agreements among the respondents on the buyer-supplier collaboration in food and beverage manufacturing companies in Kenya.

On the buyer-supplier collaboration the companies there was high level of trust between their company and suppliers, there was mutual information sharing between their company and their suppliers and there is a high level of commitment between their company and that of their suppliers. Companies maintain long-term relationships with their suppliers, there was good communication between their company and their suppliers and there exists clear understanding of each other's roles and responsibilities between their company and their suppliers. There was responsiveness towards each other's needs between their company and their suppliers, there was a mutual relationship between their company and its suppliers and buyer-supplier relationships have improved performance in organization.

### Influence of Buyer-Supplier Collaboration on Organization Performance

A linear regression model was used to explore the relationship between buyer-supplier collaboration and organization performance. From the model, ( $R^2 = .304$ ) shows that buyer-supplier collaboration accounts for 30.4% variation in organizational performance as shown in Table 3.

**Table 3: Model Summary on Buyer-supplier collaboration and organization performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.551 <sup>a</sup>	.304	.300	.33440

a. Predictors: (Constant), Collaboration

The regression model with buyer-supplier collaboration as a predictor was significant ( $F=89.849$ ,  $p =0.000$ ) as shown in (Table 4). This shows that there is a significant influence of buyer-supplier collaboration on organization performance.

**Table 4: Analysis of Variance on Buyer-supplier collaboration and organization performance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.047	1	10.047	89.849	.000 <sup>b</sup>
	Residual	23.035	206	.112		
	Total	33.083	207			

a. Dependent Variable: Performance

b. Predictors: (Constant), Collaboration

**Source: Field data 2020**

Table 5 shows the estimates of  $\beta$ -value and gives contribution of the predictor to the model. From the findings the t-test associated with  $\beta$ -values was significant and the buyer-supplier collaboration as the predictor was making a significant contribution to the model. The  $\beta$ -value for buyer-supplier collaboration had a positive coefficient, depicting positive relationship with organization performance as summarized in the model as:

$$Y = 2.44 + 0.441X + \varepsilon \dots\dots\dots \text{Equation 1}$$

Where: Y = Organization performance, X = Buyer-supplier collaboration,  $\varepsilon$  = error term

**Table 5: Buyer-supplier collaboration and organization performance Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.444	.194		12.586	.000
	Collaboration	.441	.047	.551	9.479	.000

a. Dependent Variable: Performance

**Source: Field data 2020**

The study findings depicted that there was a positive significant influence of buyer-supplier collaboration on organization performance ( $\beta_1=0.441$  and  $p<0.05$ ). The

buyer-supplier collaboration had a significant influence on organization performance. This implies that for every increase in buyer-supplier collaboration, there was a corresponding increase in organization performance.

The study established that effective supplier collaboration enhances organizational performance. The supplier collaboration platform connects buyers, suppliers, and all their processes in the day to day operations. This agrees with Odhiambo (2014) that both parties work towards mutual improvements to eliminate no value-adding activities. To meet all operational and some of the strategic needs of the buying, organization reacts positively to initiatives of the purchaser to improve the current situation (Rodrigues, 2010). This finding agrees with Plane and Green (2011) that there emerged a consensus that a more relational procurement process has a positive influence on the relationship established.

The study indicated that supplier collaboration is fundamental in organization performance. Hassan, Habib and Khalid (2014) that by ensuring timely supplier payment, information sharing and being friends with suppliers, buyers can easily make their profits reach the sky. Findings concur with Amuhaya et al., (2014) that buyer/supplier collaboration enhances procurement performance hence creating a competitive advantage through sharing information making a joint decision, inter-organizational relationship. Buyer-supplier relationships have assisted these companies to enhance the performance of their organizations.

Conclusions

### **Conclusions and Recommendations**

The study concluded that there was a high level of trust between the buyer company and their suppliers. There was mutual information sharing and a high level of commitment between the company and that of their suppliers. Companies maintain long-term relationships, good communication between the company and their suppliers. There exists clear understanding of each other's roles and responsibilities between their company and their suppliers. There was a significant influence of buyer-supplier collaboration on performance of food and beverage manufacturing companies. The supplier collaboration connects buyers, suppliers in all their processes in the day-to-day operations. The study concludes that buyer-supplier collaboration enhances organizational performance in food and beverage manufacturing companies.

Recommendations

The management of food and beverage manufacturing companies should build strong ties with their buyers/suppliers. They should have a high level of trust and commitment between company and that of their suppliers and maintain long-term relationships with the suppliers. Communication is also key if procurement performance is to be enhanced. As such there is need for buyers and suppliers to be in constant communication and to expedite quick and accurate responses. It is necessary for organizations to work towards creating long term collaborative relationships.

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## Chapter 8

### The Role of Learning Resource Project in Teacher Education in Kenya

By

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#### Abstract

The role of project work in STEM education cannot be overemphasized in Kenya and globally. A number of universities in Kenya have infused the Learning Resource Project (LRP) in the training programmes in Teacher Education. The Project based learning makes the school and learning more like a real-life situation promoting the 21<sup>st</sup> century skills which adequately prepare learners to survive in today's world. The study aimed at finding out the role of infusion of LRP in teacher training in Kenya. Three hundred and sixty (360) teacher trainees in the STEM subjects were studied over a period of three years (2017-2020). The study was guided by Yin's case study research design, using purposeful sampling. The observable Phenomena (PBL) was investigated with regard to unknown matters in their relationship. The research tool was the trainee teacher's questionnaire, through which the researchers were able to get information concerning the choice of project based on the needs for the school, pedagogical justification, and use of locally available materials, design and development procedures, involvement of learners, utilization in teaching and sustainability of the LRP. The questionnaire was pilot-tested to obtain a reliability coefficient of  $r = 0.81$  and therefore accepted for use in the study as the minimum had been set at  $r = 0.70$ . Data from questionnaire was analyzed using both qualitatively and quantitatively, the results were discussed in themes according to the research objectives, the study established that the teacher trainees are made to learn on the job, come to see how to link their teaching with the learners' environment, understand how to apply Project-based learning (PBL) that is engaging, rigorous, teacher-facilitated, student-centered, and standards-based. It also assists the teacher trainees to connect to the economy, innovation, and technology. However, there is need to equip the lecturers teaching special subject methods and their cooperating teachers with the necessary knowledge, skills and attitudes with the recent trends of project-based learning. The findings will assist teacher education colleges and Universities in the infusion of the LRP and the Schools where Teaching Practice is conducted.

**Keywords:** Learning Resource Project (LRP), Project-based learning (PBL), teacher trainee, teacher education, efficacy, competence-based learning

### The Role of Learning Resource Project in Teacher Education in Kenya

By

## **Introduction**

The Project based learning makes the school and learning more like a real-life situation promoting the 21<sup>st</sup> century skills that will assist the learners to survive in today's world while making use of materials from their immediate environment in designing and developing teaching and learning aids to assist them in their teaching (Knight et al., 2015). Further the 21<sup>st</sup> century teacher is expected to be a critical thinker and a motivator of solving daily life problems. This implies that more weight is given to improvisational skills in making teaching materials by the pre-service teacher trainees and even in-servicing the teachers who are practicing (Sawyer, 2011a).

This study which took three years gives the opportunity to discuss how innovative teachers may be nurtured right from the time they are in pre-service training while they are in service (Berk & Trieber, 2009; Sawyer, 2011b). Numerous literatures indicate that learners in developing countries perform poorly in their studies due to non-involvement in hands-on because schools lack equipped laboratories or the teachers are deficient in skills to that lead to utilization of practical work (Ndirangu, Kathuri & Mungai, 2003). Onyesolu (2009), sees constructivism in science as hindered by the inadequacy or lack of experimental materials and equipment in schools (Onyesolu, 2009).

In Kenya students have been found not being involved in practical work and the teachers are sometimes the 'main actors' and sometimes the 'only actors' in the classrooms, and the source of content is mainly from teachers' lecture notes. Akeyo & Achieng, (2012) observe that practicals are not carried in Kenya institutions because of the same reasons. However, with the new shift to Competence Based Curriculum (CBC) in the education system in Kenya since 2017 (Republic of Kenya, 2017), in which the utilization of improvised experimental materials is stressed not only in Science and Mathematics but in all the other subjects. Thus, a teacher will continuously be needed to be creative than being theoretical. Competency is a situation in which a candidate has attained sufficient knowledge, practical skills and attitudes in performing a task or service to a degree and quality that is acceptable to the industry and the customer in a time within which a competent person at the level could reasonably be expected to perform the task (Momanyi & Rop, 2019). Improvisation comes from the Latin word *improvisus* which literally means 'the unforeseen' or 'to provide the unexpected' (Dehlin, 2012). Therefore, improvisation means using a different object or material to do and achieve what a conventional one does almost the way it does (Dehlin, 2012; Holdhus et al., 2016). Lobman (2011) has observed that the teacher is required by syllabi and society to follow a rigid curriculum which complete without hands-on activities (Imanda et al., 2020).

In Kenya, Egerton University and the universities that came out of it, namely; Kisii, Laikipia, Chuka and Tharaka University College, have embraced the idea of a Learning Resource normally reduces his or her opportunity to improvise which leaves him or her as simply a transmitter of knowledge from a generation to another. She further argues that it is high time that teachers become facilitators of learning by organizing meaningful learning activities for the learners. Therefore, the teachers should practice constructivism. The skills of improvising teaching/learning materials are a necessity in education (Lobman, 2011; Sawyer, 2011b). Holdhus et al. (2016) posit that improvisation is a professional skill which influences the educational theory

and practice. Improvisation can be learned and rehearsed (Berk & Trieber, 2009) as a teacher continues teaching and using it. The teacher then can deliberately apply the 4C's namely collaboration, communication, critical thinking and creativity. The teacher trainees are guided on how to develop the LRP, throughout they should as much as possible adopt the use of Science process skills. In their work they focus on the following seven steps, project description, materials, budget, design and procedure, utilization and sustainability of their LRP. Science learning is not

Project (LRP) in which the teacher trainees design, develop, implement and evaluate a low-cost, LRP utilizing locally available materials. Nairobi University, the Kenya Science Teachers University College also implements the LRP, though theirs is slightly modified. LRP is one form of improvisation that is aimed to make the learners to construct knowledge cheaply and by getting involved in constructivism. The type of LRP that the student teachers are required during their teaching practice (practicum) is one which that can be used to either teach either at least two topics or two different forms (grades) in the subject of one's choice. There is little research literature of the influence of the LRP on the improvisational skills in the teacher trainees. Therefore, this research set out to establish the influence of the LRP on the improvisational capabilities of the teacher trainees who have just cleared their teaching practicum.

### **Statement of the Problem**

Learners in developing countries perform poorly in their studies because they are not involved in hands-on because of factors such as not every school having equipped laboratories or the teachers are deficient as far as the utilization of practical work is concerned. Constructivism in education is hindered by the inadequacy or lack of experimental materials and equipment in schools. Teachers are sometimes the 'main actors' and sometimes the 'only actors' in the classrooms, and the source of content is mainly from teachers' talk or lecture notes. With the new shift to Competence Based Curriculum (CBC) in the education system in Kenya since 2017 (Republic of Kenya, 2017), in which the utilization of a variety of improvised LRP materials is stressed not only in science and mathematics but in all the other subjects.

The type of LRP is a type of improvisation. The reviewed literature reveals that most of the studies established an increase in the self-efficacy of the university students. Consequently, the studies conducted with secondary school learners being insufficient and the results of the studies not agreeing with each other mean more studies should be conducted regarding this subject. Additionally, the review did not establish any study dealing PBL with pre-service teacher training yet from all these outlined studies, it has been established that the learning process, student motivation and academic self-efficacy is an important aspect and should be developed. Therefore, there is little research literature of the influence of the LRP on the improvisational skills in the teacher trainees. Therefore, this research set out to establish the influence of the LRP on the improvisational capabilities of the teacher trainees who have just cleared their teaching practicum.

### **Objectives of the study**

The study was guided by the following objectives;

1. To investigate the preparedness of the teacher trainees to conduct the learning resource project
2. To evaluate the process of the design, development, implementation of the learning resource project.

## **Review of Related Literature**

Project-based learning (PBL) among the methods of active learning methods through which real life problems encountered and results from the investigations are presented orally or given in terms of the actual project and in form of written reports (Thomas, 2000). The PBL dates back to the times of John Dewey Experiential Learning, Kilpatrick's Project Method, and Bruner's Learning Approach through Invention (Korkmaz and Kaptan, 2001). The aim of utilizing PBL is to make learners to not only better their conception of ideas but acquire science process skills (Ayaz and Söylemez, 2015). PBL develops and enriches the students' learning skills, avail opportunities for life-long learning, connects them to their environment enable them to construct their knowledge through meaningful learning activities, makes them to exploit the different dimensions of intelligence, provides valuable data to parents, teachers, educational officers about the learners learning, develops in the learner skills for solving real-life problems and providing problem-based learning skills (Demirhan & Demiral, 2003; Demirhan & Demirel, 2003); Bayraktar, 2015). Further, PBL presents the learner with motivation, enhances student's interest and attracts them into action (Solomon, 2003).

Project-based learning affects the learner's perception of competence (Aydın & Yel, 2013; Mills, 2009). PBL has been observed to provide a deeper learning, higher reading level, a better conceptualization of ideas and boosts interest in reading. By increasing the learner's participation in the process of knowledge acquisition, Thomas (2000) opines that PBL creates and maintains attention, hence motivation to learn more. In addition, in Mills (2009) study on self-efficacy; it was observed that self-efficacy significantly increased in the students after PBL was applied on 46 undergraduate students taking French course. Similarly, in Aydın's (2012) study based on 40 undergraduate Cytology Laboratory course students taking, he concludes that there was an increase in the biology self-efficacy levels following the curriculum based on PBL. In studying teachers in PBL for several months, Choi, Kim, Lee and Park (2016) determined that PBL was positively and strongly correlated with the self-efficacy of the teachers. Weber (2010) reports increase in self-efficacy in his study on the self-efficacy levels of high school students. Amanda, Subagia and Tika (2012) on conducting a study on 8th-grade students, they found no relationship between PBL and self-efficacy of students towards science.

The reviewed literature shows that project-based learning in many different school and grade levels on self-efficacy were examined, more so those that focus on undergraduate students and finding the studies conducted with secondary school students insufficient. Most of the studies established an increase in the self-efficacy of the students (Dunlap, 2005; Hatipoğlu & Rambo-Hernandez, 2016; Mills, 2009; Schaffer, Chen, Zhu and Oakes, 2012), some of them did not determine a significant effect (Amanda, Subagia & Tika, 2014). Consequently, the studies conducted with secondary school learners being insufficient and the results of the studies not agreeing with each other mean more studies should be conducted regarding this subject. Additionally, the review did not establish any study dealing PBL with pre-service teacher training yet from all these outlined studies, it has been established that the learning process, student motivation and academic self-efficacy is an important aspect and should be developed. At this stage, it is necessary to contribute to the knowledge on the role that PBL on competence and self-efficacy of the teachers who would be applying the tenets of PBL in their teaching and therefore those students they will be teaching (Gerlach, 2008; Mills, 2009; Wang, 2010). Additionally, the study

contributes to the literature in establishing the role of PBL on student academic self-efficacy, competence and motivation. Projects can be done in all areas of study and not just Science, Technology and Mathematics (STEM) (Aydın, Demir, Atalay & Göksu, 2017).

## **Methodology**

### **Research Design**

The study was guided by Yin's case study research design, on how findings from the field are related to the preliminary theory (Yin, 1994), with a focus on actors' descriptions, interpretations and meaning-making (Yin, 1994).

### **Target Population and Sampling**

The target population was all the 2500 teacher trainees at Kisii University for the period 2017 -2020. Out of these 360 teacher trainees who had just cleared their teaching training practicum were purposely sampled for inclusion as the respondents in the study. These teacher trainees represented the main teaching subjects that are offered in the secondary school segment in Kenya. They included; English, Kiswahili, Mathematics, Biology, Physics, Chemistry, History and Government, Geography, Christian Religious Education, Business Studies, Agriculture and Computer Studies.

### **Research Instrument**

A researcher-made questionnaire for trainee teacher. The validity of the questionnaire was achieved by having senior lecturers in the Department of Curriculum, Instruction and Media Studies at Kisii University validating them. Reliability was checked by subjecting the instrument to test and retest with the first and second tests being separated by two weeks. The research instrument was piloted on the Egerton University teacher trainees who were not involved in the actual study. The reliability of the teacher trainee's questionnaire was calculated to be 0.81 since it met the threshold of 0.7 reliability coefficient, it was considered suitable for use in the study.

### **Data Collection**

The Teaching Practice Supervisors were required to assess the LRP for every teacher trainee at various stages starting with the proposal done by the teacher trainee through the completed project to the utilization of the LRP in teaching subject content to the evaluation of the LRP. The teacher trainees who were sampled for the study were required to complete the questionnaire at the tail end of the Teaching Practice. Additionally, co-operating teacher (the teacher who was meant to mentor the trainee teacher) had a questionnaire to fill at the end of the teaching practice period for his/her mentee teacher (trainee). To ensure high rate of return of the data collection instruments, the researchers gave the instruments on the day they visited the schools and requested the respondents to complete the instruments and hand in on the same day. The instruments sought information on the understanding what an LRP is, the design, development, implementation, evaluation, durability and sustainability of the LRP even after the teacher trainee has long left the teaching practice school.

### **Data Analysis and Presentation**

Data collected was cleaned, coded and input into the SPSS Version 23 and analyzed both descriptively and quantitatively and presented in terms of tables. Interpretation was done and the results were discussed thematically.

## Results and Discussion

There were 265 male teacher trainees and 95 female teacher trainees who were involved in the study. In terms of age 78 % of the trainees were between age 22 and 24 years.

### Preparation of the Teacher Trainee for LRP

The teacher trainee was asked to rate statements on a scale of 1 = agree, 2 = seem to agree, 3 = Tend to Disagree and 4 = Disagree. Table 1 presents the responses from the questionnaire.

**Table 1: Understanding of LRP and designing it**

	Minimum	Maximum	Mean	Std. Deviation
I am sufficiently aware of what kind of learning resource projects to make during the teaching practice	1	4	1.53	.722
I did not understand the difference between teaching aid and LRP	1	4	3.72	.808
I understood the format of writing LRP Proposal	1	4	1.78	2.775
I understood the format of writing LRP Report	1	4	1.54	.655
The budget I presented a was high and it had to be adjusted before being funded by the school	1	4	3.37	1.078

**Source: Field data (2020)**

The score of 1.53 with a large standard deviation means that most trainee teachers are sufficiently aware of what kind of learning resource projects to make during the teaching practice. But again, there is an appreciable number who may not be well aware of what it is they are supposed to design, develop and implement. The score of 3.72 to the negative statement that the teacher trainee did not understand the difference between teaching aid and LRP means that the teacher trainees understand the difference between a teaching aid and a learning resource project. The teacher trainee understood the format of writing LRP Proposal. The teacher trainee understood the format of writing LRP Report. This is based on the low score of 1.54 that ends to agree. The high value of 3.37 to the negative statement that the trainee teachers presented a high budget that needed to adjust downwards before being funded by the school means that the budgets presented by the trainees were within the recommended range as guided by the LRP guideline.

### *Usefulness of LRP*

The teacher trainee was asked to rate statements on a scale of 1 = agree, 2 = seem to agree, 3 = Tend to Disagree and 4 = Disagree. Table 2 presents the responses from the questionnaire.

Table 2. Importance of LRP implementation	
Statement	Std. Deviation
Minimum	Maximum
Mean	Deviation

In general, the project component helps the school with teaching materials even after the teaching practice	1	4	1.49	.868
Learning resource project assisted the teacher to deliver content at low cost	1	4	1.38	.545
LRP made students to use their intellectual ability	1	4	1.35	.510
LRP Connected learners to their immediate Environment	1	4	1.30	.494
LRP Makes content easily understood by the student	1	4	1.36	.593
LRP enhanced the learners' adventure and curiosity	1	4	1.54	.632
LRP promotes learners' self-reliance and creativity	1	4	1.51	.559

**Source: Field data Field (2020)**

The respondents well agreed that the LRP assists the school to have teaching and learning resources out of the LRP for use even after the teaching practice. This is evident from the 1.49 mean score (SD = 0.868) to that statement that the LRP leaves behind a teaching/learning resource in the TP school. The mean score of 1.38 (SD = 0.545) for that the LRP aids the teacher to deliver content at a low cost is in agreement with the earlier findings by Demirhan and Demiral (2003) that PBL develops and enriches the students' learning skills, avail opportunities for life-long learning, connects them to their environment. The low mean score of 1.35 with a standard deviation of 0.510 to the statement that LRP made students to use their intellectual ability means that the PBL (or the LRP) triggered the intellectual ability of the learners. By utilizing the PBL, the LRP Connected learners to their immediate Environment. This is evidenced by the mean of 1.30 mean score and the 0.494 standard deviation response that came up for the statement that LRP connect the learner with his /her environment. LRP Makes content easily understood by the student (mean = 1.36, SD 0.593), because the learner is actively and meaningfully involved in constructing his/her knowledge. This is in agreement with Thomas (2000) opines that PBL creates and maintains attention, hence motivation to learn more. This type of PBL, the LRP enhanced the learners' adventure, creativity and curiosity (mean =1.54, SD = 0.632). Additionally, the LRP was found to promote the self-reliance and creativity in learners (mean = 1.51, SD = 0.559).

### **Sourcing Materials for the LRP**

The teacher trainee was asked to rate statements on a scale of 1 = agree, 2 = seem to agree, 3 = Tend to Disagree and 4 = Disagree. Table 3 presents the responses from the questionnaire.

<b>Statement</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
LRP enabled me rethink and research on cheaper processes easier for students	1	4	1.46	.558
Sourced materials were available within the environment	1	4	1.54	.609

Materials sourced made the LRP durable	1	4	1.47	.584
I sourced for materials that will make the LRP attractive	1	4	1.49	.560
I obtained materials that pose minimal or no danger to the users	1	4	1.41	.525
I organized the project report/ write ups that user can get it easy to understand	1	4	1.38	.517
I used conventions for the common parts such as switches	1	4	1.52	.587
I made a careful study of conventional apparatus or experiments before design and developing the LRP	1	4	1.61	.579

**Source:** Field (2020) Field (2020)

The research revealed that the utilization LRP in pre-service teacher training enables the trainee teacher to rethink and research on cheaper processes easier for students (Mean = 1.46, SD = 0.558). The teachers on teaching practicum were made to source materials were available within the environment (Mean = 1.54, SD = 0.609) for the development of the teaching learning resources that they came up with. They used materials that could make the LRP durable (Mean = 1.47, SD = 0.584). Again, the sourced materials were such that the final LRP artifact were attractive (Mean = 1.49, SD = 0.560). Materials that could pose possible dangers were avoided and those that could pose minimal or no danger to the users (Mean = 1.41, SD = 0.525) were applied in the molding of the LRPs. The teachers organized the project report/ write ups that user can get it easy to understand (Mean = 1.38, SD = 0.517) while going through them. Usual conventions for the common parts such as switches (Mean = 1.52, SD = 0.587) on the project item so that their operations were easy. The trainee teachers carefully studied conventional apparatus or experiments before design and developing the LRP (Mean = 1.61, SD = 0.579) before design and development of the LRPs.

#### *Curriculum and the LRP*

The teacher trainee was asked to rate statements on a scale of 1 = agree, 2 = seem to agree, 3 = Tend to Disagree and 4 = Disagree. Table 4 presents the responses from the questionnaire.

Table 4: LRP and Curriculum Implementation

<b>Statement</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
I designed the LRP based on learning objectives	1	4	1.45	.585
I put the LRP or Experiments to test	1	4	1.43	.529
I made further improvements on LRP	1	3	1.49	.561
I made use of LRP for demonstration or practical work	1	4	1.39	.491
I chose instructional strategy for use with LRP	1	4	1.46	.532

I chose the best medium of presentation of the LRP	1	4	1.45	.501
I first reviewed the existing LRPs	1	4	1.45	.501

Source: Field data (2020)

Most trainee teachers used the learning objectives as spelt out in the Kenya Certificate of Secondary Education (KCSE) syllabus to design the LRP (Mean = 1.45, SD = 0.585). In the process of making the LRP or Experiments they tested the working of the LRP at preliminary stages (Mean = 1.45, SD = 0.585). Based on the way the LRP workability was evaluated, further improvements on LRP were made (Mean = 1.45, SD = 0.585). The LRP was utilized by the trainee teachers either for demonstration or practical work (Mean = 1.45, SD = 0.585). The instructional strategy for use with LRP was selected (Mean = 1.45, SD = 0.585) for use with the LRP. The teachers chose the best medium of presentation of the LRP (Mean = 1.45, SD = 0.585). In coming up with the LRP that a teacher designed and implemented, they had first to review the LRPs existing in the schools (Mean = 1.45, SD = 0.585) so as not to replicate what may have been done. This implies that the trainee teachers were to come up with original or modified ideas of LRP.

### Student involvement in the LRP

The teacher trainee was asked to rate statements on a scale of 1 = agree, 2 = seem to agree, 3 = Tend to Disagree and 4 = Disagree. Table 5 presents the responses from the questionnaire.

**Table 5.** Student involvement in LRP

<b>Statement</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
I involved learners in the design and development of the LRP	1	4	1.52	.636
I involved the regular teachers in the design and development of the LRP	1	4	1.61	.738
I involved the learners in the assembly of the LRP	1	4	1.49	.587
I taught the learners using the LRP	1	4	1.42	.581
I made the regular staff aware of the effectiveness of the LRP	1	4	1.45	.502
I Made comparison between the experimental results and the conventional teaching	1	4	1.61	.551
I Conducted formative evaluation on LRP	1	4	1.58	.556
I assessed the effects of LRP on teaching the subject	1	4	1.63	.671

**Source:** Field (2020) Field (2020)

Most trainee teachers involved learners in the design (Mean = 1.52, SD = 0.636) and development (assembly) of the LRP (Mean = 1.49, SD = 0.587). This was arrived at based on the mean of 1.52 which is very close to agreeing with the statement suggesting that the learners were involved in coming up with and making the LRP. Regular teachers were also involved in the design and development of the LRP (Mean = 1.61, SD = 0.738). The learners were taught using the LRP (Mean = 1.42, SD = 0.581). The TP teachers made the regular staff aware of the effectiveness of the LRP (Mean = 1.45, SD = 0.502) in teaching topics within the subject of concern. Most teachers evaluated the effectiveness of the LRPs by comparing experimental results given by the LRP to and the conventional teaching (Mean = 1.61, SD = 0.551). They also conducted formative evaluation on LRP (Mean = 1.58, SD = 0.556) at various stages of the LRP and finally they assessed the effects of LRP on teaching the subject (Mean = 1.63, SD = 0.671). These statements agree that PBL enhance the competence and self-efficacy of the teachers who would be applying the tenets of PBL in their teaching and therefore those students they will be teaching (Gerlach, 2008; Mills, 2009; Wang, 2010). Additionally, the study contributes to the literature in establishing the role of PBL on student academic self-efficacy, competence and motivation.

### *Sustainability of the LRP (Project)*

The teacher trainee was asked to rate statements on a scale of 1 = agree, 2 = seem to agree, 3 = Tend to Disagree and 4 = Disagree. Table 6 presents the responses from the questionnaire.

Table 6. Sustainability of LRP

<b>Statement</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
I described how the project is used to the regular teachers within the school	1	4	1.36	.483
I gave a copy of LRP report to the Head of Department in the TP school	1	4	1.52	.533
I made a write up/manual for use of the LRP	1	4	1.51	.587
I left a manual/explanation on how to use the LRP with the school	1	4	1.58	.655
I inducted some regular staff at the school on repair and maintenance of the LRP	1	4	1.66	.735

**Source: Field data (2020)**

From Table 7, the mean for describing the LRP to the regular teachers is 1.36 with a standard deviation of 0.483, it can be deduced that the trainee teachers described how the project is used to the regular teachers within the school. The score of 1.52 implies that the trainee teacher gave a copy of LRP report to the Head of Department in the TP school. Most trainee teachers made write ups/manuals for use of the LRP. This is because the mean score of 1.51 is within the agree region. Further, that the trainee teacher left a manual/explanation on how to use the LRP with the school (mean = 1.58, SD = 0.655). The score of 1.66 with a standard deviation of 0.735 to whether some regular teachers were inducted on repair and maintenance of the LRP, means that they were actually inducted. All these statements point to preparation for sustainability of the utilization of the LRP even after the trainee teacher leaves the schools of their teaching practice

### **Hindrances to Use of LRP**

The teacher trainee was asked to rate statements on a scale of 1 = agree, 2 = seem to agree, 3 = Tend to Disagree and 4 = Disagree. Table 7 presents the responses from the questionnaire.

**Table 7: Hindrances to LRP**

<b>Statement</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
The curriculum is loaded and does not easily allow for use of project method instead examination pressure is too much	1	4	2.43	1.185
It was not possible to improvise everything needed for the project	1	4	2.50	1.268
I received little or no support from the school's stakeholders	1	4	3.28	1.070
The time for developing LRP was limited	1	4	3.48	.846
The idea of LRP is not well understood by the school administration	1	4	1.94	.877
Most regular teachers are not well versed with LRP	1	4	1.74	.615
There is an equipped room with workbench for development of LRP	1	4	3.30	1.030

**Source: Field data (2020)**

The mean of 2.43 with a standard deviation of 1.185 implies that there are teacher trainees who do not see that the curriculum is loaded with the examination pressure while others see otherwise. The curriculum is loaded and does not easily allow for use of project method instead examination pressure is too much. This agrees with Lobman (2011) that rigid curriculum normally reduces his or her opportunity to improvise which leaves him or her as simply a transmitter of knowledge from a generation to another. It was not possible to improvise everything needed (mean score = 2.50, standard deviation = 1.268). The mean score of 3.28 with a standard deviation of 1.070 that the respondents gave for the teachers received little or no support from the stakeholders meant that the schools gave the teacher trainees were given support. The mean of 3.48, standard deviation = 0.846 for the negative statement that the teacher trainees are not provided with enough time for developing LRP means that the trainees see the time as sufficient for the developing and evaluation of the LRP. The concept of LRP is not well understood by the school administration attracted a mean score of 1.94 with a standard deviation of 0.877 which means that some school administrators could be well versed with the meaning of LRP and a majority do not fully understand it. The regular teacher too does not well understand fully what LRP entails. This is evidenced by the mean score of 1.74 (SD = 0.615). The score of 3.30; standard deviation = 1.030 means that most schools do not have workspaces including workbenches that are equipped for use in developing the LRPs. These are some of the main challenges that the trainee teachers face in coming up with and utilizing the LRP in teaching during their teaching practice.

## **Conclusion and Recommendations**

In this study the learning resource projects (LRPs), were conducted so as to identify their contribution to pre-service training on CBC of secondary school would-be teachers. The study came up with the same results for university students showed that PBL increased student self-efficacy (Aydin and Yel, 2013; Brennan, Chen, Hernandez & Dong, 2015; Mills, 2009). However, there are several hindrances to the use of LRP in training the teacher who would be the teachers to implement CBC and to the actual teaching of the subjects to secondary school students. These include an overloaded curriculum, lack of understanding of the meaning and need for the LRP, lack of sufficient funding and lack of proper working spaces in schools.

### **Recommendations**

Based on the findings, discussions and conclusion from this study, it is recommended that the concept of LRP is introduced and structured to universities and teacher training colleges not only within Kenya, but world-wide so that the teachers to be are trained on becoming proficient in the design, development, implementation and evaluation of LRPs so that they can be able to create in themselves ability to impart the CBC at minimal cost and also connect their learners to their daily environment. For the already practicing teachers, the Ministry of education should introduce the component of improvisation in the In-service trainings, more particularly on the use of PBL (LRPs) to teach.

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## Chapter 9

### Use of information and Communication Technology tools for Capturing Indigenous Farming Knowledge for Sustainable Development

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#### Abstract

Local communities have gained a systematic body of knowledge through collection of experiences, unconventional experiments and close appreciation of the environment in a given culture that is known as indigenous knowledge (IK) that is still very relevant because it offers a blueprint for problem solving for communities, can considerably contribute to global development knowledge and is still meaningful for the development process. It is knowledge and systems that have been fine-tuned and adopted to counter the processes that are often harsh and could affect development within their environment. New Partnership for Africa's Development (NEPAD) has recognized that Africa has the potential of applying indigenous knowledge in escalating food products, battling HIV and AIDs and other diseases and blocking environmental degradation. Recognizing the value of indigenous knowledge, IFLA calls public libraries in Africa to take an active role in promoting and protecting indigenous knowledge by collecting, preserving and disseminating indigenous and local knowledge and act as a beehive of activity for communities wishing to gain access to relevant information and knowledge. However, indigenous knowledge's traditional modes of capture, processing, preservation and dissemination through use of oral stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals among others are soon being overtaken by new developments in society in the new knowledge economy and if attempts are not put in place to capture it and preserve it for integration with modern knowledge IK may become extinct. This conceptual paper proposes the need to use information and communication technologies (ICTs) for documenting indigenous knowledge to help meet the needs of the current generation without undermining the ability of future generations. The identification of IK sources is very important. Deploying available ICTs including digital and or video cameras, mobile phones, internet enabled computers can effectively be used to capture, store, retrieve, disseminate and manage indigenous knowledge through knowledge management approaches. Indigenous knowledge repositories and databases can be developed and be accessible online for use by practitioners in various fields for sustainable development.

**Keywords:** Indigenous knowledge; Knowledge capture; Knowledge asset

# **Use of information and Communication Technology tools for Capturing Indigenous Farming Knowledge for Sustainable Development**

By

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## **Introduction**

Indigenous knowledge is variously defined and no single definition exists to date. The various definitions do not contradict each other but rather help clarify, deepen or even enrich the previous definitions. Warren and Rajasekan (1993) view the body of knowledge gained by local people by gathering experiences, unconventional experiments and close understanding of the environment in a given culture as indigenous knowledge. Kroma, (1995), on his part perceives indigenous knowledge as local knowledge, derived from interactions between people and the environment. Das, Gupta and Sahal (2009) view the unwritten knowledge that is unique to a given culture and society as indigenous knowledge. Capel, (2013) on his part view that particular, customary, local knowledge flourishing within and evolved around the specific conditions local to a specific geographic area and implanted in the community as indigenous knowledge.

The one fact that these definitions infer to signify that specialized body of knowledge evolved and applied by people living in a given locality in order to sustain their existence and overcome the challenges associated with their natural or original habitat is indigenous knowledge. From the above definitions, the Global Knowledge Partnership, (2005) infers that indigenous knowledge a community's locally held and adapted knowledge, where a community is defined by its geographical location, culture, language, or area of interest. Isiaka, et al, (2017) adds that indigenous knowledge is the sum total of constant adaptation and a continuously changing environment passed down from generation to generation, and it is deeply entwined with people's cultural values.

Indigenous knowledge is thus a specialized body of knowledge developed and used by people living in a particular location in order to maintain their existence and overcome the problems associated with their natural or original habitat. It permeates all aspects of human experiences in all fields such as agriculture, climatology, politics and, medicine. Indigenous knowledge refers to a people's innovations, abilities, experiences, and insights that have evolved through generations to help them preserve or improve their livelihoods in a traditionally rural setting which have grown out of generations of experience. Makate (2019) sums indigenous knowledge as that institutionalized local knowledge that has been built on and passed down from generation to generation, mainly through word of mouth. (Makate, 2019). Thus IK covers a wide spectrum of accumulated human experiences in all fields of human existence such as agriculture, medicine, weather, history, religion, and natural resources management among others.

## **Statement of the Problem**

Over the years communities accumulate a wealth of experiences in various aspects of their lives of which when retained and shared can boost growth and prosperity. Unfortunately, indigenous communities usually do not have the ability or know-how to retain and share their experiences for posterity and thus many important lessons are usually lost or forgotten along the way. Indigenous farming knowledge is under threat

of extinction due to its non-recording modes of transfer, breakdown of oral paths and globalization which has affected the way we stay. Documenting indigenous farming knowledge can enable knowledge to be preserved for posterity and integrated with modern knowledge for current use. Knowledge capture is a sure way to learn about solutions to a particular problem or challenge. If for example, indigenous farming knowledge experiences could be captured and mainstreamed with modern farming experiences, food production and security could improve. Use of ICTs can assist knowledge capture and sharing and profoundly affect the way experiences are consolidated, stored, scaled up for learning and replicated in future. The conceptual paper aims at exploring the possibilities of capturing indigenous farming knowledge as a tool for socio economic sustainability. Through use of established knowledge capture and sharing mechanisms, the knowledge so captured and shared will boost food production. The perceived outcome will be a knowledge asset consisting of captured mission critical farming experiences that will act as a pool on indigenous farming knowledge for sustainable development.

### **Review of Related Literature**

The literature will be analyzed based on pertinent areas such as relevance of indigenous knowledge, threats and limitations of IK, application of ICTs to document IK. Finally, the outcome of the study will be a knowledge asset containing mission critical knowledge preserved for use and dissemination to a wider audience.

### **Relevance of Indigenous Knowledge**

The C21st is christened an information and knowledge society where knowledge has become a powerful asset to socio-economic development. The fact that IK exists in this knowledge age and have survived and retained over successive generations gives it credence to the interest it has elicited from researchers. In deed IK should not be regarded as a primitive left-over from the past but rather knowledge and systems that have been fine-tuned and adopted to counter the processes that are often harsh and could affect development within their environment. New Partnership for Africa's Development (NEPAD) has recognized that Africa has the potential of applying indigenous knowledge in escalating food products, battling HIV and AIDs and other diseases and blocking environmental degradation. However, there is a lack of a coherent approach to indigenous knowledge management and a concerted effort by the poor to benefit from their innovations, as well as skills, to improve their agricultural practices.

Indigenous knowledge is increasingly recognized as an important source of climatology and adaptation strategies and widely used to enhance livelihoods by offering solutions to critical areas including agriculture and medicine. In Zimbabwe for example, Gwenzi et al, (2015), advances that indigenous knowledge in agricultural meteorology is crucial since most of agricultural livelihoods are rain fed and thrive when supported by sound and dependable weather forecasts and the right decisions. Elderly farmers, knowledgeable in issues concerning indigenous farming knowledge such as cropping practice, climate forecasting such as use of phenology which is the timing of plant life-cycle, observation of the different trees species and amount of fruit and budding of new leaves, behavior of certain bird species, insects, crickets and evolution of atmospheric parameters which they use to collect and collate information to be used to enhance their agricultural production.

Another reason IK is still relevant in modern society is because rural communities still rely on it to make local decisions in agriculture, health care, food

production, preservation, and natural resource management, among other things. (World Bank, 1998). Mafongonya (2017) avers that IK has already been acknowledged as important in a variety of sectors, including sustainable development, agro forestry, traditional medicine, biodiversity, conservation, soil science, ethno veterinary science, applied anthropology, and natural resource management.

Abdullah (2014) perceives the significance of indigenous knowledge to the learning process. To Abdallah (2014) this significance is based on the fact that the knowledge is extensively experiential and based on what people have preserved and therefore very pragmatic instead of theoretical, socially constructed by people's kinship relationship, cultural and social systems which form a part of an apprenticeship mode of learning. The fact that IK is a more practical and less theoretical or academic knowledge renders itself more acceptable to communities. The knowledge provided for action is one that has worked for the people and has produced results that are observable. It can provide useful information on the local ecology and good natural resource management. At the local level, it is increasingly recognized that IK is more reasonable, accurate, and dependable than scientific knowledge in weather predictions. (Joshua et al, 2017). In Namibia, livestock farmers who cannot access or afford chemical pesticides and drugs turn to ethno veterinary medicine (EVMs) such as the use of plants extracts, identified plants with antimicrobial and ant-parasitic properties as alternatives to chemical and pharmaceutical drugs for the management of livestock pest and diseases (Chinsemu, 2015).

According to Langill, (1999), this knowledge can be used to improve agriculture species including indigenous folk varieties of crops and/or provide wild germ-plasm for the production of new crop varieties by the agricultural industry with increased productivity. Indigenous knowledge can be used to make decisions in a variety of areas, including ecological zones, agriculture, aquaculture, forests, grasslands, and game management, offering new development models. Indigenous agricultural farming experiences offer methods for maintaining soil fertility, controlling pests and diseases, soil preparation and planting materials, controlling weeds and harvesting and storage which result into enhancement of agricultural production.

Indigenous Knowledge Systems (IKS) can enhance farmer's knowledge on maintaining soil fertility, veterinary medicine and food preservation, tree sub-species that feed livestock, environmental knowledge such as the Kaya Forests along the Kenyan Coast, pest and disease control, soil preparation and planting materials, weed control, and harvesting and storage which can lead to enhanced food security (Pauli, et al (2016).

Indigenous farming practices such as polyculture (mixed cropping, intercropping and multiple cropping) which are desirable due to their sustainable characteristics of diet diversification, production stability and income generation, the reduction of risk, low pest and disease prevalence, optimum labor utilization and resources and production intensification with reduced natural resource degradation reveals higher levels of indigenous knowledge for long-term development (Mafongonya and Ajayi, (2017). Indigenous knowledge therefore can be recognized as a catalyst for improved agricultural production and sustainable development.

Indigenous knowledge is still important since it helps communities solve problems and contributes greatly to global development knowledge. It is part of the global heritage that needs to be recognized for the global good. It is also important for the development process since it is the basis of modern knowledge systems. The

International Federation of Library Associations and Institutions (IFLA) has urged public libraries in Africa to actively participate in promoting and protecting indigenous knowledge by collecting, preserving, and disseminating indigenous and local knowledge, as well as acting as a beehive of activity for communities seeking to gain access to relevant information. (Moahi, 2012). The objective of this chapter resonates well with IFLA as it promulgates the importance of using Information Communication Technologies (ICTs) to capture indigenous farming knowledge for preservation and wider sharing and application for sustainable development.

### **Threats and Limitations in use and Preservation of IK**

Despite the relevance of IK to modern society, it has several limitations inherent in its use and preservation that needs to be addressed if it must be retained for posterity. One limitation of IK is the fact that it is very difficult to describe or express, as it is usually transferred by demonstration rather than description. Indigenous information has always been kept in indigenous peoples' collective memory for centuries; hence the death of knowledge carriers also signals the death of essential knowledge.

Most indigenous knowledge is oral, transferred from one person to another only through a long process of apprenticeship and is manifested in the men's and women's daily activities. Oral stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, community laws, local language, agricultural techniques, tools materials, plant species, and animal breeds have all been used to capture, process, preserve, and spread it (Kuhnlein,2013). Folklore, initiation rites, apprenticeships, and the inheritance of specialized knowledge such as medicine are the most common ways it is communicated and disseminated. According to Munyaradzi (2014), IK is tacit knowledge, transmitted orally or through imitation and demonstration and therefore not codifiable since codifying it might lead into the loss of its properties.

A strategy to document this knowledge for scaling up and sharing would be the ideal mechanisms of IK storage for posterity. According to the World Bank, (1998), before indigenous knowledge can be incorporated into the development process, it should be recognized and identified, validated (review of relevance and suitability for problem solving), and evaluated in terms of reliability and quality, all of which pose a significant challenge due to its implicit nature. In addition, it should be stored in retrievable media including tapes, films, stories, gene banks, etc. and then passed on to test knowledge in a new field, and distributed to the wider community. Once captured and preserved it can be integrated with modern knowledge as explicit knowledge to be shared by communities to improve livelihoods.

Indigenous knowledge is not replicable due to its oral nature and has not therefore been systematically documented (Jain, 2006), leading to possibilities of loss and inability for sharing. Such a situation could allude to a situation where many important lessons could have been lost due to its non-recording nature, breakdown of oral paths and globalization that has affected the way people stay. All these factors conspire to eradicate this all-important knowledge. In addition, its non-documentation and mode of sharing can lead to distortion and exaggeration (Anyira, 2010).

Indigenous knowledge continued marginalization due to its tacit nature, mode of storage (resides in peoples' memories) and mode of transmission (word of mouth) makes it a highly endangered commodity because the custodians are mostly elderly people and when they die, they die with it. Some quarters view it as knowledge of the poor and illiterate making it seem less useful (Ochola, 2007). Indigenous knowledge systems have been subjugated as they are viewed as informal. However, IK is a

universal heritage, a resource and a national treasure that must be protected, promoted, and, if necessary, preserved, because, according to its own knowledge, the West has not been able to respond adequately in the face of the vast and growing diversity, uncontrolled pharmacological effects and other genetic resources and depletion of the earth's resources (Hopper, 2002).

Identification and accessibility of carriers of IK is not an easy task. The carriers of IK are normally old people who reside in most cases in remote rural communities and lack the motivation, drive or skills to record their experiences for posterity. The sad part is that should any sudden development permanently incapacitates or these old people even die the rich stock of the various experiences held by these gatekeepers is lost forever. In addition, loss of pathways of IK transmission due to absence of young indigenous people from communities often due to school or work, changing livelihoods, change of traditional religion and beliefs, loss of traditional rights and institutions all threaten the existence of IK (Tang and Gavin, 2016).

The issue of uneven distribution of indigenous knowledge due to some societies and communities hoarding their IK because of some taboos and superstitious beliefs acts as a barrier to dissemination and application of IK across individuals and groups. In addition, some custodians are also reluctant to share their experiences with other people due to the sacred nature attached to the knowledge, the fear of this knowledge being stolen and used by other communities and the beliefs and traditions attached to this knowledge. Because of the important value attached to IK and its volatility on the other hand, strategies need to be devised for their preservation and management for future posterity.

### **ICTS and Knowledge Capture**

Knowledge capture will involve obtaining relevant knowledge from identified IK gatekeepers, coding it for later retrieval and use. Available ICTs will be used to codify the indigenous knowledge and thus make this knowledge searchable and retrievable without having to contact or consult the person who originally shared it. Since the knowledge captured will be stored in documents, manuals, databases, institutional repositories, reports among others, it will be easily accessible and harnessed by other community members.

Information and Communication Technologies (ICT) are defined by Guemide (2019) as a broad set of technological tools and resources used to capture, create, disseminate, store, and manage information. ICT tools and expertise have the ability to document, save, refine, digitize (preserve for posterity), and communicate much of the rich indigenous knowledge for use by communities both inside and beyond a country (Dlamini, 2016). According to the Geneva Declaration of Global Forum of Indigenous Peoples and the Information Society in 2003, ICTs can be used to strengthen and encourage cultural diversity and promote and preserve indigenous knowledge of local people, tribes and nations (Lwoga, Ngulube and Stiwell, 2011). Storage technologies such as flash drives, hard disks, mp3s, mp4s, mobile phones, CDROMS, and computer hard disks have emerged as a result of ICTs, providing new options to record, preserve, and communicate indigenous knowledge to a wider audience. Oral stories, songs, dances, ceremonies, and practices such as games, healing, and agriculture will be recorded using audio visual recording technology such as tape recorders, cell phones, and video cameras in original indigenous languages which can be made accessible to people through computer, internet (Facebook, You

tube, Google Docs, Twitter etc), USB, DVDs, E-mail, CD, cell phone, radio, mobile phone, DVDs, CD, telephone and television (Dlamini & Ochola (2018).

Indigenous knowledge can be captured with a variety of methods. Some of the capture methods include interviews, storytelling, observation, and focus groups among others. Common media formats are available to capture and document experiences, reflections from the experts, and lessons learned such as in text, audio, video, images and graphics. Such formats enable critical knowledge to be captured and stored as a library or repository of knowledge assets that can be shared regardless of the availability of individuals or not.

Information and Communication Technologies (ICT) technologies aid in the generation and distribution of knowledge by facilitating the quick collection, collation, storage, and dissemination of data including video capture of a story telling sessions using mobile phones with both audio and camera, audiotapes, databases, and repositories which can store and transmit to a larger audience via radio, television, the internet, and social media tools documented indigenous knowledge that can be used as a source for sustainable development.

### **Expected outcome**

The process of capturing indigenous knowledge will have great benefits to a community or society as a whole. The captured knowledge will be stored as a knowledge base that will act as a one-point knowledge hub where the stored knowledge will be shared and re-used. With IK captured and knowledge sharing initiatives put in place, the rich practical knowledge will be scaled up for application to enhance sustainable development in agriculture such as using traditional values and religious belief systems for environmental conservation mechanisms that ensure sustainability, developing simple, locally developed know ledges and technologies adapted to their environment, traditional expertise in astronomy and weather forecasting in combination with agricultural meteorology which enhances local forecasts on harvests and food security, adaptation of modern cultivation techniques, low cost livestock hygiene and maintenance of healthy stock and applying cost effective ways in fertilizing their lands (Mawere, 2014).

### **Conclusion and Recommendations**

With the introduction of information and communication technology, opportunities for the capturing of indigenous knowledge arose, which might be exploited to construct cost-effective and long-term poverty alleviation and income production methods. The use of ICT tools including video camera, video recording/filming, tape/sound recording and mobile phone recording can be used to capture indigenous knowledge which can be preserved and disseminated through internet enabled computers via social media platforms such as Facebook, You tube, Google Docs, Twitter among others as well as mobile-phones, television and radio. This can make indigenous knowledge accessible to a wider audience as well as appealing to the new generation. It can also be applied in a wide range of development areas including health, governance and agriculture for sustainable development.

### **Recommendations**

- 1). Develop technical skills that will help the process of identification of relevant indigenous knowledge for capture
- 2). Promote a culture of knowledge sharing and capture

- 3). Leadership to champion the change
- 4). Leadership to provide appropriate ICT infrastructure
- 5). Government to fund research in this area

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## Chapter 10

### **Towards Reducing Gender-Based-Violence within Higher Learning Institutions: The Case of St John's University of Tanzania**

By

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#### **Abstract**

The increased trend of the Gender-Based-Violence (GBV) within Tanzania's university campuses continues to affect the universities' communities at different levels. In spite of concerted efforts undertaken by the Government of Tanzania and other actors in addressing the problem, mixed results are found on the outcomes of various interventions. Most undertaken interventions have for a long time been concentrated in the local communities affected by the GBV. However, little is known on GBV from the institutions of higher learning, to which the societies bank on to prepare human capitals for transforming the affected local communities. The objective of this study was to examine initiatives made by Higher Learning Institutions (HLI) to prevent GBV. The study adopted qualitative research approach and a simple random sampling for students and staff and, a purposive sampling for the management staff. The St John's University of Tanzania served as study location. It employed a cross-sectional research design, complemented by a triangulation of qualitative methods: content analysis of documents, interviews and focus group discussions. The findings revealed that, there is prevalence of GBV. Besides, the study found that, lack of awareness of the legal rights among respondents. Moreover, findings revealed that, the institution has neither gender policy nor operational systems and structures, purposely designed to address issues of GBV. Based on the findings, we concluded that there is no much intervention happening at St. John's University of Tanzania towards reducing gender-based violence. Following that, researchers recommend for urgent establishment of gender sensitive policies and structures in HLI.

**Key words:** Tanzania, Gender, Gender-based-violence, Higher Learning Institutions

# **Towards Reducing Gender-Based-Violence within Higher Learning Institutions: The Case of St John's University of Tanzania.**

By

Dr. Milka Otieno, Dr. Elizabeth Msoka & Dr. Sheila Mziray

## **Introduction**

Gender-based violence (GBV) is an umbrella term for any kind of discrimination or harmful behavior which is directed against a person on the basis of their (real or perceived) gender or sexual orientation (Pana and Lesta, 2012). This study, adopted the definition of gender-based violence that appears in the United States Strategy to Prevent and Respond to Gender-Based Violence globally, which considers GBV as the:

Violence that is directed at an individual based on his or her biological sex, gender identity, or perceived adherence to socially defined norms of masculinity and femininity. It includes physical, sexual, and psychological abuse; threats; coercion; and arbitrary deprivation of liberty (USAID, 2012).

In the context of this study, GBV could be whether it is occurring within university campuses or outside the university campus.

Higher Education Institutions are a critical component of young people's lives, being among the main areas where gender socialization takes place and where attitudes towards one-self and others are shaped and reinforced. Young people, especially during adolescence, begin to create their own values and expectations in relation to romantic relationships. Incidentally, for many students, university is a positive and empowering environment that enriches their lives, but for those who experience gender-based violence in the forms of sexual assault, dating violence, domestic violence, or stalking, the university environment could be the opposite. These forms of gender-based violence (GBV) create a public health and safety concern because of the physiological and academic outcomes associated with students' victimization (Demers et al., 2015). GBV disrupts students' education and social lives, and potentially results in lower grades, dropped classes, or withdrawal from the institution (Krebs et al., 2007).

A number of studies have reported incidences of GBV in higher learning Institutions (Gunawardena et al., 2004; Kennedy, 2005; Dosekun's, 2007; Brown et al., 2009; Gordon & Collins, 2013; Meinck et al., 2016). These studies have demonstrated that, educational institutions potentially provide a high risk space for GBV. The incidence of GBV in higher learning institutions is likely to prevent staff and students from achieving their rightful place in education (Menon et al., 2009). These evidences indicate that urgent interventions are needed to make educational institutions free of GBV.

The government of Tanzania has made concerted efforts in tackling GBV through the endorsement of policies, plans and visions. These include the Women and Gender Development Policy of 2000, the National Plan of Action for the prevention and eradication of violence against women and children 2001-2015, and the National Development Vision 2025 (National Bureau of Statistic (NBS), 2011). To address GBV, the government has incorporated violence against women perspectives in

policies, strategies and programmes as reflected in national policy and institutional frameworks like the National Strategy for Growth and Reduction of Poverty (NSGRP), cluster three, which is about elimination of sexual abuse and domestic violence (URT, 2010). Despite all above initiatives, GBV remains one of the greatest social issues affecting most universities. However, little is known about efforts taken by the institutions of higher education to reduce GBV. Thus, this study was undertaken to examine initiatives made by Higher Learning Institutions (HLI) in preventing GBV.

### **Statement of the Problem**

The Literature reviewed in this study reveal prevalence of Gender Based Violence in other levels of education across Tanzania. Higher learning institutions policies reviewed deduce the prevalence of gender based violence in those institutions and therefore the need for such policies although specific studies in those institutions are missing and this include St. John's University. Based on the findings, we concluded that there is no much intervention happening at St. John's University of Tanzania towards reducing gender-based violence and therefore a need for this study. We hope that this study serve as a bench mark for more studies in higher learning institutions across Tanzania. This is with a focus to continue to create more awareness and understanding in this area and to encourage efforts to help reduce this problem in higher learning institutions.

### **Review of Related Literature**

#### **Empirical Evidence**

Prevailing evidences have shown that, most African universities are characterized by high levels of GBV and Tanzania HLI are no exception from this violence and other forms of gender inequalities. Feminist scholars including Tamale and Oloka-Onyango (1997), and Yahya-Othman (2000) noted that, women's universities working environment, remains different from that of men, hence is likely contributing to gender violence. Sexual harassment has been reported as barrier to women's participation in various universities programmes (Gunawardena et al., 2004). Sexual harassment prevents women staff and students from achieving their rightful place in education (Menon et al., 2009).

Feminists have documented the extent to which campus climate is sometime '*chilly*' whereby the phrase '*chilly climate*' usually refers to unfriendly environment that surround women students and staff (Ruth, 2000). The chilly climate is usually characterized with 'micro-inequities' (Sandler & hall, 1991), which though perceived as normal, are obstacles to achievement of gender equity and equality (Ndlovu, 2001). '*Chilly climate*' has been reported by Morris and Daniel (2008) to mean being ignored, treated differently, or sexually harassed. Likewise, Sandler and Hall (1991) consider '*Chilly climate*' as process of being isolated and regarded as outsiders. Within a 'chilly climate', women may encounter hostility to their professional authority, for instance, men's intrusion in areas of responsibility and institutional practices like meetings (Sandler a & Hall, 1991; Onsongo, 2006; 2007; Barners, 2007). The hostile environment may be characterized by unwanted sexual behaviors (Onsongo, 2004; Menon et al., 2009). Further, Ruth (2000) observes that 'chilly climate' is a way in which women are sidelined in favour of masculine behaviors. Campus climate seems to be related to students' attitude about their perceptions of life experiences within the environment (Peterson & Spencer, 1990), which is likely

to affect their access to opportunities and facilities in universities (Bunyi, 2008; Menon et al., 2009). Moreover, the study conducted by WHO found that, schools and universities were highly vulnerable to GBV and this problem was insufficiently addressed in educational institutions (Krug et al., 2002).

A study by Shefer, Clowes, and Vergnan (2012) found that, gender inequalities among university students and staff gives rise to a damaging culture of GBV being normalized. Similarly, Gordon and Collins (2013) drew similar conclusion following an in-depth interviews with 12 women students at one of the South African university, while analyzing the extent of GBV at the institution. In 2013, the University of the Witwatersrand's CALS published a report on sexual harassment at that institution, which found that, neither statistics records were kept by the University on the consequences of sexual harassment incidents on the complainant, nor the existence of structures that dealt with cases of GBV (CALS, University of Witwatersrand, 2013). Besides, a study done by Ogun State of South West Nigeria on the prevalence of sexual harassment in three universities discovered that, female students experienced sexual harassment on campus perpetrated by a number of staff, which led to 85% of the staff who committed the offense to either be dismissed or suspended (Omonijo et al., 2013).

Moreover, Shefer, Clowes and Vergnani's (2012) study explored the narratives of transactional sex amongst male and female students at a university in South Africa. It revealed confessions from female university students of having sexual relationships with older men or 'sugar daddies' just to be able to pay for photocopies, fees, or merely gaining social status amongst their peers (Shefer et al., 2012). This study also highlighted how coercive sexual practices are endemic in intimate heterosexual relationships, whereby aggression and violence were found to be common in these relationships. Similarly, the study of Clowes, Shefer, Fouten, Vergnani and Jacobs (2009) on male and female students at the University of the Western Cape found that, coercive and unequal practices are reportedly common in heterosexual relationships. Gordon and Collins's (2013) study on GBV amongst female students at South African university highlighted on challenges, which these women face, including fear surrounding GBV, the tension between formal and informal reports of GBV at the university, and the silence surrounding this violence.

The women respondents in the study by Gordon and Collins (2013) positioned themselves within particular discourses, which appeared to help them to defend against the fear surrounding GBV. However, these discourses also served to uphold gender inequalities and power relations that facilitated a society supportive of GBV. The findings by Gordon and Collins (2013, pg 103) are similar to Dosekun's (2007) research which revealed that, all 15 female university students and employees she interviewed were affected by the prevalence of rape in South Africa and that the fear of rape was "a possibility they factor into their daily decisions, movements and interactions". As a result of this fear and anxiety, the women in the study constructed 'rules' to protect themselves against becoming victims of violence.

While previous studies mainly focused on the status, forms and the effect of GBV in higher education institutions, this study concentrated on comprehensive analysis beyond form and effect of GBV in Higher Education Institutions. It examined initiatives made by Higher Learning Institutions (HLI) to reduce GBV.

### **Effects of GBV**

Gender-based violence (GBV) is noted as one of the greatest social issues affecting most universities worldwide. The GBV has a great impact on students and can cause

immediate and long-term physical and mental health consequences for University students. Survivors of GBV experience higher rates of post-traumatic stress disorder, risk of re-victimization, depression, substance abuse and suicidal feelings, compared to their non-abused peers (Campbell, Dworkin, & Cabral, 2009, Silverman et al., 2001). Likewise, college girls who are stalked experience higher levels of depression and anxiety than their non-stalked peers (Amar, 2006).

In addition, GBV are known to have negative impact on a country's human, social, and economic development and considered as obstacles to eliminating poverty and building peace (Ellsberg & Heise, 2005, Heise et al., 1999). Moreover, students who experienced GBV are more likely to report low school achievement and increased school dropout rate compared to non-abused youths (Kennedy, 2005, Kennedy & Bennett, 2006, University of Witwatersrand, 2013). Moreover, most victims of sexual harassment in the University of Botswana were found to be isolated, ashamed, suffer in silence, blame themselves and remain reserved (Tlou & Letsie, 1997). Furthermore, the victims of GBV are associated with mental health problems, being stigmatized, victimized, and hating men as perpetrators, low self-esteem, getting sexually transmitted diseases, and unwanted pregnancies (Adedokun, 2005, Menon, et al., 2009).

### **Evidence of Prevalence of GBV**

GBV is still high among staff and students in higher learning institutions. For example, The study by Kennedy (2005) cited in Krebs et al., (2016) determined that, less than 5% of sexual battery incidents and 13% of rapes were reported to law enforcement entity or campus official, while young men and women aged 18 to 19 years old experience the highest rates of stalking. Also, more than 40% of dating college women reported being the victims of abusive dating, including physical, sexual, technological, verbal, and controlling abuse. Furthermore, gay, lesbian, and bisexual adolescents experience high rates of dating violence, domestic violence, sexual assault, and stalking compared to students who identify themselves as heterosexual (Fifth & Pacific Companies Inc., 2010). Besides, approximately 4 out of every 10 non – Hispanic Black women, 4 out of every 10 American Indian or Alaska Native women (43.7% and 46.0%), respectively, and 1 in 2 multiracial non-Hispanic women (53.8%) have been the victim of rape, physical violence, and/or stalking by an intimate partner in their lifetime (Fifth & Pacific Companies Inc., 2010)

Evidence from Sub-Saharan Africa (SSA) showed high rates of GBV in educational institutions. Results from the Global Based School Survey (GBSS) revealed that, the magnitude of current physical and sexual violence in five African countries ranged from 27–50% and 9–33%, respectively (Brown, et al., 2009, Hindin & Adair, 2002). A study carried out in South Africa among adolescents aged 10–17 years old estimated that, the lifetime prevalence (incident) of physical abuse was 56.3% (18.2%), emotional abuse 35.5% (12.1%), and sexual abuse 9% (5.3%), (Meinck et al., 2016). Furthermore, a study conducted at Wolaita Sodo University in Ethiopia involving female students found that, the prevalence of attempted rape was at 18.7%, actual rape at 23.4%, physically violence at 8.7%, verbal harassment at 24.2%, and forced sexual initiation at 11.2% (Ora, 2013). Another research showed that, the lifetime prevalence of rape was 11% among female secondary students in Arbamich (Mekuria et al., 2015).

### **Evidences from Tanzania**

Gender based violence is widespread in Tanzania. In the 2010 TDHS, over 20% of Tanzanian women aged 15-49 years reported to have experienced sexual violence in their lifetime, while approximately 40% reported to have experienced physical violence (NBS et al., 2011). Besides, about 44% of ever-married women had experienced physical and/or sexual violence from an intimate partner in their lifetime (NBS et al., 2011).

A nationally representative survey of violence against children also found that, nearly 75% of girls and boys had experienced physical violence (either by an adult or intimate partner) by the age of 18 years, and nearly 3 in 10 girls had experienced sexual violence before reaching adulthood (UNICEF, 2011). A study by Otieno (2016) identified serious problems within secondary schools including the lack of formal structure to address the issue of sexual harassment. The study suggested that, the gender desks could “be expanded to include community counselling services and safety nets such as refuge places to protect the victims who come forward to expose the offenders” (Otieno, 2016).

Concrete data showing the situation of GBV in HLI in Tanzania is missing. However, the anecdotal evidence suggests that, GBV exist in Tanzania’s higher education institution. Evidences suggest that, there are myriad of ways that work as loopholes for the existence of GBV. These emanate from cultural points of view to a country-wide lack of social-service structures including within the HLI to deter GBV.

For instance, an overall shortage of trained medical professionals in the country has implications on the availability of GBV-specific care nationwide (Betron, 2008). In addressing this catastrophic situation, McCleary-Sills et al., (2013) recommended for a need to focus on the improvement of human resource in terms of relevant training, the integration of GBV screening and wholesome care into existing social structures, as well as “the intensification of coordination among service providers and referral systems.”

The various constructs of social justice according to Lizzio, A., Wilson, K., & Hadaway, V. (2007) helps us to realize the role of support systems such as gender desks in influencing the educational experience and social participation of both male and female students, and the staff within the higher learning institutions. With regards to this, Otieno (2016) suggests that, such an understanding calls for the need to consider the importance of improving engagement within the learning environment without which, the overall purpose of a conducive learning environment becomes unfit for the intended purpose. This study contends that, improving such engagement does not only depend on the availability of adequate teaching staff and other significant personnel within higher learning institutions. It also depends on a range of other things such as counseling services, gender desks and other relevant social support systems within the higher learning institutions.

### **Methodology**

The study is predominantly qualitative, but also used quantitative data to accommodate the necessary sample in order to attain its objectives. This study employed cross-sectional and ex-post descriptive design. The study utilized both primary and secondary sources of data. Secondary data was obtained from register, library and internet facilities. The secondary data provided records of the status and the effects of GBV in higher learning institutions. Also, it helped to identify whether there is any policy addressing GBV in the university. Primary data was obtained using questioner, interview and focus group discussion. The total population of the study

was (164): including (136) students, twenty-one (21) members of staff and seven (7) management team.

Simple random sampling was used to select interviewees from the staff and student population. The academic and non-academic staffs were interviewed using a survey method. The students involved included the non-degree, and degree students who were interviewed using focus group discussions and survey questionnaire to collect both qualitative and quantitative data. Purposive sampling was used for selecting respondents from management team to address specific questions based on the objective of the study. The data was firstly categorized using SPSS before the employment of content analysis technique to identify the emerging themes. All the information collected through semi-structured interview, in-depth interview and survey questionnaires were analyzed following this procedure in the first circle of data analysis. This method allowed for a clear and in-depth analysis of information compiled from different categories of interviewee as further detailed in the methodology section below.

The qualitative data gathered using Key Informant Interview guide and focus group discussion were analyzed using Content Analysis (CA). CA was used to supplement the analysis from structured interview techniques, which was the main method. First, qualitative information from key informant interviews was transcribed. From these transcriptions' key themes, concepts or phrases relating to GBV and strategies for addressing GBV in HEI were categorized and reported in emerging themes. Abbreviated codes such as letters, words, or symbols were assigned to key themes. This helped in organizing the data into common themes that emerged in response to dealing with specific questions. These themes were later organized into coherent categories, which summarized the forms of GBV, their prevalence, and short, medium- and long-term mitigation strategies. Qualitative information was then integrated with quantitative information to provide meaningful conclusions.

A univariate statistical analysis was employed to calculate descriptive statistics such as frequency and percentages. This was done to provide an understanding of the GBV environment in HEI in Tanzania, establishing the obligations and responsibilities of HEI, and to ascertaining whether there is any policy and legal framework on GBV in the institutions. Descriptive statistics was also used to estimate the prevalence and incidences of GBV and the number of university students who have experienced GBV.

### **Ethical Clearance**

Permission to collect data for this study was granted by St. John's University's of Tanzania's (SJUT) Internal Review Committee. SJUT also involved in the provision of financial support to conduct this study. Informed consent was obtained from all participants orally before interview was conducted and participation was emphasized as voluntary.

### **Findings and Discussion**

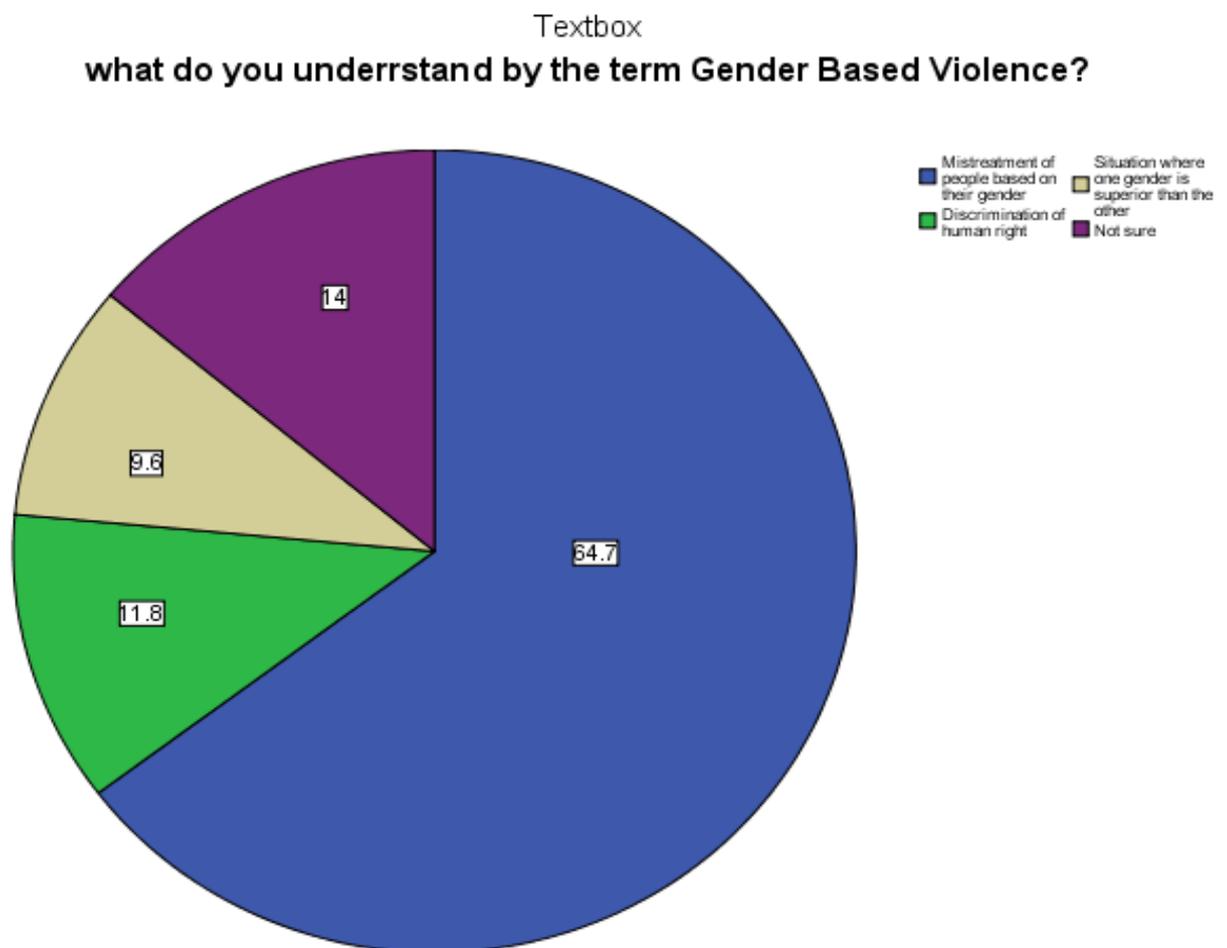
The goal of this study was to examine initiatives taken by Tanzania's Higher Learning Institutions to prevent GBV. Specifically, it sought to discover whether HLI have any rigorous mechanisms for handling issues of GBV when staff or student becomes victims of GBV.

### Is Gender Based Violence an Issue of Concern in HLI?

The purpose of this section is to present respondents' responses on whether GBV is an issue of concern in the study area, so as to answer specific objective number one. This section is divided into two sub sections. Sub-section 4.1.1 presents what constitute GBV and provides respondents' views on whether there is prevalence of GBV in the study area. Sub section 4.1.2 presents views on whether respondents involved experienced any forms of GBV.

### Respondents' views on meaning attached to gender in HLI

Prior to establishing the prevalence of GBV in the study area, respondents were firstly asked what GBV meant. Figure 1 provides a summary of respondents' responses to this question.



**Figure 1. The understanding of GBV**

**Source: Survey data, 2020**

Overall, the following responses were obtained from the respondents about the meaning attached to GBV. Majority of respondents (64.7%) considered GBV to be the mistreatment of people based on their gender, while (11.8%) defined GBV as the violation of human rights. Besides, (9.6%) referred GBV as the situation whereby one group considers itself superior to the other group. However, about (14%) of the respondents were not sure about what GBV meant. Generally, most respondents were

aware of what constitutes GBV. Answering to the question where they learned the meaning of GBV, some respondents declared to have learned through attending trainings, lectures and seminars. This implies that, through educational programs society can be instilled with GBV-related skills and knowledge.

Having established respondents' understanding of GBV, they were asked to indicate if they prevail in HLI. Findings on this question are presented in Table 4.1.1.

**Table 4.1.1 Prevalence of GBV in HLI**

N=136

		Frequency	Percent
Valid	No	42	30.9
	Yes	94	69.1
	Total	136	100.0

**Source: Survey data 2020**

As shown in Table 4.1.1, majority of the respondents (69.1%) indicated that, GBV prevail in HLI. Only (30.9%) of the respondents said no. These findings resonate with the outcomes of the studies on GBV in HLI undertaken by Brown et al., (2009), Chukwudi & Gbakorun (2011), Gordon & Collins (2013), and Meinck et al., (2016). They authenticate that, GBV is a profound and widespread problem in HLI, impacting students' achievement of their rightful place in education (Menon et al., 2009).

**Experience of GBV within the university**

Respondents were asked to indicate if they have experienced any form of GBV using a Yes/No scale. Table 4.1.2 provides a summary of responses to this question.

**Table 4.1.2: Experience of any form of GBV within the university**  
N=136

		Frequency	Percent
Valid	No	92	67.6
	Yes	44	32.4
	Total	136	100.0

**Source: Survey data 2020**

The findings on Table 4.1.2 suggest that, majority of the respondents (67.6%) said NO, while (32.4%) said YES. This suggests that, only few students had confidence to reveal that, they had experienced GBV. The interpretation of these findings could be that, most students are dying in silence, suggesting they are afraid of the consequences of reporting their perpetrators. Evidences from the FGD suggest that, most victims chose to remain silent for fear of not being believed, being failed their examinations, and difficulties of proving beyond reasonable doubt about the abuse. Also, uncertainty on whether reporting would solve the problems of GBV, stigma from colleagues, ignorance of their rights, and lack of a secure platform to report abuse. Respondent 1 argued that:

I wanted to report the abuse, but refrained, fearing that I will be disqualified from my studies, following lecturer's threats to me if I do so. I know that the lecturers co-operate with each other, and if I would have reported him I might be failed in other subjects as well, while the perpetrator continues to harass me (Respondent 2, February 2020).

Also, another interviewed respondent 2 attested that:

A friend of mine was sexual harassed by a security officer when she came back at midnight in order for her to be allowed to enter in the hostel. (Respondent 3 February 2020).

Another respondent 3 revealed that:

A lot of Girls are being bullied and pestered by male students on the campus, but remain silent (Respondent, February, 2020).

These findings imply that, good number of students and probably women staff experience GBV, but for various reasons fail to report the abuses. These findings coincide with a study by Omonijo et al., (2013) who examined sexual harassment cases in three faith-based universities in Ogun- State in Nigeria, and found that, only few cases of GBV were reported. This situation calls for stronger reporting structures to be in place if we want to address the issue of GBV seriously within the higher learning institutions. This is evidenced by the fact that, during focus group discussion, majority of respondents (69.1%) attested to the prevalence of GBV within university campus, but only few (32.4%) were ready to reveal what happened to them.

The findings imply that, GBV is a big problem in HLI and women students are more subjected to sexual harassments and other forms of GBV than their male counterparts. Hence, affecting their abilities to pursue their studies and developing future careers in a friendly environment (Imasogie, 2002).

#### **Reporting structures on GBV cases within HLI**

The intention was to ascertain whether students and staff are aware on where to report GBV and constraints faced during reporting. Table 4.1.3 presents findings on respondents' awareness on where to report GBV.

**Table 4.1.3: Students' Awareness on Where to Report GBV at the University:  
N=136**

	Frequency	Percent
Valid No	57	41.9
Yes	79	58.1
Total	136	100.0

**Source: Survey data 2020**

The findings in Table 4.1.3 indicate that, more than half (58.1%) of respondents are aware on where to report GBV within the university. About, 47.8% of respondents indicated that, they can report GBV to the Dean of Students, 2.9% pointed to the Office of Students Organization, while 2.2% to the Police Station. Interestingly, about 15% of respondents pointed to the university gender desk though don't exist. However, 41.9% didn't know where to report.

The varied views obtained show that, students have no clear information on where to report GBV, which suggests that the university has failed to create

awareness among students on where to report incidents of GBV. This could be the reasons why high percentage of GBV remains unreported.

Dwelling on the opinions of students who pointed to the Dean of Students for reporting GBV, this could be attributed to the orientation they received when they arrived at the university that this particular Office is where all their problems should be submitted. Yet, question remains why many GBV cases are not reported to that office? Based on opinions gathered during FGD researchers learned that, in order to encourage students to report the perpetrators of GBV a safe, secure place, and professional councilors should readily be available within HLI.

**Tables 4.1.4: Staff Awareness on Where to Report GBV at the University: N=21**

		Frequency	Percent
Valid	No	14	66.7
	Yes	7	33.3
	Total	21	100.0

**Source: Survey data 2020**

Majority of the interviewed staff from management team (66.7%) were unaware of where to report GBV incidents. Only, 33.3% knew where to report these cases, as summarized in Table 5.4. This is substantiated by the statement made by respondent 4 who is a member of the management team that;

The university has neither specific person nor designated office to report issues of GBV. However, we are now in the process of establishing a gender desk. Presently, students are advised to report this issue to the dean of students' office, while staff members to the director of human resources.

In this regard, the findings imply that HLIs have neither gender specialists nor Gender Focal Points (GFPs) to serve as a platform for handling issues of GBV. The lack of these structures could be the reason why only few cases of GBV are being reported, hence largely contributing to deter the target of eliminating GBV in HLIs.

**Table 4.1.5: Constraints in Reporting GBV within the University N=136**

		Frequency	Percent
Valid	No	66	48.5
	Yes	70	51.5
	Total	136	100.0

**Source: Survey data 2020**

The findings in the Table 4.1.5 indicate that, more than half (51.5%) of the respondents face various constraints in reporting cases of GBV, while the remaining (48.5%) reported no constraints. In a bid to cross-check students' responses, a follow up question was asked in different ways, which brought the outcomes illustrated in Table 4.1.6.

**Table 4.1.6: Is It Easy to Report GBV within the University? N=136**

		Frequency	Percent
Valid	No	72	52.9
	Yes	64	47.1
	Total	136	100.0

**Source: Survey data 2020**

As illustrated in Table 5.6, more than half (52.9%) of the respondent admitted to the difficulty of reporting cases of GBV within the university. This co-relates with responses provided by majority of the respondents regarding the existence of constraints in reporting such cases (see **Table 4.1.5**). The remaining (47.1%) of the respondents indicated that, it was easy to report cases of GBV within the university. These findings coincide with opinions gathered during FGDs which indicate that students face challenges on reporting these cases, the fact supported also by staff members and the university management.

The overwhelming admission made by both staff and students that there are difficulties in reporting cases of GBV could be attributed to the fact that most GBV are committed secretly. Students remain silent fearing to be academically victimized and stigmatized by their peers, while most female employees have tendency of not exposing their male bosses' abuses for fear of losing their jobs and stigmatized by colleagues (Mwiyungi, 1998, Pietila, 1990). Besides, students argued during FGD that, the current Dean of Students' office occupied by three staff members lacks confidentiality for victims to report GBV. The FGD data correlate with the following survey findings in Table 4.1.7.

**Table 4.1.7: How have you been assisted when you reported the incidence of GBV? N=136**

		Frequency	Percent
Valid	Received counseling	19	14.0
	The perpetrator was disciplined	6	4.4
	Assisted by the students organization	3	2.2
	Not assisted.	108	79.4
	Total	136	100.0

**Source: Survey data 2020**

The findings in the Table 5.7 show that, the overwhelming majority of the respondents (79.4%) were not assisted when they reported cases of GBV. This corresponds to the findings in Table 5.6 that most victims face difficulties in reporting cases of GBV. Therefore, universities need to come up with rigorous plans to assist those victims.

#### **Awareness on Institutional Policy for Addressing GBV in the Campus**

Policy anchors the decisions and directions in which a policy problem needs to be addressed using specific policy instruments. As such, having the policy that address GBV is necessary in addressing issues of gender-based violence. This question was included to understanding whether institutions are making necessary efforts to address the GBV and to comply with national and international initiatives in addressing GBV.

**Table 4.1.8: Have you ever heard any Policy Addressing GBV at the University? N=136**

		Frequency	Percent
Valid	No	92	67.6
	Yes	44	32.4
	Total	136	100.0

**Source: Survey data 2020**

Based on the findings in Table 4.1.8 majority (67.6%) of the respondents were not aware of any institutional policy for addressing GBV at the university, while about 32.4% of respondents admitted to be aware of such policy. However, the respondents who indicated to be aware of the existence of a policy for addressing GBV could neither establish nor state where such policy can be obtained within HLIs. This convinced the researchers that, these respondents may have reflected their views from the national policy and institutional frameworks such as the National Strategy for Growth and Reduction of Poverty (NSGRP) cluster three, which are about the elimination of sexual abuse and domestic violence (URT, 2010).

Based on the evidence of this study, these tools although intend to address violence against women, yet they cover GBV problem in general terms, hence remained more theoretical than practical within HLIs. To proceed, the next question asked staff respondents on whether the university equipped them with the knowledge of GBV or otherwise, whose findings are presented in Table 4.1.9.

**Table 4.1.9 Have You Been Equipped with Knowledge on Matters Related to GBV at the University? N=21**

Valid	Frequency	Percent
Attending workshops on GBV	2	9.5
Reading journals	10	47.6
Others	3	14.3
Media	6	28.6
Total	21	100.0

**Source: Survey data 2020**

The findings in Table 4.1.9 indicate that, the university provides very minimal and inadequate support to equip its community with the knowledge of the GBV. Since, where the respondents indicated to possess such knowledge, about 47.6% and 28%, respectively, gained that knowledge through personal initiative rather than from the university system. This calls for urgent need to have a system in place to provide the university community with adequate awareness of GBV.

### **Conclusion**

Dwelling on the above findings and discussion, the present study has brought to the fore the reality of GBV issues in the HLI but the study concludes that there is no much intervention happening at HLI in Tanzania and specifically at St. John's University of Tanzania towards reducing gender-based violence. The findings revealed that, there is prevalence of GBV. Besides, the study found that, majority of staff and students declined to report their GBV cases. Moreover, findings revealed that, the institution has neither gender policy nor operational systems and structures, purposely designed to address issues of GBV. This study suggests that another study could be done to discover the reason why students and staff declined to report cases of GBV. Also, a comparative study of GBV between private and public university is suggested.

### **Recommendations**

Based on the findings obtained from this study, a number of recommendations for appropriate and more specific interventions are being provided. These recommendations fall within the following key areas: 1. GBV Policy to encounter the problem, 2. Security assurance, 3. GBV infrastructural establishment, and 4. Education, training and counseling, presented as following:

#### **Specific GBV Policy to Encounter the Problem**

On the policy issue the study strongly recommends for the establishment of specific institutional policy on GBV and the need for well-known regulations concerning the prevention of GBV among the university community. It also recommends for enactment of strict rules and sustainable campaigns for preventing GBV that are

backed by the lecturers, who are majorly accused as the perpetrators in the university social context.

### **Security Assurance**

The study recommends for creation of officially designated office and friendly environment that assures victims of their privacy and confidentiality and making the victims feeling free to report issues of GBV. There should also be a specialist counselor to help the victims psychologically in overcoming the consequences. Also, working as a bridge between students, staff and the institution, hence preparing strong environment of trust and safety where the victims will not feel intimidated to report these incidents. The safety of the victims should be of paramount importance and the directives and guidelines on how and where to report such abuses should be readily available. These measures should go in line with zero tolerance and severe legal and social punishments be administered to the perpetrators.

### **GBV Infrastructural Establishments**

The study recommends for a suitable social systems and infrastructure that ensures the provision of security and privacy of the victim as a matter of urgency. In this case, there should be a secure and well-equipped office for supporting victims of GBV. This calls for the establishment of committed and functional gender desk within the institution. Likewise, social set-up should be improvised to enable regular dialogues on GBV within the university community.

Moreover, staff at the Gender Desk Office should be well trained personnel on GBV, while the Chaplain's Office should be an integral part in the provision of moral support and counseling services to both staff and students' victims whenever approached. Furthermore, the researchers advocate for occasional meetings involving students and faculty and class representatives (FRs and CRs), respectively, in a bid to build their awareness and capacity to understand their duties on spotting and reporting issues of GBV.

### **Education, Training and Counseling**

The study recommends for conducting ongoing occasional seminars, workshops and proper orientations to newly admitted and mature students about understanding GBV, their human rights and the steps to take whenever their rights are being jeopardized. It also calls for the same trainings to be given to staff members and the outsourced security personnel. It emphasizes for the need to make the university community understand that, a university is a place where freedom, fairness and respect is highly espoused and exercised. It also recommends for formation of student groups for raising awareness and supporting the victims as well as working as change agents against GBV and encouraging others to remove their fear on reporting such problems. It is also recommended for the staff members to form action group against GBV.

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## Chapter 11

### Public Procurement Ethics and Procurement Performance: The Case of Kakamega County Government, Kenya

By

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#### Abstract

Public procurement plays a vital role in generating a country's wealth. Public procurement systems are inherently complex and dynamic due to the multiplicity of objectives they have to achieve. Public entities aim at making value for money through client satisfaction, public interest, fair play, honesty, justice and equity. Despite this, the public sector procurement still faces a myriad of challenges resulting to loss of funds. The main purpose of the study was to ascertain the influence of public procurement ethics on procurement performance of Kakamega County Government, Kenya. The specific objectives were to examine the effect of integrity, accountability and transparency on procurement performance of Kakamega County Government, Kenya. The study was guided by positivism research philosophy and used descriptive correlational research design. Primary data was collected using close ended questionnaires targeting 35 procurement staff. Purposive sampling was employed to select the procurement staff. For analysis the study utilized descriptive as well as inferential statistics. Descriptive statistics used included frequencies, percentages, mean and standard deviation for describing the characteristics of the target population. For inferential statistics the study utilized correlation and regression analysis. Results were presented in tables. The conclusions and recommendations were drawn from the findings. The study may help the County government to wisely intervene in improving their performance by engaging in procurement ethical practices. The study may provide necessary information that can be used for policy development and it may also give scholars and researchers a solid foundation on which to build further research on procurement ethics.

**Key Words:** Accountability, Integrity, Transparency, Public procurement ethics, Procurement performance

# **Public Procurement Ethics and Procurement Performance: The Case of Kakamega County Government, Kenya**

By

Dr Jackline Akoth Odero<sup>1</sup> and Kelvin Mogere Machuki<sup>2</sup>

## **Introduction**

The significance of procurement in public entities has grown globally in recent years (Adams, Muir & Hoque, 2014). Ambe (2012) and Mahmood (2010) attributed this to the huge financial resources spent by governments on public procurement. Public procurement is a process whereby products, services and also public works are purchased by governments and other bodies that are governed by the public law (European Commission, 2015). Public procurement assists countries to generate wealth since it accounts for nearly 16% several countries' GDPs (Aketch & Karanja, 2013).

Monczka (2014) concerted that good procurement practices resulted to good quality, cost savings and contributes to technological advancement. Procurement ethics is an example of good procurement practice. Ethics encompasses moral principles or even values that govern our actions, beliefs and decisions. Thomason (2013) pointed out that managers had the responsibility to make decisions which affected organizations internal as well as external stakeholders. Therefore the management has a responsibility to act ethically when making decisions.

According to Wee (2002) ethical behavior constitutes avoidance of conflict of interest and also not making unfair use of a person's position. Public procurement systems function well if they achieve transparency, competition, accountability, economy and fairness. Engaging in ethical behavior has benefits as it encourages openness, accountability and enhances supplier confidence. It also results to cost reduction of managing risks linked to theft, fraud, corruption or other improper conduct and promotes confidentiality (Obadia & Iravo, 2016; Karanja & Mugo, 2010). According to Jeppesen (2010), resources channeled through the public procurement systems can be misused due to lack of transparency and accountability. On the other hand, by the implementing ethical initiatives organizations can gain commercial benefits (Testa & Iraldo, 2010). Ndolo and Njagi (2014) alluded that ethical practices resulted to procurement effectiveness and customer satisfaction.

Kenya has witnessed major scandals in the procurement function resulting to loss of billions of shillings such as the maize, Anglo leasing, cemetery and Triton petroleum scandals (Kioko & Were, 2014). Currently, the KEMSA case is ongoing where it is alleged that Kenya lost 2.3 billion shillings (Ndugu, 2020). Mathenge (2012) posited the Kenyan procurement management was deficient of the ethical inclination and as such should employ ethical consideration in order to re-invent itself.

## **Statement of the Problem**

Unethical practices have gnawed away resources in Africa resources thus undermining development (World Bank, 2010). According to Oanda (2012) procurement practitioners are prone to ethical challenges. Studies have depicted that the procurement process in many public institutions is still marred with secrecy, lack of efficiency due to fraud, favoritism and collusion (Atika, Wamoto & Mbeche, 2018; Nyakundi, Kombo, Omari & Mongare, 2012). Failure by Public entities to comply with the procurement procedures as provided in law has resulted in huge expenditure in public entities through the procurement function ( Atika, Wamoto & Mbeche,

2018; Eyaa & Oluka, 2011). Poor performance of the procurement function has been noted as being a common problem in many County governments (Selebwa & Morenge, 2018). This study intended to establish whether procurement ethics have an influence on procurement performance of Kakamega County Government, Kenya.

### **General Objective**

The general objective of the study was to ascertain the influence of public procurement ethics on procurement performance of Kakamega County Government, Kenya.

### **Specific Objectives**

- i. To examine the influence of integrity on procurement performance of Kakamega County Government, Kenya.
- ii. To ascertain the influence of accountability on procurement performance of Kakamega County Government, Kenya.
- iii. To assess the influence of transparency on procurement performance of Kakamega County Government, Kenya.

### **Hypothesis of the study**

H<sub>01</sub> Integrity has no significant influence on procurement performance of Kakamega County Government, Kenya.

H<sub>02</sub> Accountability has no significant influence on procurement performance of Kakamega County Government, Kenya.

H<sub>03</sub> Transparency has no significant influence on procurement performance of Kakamega County Government, Kenya.

### **Review of Related Literature**

#### **Theoretical Framework**

The study was anchored on Institutional theory. Institutional settings can shape a business' or organizations' formal constitution in a more intense manner in comparison to market dynamics or even pressures (Meyer & Rowan 1991; DiMaggio & Powell, 1983). According to Scott (2008) Institutional theory normally defines what can either be appropriate or legitimate. Institutional theory focuses on the effect external forces have on an organization's decision-making power and also on the role social as well as cultural pressures play in influencing an organization's practices and structures (Delmas & Toffel, 2003). An organization's ethical practices may be influenced by external, social and cultural forces. This theory explains how public procurement ethics can contribute to procurement performance.

#### **Conceptual Review**

##### **Procurement Ethics**

##### **Integrity**

Werhane and Freeman (1997) defined integrity as the moral self-governance quality espoused at both personal and organizational levels. According to Huberts (1998) integrity refers to conforming to the socially accepted moral values, norms as well as rules. Integrity means having strong moral values. It is a critical pillar in the modern public procurement system (Arrowsmith, 2010). Maintaining institutional integrity is important as it aids in combating fraud, corruption and any other unethical practices in procurement which may increase costs and damage an entity's reputation

(Namusonge, 2011). Integrity reduces the chance of engaging in corruption during the procurement process. Procurement officials' integrity is important as lack of it may result to additional costs (Soudry, 2007). The public interest requires that businesses involving the government be conducted in a manner assuring that expenditures made are economical. Integrity means that public resources are used for the intended purposes in public procurement (OECD, 2007).

### **Accountability**

Accountability entails taking responsibility for ones' actions. Akech (2009) alluded that accountability was essential as it ensured that those in power, whose actions would adversely impact on citizen's interests were accountable for their actions. Those appointed to committees, the procurement officer and accounting officer should adhere to ethical practices otherwise they will be held liable for not conforming to them. GoK (2003) provides that public officers will carry out their duties efficiently, honestly and in adherence to the law. Proper planning is critical as it aids in the promotion of procurement objectives for instance to provide quality goods and services by encouraging open and also fair competition (Basheka, 2008). The accounting officer should prepare a procurement plan and in case of failure to adhere to this he/she will be liable (GoK, 2015).

### **Transparency**

According to Azeem (2009) transparency entails openness which assures investors both domestic and foreign that contracts will be awarded fairly and equitably. UNOPS (2012) noted that transparency may comprise publishing procurement manuals, advancing publishing procurement plans in advance, advertising tender notices, disclosing evaluation criteria employed in soliciting documents, publishing contract awards and also prices paid and lastly publishing suppliers sanction lists. Publicity is about freedom of information (Kiawa, 2012). Publication of information is vital as it creates confidence to the citizens who are the tax payers and who would like to know how their money is spent (OECD, 2007). Global Partners Associates (2012) asserted that transparency encouraged open competition while discouraging corrupt dealings and even other malpractices that impede accountability. Yermack (2009) reported that transparency impacted on corporate performance. Barton (2006) posited that keeping or hiding information from the public led to lack of transparency thus propelling inefficiency.

### **Procurement Performance**

Procurement performance entails an analysis of effectiveness and also efficiency regarding results of procurement activities, where the achievement of a given specific task is actually measured against standards that have been predetermined (Knudsen, 2016). Previous studies have measured procurement performance using various indicators such as cost savings, timely delivery of goods and services, improved quality, customer satisfaction (Kitheka, 2018; Kitheka, Mbithi & Ahmed, 2014; Ndolo & Njagi 2014; Nyakundi & Muchelule, 2018). This study had cost savings, quality goods and services and reduced lead time as indicators of procurement performance.

### **Empirical Review**

Hui, Othman, Normah, Rahman and Haron (2011) examined the effect ethical practices had on organizational performance and established that corruption in public

procurement threatened legitimacy. They recommended for creation of policies and procedures as a way of curbing corruption and enhancing transparency, accountability and also integrity.

Mukasa (2010) sought to examine implementation challenges in the Public Procurement and Disposal Act and found that within the government procurement systems, the reform solutions failed to include adequate measures that could address matters of accountability, transparency, professionalism and ethics. Ndolo and Njagi (2014) alluded that ethical practices resulted to procurement effectiveness and customer satisfaction in the water sector. Mwangi and Kwasira (2015) asserted that ethical practices, specifically accountability and transparency positively and significantly influenced procurement function performance of State Regulatory Agencies based in Nairobi County, Kenya.

Wanyonyi and Muturi (2015) conducted a study in Kisumu County, Kenya on factors that affected procurement function performance amongst public technical training institutions and established that information technology, ethics as well as staff competence positively influenced performance. Owuoth and Mwangangi (2015) analyzed the effect public procurement regulations had on procurement performance and established that transparency, competitive bidding, professionalism as well as quality sourcing influenced procurement performance. The study recommended for tendering committee to be educated on ethics and for an ethics code to be put in place and be adhered to. Machoka (2016) confirmed that procurement ethics influenced CDF projects performance in Kenya by having a code of ethics, quality statement and a service delivery statement. The study concluded that procurement ethics led to better completion rate of projects, better utilization of funds as well as better poverty reduction levels.

Nyakundi and Muchelule (2018) and Kitheka (2018) evaluated the influence of ethical sourcing on procurement performance in Nairobi County and Kenyan state corporations respectively. Both studies established that procurement performance was influenced by ethical sourcing which had ethical supplier selection policies and codes, procedural justice and supplier diversity as its parameters. Studies have been conducted in public secondary schools in Kenya (Sikolia & Muthini, 2019; Obadia & Iravo, 2016). The findings of the studies revealed that procurement ethics positively and significantly influenced procurement committees' performance and that professional ethics practice significantly influenced procurement function management respectively. Using descriptive survey design to conduct a study in sugar processing firms, Okwedo and Muthini (2020) established that transparency significantly influenced performance and ICT was found to significantly moderate the relation between transparency and performance. The study recommended for all bids to be opened in public to enhance transparency.

Using descriptive research design, Philly, Were and Nkirina (2017) conducted a research in Kenyan Referral Hospitals particularly, KNH on the effect conflict of interest had on procurement performance in Referral Hospitals in Kenya and found that it influenced procurement performance. Nato, Miroga and Otinga (2021) confirmed that conflict of interest, competitive bidding, professionalism and adhering to public procurement regulations as ethical procurement issues significantly influenced procurement performance.

## **Methodology**

The study was guided by positivism research philosophy which according to Cooper and Schindler (2014) is premised on the view that the reality is stable and can be

observed objectively without interference with the phenomenon. The study used descriptive correlational research design as the researchers intended to identify the vital factors associated with the problem (Sekaran & Bougie, 2013). Primary data was collected using close ended questionnaires. The study targeted 35 procurement staff of Kakamega County Government who were purposively sampled as they were well versed with the issue under the study. A pilot study was conducted in Bungoma County. For analysis the study utilized both descriptive statistics and inferential statistics. Descriptive statistics used included frequencies, percentages, mean and standard deviation while for inferential statistics the study utilized correlation and regression analysis. Data collected was presented in tabular form. The regression equation used was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where: Y= Procurement Performance;

$\beta_0$ = Constant,

$B_{1,2,3}$ =Coefficients of determination

$X_1$  = Integrity;

$X_2$  = Accountability;

$X_3$  = Transparency;

e = error term.

## Results and Discussion

### Response Rate

In this study, a total of 35 questionnaires were administered at Kakamega County Government, and 34 were successfully filled by the respondents which indicated a response rate of 97.1%. According to Kothari (2011), a response rate of 60% was adequate and above 70 was excellent. Based on this assertion, the response rate in this case of 97.1% implied an excellent response rate.

**Table 1: Response Rate**

Response	f	%
Successful	34	97.1%
Unsuccessful	1	2.9%
Total	35	100%

**Field data, 2021**

### Results on Reliability, Mean, standard deviation and correlation of the study

Table 2: Results on reliability, Means, standard deviations and correlation of the study

Variable	Reliability	M	SD	CORRELATION			
				Integrity	Accountability	Transparency	Proc performance
Integrity	0.889	4.0647	.58407	1			
Accountability	0.815	4.3000	.52858	.450**	1		
Transparency	0.914	4.2892	.72858	.230	.749**	1	
Procurement performance	0.972	4.1471	.63134	.532**	.403*	.373*	1

Note: M=mean SD=standard deviation, \*\*. Correlation is significant at the 0.01 level (2-tailed). \* Correlation is significant at the 0.05 level (2-tailed).

#### Field data, 2021

#### Reliability Results

Reliability of an instrument is defined as how consistent an instrument is in measuring what it is intended to measure. A questionnaire is considered reliable if the Cronbach alpha coefficient is greater than 0.70. The four variables were subjected to reliability test using SPSS and the results are shown in table 2 above. The results indicated that all the variables had a Cronbach alpha greater than 0.7 thereby achieving the recommended 0.7 for internal consistency and data (Mugenda & Mugenda, 2008).

#### Descriptive Analysis Results on public procurement ethics indicators

The results of the descriptive analysis indicated on the table 2 above shows that a majority of the respondents agreed to the statements on integrity (mean of 4.0647). Concerning accountability, a majority of the respondents also agreed on the statements (mean of 4.3000). As concerns transparency, a majority of the respondents also agreed (mean of 4.2892) while for procurement performance a majority of the respondents also agreed (mean of 4.1471).

#### Correlation Analysis Results

To determine the relationship between Public Procurement Ethics and Procurement Performance a correlation analysis was conducted. The results indicated that the relationship between Integrity and Procurement performance is positive and significant ( $r = .532^{**}$ ). Similarly, the relationship between accountability and procurement performance is positive and significant ( $r = .403^{**}$ ). Further, the relationship between transparency and procurement performance is positive and significant ( $r = .373^{**}$ ). This implied that Public procurement ethics played a critical role on procurement performance of Kakamega County Government.

#### Descriptive Analysis Results on Demographic Characteristics

Table 3: Demographic Characteristics

Demographic Characteristics		Frequency	Percentage
Gender	Male	14	41.2
	Female	20	58.8
Age	18-23 years	20	58.8
	24-29 years	4	11.8
	30-35 years	4	11.8
	36-45 years	4	11.8
	Above 45 years	2	5.9
Education Level	Certificate	6	17.6
	Diploma	15	44.1
	Bachelors	11	32.4
	Masters	2	5.9
	PhD	0	0
Length of service with current employer	1-5 years	23	67.6
	6-10 years	9	26.5
	11-15 years	0	0
	16-20 years	0	0
	Over 20 years	2	5.9

### Field data, 2021

From Table 3, majority of the respondents were female as shown by 58.8% (20) of the respondents while 41.2% (14) were male. In terms of age, majority of the respondent were between 18 and 23 years with 20 (58.8%), who were followed by those between 24 and 29 years, 30 and 35 years, 36 and 45 years that tied with 4 (11.8%) while the least positions in the county government were held by respondents above the age of 45 years i.e. 2 (5.9%).

The results further revealed those respondents with a diploma qualification were majority as they constituted 44.1% (15) while Bachelor's degree were 32.4% (11), certificate holders were 6 (17.6%) while the least employees had a Master's degree as represented by 5.9%(2).To ascertain the period they had worked with their current employer, a majority of the respondents had worked between 1-5 years as indicated by 67.6% (23), it was then followed by those who had worked for between 6-10 years as represented by 26.5% (9) and lastly those who had worked for more than 20 years as shown by 5.9% (2).

### Regression Analysis Results

Regression analysis was used to indicate the amount of variance accounted for by one variable in predicting another variable. Simple regression analysis was done for each aspect of public procurement ethics.

### Simple Regression Analysis Results for Integrity

Table 4 shows the simple regression analysis results for integrity

**Table 4: Model Summary<sup>b</sup>**

Model	R	R <sup>2</sup>	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.532 <sup>a</sup>	.283	.261	.54279	2.424

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.726	1	3.726	12.647	.001 <sup>b</sup>
	Residual	9.428	32	.295		
	Total	13.154	33			

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.809	.664		2.723	.010
	Integrity	.575	.162	.532	3.556	.001

a. Predictors: (Constant), Integrity

b. Dependent Procurement Performance

#### Field data, 2021

The results in table 4 above revealed a coefficient of determination ( $R^2$ ) of 0.283. This illustrates that integrity could explain the 28.3% of the variance in procurement performance in Kakamega County. Durbin Watson test results for integrity was 2.424. The F test gave a value of  $(1, 32) = 12.647$ ,  $P < 0.01$ , which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that integrity is a useful predictor of procurement performance in Kakamega County Government, Kenya.

The regression equation to estimate the procurement performance as a result of integrity was stated as:  $\text{Procurement Performance} = 1.809 + 0.575 \text{ Integrity} + e$ . A unit increase in integrity leads to 0.575 increases in procurement performance and it is statistically significant.

The first research hypothesis posted  $H_{01}$ : Integrity has no significant effect on Procurement Performance in Kakamega County. From the results, integrity had  $P < 0.01$  and it accounted for 28.3% variance in Procurement performance in Kakamega County. Therefore the null hypothesis is rejected and the alternate hypothesis accepted as integrity has significant effect on Procurement Performance in the Kakamega County. Soudry (2007) concerted that Procurement officials' integrity was important as lack of it could result to additional costs. Philly, Were and Nkirina (2017) and Nato, Miroga and Otinga (2021) affirmed that conflict of interest influenced procurement performance thus corroborating the findings of this study in regards to integrity.

### Simple Regression Analysis Results for Accountability

Table 5 shows the analysis results for Accountability.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.403 <sup>a</sup>	.162	.136	.58688	1.857

**Table 5: Model Summary<sup>b</sup>**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.132	1	2.132	6.189	.018 <sup>b</sup>
	Residual	11.022	32	.344		
	Total	13.154	33			

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.079	.837		2.484	.018
	Accountability	.481	.193	.403	2.488	.018

a. Predictors: (Constant), Accountability

b. Dependent Variable: Procurement Performance

### Field data, 2021

The results in table 5 above revealed a coefficient of determination ( $R^2$ ) of 0.162. This illustrates that Accountability could explain the 16.2% of the variance in procurement performance in Kakamega County. Durbin Watson test results for accountability was 1.857.

The F test gave a value of  $(1, 32) = 6.189$ ,  $P < 0.05$ , which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that accountability is a useful predictor of procurement performance in Kakamega County Government.

The regression equation to estimate the procurement performance as a result of accountability was stated as: Procurement Performance =  $2.079 + 0.481$  Accountability + e

A unit increase in accountability leads to 0.481 increases in procurement performance and it is statistically significant.

The second research hypothesis posted  $H_02$ : Accountability has no significant effect on Procurement Performance in Kakamega County. From the results, accountability had  $P < 0.05$  and it accounted for 16.2% variance in Procurement performance in Kakamega County. Therefore the null hypothesis is rejected and the alternate hypothesis accepted as Accountability has significant effect on Procurement Performance in Kakamega County. The findings are in line with those of Mwangi and Kwasira (2015) who ascertained that accountability positively and significantly influenced procurement function performance.

### Simple Linear Regression Analysis Results for Transparency

Table 6 shows the simple regression analysis results for transparency.

**Table 6: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.373 <sup>a</sup>	.139	.112	.59481	1.817

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.832	1	1.832	5.178	.030 <sup>b</sup>
	Residual	11.322	32	.354		
	Total	13.154	33			

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.760	.618		4.466	.000
	TRANSPARENCY	.323	.142	.373	2.276	.030

a. Predictors: (Constant), Transparency

b. Dependent Variable: Procurement Performance

**Field data, 2021**

The results revealed a coefficient of determination ( $R^2$ ) of 0.139. This illustrates that Transparency could explain the 13.9% of the variance in procurement performance in Kakamega County. Durbin Watson test results for transparency was 1.817.

The F test gave a value of  $(1, 32) = 5.178$ ,  $P < 0.05$ , which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that transparency is a useful predictor of procurement performance in Kakamega County Government.

The regression equation to estimate the procurement performance as a result of transparency was stated as: Procurement Performance =  $2.760 + 0.323$  Transparency + e

A unit increase in transparency leads to 0.323 increases in procurement performance and it is statistically significant.

The third research hypothesis posted  $H_03$ : Transparency has no significant effect on Procurement Performance in Kakamega County Government. From the results, Transparency had  $P < 0.05$  and it accounted for 13.9% variance in Procurement performance in the Kakamega County Government. Therefore the null hypothesis is rejected and the alternate hypothesis accepted as transparency has significant effect on Procurement Performance in Kakamega County. The findings are similar to those of Owuoth and Mwangangi (2015) and Mwangi and Kwasira (2015) who established that transparency influenced procurement performance.

Multiple Regression Analysis results for Public Procurement ethics and Procurement performance.

**Multiple Linear Regression analysis for public procurement ethics and procurement performance was done. The results are as shown in Table 7.**

**Table 7: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.591 <sup>a</sup>	.350	.285	.53392

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.601	3	1.534	5.380	.004 <sup>b</sup>
	Residual	8.552	30	.285		
	Total	13.154	33			

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.120	.836		1.339	.191
	Integrity	.516	.181	.478	2.850	.008
	Accountability	-.025	.294	-.021	-.086	.932
	Transparency	.242	.196	.279	1.237	.226

a. Predictors: (Constant), Transparency, Integrity, Accountability

b. Dependent Variable: Procurement Performance

### Field data, 2021

The value of  $R^2$  is 0.350 as in table 7 above. This indicates that public procurement ethics explains 35% of the variance in procurement performance of Kakamega County Government, Kenya. The remaining 65% could be attributed to other factors not covered in the study.

From the ANOVA results the F test gave a value of  $F(3, 30) = 5.380$ ,  $p < 0.01$ , which supports the goodness of fit of the model in explaining the variation in the dependent variables. It also means that public procurement ethics is a useful predictor of procurement performance.

Having regards to the multiple regression analysis findings in table 7 above, substituting the equation;  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$  becomes  $Y = 1.120 + 0.516X_1 - 0.025X_2 + 0.242X_3 + e$

Assuming that all other independent variables are 0.000 procurement performance will be 1.120. A unit increase in integrity leads to 0.516 increases in procurement performance and it is statistically significant. A unit increase in accountability leads to 0.025 decreases in procurement performance and it is not statistically significant. A unit increase in transparency leads to 0.242 increase in procurement performance though it is not statistically significant.

### Conclusion

The objective of this study was to investigate the relationship between public procurement ethics and procurement performance. Integrity, accountability and transparency were found to independently influence procurement performance as they

all had a positive and significant influence on procurement performance. However regarding the combined effect of the three aspects of procurement ethics, only integrity was significant while accountability and transparency were not significant and this may have been due to the confounding effect of the variables.

### **Recommendations**

The study makes a number of recommendations which include;

Procuring entities should maintain ethics awareness by periodically training staff on ethical issues in procurement. Regular audits or reviews of procurement processes should be done for probity to be achieved. Employees who report unethical practices should be assured of safety from retaliation of those whom they have reported. Further organizations may have different channels of reporting e.g. having a box in a secure location, having ethics hotline or even through the organizations' website. Procuring entities should have an ethics code of conduct which should be enforced to enhance integrity, accountability and transparency of their officials.

Procurement staff and persons appointed to committees should be persons of integrity and are competent. Information relating to procurement process and the criteria used to evaluate bids should be made accessible to improve transparency. Moreover an explanation for the contract award should be well documented. Leaders should model the behavioral standards of ethics, they should be supportive of and be committed to ethical practices. Organizations should undergo periodic internal ethics audits in order to ensure that ethical standards are being complied with. Procurement professionals and members of tendering committees should declare their interests which may interfere with impartiality during the procurement process.

Procuring entities should endeavor to reward staff who adhere to ethical guidelines. Additionally, deterrent penalties should imposed against public officials and even suppliers who engage in unethical practices for instance in cases of non-declaration of interest, collusion, bribery, receiving gifts, favoritism and inflated pricing. Public entities should prioritize having an ethical culture which should be embedded on transparency, integrity and accountability. Moreover, Public entities should endeavor to have an ethics policy that clarifies what is ethical and what is not.

### **Suggestions for further studies**

The study was done in Kakamega County Government. Future studies may replicate the same in other County governments so as to have a larger sample. Further studies may be done in other public institutions such as hospitals, universities and even parastatals. A comparative study may be done on public and private institutions. Additionally studies may incorporate other procurement ethics parameters such as professionalism and diversity. Other studies may also collect data through interviews to get a deeper insight on the issue under study.

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## Chapter 12

### The Effect of Initiation Rituals on Secondary School Students' Academic achievements in Chemba District, Tanzania

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#### Abstract

Initiation ritual is among the cultural practices conducted by many communities in Africa and Tanzania in particular. Although the initiation rituals serve some purposes in various societies, the practice has been revealed to cause some effects. However, there little information on the effects of initiation ritual practiced on secondary school students'. This study investigates the initiation rituals commonly practiced on students and its effects on students' academic achievements. An embedded case study design was used as a case. Purposive and snowballing techniques were used to select the sample size of 145 respondents. The study used both primary and secondary data collected through self-developed questionnaire, interview, focused group discussions (FGDs) and documentary review. Qualitative data and inductive thematic analysis was used to analyze data obtained from interview and documentary review, while quantitative data and deductive thematic were analyzed using descriptive statistics such as percentages, frequencies, mean, standard deviation and T-test was conducted to compare variations in students' perceptions (based on sex and schools) about the effects of initiation rituals. The study found that, male circumcision and seclusion (boys and girls), are the most common rites of passage among the studied ethnic groups while female genital mutilation ranked the least. The study also found that, these traditional rites of passages when practiced on students, may not directly impede their school completion, but rather indirectly, by exposing them to other risk factors and psychosocial behaviors' that define their sexual identities and gender role in the community. Basing on the study findings, the study recommends that, the government and other stakeholders should provide education to the communities that still embracing the culture of initiation rituals so as to avoid interfering school timetable and helping their children to finish their study.

**Key words:** Initiation Rituals, Secondary School, Students' Dropout, Chemba District, Tanzania

# **The Effect of Initiation Rituals on Secondary School Students' Academic achievements in Chemba District, Tanzania**

By

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## **Introduction**

Literature has revealed that, among the focal factors that influence children dropout from school are indigenous practices such as initiation rituals. In most of African countries the initiation rituals were mainly conducted in order to prepare young children for their future life. Davis (2011) noted that, traditional practices vary across one tradition to another basing on the community culture. However Kanuki and Kimaro (2014) assert that, whatever the variation in practices, initiation rituals aims to prepare girls for future motherhood and boy for fatherhood.

On the contrary, this unique tradition practices have both positive and negative impacts on the lives of people, especially school going children. Recently the data show that, in most of the countries the initiation rituals are conducted for children aged 7 to 9 and 10 to 17 years. This implies that, initiates are school aged children. Despite of this age the contents and practices, which are provided to these young children, are not matching with their age rather for the adult. Initiates are taught marital duties of men and women. For example male are taught sex education and herbs that, facilitate sexual satisfaction with a woman, and girls are taught how to satisfy their spouse during the intercourse (Munthali 2004).

Studies have shown that, initiation rituals often play a significant role in transferring cultural norms and values of appropriate sexuality across generation as they mark the new beginning to sexual maturity and social responsibilities (Ntukula, 1994; Bolin & Whelehan, 2009; Davis, 2011; Mtewe, 2012). However these practices are focused more in girls rather than boys. For example, initiation rituals practiced by many societies are said to be responsible for significant number of girls' dropouts (Mtewe, 2012; Maluli & Bali, 2014; Said, 2015). Effects of initiation rituals to male were not much discussed, while globally it is estimated that 30% of all males above the age of 15 years are circumcised. The age at which traditional male circumcision is performed varies by country and ethnicity. In Indonesia, Senegal and Zambia it ranges from 6 years to 35 years. In East and Southern Africa the majority of males are circumcised between the ages of 12 and 22 years, whereas those in West Africa are generally circumcised much earlier (WHO/UNAIDS, 2007). This implies that, a number of school aged boys were circumcised while at school and were affected by initiation rituals.

Education directives and regulations are not supportive for students who are affected with initiation rituals, especially when a girl student gets pregnancy. Any pregnancy among girls is intolerable and the culprits get dismissed from schools and there is no alternative window for re-admission into school. The fate of students, especially girls, dropping out from school because of pregnancies is uncertain and chances to resume studies are barely possible, particularly from low-income families who are the most affected with the traditional practices. This confirmed findings from Maluli (2011); Maluli and Bali (2014) who reported the extent of struggling pregnant and mothering secondary school students due to the lack of clear policy to protect them, and negative consequences of conflicting views about allowing pregnant student mothers resume schools. Against this background, this study is intends was to

bridge the existing gap focusing on the initiation rituals commonly practiced on students and its effects on students' academic achievements.

### **Statement of the Problem**

A substantial number of empirical studies reviewed have revealed that, to greater extent socio-cultural factors hinder education of girls, yet they fail to identify how initiation rituals affect boys and girls secondary school academic achievement. For example, few studies tried to focus on components of initiation rituals to secondary school students, particularly on how they affect individual student' behavior, beliefs, attitudes, experience, skills, abilities or expectation, and how these individual factors resulted from socio-cultural practices have been influencing school truancy, and ultimately dropout in Tanzania secondary schools context (E.g. Komunte, 2011; Malley, 2011; Halley, 2012; Rwechungura, 2014). Although previous studies focused mainly on socio-cultural factors hindering education for girls in Tanzania, these studies have failed to show initiation rituals commonly practiced on students and its effects on students' academic achievements. This study sought to fill this gap. Therefore, the pertinent question remains: What is the prevailing initiation rituals practiced/performed on secondary school students in the selected secondary schools? What are the effects of initiation rituals practices among secondary school students in selected secondary school?

### **Review of Related Literature**

#### **The Effects of Initiation Ritual Practices on Students**

The impacts of dropout for secondary school students are substantial and far reaching. School dropouts are much more likely to result from multiple sources. One of the predictive causes is cultural practices embedded in traditional initiation rituals. In spite of its value in society, initiation rituals welcomed different scholars on both positive and negative impact on secondary school students. These impacts are grouped into psychological, social and health-related dimensions.

#### **Psychological and Behavioral Effects of Initiation Rituals on Students**

A growing body of empirical studies point to the complexity of psychological and behavioral impact of initiation rituals. In a study by Kimonge (2011) in Kenya revealed that female genital mutilation and ceremonies accompanied with such practice have both physical and psychological harm to girls participated, because it inhibits most of them from finishing their education. In a qualitative study by Jangu (2015) in Ghana with a sample of 60 girls investigating the experiences of girls dropouts in Ghana, found that majority of girls remorse and regret to drop out of school, that they seek alternative to be enrolled back to school. This shows the predicament of school dropouts and the call for re-integration into school system.

The time spent in the ritual ceremonies and household chores instead of homework lower education aspiration and concentration of girls and lowers their academic performance (Munthali, 2004). This confirms studies by Bhalalusesa (2000) assertion that initiation rites especially FGM and other types of unyago among girls lower their self-confidence, based on the nature of teaching leading to submissiveness to the acts itself and social roles.

In another study in Malawi, Munthali (2007) examined timing and role of initiation rites in preparing young people for adolescence and responsible sexual and reproductive behavior. Using in-school and out-of-school male and female

adolescents and married and unmarried adolescents aged 12-19 years old; the study revealed that traditional initiation ceremonies promote sexual adventure among adolescents who graduate the practices. As reported earlier, the ceremonies symbolizes maturity, many adolescents take this transition to adulthood to expose them to sexual world. This is in line with Munthali (2007) who noted on the rites content which put much more emphasis put on educating girls about reproductive implications than on what is expected of boys as sexual beings, which may contribute to boys' greater indulgence in risky sexual behaviors than girls. Connell and Gunzelmann (1999) and Wiens (2008), in particular, found that majority of disciplinary cases leading to suspension come from boy students who become disengaged and disruptive behaviors'. This reiterated by Mohlaloka, Jacobs and De Wet (2016) that while teachers in formal schools struggle with generic discipline problems, there are additional challenges of male students who show deviant behavior after their return from traditional initiation ceremonies.

In a local study conducted by Haki Elimu (2010) it was found that, the teachings and trainings received during initiation rituals resulted into psychological maturity manifested strongly in heightened sexual desire, which led to early pregnancies and marriages among participants. The study further revealed that, girls who participate in initiation rituals and opt to quit school and get married or seek job opportunities as house maids in urban areas, as they learnt to be independent during the initiation rites of passage. This supported by Magesa et al. (2017) who found that initiation rituals encourage feeling of adulthood among girls that they are ready for sexual relationship which expose them to early marriage and pregnancies, this ultimately lead to poor concentration on school-related matters. The study further revealed attending initiation rituals denied participants their precious school time and changes in behavior by feeling that they cannot cope with formal education. Another study by Malawoni (2013) in Newala district also revealed that, initiation ceremonies encourage early sexual experimentation through sexual teachings, which are predetermines early marriage and early pregnancies limiting girls' chances to participate in classroom, and eventual school dropout.

### **Social Effect of Initiation Rituals on Students**

Social impact of initiation rituals are understood better in association with cultural beliefs, values and social values intended from the practice. Myriad of studies have explored social values and perception inherently in wide array of tradition cultural practices and their impacts. For example, Richard (1982) argues that, what girls learn in initiation rituals does not represent new information, but rather changes in girls' expectations about their responsibilities and to be responsive to adult woman duties. Thus, initiation rituals for girls were more of growth than education aiming to facilitate and celebrate transitional physical, psychological and social transformation of girls (Halley, 2012). During these initiation rituals the initiates are taught rules and taboos of the society and they are taught moral instruction and social responsibility they are expected to observe after the ceremonies (Ginsberg, Kariuki & Kimaro, 2011). Moreover, initiation rituals primarily aimed to develop to individual' sense of self, which is physical, psychological and spiritual members of the community (Beidelman, 1967).

Furthermore, social benefits of FGM as a rite of passage and female identity surpass medical dangers (Dirie & Lindmark, 1991). For example, FGM serves as the sign of bravery, chastity, purity, marriageability, social puberty (passage into sexuality), and preparation for female role in the society (Kouba & Muasher, 1985).

In recent study by Froneman and Kapp (2017) on knowledge, attitudes and beliefs of Xhosa men concerning traditional circumcision, revealed that participation is precipitated by perceived personal growth and belonging, family and peer pressure to avoid humiliation and shame, gaining independence as a man and knowledge, and ancestral connectivity. This implies that students from both sexes who attended the practice have greater likelihood of being influenced by peer and social pressure to behave like adult or involved in adult responsibilities after passing through such rites of passage. Similarly, among the Agikuyu in Kenya, a study by Muraya and Muriungi (2014) revealed that persistence of FGM despite wide campaigns to eliminate the practice is deeply rooted in social perception and construction of identity. Thus, girl' students as part of wider society perceive the practice as means for cementing social cohesion and identity, so that FGM practice goes beyond the physical operation (genital mutilation). In this realm, their graduation from initiation rituals marks the beginning of taking social responsibilities and identification as an adult and future mothers who needs to get prepared for the role as they were taught in the ceremonies.

Moreover, indirectly, another issue related to initiation rituals that may pull boys' out school before graduation, is called 'employment or apprenticeship opportunities' (Olsen & Farkas, 1989; De Witte et al., 2014). This implies that initiation rituals expose both girls and boys to adult responsibilities and perceived maturity inherently in the initiation rites of passage, tend to influence students' disengagement with schools in order to seek job or activities that can help them support their families or become independent adult.

Furthermore, local studies literature demonstrates similar evidence that social perception and role socialization are major socio-cultural factors impeding girls' education in Mtwara District in Tanzania (Mollel & Chong, 2017). These social perception and socialization are perpetuated by initiation rituals attended by both boys and girls. Similar study by Mbekenga (2013) investigated the impact of gender roles on girls' participation in primary education in Bunda district. The study revealed that initiation ceremonies instill gender stereotyped roles learned during cultural practices in which some values, prejudices and beliefs caused girls' poor participation in primary education. Halley (2012) also found that the expansion of formal education is changing the cultural environment of rural communities in Mtwara, by introducing new social structure and ideology that challenging socio-cultural norms surrounding adolescent sexuality.

### **Health-related Effect of Initiation Rituals**

There is growing international awareness that some traditional values and practices act as root causes for health-threatening consequences for both boys and girls. Studies have confirmed that, initiation rituals as part of rite of passage to adulthood have some harmful impacts for girls' and boys' students. For example, a study by Marcusán et al. (2016) in the Gambia contends that, initiation rituals are accompanied by taboos, secrecy, and self-enforcing social norm that occurs under fear of exclusion from age group or society. These misconceptions are detrimental to lives of young men and women.

FGM is the widely confirmed harmful traditional practice in most societies, which ravages the health and wellbeing of girls. In another revelation by Segobye (2016) in Malawi, found that some cultural and ritual practices violate health and rights of individuals especially girls child. The common practices included forced early sexual debut and unprotected sex for initiates exposing to risk of contracting HIV; female genital mutilation associated with health complications for girls and

women around sexual health and pregnancy, and early marriages leading to early childbearing which often brought negative effects mothers' health and the children.

In study by Malhotra (2008) on the impact of sexual revolution in the USA on revealed that early sexual activity, teenage pregnancy and multiple partners are associated with pain, broken relationships, sense of betrayal, confusion about romantic feelings, altered self-esteem, depression, and eventually affects their ability to form a healthy long-term relationship. Despite these findings are carried in America, the impact of early sexual activity common in most African initiation rituals have the same psychosocial and health consequences among boys and girls. It is this line of argument that initiates body is not fully grown so their health especially young pregnant girls remain at risk.

### **Effect of Initiation Rituals on Academic Performance**

It is argued from literature that, there is a collision between traditional cultural practices and modern education system. Nyambura (2009) carried out a quasi-experimental study that investigated the relationship between school boys' circumcision and academic performance in Kenya. The study in question, revealed that, there was a significant difference between circumcised and uncircumcised boys, whereby circumcised boys performed poorly as compared to uncircumcised peers. This difference is ascribed to traditional circumcision ceremonies prior to their national examinations.

In an earlier anthropological study by Eshiwani, (1994) on gender differentiation in girls' socialization and its impact on academic achievement in Kenya, the study revealed that, gender-roles socialization and community-gender based practices affected academic performance. For example, author revealed that gender-roles mostly giving girls specific roles to play like fetching water, firewood, doing domestic work, and engaging in petty business and farm activities consume a lot of girls compared to boys.

In another qualitative study by Musole (2015) on *Sikenge* rite of initiation among the Lozi girls in Zambia, it was revealed that, initiation makes some girls poor achievers academically due to the fact that after ceremonies girls have been preoccupied with teachings of *Sikenge* and absenteeism due to initiation related issues as it clash with school calendar. Likewise, Kapakasa (1992) study in Malawi showed that, the timing of initiation ceremonies also interfered with school calendars leading to absenteeism, and eventually dropout. Meanwhile, initiation ceremonies usually take place during the school holidays but the preliminary processes and aftermath of practices.

Similarly, a study by Halley (2012), Loaiza and Liang (2013), and Nieminen (2017) maintained that the main causes for girls' poor school success are the adolescent pregnancy, which is mainly associated with traditional education through initiation rituals and practices. This corroborates findings by Malawoni (2013) that revealed that initiation ceremonies had an impact on primary school students' poor academic performance because these ceremonies collide with the school calendar, dropout, early pregnancies and early marriage for girls in Newala district, Tanzania.

### **Methodology**

This study used embedded case study design with Mixed-Methods Approach (MMA). Both qualitative and quantitative research approaches were employed in data collection, data analysis and data interpretation. The study was conducted in Chemba District because of high problem of initiation practices and student dropout cases in

the area. Both primary and secondary data were used in the study. The study adopted purposive and snowballing techniques to select 145 respondents. Primary data were collected through the use of interview guide, FGD, and self-administered questionnaire where by secondary data were obtained through reviewing documents and reports. Documentary review was done to obtain educational records and documents such as students' school reports like school daily attendance registers, number of students enrolled, disciplinary cases. The study used a sample of 4 secondary schools from 23 public secondary schools. This study employed Yamane (1997) sample size determination formula to get the student's respondents. This formula was used to calculate the sample sizes of this study.

$$n = \frac{N}{1 + N(e)^2}$$

Where  $n$  is the sample size,  $N$  is the population size, and  $e$  is the level of precision.

$$n = \frac{1069}{1 + 1069(0.1)^2}$$

$$n = 92$$

Therefore, from each school, 23 students were involved in the ratio of 5:10:5:3 from form one to form four respectively.

**Table 1: Number of Participants Involved in the Study**

Quantitative Data		Qualitative Data						
Schools	Students	REO	Teachers	Headmasters	Parents	Students	School Dropouts	Grand Total
		1						1
A	23		2	1	2	6	2	30
B	23		2	1	2	6	2	30
C	23		2	1	2	6	2	30
D	23		2	1	2	6	2	30
<b>Total</b>	<b>92</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>8</b>	<b>24</b>	<b>8</b>	<b>145</b>

Source: Field Data 2018

## Results and Discussion

### Prevailing Initiation Rituals Practices among Boys and Girls in Selected Secondary Schools

The study intended to identify the prevailing initiation rituals practiced on secondary school students in Chemba district. Data related to this objective were collected from students using questionnaire, while interview was used to gather data from parents, and teachers. It was noted from the field that, the studied area has more than one tribe, with each tribe having its own way of performing the initiation rituals on youth like boys and girls. The prevailing initiation rituals practiced are male circumcision, seclusion and Female Genital Mutilation (FGM). The student respondents were asked to rate their sex, age and initiation rituals practiced in their localities. The descriptive

statistics was computed, and the results are summarised in the Table 4.1 **Table 4.1: Frequency**

**Distribution of Initiation Rituals Practiced (N=92)**

<b>Type of Initiation Practiced</b>	<b>Frequency</b>	<b>Percentage</b>
Male Circumcision	42	45.7
Female Genital Mutilation	3	3.3
Seclusion	30	32.6
Non-Initiation Ritual	17	18.5
<b>Total</b>	<b>92</b>	<b>100.0</b>

**Source: Field Data 2018**

Table 4.1 shows that, the male circumcision, with 42(45.7%) had the highest score rating among the rituals performed on youth, followed by seclusion by 30(32.6%), non-initiation rituals by 17(18.5%), and female genital mutilation, which accounted to 3(3.3%) of the rituals performed on youth. Overall, the findings in the selected schools, as reported by the sampled students show that, male circumcision is the main initiation rites taking place in their communities, followed by seclusion. These rated initiation rituals represent common traditional initiation rituals practiced, which to some extent influence students' decision to drop out of school. This is because, these are among the common African cultural practices, which mark the period where adolescent boys and girls are oriented to assume social, familial and sexual responsibilities in the community.

Furthermore, the researcher conducted interview with parents, teachers and out of school students, and convened FGD sessions with group of selected students to discuss and give their perspectives, understanding and experiences about the prevailing initiation rituals practiced in the studied area basing on the ethnic groups found in the area. Chemba is multicultural district with more than one tribal group. These ethnic communities include: Rangì, Burunge, Sandawe, Gogo, and Maasai. With these differences the description was based on the ethnic group studied and general traditional practices.

Among the Maasai community, the *Emulatale* is a rite of passage that initiates boys and girls when they have reached puberty. The Maasai consider initiation ritual as the rite of passage that allows the young boys to move to another stage of life. For initiates, initiation rituals are values much, because they allow them to participate in other community activities, such as dances, which only adult and initiated members of community participate. Informants noted that, initiation practices among Maasai community are accompanied by girls' FGM and male circumcision. This practice among Maasai is conducted by expert adults known as *Ilamulatak*. The practice is conducted on the child of 9 to 15 years old. For a Maasai girl, circumcision is considered as a price value of a girl, especially during the marriage; one parent from school C stated that:

...girls must be circumcised...Without that they are priceless...No one can dare to marry her because she is unclean... (Interview session, April, 2, 2018).

For Maasai boys, assumption of the role of warrior took place soon after being circumcised, which may lead to loss of interest in schooling as they were taught to

take care of the community and search for means of family's survival. Participants also reported that, initiation rituals among the Maasai normally takes place between July and September, the months believed appropriate and conducive for quick healing of wounds after boys and girls circumcision. They added that, sometimes parents ask for permission for up to 2 to 3 weeks from school on behalf of their children for prior preparation, before the actual initiation practices. This was confirmed by one of the teachers from school B who had this to say:

...in the last two weeks of June students attendance was not at acceptable level...this is because of the rituals' preparations that were going on... (Interview session, March, 30, 2018).

A Maasai boy student from school C also added that:

...we learned that, we must respect our adults...and anything said by the adult is right and must be obeyed...Adults have plenty of experience, so we must obey their order and directives...they decide whom we should marry and when... (Interview session, April, 2, 2018).

Also a Maasai boy who dropped out of school had this to say:

“...what forced us to be circumcised was to preserve our culture which is highly respected. After circumcision, the circumcised people (Moran) are allowed to change their dressing style by wearing two pieces of clothes known as Nanga nari. The uncircumcised people (Laiyon) wear a single garment known as Nanga nabo. These identify boys who have been circumcised, and those who are not. Even the elders who are not circumcised are strictly not allowed to wear the two piece of garments (nanga nari) .....This rule applies the same for women as well, those who are married wear two pieces of clothes, while the unmarried women dress only a single piece of cloth, regardless of their age...”

Moreover, the data further revealed that, initiation rituals among Gogo involves the use of corporal punishment on the initiates when they commit mistakes during in initiation lessons. This indicates how such cultural practices are given huge importance by the community, for the youngsters to absolve them and apply in their lives. One of the students from school C said this during focus group discussion:

We took a lot of punishments from our leaders while we were trained on those rituals (Mizimu). This happened when the leaders thought that, we have either misbehaved or have failed to demonstrate that we have understood the knowledge transmitted to us..... (Interview session, April, 3, 2018).

Additionally, the Sandawe tribe is another community residing in Chemba District and which was also investigated about the initiation practices that are commonly practiced in this community. The study found that, there are common initiation rituals, which are widely practiced on both male and female youths. In this community, the researcher found that, the FGM and seclusion for girls and male circumcision are initiation rituals practiced in the area. In Sandawe tribe the boys' initiation practice is conducted in a group of 5 to 10 initiates from different families. For girls, FGM can be conducted even before the onset of puberty. However, in most cases, once the girl

experiences the first menstruation she must be secluded, so as to teach and prepare her for the coming adult roles. During seclusion, girls are taught respect, warned to avoid relationship with male sex, encouraging good behaviours, self-hygiene and self-awareness. In addition, girls are also insisted to know that they are grown-up women who must behave accordingly. The period of initiation normally starts from June to December. Girl's initiates spend up to 2 months to heal after FGM is conducted and be ready to be availed, compared to male who might take 2 weeks up to a month or less than that period to heal, after the circumcision.

From interview responses, it was also observed that, among the Rangi community the initiation ritual is practiced in order to impart custom and tradition to young adult, building their self-confidence, respect to adults, and be obedient to community rules and regulations. The rituals also aim to instill the spirit of high economic achievements, being secrecy, teach self control in sexual relationship, and how to handle sexual intercourse. Nevertheless, it was attested by one of the parents that, the FGM as an initiation ritual is no longer widely used and has significantly lost support among people in the Rangi community. This is due people's understanding of its health consequences, although some parents are still reluctant to abandon the practice altogether in honor of their culture. For example, one parent in school B had confirmed that:

Nowadays we have stopped the practice of mutilating our daughter's genitals. For those who still practice it, they gently pierce the clitoris to just let some blood to spill as a sign of cutting. And in most cases, this is done secretly due to lack of approval from majority of community members (Interview session, March, 29, 2018).

However, this finding brings an alert that, the FGM which is totally forbidden by the government is still finding the room among the investigated communities in the name of preserving cultural traditions.

Besides, the study findings revealed that, male initiates are highly encouraged and advised to engage into sexual practices to show their sexual mighty, and be tested if they are ready for marriage. One parent in school A had this to say:

Initiation ceremony is practiced in order to teach our youths bravery, our traditional customs and values, respect for adults, the spirit of economic success, privacy, hygiene, proper sexual etiquettes and preparing one for marriage.....Society intends to protect its traditions and youths are the ones who are obliged to preserve these traditions by putting them into practice... (Interview session, March, 29, 2018).

Overall, based on the findings presented, despite the fact that, Chemba District has different tribal communities, yet these communities in big part share similar traditional initiation rituals applied on both young boys and girls. Besides, male circumcision and seclusion were found to be the most dominant rituals prevailing in all tribal communities in the area of the study. Further, although FGM is still found among these communities, its use has been tremendously declining compared to the past days, following the Government intervention by outlawing this practice and declare it an illegal ritual in Tanzania.

#### **4.2 Effects of Initiation Rituals Practices among Boys and Girls in Selected Secondary Schools**

The study investigated if the practiced initiation rituals had any effects on secondary students in the selected area. The researcher used questionnaires and interviews to gather information about the extent to which initiation rituals affect students who went through such rituals in the selected schools. The impacts were arranged into the following areas: psychological and behavioral impacts, social, health-related impacts, as well as school attendance and academic impacts on students, in the selected schools. Data obtained regarding this objective are tabulated and presented in the Table 4.2.

**Table 4.2: Percentages and Frequency of Effect of Initiation Rituals to Secondary School Boys and Girls**

Item	Strongly Agree	Agree Neither	Agree nor Disagree	Disagree	Strongly Disagree	Missing value	Mean	SD
<b>Psychological and Behavioral Impact of Initiation Rituals</b>								
Rudeness as the result of initiation rituals	19.6	18.5	23	14.1	25	0	3.07	1.46
Disrespectful for teachers	19.6	9.8	13	29.3	28	0	3.37	1.48
Bullying/bragging	21.7	15.2	14	25	24	0	3.14	1.494
Engaging in Sexual Behavior	35.9	17.4	16	16.3	14	0	2.55	1.47
Failure to respect school rules	23.9	13	8.7	30.4	23.9	0	3.17	1.531
Disrespectful for adults at home	18.5	6.5	21	23.9	30	0	3.41	1.454
<b>Average Responses</b>	<b>24.14</b>	<b>14.78</b>	<b>14.94</b>	<b>23.02</b>	<b>22.98</b>	<b>0</b>	<b>3.12</b>	<b>1.482</b>
<b>Social Impact of Initiation Rituals on Students</b>								
Inability to cooperate with uninitiated classmates	31.5	10.9	21	21.7	15	0	2.78	1.441
It develop my self-understanding and my roles	45.7	17.4	12	14.1	11	0	2.5	1.363
Claim of equality with adults	42.4	20.7	11	16.3	9.8	0	2.3	1.412
Shyness on the parts of initiates after the initiation ceremony	37	17.4	17	13	15	0	2.52	1.479
<b>Average Responses</b>	<b>35.02</b>	<b>14.58</b>	<b>16.4</b>	<b>17.8</b>	<b>16.16</b>	<b>0</b>	<b>2.53</b>	<b>1.424</b>
<b>Health-related Impact of Initiation Rituals</b>								
Death	54.3	18.5	17	8.7	1.1	0	1.84	1.072
Chronic health problem	56.5	14.1	11	14.1	4.3	0	1.96	1.283
Transmitted diseases like HIV	63	9.8	11	10.9	5.4	0	1.86	1.289
Scars and loss of blood	56.5	22.5	9.8	7.6	3.3	0	1.78	1.108
<b>Average Responses</b>	<b>54.32</b>	<b>17.12</b>	<b>12.16</b>	<b>10.22</b>	<b>6.02</b>	<b>0</b>	<b>1.86</b>	<b>1.888</b>

**Source: Field Data 2018**

### **Psychological and Behavioral Effect of Initiation Rituals on Students**

Data relating to this category have been summarized in table 4.2, and they revealed that, students had divergent opinions about the psycho-behavioral impact of traditional initiation rituals, with a mean score of 3.12 and SD=1.482. For instance, the results revealed that respondents didn't unanimously agree that the initiates developed some misbehavior such as rudeness, disrespectful for teachers, bullying/bragging or failure to respect school rules, with the mean results of 3.07(SD=1.46), 3.37(SD=1.48), 3.14(SD=1.494), and 3.17(SD=1.531) respectively. This implies that, majority of students neither agreed nor disagreed that, the initiation rituals led to misbehavior in schools. These further indicate that, respondents have mixed opinions and were undecided about the negative impact of initiation rituals on students' behaviors while in schools.

These results contrast with the studies by Magesa et al. (2014) and Mbale (2016) which found that, the initiation rituals lead to students' misbehavior in schools. However, regarding sexual behavior, the findings reveal that, majority of students agreed that, the initiation rituals lead to increased incidences of exposing initiates to sexual intercourse, substantiated by the mean of 2.55 and standard deviation of 1.47. This imply that, majority of the respondents agreed that initiation rituals significantly influence secondary school students' initiates to engage in sexual relationships. This is consistent with Munthali and Zulu's (2007) findings, which argue that, the timing of initiation rituals marked the period of early adolescence where girls reached menarche and boys experienced pubertal body changes. They further found that, initiation rituals is period when initiates start defining and comprehending their sexuality, leading to risky sexual behaviors.

Likewise, a study by Chama (2006) in Zambia found similar results that initiated girls' behaviors change after graduating from traditional rite of passage (Sikenge), as they behave like mature women and sees their non-initiated peers as ignorant and inexperienced. It also argued that, despite the nature or the modality used by particular society, sexual behaviors developed after initiation rituals had both negative impacts of students' education. This is justified by studies by Buzwell and Rosenthal (1996) and Katz et al. (2013) who in common contend that, at adolescent stage, it is critical period when traditional rituals are conducted. Boys and girls become more impulsive in decision-making related to sexuality, which can lead to involving into risk sexual behaviors'

In addition to this, the findings from FGD with both boys and girls students revealed that, the initiates are pretty much influenced by the group psychology at this adolescent stage of their life. Therefore, they tend to be very much influenced by their peers to practically implement what they have learnt from initiation rituals, particularly the use of sex-related contents, ultimately leading to indulge deeply into sexual gratification, rather than paying attention to education. More specifically, it is argued from the study that, in these cultural practices the core content of initiations is mainly based on honoring the supremacy of men over women.

Thus, although the chances of both boys and girls to drop out of school are equally put under scrutiny based on the high percentage of boys' dropouts in Chemba District of about 365(54.4%) compared to 306(35.6%) girls dropouts. However, it is quite common to find boys becoming the victims of such socio-cultural circumstances. Since, the silent messages and community perception towards schooling and the role of boys in the family have significant influential repercussions for boys.

As reported by one of the out of school boys from Maasai society who said that:

...soon after being circumcised, a circumcised boy has literally no chance to make his own decision, whether to marry or to continue with school. Since, wives are readily prepared by the parents for the newly circumcised youngsters to marry. Basically, the society gives you a very little chance to continue with your studies. As a result, most of the circumcised young boys in our community decide to marry and stop going to school ..... (Interview session, April, 2, 2018)

This implies that, male circumcision and seclusion of girls for number of days signify the critical transition stage in initiates' life as they are prepared to take adult roles. However, with the changing patterns of society and economic life, most of these

initiates are confronted with behavioral challenges contrary to what their societies expect. As a result, many of the youths never abide with the values and rules associated with teachings inherent in initiation rituals. For example, with advent of new sources of information and decaying social and family structure, majority of the initiates end up falling prey of engaging in risk sexual behaviors at early teen age.

### **Social Effects of Initiation Rituals on Students**

Data relating to this category have been tabulated in table 4.9. Data presented in that table reveal that, students had divergent opinions on social effects of initiation rituals, with obtained mean results of (M=2.53, SD=1.424). When the social impact of initiation rituals was put under scrutiny, data revealed that, students had divergent views on whether initiation rituals were the reason for some initiates to learn values that identified them as adults and special groups different from uninitiated classmates, or not. Students responding with corresponding mean of (M=2, 78, SD=1.441). Through interview respondents reported that those who have not yet attended initiation ceremonies, especially circumcision and female seclusion, are perceived by their peers to have low profile and as well as young. This increases peer pressure for both boys and girls to admit the fact that, they are indebted to attend initiation rituals as their peers, in order to be recognized as part of the respectable social group.

Results indicates that majority of respondents 45.7, (M=2.5, SD=1.363) responses ranged from strongly agree to agree on the opinion that initiation rituals develop self-understanding, identity and social roles. It was further observed from the table that, majority of the respondents 42.4 had the homogenous perception (M=2.3, SD= 1.412) that, the initiation rituals led some initiates to perceive themselves as they are equal with adults, after attending their rite of passages. On shyness of initiates after the initiation ceremony, respondents 37 strongly agree with a mean score of 2.52 and standard deviation of 1.479. The respondents also had mutually agreed that attending traditional initiation rituals influenced the social behaviour of initiates as they were taught self-understanding and some manners especially girls, that increased their shyness behavior. The sex difference in this aspect reveals that, their corresponding standard deviations are 1.556 and 1.258 for males and females respectively. This implies that, after attending initiation rituals, initiates start to feel themselves like an adult and they lose their interest of schooling.

The findings revealed that in spite of changes witnessed in most of African traditional initiation rituals and multicultural nature of African societies, these practices and ceremonies share in common similar aim of creating idealized feminine and masculine identities. These findings, for example, are confirmed by Magodyo, Andipatin and Jackson's (2016) findings, which revealed that, traditional male circumcision among the Xhosa is practiced to create masculine identity that, uphold ritual teachings and prescribing the set of masculine role expectations. Similarly, a study by Kioli, Were and Onkware (2012) assert that, trainings inherently in initiation rituals inculcate sexual morality evidently seen in virtues of self-respect, especially for girls, and respect for others. These results also confirmed earlier findings by Ronoh (2016) that, initiation rites in the Maasai society are associated with learning experiences aimed to prepare adolescents to become responsible and patriotic member of the society, and abandonment of children habits, comradeship as well as social and family life. In respect to school dropout, the study concluded that, initiation rites and lessons embedded with them make most Maasai initiates who are students in schools to lose interest in schooling.

### **Health-related Effects of Initiation Rituals**

Table 4.2 reveals that student respondents strongly agreed that initiation rituals had negative health-related effects on initiates. Data shows that negative consequences of initiation rituals include death, chronic health problems, sexually-transmitted diseases such as HIV/AIDS, loss of blood and scars with mean score of 1.84, 1.96, 1.86, and 1.78; with their corresponding standard deviations of 1.072, 1.283, 1.289, and 1.108 respectively.

According to results from the table, it is important to note that, respondents agreed that early involvement in sexual relationships especially for girls may result to health-related complications. This means that, initiates especially girls' bodies are not well developed enough for sexual relationships, which may terribly lead to scars caused by ruptures and tear, which consequently have severe physical impacts on their future life as wives. Though participating in seclusion (like unyago) is meant to teach them chastity, self-respect and to avoid early pre-marital sexual relations. Yet, because of the adolescent age in which the youngsters are put through the rituals, and socio-economic factors, the initiates find themselves tempted to engage in early sexual relationships, which are harmful for their lives and expose them to deadly sexually transmitted diseases like HIV/AIDS. These findings imply that, the both boys and girls mutually agreed that, initiation rituals expose initiates into risky sexual activities that, may lead to under-age childbearing and early marriages, before completion of their studies.

In the similar line of argument, Sovran (2013)' findings substantiate the fact that, scarification, male circumcision, and genital tattooing and mutilation can be a healthy threat leading to infection and sexually transmitted diseases like HIV/AIDS when done in groups and with unprofessional in the unhygienic conditions. Moreover, Munthali and Zulu (2010) allude that, both boys and girls can be affected by their involvement in traditional initiation rituals, because of behaviors' and practices after their graduating from the rites of passage, like participating in unprotected sexual activities. The consequences of these risk sexual behaviors', is that, the possibility of contracting sexually-transmitted diseases might be high, or early pregnancies which in turn can lead to school dropout.

### **Conclusion and Recommendations**

The study examined the effects of initiation rituals on students' dropout in selected secondary schools in Chemba District. The study revealed that initiation rituals has a big effects towards students education via students school dropout that led to majority of students who were enrolled never completed their education and dropped out of school. The study revealed that, these rituals have some negative effects like early pregnant, early marriage and truancy for both boys and girls students' and it is a challenge that demand proper intervention like provision of education to the society and find a proper way of doing those rituals without interfere with school timetable and curriculum. This will help secondary school students to fulfill their educational dreams. The community also should be educated on the importance of education to their children and about harmful traditional practice like FGM which affect female physically and psychologically. Also, schools administrations should put a strictly school condition that must be followed by both students and parents that will help to reduce the tendency of students to leave school and go and attend initiation ceremonies.

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## Chapter 13

### **Influence of Flexible Workload Strategies on Performance of Nurses in Regional Hospitals in Tanzania**

By

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#### **Abstract**

Nurses are considered to be the main workforce in health sector responsible for protection and promotion of health and improvement in an individual's health. In similar vein, nursing is a high workload profession, and excessive workload has been shown to have an adverse effect on nurses' performance. The work overload seems to favor mental and/or physical illnesses among nurses, besides facilitating the occurrence of absenteeism, occupational accidents, medication errors, exhaustion, work overload and absence of leisure. Thus, the equitable distribution of workload is one of the major factors contributing to nurses' satisfaction and, eventually, the quality of care delivered. To fully support nurses in delivering high-quality care to their patients' we must therefore understand how flexible workload strategies contributes to balanced nurses' workload and ultimately improve their overall performance. However, literature regarding several promising strategies to enhance equitable workload in different hospital units is lacking. The aim of this study was to examine the influence of flexible workload strategies in performance of nurses in Regional hospitals in Tanzania. The study also examined the intervening role of supervisor support in mediating the relationship between flexible workload practices on performance of nurses. Specifically, the study examined how job sharing, part time working and seasonal working practices influenced performance of nurses in hospital settings. Guided by explanatory research design, the study adapted a positivism study philosophy. Data were collected from 381 nurses in 8 regional hospitals using structured questionnaires and in-depth interviews. The findings indicated a significant correlation between job sharing, part time working and seasonal working practices with nurses' performance ( $r=0.443$ ,  $p<0.05$ ). Also, the study found that, leadership support and workload explained 48% of nurses' performance. It was finally concluded that nursing workload was affected by staffing levels, rigid working practices but also by the design of the nurses' work system. This chapter suggests ways in which hospitals can improve nurses' performance by increasing flexibility in working practice, reorganizing work structure to respond to the uncertainty in patient-care needs while respecting work rules.

**Key words:** Hospital staffing, Flexible working, Nurse scheduling, quality health care, nursing shortages

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## **Introduction**

The past 40 years have witnessed significant changes to work arrangements in Health sector. Globally, the changes have been characterized by less contract duration and job security, more irregular working hours (both in terms of duration and consistency and also bogus/informal work arrangements (Aiken *et al.*, 2011). The factors underpinning these changes include shifts in business/employment practices, weakening union influence and government policies/regulatory regimes to promote labour market 'flexibility' and weaken collectivist regimes (where these existed). In understanding the nature and implications of changes to work McHugh *et al.*, (2011) argues that, changes have adversely affected employee work arrangements especially in service sector and also increased job insecurity among employees (Rhe'aume *et al.*, 2011)

Thus, health care organizations have been interested in recognizing the need for a sustainable nursing health human resources strategy to ensure quality patient care in light of a potential nursing shortage and staffing shortfalls, as well as an aging workforce (Toh, Ang, & Devi, 2012). Studies indicate that, nurses are the backbone of health sector comprising of a diverse mix of generations. More importantly, nurses play an important role in the delivery of health care, thus, exploring ways to enhance performance improvement among them is crucial while managing operational excellence (Hinno, Partanen, & Julkunen, 2012). The study by Becker *et al.*, (2010) indicates that as a result of employee shortage in health care organizations, those who are working nurse related jobs have their workloads increased. In this manner, concerns for greater need for average workload are often made in regard to hospital settings due to complicated nature of patient care being ongoing and required around-the-clock (Trinkoff *et al.*, 2011).

According to Ashfag, *et al.*, (2012) flexible workload strategies refers to workplace policies and practices aiming at equal distribution of work among team members in order to balance between career and family obligations. In this way Tarafa and Muntaner (2016) asserts that, effective workload management is crucial for overall employee performance and business success. Therefore due to the increasing imperative for organizations to improve their flexibility capability, flexibility is no longer confined to the working relationship between an employee and their manager. It involves many parts of the organization working together to create a successful transformation. Research shows that stress, dissatisfaction, and inefficiency are the three most common work-related problems reported by employees as a result of improperly spaced out workloads (Answergen, 2014).

According to Griffins *et al.*, (2014) flexibility in workload is not only a benefit to businesses, it also benefits employees who can experience reduced stress, improved job satisfaction and better health outcomes through access to flexible working arrangements. However this cannot be achieved if the systems, structures and culture of a workplace don't adequately support flexibility. Furthermore, studies on workload analysis indicates that, lack of fair distribution of workload among nurses negatively

affect the quality of patient care and motivation level of nurses (Turkkan, 2014; Demir & Zencirci, 2010). At the same time, leaders are accountable for ensuring that appropriate organizational supports are in place with respect to different flexible work practices, such as policies and education (Becker *et al.* 2010). Regrettably, the provision of 24-hour nursing care inevitably revolves around heavy workloads including “long days” or 12-hour shifts (Zondwa & Aswegen, 2017). The study by Vanishre (2014), asserts that, the excessive workload may arise when nurses are asked to fulfill too much duties in a limited time with limited resources (Ashfaq *et al.*, 2013). Consequently, excessive workload, has been associated with several factors such as attention reduction, extension of the response time, failure to fulfill all the duties, stress, and fatigue and reduced performance (Vanishre, 2014). Therefore irregular and heavy workloads among nursing staff have become increasingly controversial, with concerns raised over performance, fatigue, stress and patient safety

### **Background**

In modern health sector, the nature of work has dramatically changed, decreasing or increasing physical demands especially in work that mostly involves offering services (Kacmar *et al.*, 2009). The reports by ILO (2013) indicates that, in the past 20 years both economic changes and its associated consequences, coupled with demographic changes in workforce and changes have resulted into chronic nurse shortages in health sector. Consequently, the remaining nursing personnel have been exposed to high and irregular workload, with possible negative consequences for the health and safety of both nurses and their patients (WHO, 2013, Howard, 2012).

-As the largest professional group within the health care workforce means that nurses are overloaded with multiple responsibilities, operate in shifts and generally employee performance tends to be worse on the night shift due sleep deprivation (Holden, Scanlon, & Patel, 2011). In addition to the higher patient acuity, work system factors and expectations also contribute to the nurses’ workload due to the fact that, apart from their professional duties, nurses are expected to perform nonprofessional tasks which compromise the service quality and lowering career commitment among nursing staff (Silva *et al.*, 2011). According to Myny, Van Goubergen, & Gobert, (2011) workload is often associated with the volume of nurses’ work, and there have been many strategies used balance nurses’ workload in relation to health human resource management (Hinno, Partanen, Julkunen, 2012).

Research in nursing has identified that flexible workload practices have being promoted by governments, employers and unions as an important element of efforts to harmonize and enhance the optimal workload in health sector (Neil, 2014; Howard, 2013). Three dimensions of flexible workload strategies, namely: job sharing, part time working and seasonal has an effect on burnout, job dissatisfaction and medication errors likelihood among nurses (Leone, Bruyneel, and Anderson 2015).

### **Problem Statement**

There has been tremendous decline of performance of nurses in regional hospitals in Tanzania due to unknown influence of flexible workload strategies and performance of Nurses (Tibandebage *et al.*, 2016). From Working Families (2011) report, patients who used private health facilities registered a higher level of satisfaction at 82% higher than those who used government of Tanzania facilities (63%). Also, the customers/patient satisfaction index for certified public referral hospitals, showed lower level of customer dissatisfaction at 67% compared to 80.2% satisfaction with private health centers (Songstad, Rekdal, Massay & Blystad, 2011, Shannon *et al.*,

2014). As indicated by Adams, and Hirschfeld (2013), nurses who works in units with long shifts reports high rate of patients' infection, high medication errors, abuses, high rate of patients falls and injuries, poor patients record keeping and high number of patient complaints.

Reports by (Kwesigabo *et al.*, 2012; Manzi *et al.*, 2012), shows that, 73% of nurses in public hospitals in Tanzania cited pressure of work and staff shortages, patients' unrealistic expectations, effects of fatigue due to extended work hours to provide continuous, work overload and poor resource supply (Kwesigabo, *et al.*, 2012). To improve nurses' performance, studies (Kahabuka & Hinderaker, 2012; Howard, 2012) recommend the use of Flexible workload strategies as an opportunity for performance improvements. Despite availability of policies and legislations guiding working practices among healthcare workforces, (WHO, 2013), nursing workforce in Tanzania have reported high level of compromised professional standards resulting from heavy and irregular workload in their units (Answegen, 2014; Mmbaga, 2015; Songstad *et al.*, 2011).

Therefore, this study intended to find out the influence of flexible workload strategies on performance of nurses in regional hospitals in Tanzania and therefore contributed to the improvement in the wellness of nurses, the quality of care and the public health sector.

### **Flexible Workload Strategies: Vital Factor in Improved Performance in Nursing**

A number of research studies (Gillespie *et al.*, 2011) have considered workload of nurses and the effects of these on a range of personal and health care organization outcomes. Personal outcomes have involved job satisfaction, aspects of psychological well-being such as depression, anxiety, burnout, life satisfaction, medication use, and psychosomatic symptoms. According to Olusenyi (2009), health care organization outcomes have considered intent to quit, absenteeism, turnover, job involvement, work engagement, accidents and injuries, medical errors, and quality of patient care sometimes provided by patients and their families themselves (Aiken *et al.*, 2011). Therefore, given the current and ongoing nursing shortage, the detrimental effects on the nursing workforce from unsupportive and understaffed work environments predict poor prospects for recruiting adequate numbers of nurses and gives cause for concern when countries grapple with the serious current and projected shortfall in the supply of nurses (Trinkoff, *et al.*, 2011) Therefore nursing research has devoted considerable attention to potential strategies to harmonize nurse workload especially during recent times of economic downturn.

Nursing research in developing countries has thus pointed out various strategies such as job sharing, part time working and seasonal working arrangements (Ashfag, 2013; Toh, Ang & Dew 2012). Previous research on the employee workload in a range of occupations, has produced inconsistent and inconclusive findings (Ariyat 2014). Sometimes findings favor heavy workload among employees (namely, e.g. more satisfaction with extra pay and engagement), sometimes average workload among employees, and sometimes rather similar outcomes are reported for both groups. Surprisingly in this context, there have also been relatively few studies focusing on strategies to harmonize employee workloads (Mc Fadden, Stock & Gower, 2015).

Two theories have been proposed to explain potential attitude between nursing workload and leadership support. The Job Demand-Resource (JD-R) Theory states that when job demands are high and job resources/positives are low, stress and burnout increase. Conversely, a high number of job positives can offset the effects of

high job demands (Bakker & Demerouti 2006). In this context, flexible workload strategies can thus be utilized as one form of resources which results in a performance improvement spiral (Harris, 2014). At the same time, the Path Goal theory suggests that leader's behavior is contingent upon the satisfaction, motivation, and performance of their subordinates (House, 1971)

Ashfaq *et al.*, (2013); Martinez *et al.*, (2014) identified strategic workload practices that are essential to performance improvement in nursing. It includes the following work arrangements: part time working, job sharing and seasonal working. As indicated by Gillespie (2011) a part-time job is a form of employment that carries fewer hours per week than a full-time job. Normally, employees work in rotational shifts. Empirical evidence indicates that, nursing can be a very rewarding career and at the same time being very demanding and very exhausting and therefore, full-time hours are not suitable for every nurse in the field (Mamdani & Bangser, 2012). Therefore by working part-time as a nurse, it could maximize the possibility to gain significant lifestyle benefits, such as a much improved work-life balance (Alameddine *et al.*, 2012; Brewer, 2010). At the same time, Trinkoff, (2013) argues that, part-time nursing provides for a much better work-life balance and allows any nurse to maintain an active social life while allowing a nurse to seriously consider their career future without losing touch with their professional nursing career (Gillespie, 2011).

Notwithstanding the complexities in health sector there is now a large body of evidence pertaining to seasonal working in nursing (Tarafa & Muntaner 2014). For example, a Spanish study by Artiles and Alos-Moner (2009) found that job satisfaction among nurses working on seasonal basis was almost three times that of nurses employed on permanent basis. As seasonal nurses in healthcare, their responsibilities are to provide additional support to a department during busy times of the year. On the other way, job sharing is a part-time employment alternative which offers advantages for employers interested in retaining experienced staff and nurses who are seeking a more equitable balance between work life and home life responsibilities.

In nursing profession, job sharing considers employing nurses whose skills and qualifications complement each other (Mercer *et al.*, 2010). The practice offers advantages for employers interested in retaining experienced staff and nurses who are seeking a more equitable balance between work life and home life responsibilities. In this regard, the results of the study by Neil, (2014) significantly support the belief that job sharing has a positive impact on job satisfaction and job retention. In this manner therefore, these strategies are cited in the nursing literature as effective flexible workload solutions for problematic work schedules (Maura, 2013). However, empirical literature caution that, in implementing flexible working strategies in healthcare, a number of complicating factors need to be recognized including effects of non-standard working, employee commitment to the job and more effectively on employee rights ((Bakker *et al.*, 2012). This imply that due to the nature of the nursing profession, not all of the flexible working options which have been described here are practical for all staff, particularly those based in the acute sector or working shifts. While nursing is a 24-hour service, it is still important to incorporate choice by designing and operating work practices that realistically fit in with the lives of nursing staff.

### **Intervening Role of Leadership Support**

Oluseyi and Ayo (2009) discussed leadership in terms of the leader's role and ability to get the work done by subordinates in an effective manner. Leadership is an

essential attribute for better organizational performance. Support from the leader motivates employees; increase their performance, and improve their concentration level. According to Avolio and Bass (2005), a supportive leader has high concern for individual consideration. Supportive leadership is the sub-dimension of transformational leadership is featuring individualized consideration (Rafferty & Griffin, 2006). Such leaders support every subordinate to strive for higher performance and assist him or her to solve the work related issues. In these way leaders, help subordinates to avoid stress. It is a role of a leader to understand the needs of employees and address them properly. Researchers (Dumdum *et al.*, 2002: Judge *et al.*, 2004) confirmed that, supports in terms of resource mobilization, policy enforcement and nurse empowerment has a direct effects of consideration on employee performance.

Furthermore, experts have outlined that effective leadership of healthcare professionals is critical for strengthening quality and integration of care through appropriate working strategies (Magaka & Swere, 2016). Thus, the unit level nurse manager has a mediating role between dimensions of the hospital's environment, nurse-physician relations, organizational support and outcomes related to the nurse-assessed quality of care and job outcomes. Therefore, nurse leaders with the expertise ranging from developing and implementing flexible workload practices to monitoring and evaluating their success – are becoming increasingly valuable. Similarly to this study, other studies that used primary quantitative data revealed a strong mediating role of leadership on the use of flexible working practices on employee performance (Zejert and Growsky, 2014).

### **Flexible Workload Practices in Tanzanian Health Sector**

Tanzanian health system operates in decentralized system of governance. It is organized in a referral pyramid, made up of three main levels namely, I) Primary level, II) Secondary level and III) Tertiary Level (URT, 2014). Tanzania's health sector is understaffed and characterized by an uneven distribution of health care professionals especially nurses and medical doctors (Leon & Riise, 2010) with rural and remote places being the most disadvantaged (Songstad, Rekdal, Massay & Blystad, 2011). As a result, nurses are experiencing higher workloads than ever before due to the increased demand for nurses, inadequate supply of nurses, reduced staffing and increased overtime, and reduction in patient length of stay (Munga & Leshambari, 2012). As indicated by Magaka and Swere, (2016), the combined effect is that health service staff are working in high stress levels leading to burnout; high attrition and job dissatisfaction, while workplace stress have been correlated with high or excessive workloads, lack of autonomy and chronic staff shortages — with high acuity of patient care (Musau, *et al.*, 2011). These challenges have been hindering the development plans of Tanzania's health system including The Millennium Development Goal (Munga, & Maestad, 2011). Substantive literatures suggests that provision of flexible workload strategies, in addition to supportive work climates and appropriate nurse-to-patient ratios, help to mitigate these effects and ensure quality patient outcomes (Tibandebage *et al.*, 2016).

The study by McFadden, Stock, & Gowen, (2015) indicates that, public healthcare organizations implement both job sharing, part time working and seasonal working arrangements with the aim of helping employees in balancing their family and work life in order to function effectively and efficiently. With the growing emphasis on work-life balance, nursing has been lauded as one of the few career choices that offer flexible options throughout a lifetime, including flexible workload.

However, despite the fact that not all flexible working arrangements will be suitable in all work places, with modern technology and with due consideration, most roles could accommodate some sort of flexible working arrangement (Howard, 2013).

The report by Cole, (2014) advocates that, the profession nurses requires a range of flexible workload strategies to foster a high-quality work environment leading to positive safety climate that assures positive patient outcomes. Additionally, inappropriate use of these arrangements has been shown to negatively impact the health of nursing personnel, and their work performance and family life (Shahra, Razavi, & Staab, 2014). Nevertheless, studies that use quantitative data or assess the impact of optimal workload in health care quality measures are neglected, while most studies have adopted a qualitative approach (Twigg &, Duffield, 2009). Despite decades of research, previous reviews have highlighted limited evidence about the influence of flexible workload strategies on performance of nurses in regional hospitals in Tanzania (Shijima, Eliakimu, and Takahashi & Miyamoto 2014). Furthermore, most of the studies showing the critical role of flexible workload strategies in determining high-performing healthcare delivery, originates from developing countries such as Canada, USA, Australia and Germany with limited studies from developing countries such as Tanzania (Murriel, (2012)

Therefore, the present study attempted to fill this gap by providing the empirical evidence on the influence between flexible workload strategies and the performance of nurses and by examining the mediating role of leadership support on the influence between flexible workload strategies on performance of nurses in regional hospitals in Tanzania.

### **Objectives**

- i. To examine the influence of flexible workload strategies on performance of nurses in regional hospitals in Tanzania.
- ii. To examine the mediating role of leadership support on the influence of flexible workload strategies on performance of nurses in regional hospitals in Tanzania.

### **Methodology**

This study used explanatory research design using both quantitative and qualitative approaches. At the same time, the study adopted the positivist paradigm where scientific processes were followed in hypothesizing fundamental laws then deducing the observations so as to determine the truth or falsify the said hypothesis about the relationship that workload and the performance of public hospitals in Tanzania (Saunders *et al.*, 2009). The target population for this study consisted of all 28 regional hospitals in Tanzania. The unit of observation was 1375 nurses in 8 regional hospitals. Primary data were collected through Flexible Work Options Questionnaire (FWOQ) (Scheffel & Rubenfield (2010) administered to 381 nurses and through structured interview with hospital top management. Nurses were grouped into three categories namely; Nursing Officers, Assistant Nursing Officers and Enrolled Nurses. Eight hospitals, which formed 30% of the total regional hospitals, were randomly selected.

The Cochran formula (Cochran, 1963) was used to determine the sample size:

$$n = \frac{Z^2 pq}{\varepsilon^2}$$

*Equation 1: Sample Size Determination  
Formula*

Where;

$N_0$  = Sample size when the population is  $> 10,000$

$Z^2$  = Standard normal deviant required at confident level of 95% which is 1.96.

$p$  = Proportion of people influenced by performance management which is set at 0.5 each.

$q = 1-p$

$\epsilon$  = 0.5 error of margin allowed.

$$N_0 = \frac{(1.96)^2 \times 0.5(1 - 0.5)}{(0.05)^2} = 404$$

A ratio of proportional allocation was used to allocate the 404 respondents to each of the 8 regional hospitals in the study. Primary data were collected by using structure questionnaire and semi-structured interview guide.

Pilot study was carried out on the data collected from the pilot testing, and the Cronbach's coefficient alpha was computed (Saunders, Lewis, & Thornhill, 2016). This study adopted Cronbach's coefficient alpha of 0.7 as the benchmark to test for reliability of the measures in the questionnaire for this study. The reliability results indicated that, flexible workload had a coefficient of 0.918, leadership support had a coefficient of 0.84 whereas the performance of nurses had a coefficient of 0.787. Therefore, the reliability of the instrument was confirmed since all the items had a Cronbach's Alpha of above 0.7. Further, to test for internal consistency, the content validity and construct validity was used to test the validity of the instrument. The scale level CVI (S-CVI) results was 0.934, which was more than the recommended S-CVI of 0.90 (Creswell, 2011), implying that the instrument passed the test for the internal consistency

Pearson correlation, independent  $t$  test, one-way analysis of variance (ANOVA), and multiple linear regression analysis ( $\alpha = 0.05$ ) were applied to analyze the data with 95% confidence level. Pearson correlation was applied to examine the association between implementation Flexible workload strategies (part time working, job sharing and seasonal working) and nurse's performance. Independent-t test was employed to identify the correlation between nurse's Independent and dependent variable. Multiple linear regression analysis was employed to identify the most dominant independent factor affecting nurses' performance.

### **Ethical Considerations**

The study was approved by the Jomo Kenyatta University of Agriculture and Technology (JKUAT) and the permission to collect data from respective hospitals was sought from Regional Administrative Secretary (RAS). The main ethical issues were respondents' right to self-determination, anonymity, and confidentiality. Participants were provided with information regarding the study purpose and method, the right not to answer any question(s), or withdraw from the study at any stage without any penalty. Informed consent was obtained by all participants. The researcher was guaranteed the anonymity of participants in the study by removed any names and any identifiable details.

### **Results**

The study found a strong correlation between independent and dependent variable since all the variables has a correlation above 0.7 (Kothari, 2008). Regression analysis was conducted to determine the significance relationship of workload and nurses performance. The relationship was tested using a simple regression model of the form  $Y = \beta_0 + \beta_1 X_1 + \varepsilon$ . The test of hypothesis proceeded as follows. At a significance level,  $\alpha = 0.05$ , the hypothesized relationship was tested,

**Ha<sub>1</sub>:** Flexible workload practices have a positive significant influence on performance of nurses in regional hospitals in Tanzania.

**Ha<sub>2</sub>:** Leadership support has a significant moderating effect on the influence of flexible workload strategies on performance of nurses in regional hospitals in Tanzania

Moreover, with a total number of 373 respondents, the positive relationship was represented by correlation coefficient =0.439,  $p < 0.05$  with the precision under consideration being  $p = 0.000$  (Table 4.18). This implies that, with effective utilization of flexible workload strategies among nurses, there is a possibility of improving service delivery and career commitment. This corroborates the findings by (De Menezes & Kelliher, 2011) who found that, among the female nurses in surveyed in Turkey, it was concluded that, heavy workload restricted nurses from developing new skills and to solve work-related problems. Further, it was hypothesized that flexible workload strategies had a positive significant influence on performance of nurses in regional hospitals in Tanzania.

The relationship was tested using a simple regression model of the form  $Y = \beta_0 + \beta_1 X_1 + \varepsilon$ . The test of hypothesis proceeded as follows. At a significance level,  $\alpha = 0.05$ , we test the hypothesized relationship,  $H_{a1}$ : flexible workload strategies have a positive significant influence on performance of nurses. The model was found to be statistically significant ( $F(1, 372) = 89.031$ ,  $p\text{-value} < 0.001$ ). Since  $p\text{-value} < 0.001$ , we accept the alternative hypothesis and conclude that, at  $\alpha = 0.05$  level of significance, flexible workload strategies had a positive significant influence on performance of nurse

## Discussion

This study investigates the influence of flexible workload strategies on performance improvement among nurses. The study found an average trend toward higher use of flexible workload strategies in regional hospitals. The findings indicate that hospitals hesitate to utilize FWS due to restrictions in labour regulations and fear of extra costs in terms of salaries and other benefits. This is because all of the case study hospitals relied heavily on government fund allocation n and subsidies. As a result majority of nurses suffered from heavy workloads in their units.

The study revealed there was utilization of flexible workload strategies in regional hospitals surveyed with exception of few wards. Also, nurse manager played a pivotal role in managing nurse workload process (Hariyati, 2014). The findings from 63% of nurses indicated that, job sharing was most common practice in nursing compared to part time and seasonal working. However, 41% of respondents indicated that under special circumstances, part time working was operational especially for Intern nurses. Majority of nurses argued that part time working was mostly utilized under administrative jobs or in special projects. The findings are consistent with the findings by Mercer *et al.*, (2010) who argued that during periods of nursing shortage,

hospital managers have difficulty recruiting and retaining nurses and thus often use nurses from temporary employment agencies to fill vacancies.

On the other hand the interview with 8 hospital management revealed that, nursing work was typically organized into shifts of approximately eight hours (day, evening, night shifts) or 12 hours (day, night shifts), and these shifts were organized into work schedules where shifts may be fixed (nurses work the same schedule for an extended period of time) or rotating (nurses work different shifts according to fixed or variable patterns). At the same time, 68% of respondents had no control over shift schedules, whereas over 73% of both groups of nurses worked for a long shift (more than 10 -hour shifts). The researchers surmised that one reason for lack of choice with respect to shift length was due to shortage of nursing staff in healthcare organizations. This compromised with the quality of care among respondents whereas 57% indicated that the mandatory and long shifts have lowered their career commitment. It was also interesting to note that, 61% of nurses indicated satisfaction with long shifts in case of provided opportunity to control their shifts and accorded extra payments.

For example, nurses could consider spreading their shifts across a greater number of days, such as working three shifts over a five-to-seven-day period. However, majority of nurses raised the concern about delayed payments related to their extra hour payments for the shift worked. The findings concur with a recent study based on a survey of 22,275 registered nurses in four US states which found that those who worked shifts of 12 hours or longer were significantly more likely to report poor quality of care and poor patient safety compared with nurses working shifts of eight to nine hours (Stimpfel and Aiken, 2013). Similarly, there is research evidence that employees perform better and are more satisfied with their jobs when they can work their preferred shifts and schedules (Shader *et al.*, 2001)

This study further revealed a positive correlation between the availability of three workload strategies reviewed and nurses' performance as supported by (Al Maqbali, 2015). The finding further indicated that, 69% of respondents agreed with the idea that job sharing working was practiced in regional hospitals, however with a different name of long shift. In this manner, respondents argued that upon a special request, their supervisors could allow them to work their total number of hours over fewer days. Some nurses preferred this way of working as it could improve their performance but contrary to this others (31%) indicated a preference to work shorter shifts more days a week. This is in concordance with study by Griffiths *et al.*, (2014) which asserts that in some countries - most notably England, Ireland and Poland - 12-hour shifts are far more common; in England, 32% of day shifts and 37% of night shifts are reported to be 12 hours or longer. For instance, 61% of nurses in surveyed hospitals indicated that, working practices could be compressed into four or four and a half days a week, or nine days each fortnight.

In similar manner, the interview with hospital top management revealed that, public healthcare is highly regulated through different legislation, and therefore, most of working arrangements are clearly stipulated in labour laws. For the case of seasonal working, the practice was mostly utilized by flying doctors and some experts in nursing field. It was further noted that, job sharing was not common in pediatrics, maternity, emergency, and surgical departments implying that these units are either operating under labour shortages or due to nature of serious nature of patient attended in the units could limit the utilization of flexible workload strategies

Furthermore, job sharing, part time working and voluntary overtime was associated with improved job performance among nurses ( mean = 3.5-4.0). Moreover, majority of nurses agreed that high workload affects nurses' job

performance (mean =2.8) .In a similar vein, the study noted that, majority of nurses (65%, n= 213) complained of heavy workload in their units due to handling multiple tasks both professional and non-professional at once. For instance, interview carried out noted that, apart from other out the roster duties, recording of information on multiple documents increase professional nurses’ responsibilities and workload during working hours, requiring new office redesign. To support the findings, a study done at eThekweni District, in KwaZulu-Natal, found that professional nurses at PHC facilities suffered from high workload due to the daily integration of multiple PHC services, including new programmes being introduced from the government. Similarly, in three regions in Kenya, nurses experienced increased workload due to shortage of staff, insufficient training and as a result of staff movement from government to private institutions for better salaries (Ojakaa, Olango & Jarvis, 2014).

The adjusted  $R^2$  value indicates that 15.5% of the total variation in the performance of nurses can be explained by the flexible work continuity. The adjusted  $R^2$  value = 0.191 lies just below 0.2 and 0.4 and therefore considered moderate correlation.

**Table 4.1: Model Summary for Workload Flexibility**

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.439 <sup>a</sup>	.193	.191	.51400

a. Predictors: (Constant), Workplace Flexibility

b. Dependent Variable: Performance of Nurses

**Source: Author, (2018)**

The Analysis of variance (ANOVA) results as shown in Table 4.29 further confirms that the model fit is appropriate for this data since p-value of 0.000 which is less than 0.05. This implies that there is a significant positive relationship between workplace flexibility and nurses’ performance.

**Table 4.2: Analysis of Variance (ANOVA) for Workload Flexibility**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	23.522	1	23.522	89.031	.000 <sup>b</sup>
	Residual	98.281	372	.264		
	Total	121.802	373			

a. Dependent Variable: Performance of Nurses

b. Predictors: (Constant), Workload Flexibility

**Source: Author, (2018)**

By applying the standardized coefficients, the resultant regression equation  $Y = \beta_0 + \beta_1 X_1 + \varepsilon$  yields  $Y = 0.439 X_1$ , where Y is the performance of nurses and  $X_1$  is work load. The variable is significant with  $\beta_0 = 0.439$ ,  $t = 17.993$ , p-value < 0.001 indicating that a unit improvement in workload flexibility contributes an improvement in performance of nurses by 0.439. This means that the work practice which allows flexibility in terms of job sharing, seasonal working or part time working improves the performance of nurses by being able to dedicate the required time in multiple responsibilities both at work and home settings. In their opinion, nurses could be able to advance their career, provide quality service in and integrity manner and being more curious in learning new ways of service provision.

**Table 4.3: Coefficients for Workload Flexibility**

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	2.518	.140		17.993	.000
	WF	.370	.039	.439	9.436	.000

a. Dependent Variable: Performance of Nurses

Source: Author, (2018)

In particular, the study interview noted that, with staff challenges and number of patients, it was difficult to avoid long and irregular shift in some departments. In some circumstances, nurses were forced to be recalled back from their rest days to cover the emergencies leading to postponement of family issues. This could affect service quality, independence of thoughts and creativity. Thus, they emphasized that, a well-balanced workload could enhance nurses' performance due to ability to learn, practice and concentrate.

### Conclusion

The purpose of this research chapter was to study the influence of flexible workload strategies on performance of nurses in regional hospitals. The results showed moderate relationships between three variables: job sharing, part-time working and seasonal working. Findings of the study also confirmed that supportive leadership plays an important role as a moderator between the influence of flexible workload strategies and performance of nurses

In this study, Pearson correlation coefficient was used to gauge the relationship between workload flexibility and performance of nurses. The nurses' opinions were measured on 5 point Likert scale. The findings on Table 4.27 indicate that, workload flexibility had a significant, moderate and positive correlation with the performance of nurses ( $\beta_0$  0.439,  $n = 372$ ). Workload flexibility, individually ( $F= 89.031$ ) and as a joint predictor ( $F= 97.506$ ), was also a significant predictor of the performance of nurses. Thus, leadership support had a significant moderating effect on the relationship between workload flexibility and the performance of nurses. The results indicated that leadership support explained 36% of nurses' performance in regional hospitals; hence flexible load balancing in the nursing environment would be expected to make significant improvements in the performance of nurses. Leadership support makes further improvements in the performance of nurses given its significant moderating effect. Similar to studies done in other countries mostly in the west, the results of this study suggest that supervisor support help to increase employee performance (Duncan & Pettigrew, 2012).

### Recommendation

Based on the findings of the study, the following recommendations can be drawn on:

- i. Regional hospitals through management should embrace appropriate work scheduling that is nurse-centered as a way of enhancing performance improvement. The study found that most of flexible workload strategies could suit few nursing category.
- ii. Moreover, the study recommends provision of predictable working in environments with predictable work hours, schedules and appropriate patient

loads. Provision of more healthful scheduling with minimal overtime may address a component of the nursing shortage by retaining and attracting nurses within the nursing profession

- iii. The policy makers and management of Regional hospitals should collaboratively address those factors in the work environment that impact nurse workloads ranging from shortage of nursing personnel, lack of working equipment, patients among others
- iv. It is also recommended that leaders should be fully aware that their support is important for nurses and it is only with the support of the leader that nurses can effectively utilize and benefit from flexible workload strategies, cope with stress and perform better.

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## Chapter 14

### Two Ways of Understanding the Climate: Economy Link and Designing Climate Change Policies

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#### **Abstract**

The chapter examines two approaches to the analysis and design of economic policies for climate change mitigation and adaptation with Special focus on choice of appropriate policies and strategies. The aim is to highlight the role of structural-institutional and governance strategies and policy instruments that are often underrated or ignored. First, we identify differences between market-based economics (neoclassical economics) and the newly emerging society-based economics (social-economics). Second is the co-evolution of economy and ecology as interrelated spheres of society and related structural transformation policies. Thirdly, and fourthly we derive the necessary structural transformation strategies and appropriate policy instruments. Lastly, we conclude by emphasizing the leadership and coordination challenges for a global partnership for climate change mitigation and adaptation.

**Key words:** Uganda, Society based climate –economy link, integrated assessment model, climate change, climate change policy, market- based economics

# **Two Ways of Understanding the Climate –Economy Link and Designing Climate Change Policies**

By

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## **1.0 Introduction**

The last three decades have seen the rise and deepening of economic globalization as a process of spreading monopoly capitalism through the ideology or “theology” of market fundamentalism (Mander and Goldsmith, 2000), Comeliau, 2002, Mehevic 1996). However, many economists are now realizing that market fundamentalism and its economic philosopher of neoliberalism is not only followed but socially, ecologically and economically destructive (Levine 2019, Beneria et-al 2016, Leech 2012). According to these and other authors, it is ecologically destructive because it drives environmental degradation of the eco-systems and pollution of the environment, thereby, causing climate change that is likely to destroy life on planet earth through environmental disasters.

The realization of this tendency towards social and ecological disasters has been pressurizing economists to search for alternative approaches to economics that promote reversal of the negative economic practices and policies, and social values and governance systems. Hence the gradual emergence of a society-based economics (SBE) known as social economics, as an alternative to the traditional neoclassical economics that has now gone to the extreme of neo-liberal economics (MBE) as the economies for the regressive monopoly capitalism dominated by multinational corporations serve the interests of the few privileged elites at the expense of the vast majority of global citizens (Ekins and max-Neef, 1993; Beneria e.tal, 2016; Banugire, 2021).

The aim of this essay, is therefore to highlights the alternative development management approaches, strategies and policies that this new school of thought introduces for climate change and adaptation,

First I outline the essence of social economics (Sec, 2); Section 3 presents the theoretical framework of insights on the link between the economy, with its three spheres of community, markets and public sector, and ecology, or, the natural environment of ecological systems that provide raw-materials to the production systems of the economy. Thirdly, (sect.4) is a brief description of the model of how the economy causes climate change and the appropriate strategies for transforming economies in a climate mitigating and climate adaptation ways. Lastly is an outline of specific policy instruments that are derived from both MBE and SBE.

In summary, this essay informs policy makers and economic practitioners of the importance of combining market-based policies that with structural institutionalist strategies and policies address the climate challenges while at the same time reducing poverty and inequality that erode social welfare and cause many social problems. According to many, it is time to prioritize people’s well-being and human security rather than the profits and greed of a few. This is the message of most economists and social scientists cited in this paper.

## **Statement of the Problem**

It is increasingly being recognized that the environmental degradation and pollution that cause climate change are driven by free market capitalism and the free market (laissez-faire) policies which neoliberal economics as a market-based economics (MBE) promotes. However, since 1980's, social economics as a society-based economics has been emerging, with alternative policy models and prescriptions. The co-existence of these two streams of economics implies a need to combine policy approaches strategies and instruments to address the critical challenges of climate change mitigation and adaptation.

This chapter therefore, aims at empowering policy makers, advocates as well as business practitioners and civil society organizations with new approaches and policies that can add much value to the existing policy and business initiatives for climate change mitigation and adaptation at global, regional and national levels. For society-based economics, the most developed economies and less developed economies must adopt significantly different strategies and policies which are well coordinated in global-partnerships for sustainable development.

### **Nature and Scope of Social Economics (SE/SBE)**

Social-economics has emerged over the last three decades as a response to the failures of neoclassical economics (NCE) to explain major challenges problems of both the most developed countries (MDCS) and less developed countries (LDC), especially stagflation (1970s), rising inequalities, marginalization of LDC's by MDCs; environmental degradation, and recurrent financial crises, etc. NCE has promoted globalization through its ideology of market fundamentalism based on wrong assumptions of how capitalists markets work and wrong conclusions on how to manage them (Stiglitz, 2010, Renert, 2008; Ekins and MaxNeef, 1993). The “public bads” or evils of unregulated (laissez-faire) capitalism include among other major social problems the following;

First, there is rising inequalities driven by monopoly capitalism that influences higher taxes for the micro/ small enterprises, than for big companies there by marginalizing SMEs, land grabbing by the powerful, often without adequate compensation; worker exploitation; etc. de Rwero,2010 Secondly, immoral company practices such as predatory lending, anti-welfare business innovations, promoting corruption to grab land or natural resources in LDCs, driving the natural resource curse, etc. (Stieglitz, 2011; Leech.2012; Levine, 2019).According to Stiglitz (bid) this was the main cause of the 2007-2019 financial crisis

Thirdly, according to Leech, 2012 has causing structural violence of all types especially in LDCs, leading to structural genocide, estimated at 10-15 million per year. This has been supported by gender economists (Beneria, et al, 2016, and Levine, 2019)

Fourthly, unregulated capitalist markets tend to erode community safety nets, workers trade unions and the environment, leading to increasing poverty and social exclusion worldwide (Carmen,1996); Mander and Goldsmith,2000; ILO,2004). This is why poverty and inequality persists and even rises in MDC and many LDC Fifthly, free market capitalism is naturally unstable, hence recurrent and worsening financial crises (Stieglitz, 2010; Roubini, 2007).These are predicted to continue re currying unless it is informed towards social market capitalism (Banugire and Nuwagaba, 2020) of more damage on LDCs than on MDCs

Lastly, when you add the challenge of climate change, the social burden of free market capitalism and its related free market economics, become unbearable and erodes their credibility and legitimacy.

All these and more evils call for reforms of free market capitalism to better variants yet neoclassical economics that degenerated into neoliberal economics is blind to these reforms and to appropriate policy reforms for addressing these social and economic problems hence, the need for an alternative SBE, as a people centered economics (PCE) that seeks to understand these problems from the perspective of peoples social well-being and human security on planet earth.

### **What is the nature and scope of social economies as a SBE?**

In brief SE is the study of economies as subsystems of society with the role of generating and sustaining LIVELHOODS and WEALTH CREATION. It examines the structure and performance of economies with the aim of improving how they work and perform. This is the case for NCE as a market-based economics (MBE) and social economies as SBE, but they differ in scope, method and solutions which therefore imply significant differences in policy instruments and approaches/ strategies recommended.

First, on *economy and society*: SBE focuses on economy embedded in society where as MBE is on competitive capitalist markets which no longer exist (myths of free self-regulating markets). For SBE, economy exists in markets, the state and communities, and the market economy is socially and institutionally structured. Secondly, while MBE is divided into *microeconomics* and *macroeconomics* of markets: SBE is divided into the two branches of *structural institutional economics*, *social welfare economics* of the communities, markets and state. It uses SIA approach for explaining (i) ECONOMIC STRUCTURE and PERFORMANCE (SIE) and (ii) SOCIAL IMPACTS OF ECONOMIES (SWE)

Thirdly, on Social economic problems and their solutions; SBE focuses on how social economic systems work and impact society, and on the 5 problems of economic life: efficiency, equity/ justice, human development, environmental sustainability, social relations of production exchange and community life. This focus embraces all the challenges of the 21<sup>st</sup> century without any major blind spot in its way like MBE. On other hand MBE focuses on how markets work especially on market transactions, how they are generated and their outcomes in the market place, with little or no focus on people's livelihoods outside markets and their impacts on society. These blind spots are on: (i) environmental/ecosystems services (ii) community and household economies (iii) Sustainable livelihoods and social relations of production and exchange to (iii) and (iv) gender issues.

In approach and method, SBE adopts a social economy and institutional approach using a variety of methods, (methodological pluralism) with a dominance of *methodological structuralism*. Hence, it emphasizes structural factors of history, institutions, policy systems, politics, and social values/ethics, which matter greatly besides human agency of investors, workers, consumers, traders. On the other hand, MBE uses a free market approach and one-size-fits all approach of *methodological individualism* that assumes economies are driven by rational "economic man" who serves his own interests without respect of the social interest of others (Stiglitz, 2010).

With respect to policies and practices, we note that the schools of thought generate alternative governance systems and policy strategies with different policy priorities.

MBE promotes *liberal economic governance* and policies leading to a market society serving the interests of a few rich people and countries or localities at the expense of the majority of citizens thereby causing serious social problems.

SBE promotes a society- driven- economy with active economic policies including progressive social-economic system reforms and productive collective action institutions for prosperity for such as cooperatives, community-private- public partnerships, community based planning. All such progressive solutions are driven by the shared *vision of people-centered economies worldwide*. Hence the critical need for a bottom-up approaches to development management in order to diffuse the vision among all social groups through participatory approaches.

In summary, most of the challenges of this century are driven by the destructive forces of unregulated monopoly capitalism that is more and more concentrated in fewer hands. These include; (1) inequality of wealth and political power (2) erosion of democracy, social values/ ethical standards; (3) erosion of community/ (social capital). (4) Economic crises especially financial crises, and (5) environmental degradation and climate change. These knowledge failures call for new paradigms to address them for the common good of mankind.

We therefore need the SBE as a necessary complement to “free market economics” which is losing validity. This old school of neoclassical economics has reached a point of diminishing “social returns” in terms of addressing the key social economic challenges of today and tomorrow. Indeed it is time to build sustainable societies by adopting the idea of people centered global economy down to the village levels and worldwide.

### **Co-evolution of Economy, Society and Ecology/Environment**

If the economy is embedded in society as one of its systems alongside the political, cultural and ecological subsystems, then over the long term period (generation or more), it will evolve with the others, thereby driving social change for better or for worse (Norgaard, 1993, Ekins and Max-Neef, 1993; 60; de-Rivero: 91-120). However, the economy, conceptualized as the social economic system will generate changes in society through behavioral changes in the functioning of economic agents at micro, meso, national and global levels that drive the inter-system interactions. This co evolutionary process has been destructive of bio ecological systems and the ozone layer, thereby causing climate change whose feedback effect has been in the form of “growing frequency and intensity of hurricanes, cyclones, typhoons, torrential rains, floods and the corresponding droughts around the globe (de-Rivevo, 2010:110). In short, the ongoing c0-evolution of economy and ecology is mutually destructive due to the pursuit of limitless economic growth (Cormelieu, 2003, Duchrow and Hinklamert, 2015, de Rivero, 2010, Rist, 2005)

### **Concept of Co- evolution of Economy and Ecology**

The concept of co-evolution of economy society and environment is the insight that when the economy embedded in society impacts on the environment through the process of economic growth driven by free market capitalism in pursuit of limitless growth, using non-renewal and polluting energy systems, it destroys the life supporting status of the ecological systems and the ozone layers, leading to climate change, whose feedback effect damages the economy and social welfare of communities worldwide.

These mutual interactions are also driven by changes in the cultural system driven by globalization of the capitalist market systems that prioritize profit maximization at the expense of the health of the ecological systems and the social wellbeing of communities. From this point of view, the *process of co evolution* is characterized by the following core negative elements (interrelated tendencies). These are: (a) Mala-development of economy and society as “a pattern of growth and resource use geared to private profit and of power and a pattern of dominance of the planet by the North which is no longer tenable” (Nerfin, 1987; quoted by Carmen 1996:27). (b) Structural violence and structural genocide driven by this mala development that makes families and communities miserable (Leech 2012; Carmen *ibid*). (c) Knowledge failure of market-based economics and social sciences guide corrective policy responses because of the blind spots on the role of ecosystems as life support systems and on the role of collective community action in the economy and in protecting ecosystems as public goods for the common good of mankind (Norgaard, 1993; Beneria, et al, 2016)

The above weaknesses, among others, in the co-evolution of social economic system and corresponding knowledge systems calls for to a transformative approaches towards people-centered economies on worldwide in order to ensure human security and better societies and economies on planet earth as the only home of mankind (Carmen, 1996:119-212; Duchrow-hinklamert,156-204).For these thinkers and many after them, this means putting in place mechanisms for humanizing the landscape through people-centered economies and development governance, systems that are consistent with climate change mitigation and adaptation goals and are driven by society based social sciences in general and as a society-based economics in particular.

### **The Vision and Model of People- Centered Economies (PCEs)**

Many thinkers and think tanks (Ekins and Max.-Neef, 1993, Jackson, 2008, Levine 2019) are converging on the idea that the global society of mankind urgently needs a common vision of “bounded economy of capabilities for flourishing” (Jackson, 2008:115) that is people centered in terms of terms of enhancing the best practices for satisfying the basic human needs. This vision should embrace mainstreaming realization of people’s economic, social and cultural rights in social practices and policy making at all levels of social action in the global village.

In short, this is the time to prioritize social economic systems reforms, from free market capitalism to better variants of capitalism or even to cooperative market socialism (Stiglitz, 2010, Stiglitz and Greenewald, 2014). As Norgard (193:84) has concluded the co evolutionary view emphasizes how knowledge, social organizations, technology and even the environment have long “co involved with human values” .This is why we must adopt a model of people- centered economies as the appropriate strategic framework for harmonizing the interests of different stakeholders in such a way as to generate consensus on processes of conserving the ecosystem to mitigate and adapt to climate change. The life supporting ecosystems must be conserved while

building capabilities for universal access to social protection from environmental disasters caused by climate change as well as access to social services, thereby, achieving inclusive prosperity for all societies world wide

It is now very clear to many that without sufficient social economic systems reforms of free market capitalism and a shift from liberal economic governance to participatory economic and environmental governance, market based growth and market based economics (MBE) will never deliver the required economic and social outcomes to mitigate climate change and adapt economies and communities to climate change successfully (Banugire and Nuwagaba 2020, Banugire 2018)

### **The Growth Process: Two Complementary Approaches**

Since the 1950s economists have been explaining the process of economic growth using the capital accumulations-model that explains growth in terms of investment in physical capital (fixed asset factories, farms and services facilities) and human capital as the knowledge, skills and attitudes of workers and managers.

However, there is increasing recognitions of the roles of social capital and natural capital (ecosystems services) and as well as, the structural factors / forces embedded in society's social, political and cultural institutions and the social actions they drive especially, social values/ culture, political/ governance systems and social and economic policies or programs. This later approach may be called the *organizational development model* that emphasizes these factors as key determinants of growth rates and growth processes by providing the critical enabling environment and incentive structures for sustainable and inclusive and green growth and development (Stiglitz, 2000; Reinert 2008; Acemoglu and Robinson, 2012).

The BO model is much closer to a SBE whereas the AK model is essentially an MBE theory although it may be improved in the SBE direction by recognizing the important roles of communities in driving physical and human capital as well as that of the states in providing appropriate developmental governance frameworks and investments (Lauris den 2010) and knowledge management systems (Banugire, 2017b, Levine 2019).

The growth process of free market capitalism in this era of capitalist globalization generates regressive/ destructive processes and trends of co-evolution of economy and ecology mainly due to the interaction of its mutually reinforcing structural characteristics.

First is the pursuit of limitless profit driven growth regardless of its destructive effects on the ecological systems and accumulation of GHGs that cause climate change.

Second is the power of greed –driven multilateral corporations that are supported by the politics and policies of their governments and multilateral agencies (IMF, WB, WTO etc.) whose policies are dominated by those of MNCs.

Thirdly, there is the ideology and strategies of market fundamentalism and the political and economic governance systems it implies.

Fourthly the regressive policies of the most developed countries and multilateral agencies they control which tend to support these trends (Chang, 2010; de Rovero, 2010)

Lastly, the lack of global ethics for global economy and politics in the absence of a global government confederation. (Kung, 1997: Mande and Goldsmith, 2000: Beneria et-al, 2016).All these forces combine to create a vicious circle of regressive tendencies that drive inequalities of income, wealth and political power that cannot be adequately addressed without progressive economic governance reforms as well

social economic systems reforms. These two strategic economic policy frameworks must be included in the policy packages for climate mitigation and adaption in order to achieve sustainable development goals.

Whereas MBE explains causes of climate change in terms of the market transactions of demand and supply of the various sectors of the economy, the SBE explains climate change in terms of structural factors of the market capitalism and its governance systems and how they can be improved/ reformed to minimize the drivers of GHG emissions. The former emphasizes the concept of the externalities of production systems and consumption behavior, and how they can be internalized by producers regulated by governments to minimize or eliminate their creation and emission into the atmosphere. However, progressive economists of SBE paradigms, argue that the most important change or improvements required must embrace both social-economic systems reforms and good governance reforms besides the right macro-economic policy instruments that offer enabling environment for emission reductions, and corresponding techno-economic structural transformation policies (Banugire,2017a,2018;Banugire and Nuwagaba,2020 )

The impact of climate change on the economy damages production systems of agricultural, natural resources, some industrial sectors, and social service sectors thereby reducing the rate of economic growth and throwing many vulnerable households into poverty. If not utter misery and in too many case, storms and floods displace many people, thereby requiring investments in disaster risks management. The opportunity cost of such disasters may be very high and damaging to both economic growth and human development. All these must be taken into account in calculating the social costs and benefits of reducing GHG emissions through various policy instruments.

### **Explaining Causes and Consequences of Climate Change**

The social world of mankind is facing serious challenges both short-term and long-term that need global consensus and cooperation to address them effectively for the common good and human security of mankind on our finite planet earth (Economides, 2018; Sachs, 2008).Climate change is recognized by many as the most serious short term and long-term challenges of the 21<sup>st</sup> century. Hence the imperative of generating the right knowledge and information for understanding the link between the economy and climate change in order to design the appropriate strategies for mitigation and adaptation. In section three (3) we have shown how co evolution is a major driver of degradation of ecosystems and GHG emissions and hence of climate change, in this section we explore the structural factors that cause climate change and the strategic policy frameworks that are required to mitigate these forces, while increasing the resilience of communities and nations to the climate change shocks/ damages.

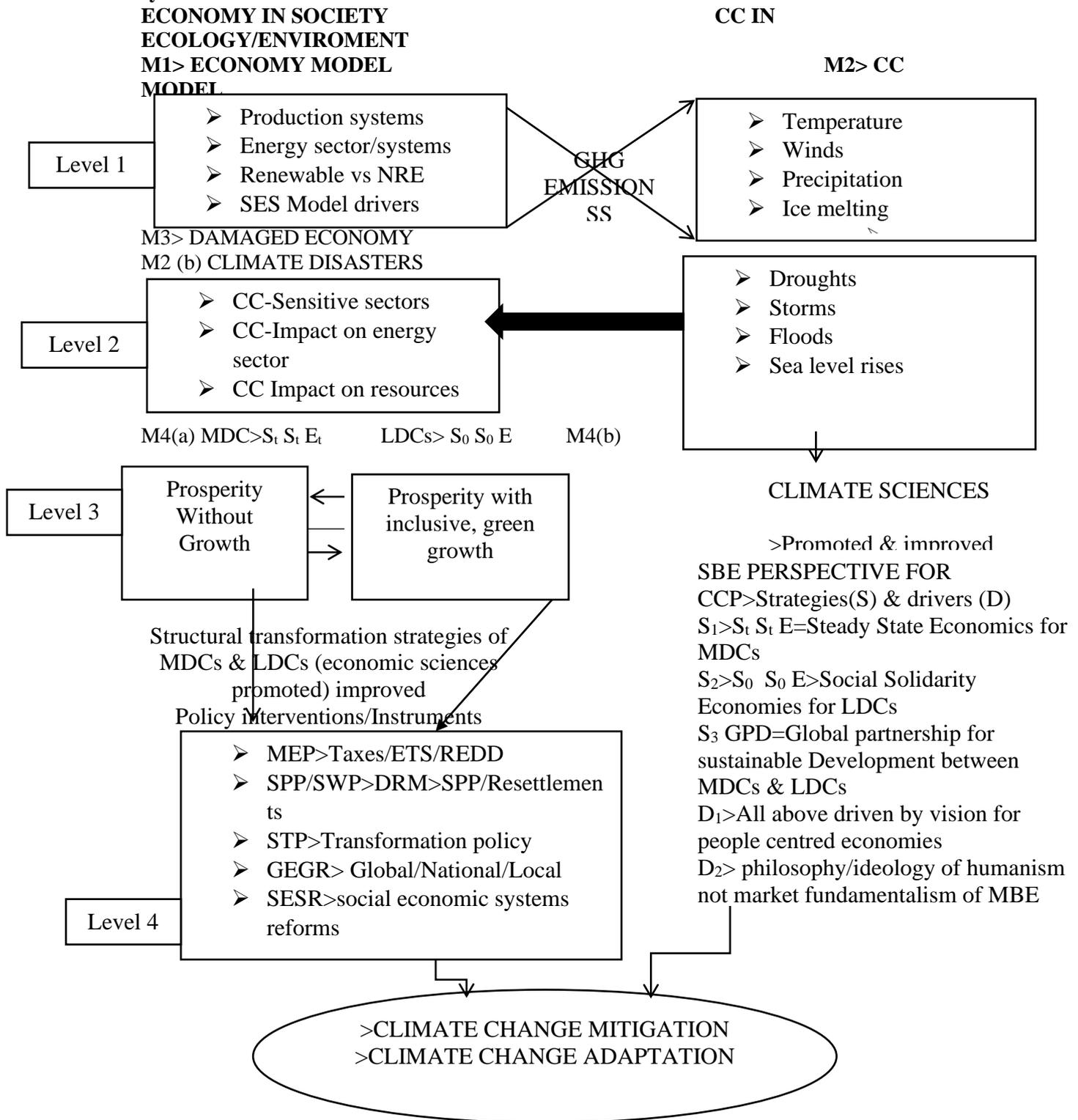
### **The Economy Climate Change Link: Integrated Assessment Models (IAM)**

Fig.1 below summarizes the connections between the economy conceived as unregulated capitalism and Climate Change as the realities of the warming of the planet earth to cause damaging forces (winds/ storms, sea- level rises; floods, droughts, etc.) Damage the economies and destroy lives, animal species, and quality of lives and communities. It describes the three modules/ components of the so called *integrated assessment models (IAMS)* as a set of tool as for analyzing the interactions between the economy of society and Climate Change on ecology in planet earth and in the atmosphere above (Economides, 2018) .The purpose is three fold; to explain the causes of climate change in the economy, to explain the feedback effect of Climate

Change and how it damages the economy and to explain the strategic responses in form of appropriate strategic policy frameworks for structural transformation of the economies of MDC and LDC worldwide.

Model 4 represents the structural transformation required in both MDCs and LDCs UK's Sustainable Development Commission (Jackson, 2010). The North (MDCs) should pursue "*prosperity without growth*" while the south (Africa/ Uganda (LDCs) should pursue *prosperity with green growth*. This approach should be seen as the inescapable imperative of living and growing economies while recognizing and respecting ecological limits *to growth* in order to avoid the extinction of mankind on planet earth. It implies the following policy interventions (Levine, 2019, Banugire, 2018, Stiglitz, 2010). They include the following: (a) LDCs to prioritize *social economic systems* building towards PCE models that fit their historical, political, and economic contexts (Banugire and Nuwagaba, 2020). (b) All economies to prioritize structural transformation strategies and good economic *governance reforms* as mechanisms for evolving their economies towards People centered economies (PCE). (c) Macroeconomic models to balance *market liberalization* strategies as framework for well-functioning markets but not market fundamentalism and *economic pluralism* strategies as a countervailing strategy for inclusive prosperity and ecological sustainability (Banugire, 2017(a), 2018).

**Fig 1. Interactions of economy & climate change conceptualizing the knowledge system**



**Source: Adapted from Economides, 2018; Jackson 2008, Beneria, et-al 2016**

### **From DICE approach to Structural Institutional Analysis**

Economides, 2018 has comprehensively reviewed the market-based neoclassic economics of climate change including the dynamic integrated models of climate-economy interactions (DICE) interaction (ibid, 36). These are quantitative theories of forecasting the trends and driving policy targets and instruments. However, they assume competitive economy conditions and privilege *laissez-faire* policies consistent with the ideologies of market fundamentalism and free market capitalism, which are not only out of date/ obsolete but also destructive as explained in section 3 above. This is precisely why we need the *vision and strategy of people centered economies* to guide structural institutional transformation for sustainable development, embracing transformation strategies and microfinance policy measures as highlighted in this section.

This inevitably implies a shift from the DICE models of MBE to the society-based/oriented models of the SBE which are dynamic, integrated, Institutional and co-evolutionary in approach and people-centred in vision and strategic management. These may be called Structural-institutionalist and co-evolutionary models of climate-economy (SICECE). Ours above has been adapted from Jackson (2010: 194/7). on his "*bounded economy of capabilities for flourishing*", We have added the characteristics of a people centred economies (PCEs). It also integrates Norgaard's (1993) idea of co-evolution of economy as socio-economic systems with ecology/environment and knowledge systems (economics or climate science) as a foundation for correct understanding of the climate –economy interactions and correct design of climate change

As the UN Secretary General emphasized during the question and answer session with world youth activists (03/11/2020), it is imperative to use a holistic approach that incorporates both short term macro-economic policies and social protection. While NCE has blind spots on reforming free market capitalism in order to minimize emissions and pollution, tools of SBE such as the above models and strategies are designed to address this issue from several perspectives including social economic systems and governance reforms and structural transformation policy (STP), besides the usual macro-economic instruments of fiscal, monetary, and regulatory policies (Comeliau, 2002; Banugire, 2017a, 2018, 2019).

If we choose "a bounded and people-) economy of capabilities for flourishing"... "This suggests that there is likelihood that a new economy will be less capitalistic" (Jackson, 2010: 2020). Hence the critical role of systems and governance reforms as mechanisms of evolving the economy, socially and institutionally and technology wise.

### Policy Instruments Commonly Used

EPF	Policy instruments used	Expected effects/outcomes
<b>1. Macro-economic policy</b> 1.1. Fiscal policy 1.2. Monetary/ credit policy 1.3. Regulations	> Taxes & subsidies OE  > Interest rate .credit policy > From MLS to EPS > PPPs	> Less GHG-activities > Financed PTIs, STIs > Socially responsible enterprises
<b>2. Social protection policy</b> 2.1. Social safety nets 2.2. Empowerment policy for community or VGs 2.3. Social & health insurance	> Minimize losses/protect livelihoods > for all social groups (VGs)  > Social capital building	> how sources of livelihoods > property with CC > social welfare for all
<b>3. Structured transformation policy</b> 3.1. New subsectors of agriculture/ industry/services 3.2. New PTIs 3.3. New STIs 3.4. Strategic development plans	> non-renewables > renewable energy systems > R&D indicatives/sub cities > Green jobs program & inst-reforms	> reduced GHGs and growth > inclusive global growth
<b>4. Good economic governance reforms</b> 4.1. Environmental governance 4.2. Livelihoods governance 4.3. Value chain governance (VCG)	> social capital building > HRA to economic policy > participatory VCG	> improve policy management > reduced GHGs > Conservation of eco system > ESC rights > green economics
<b>5. Social economic systems reforms</b> 5.1. Property rights 5.2. Decentralisation 5.3. Coordination mechanisms 5.4. Governance	> Property rights > Pluralism > Decentralized GEG & local government > Participatory policy management	> People centered economies > Inequality reduced > Participatory governance > Improved environmental governance

## **Economic Policies for cc Mitigation and Adaptation**

**Introduction:** Economic policy with social-economic systems reform.

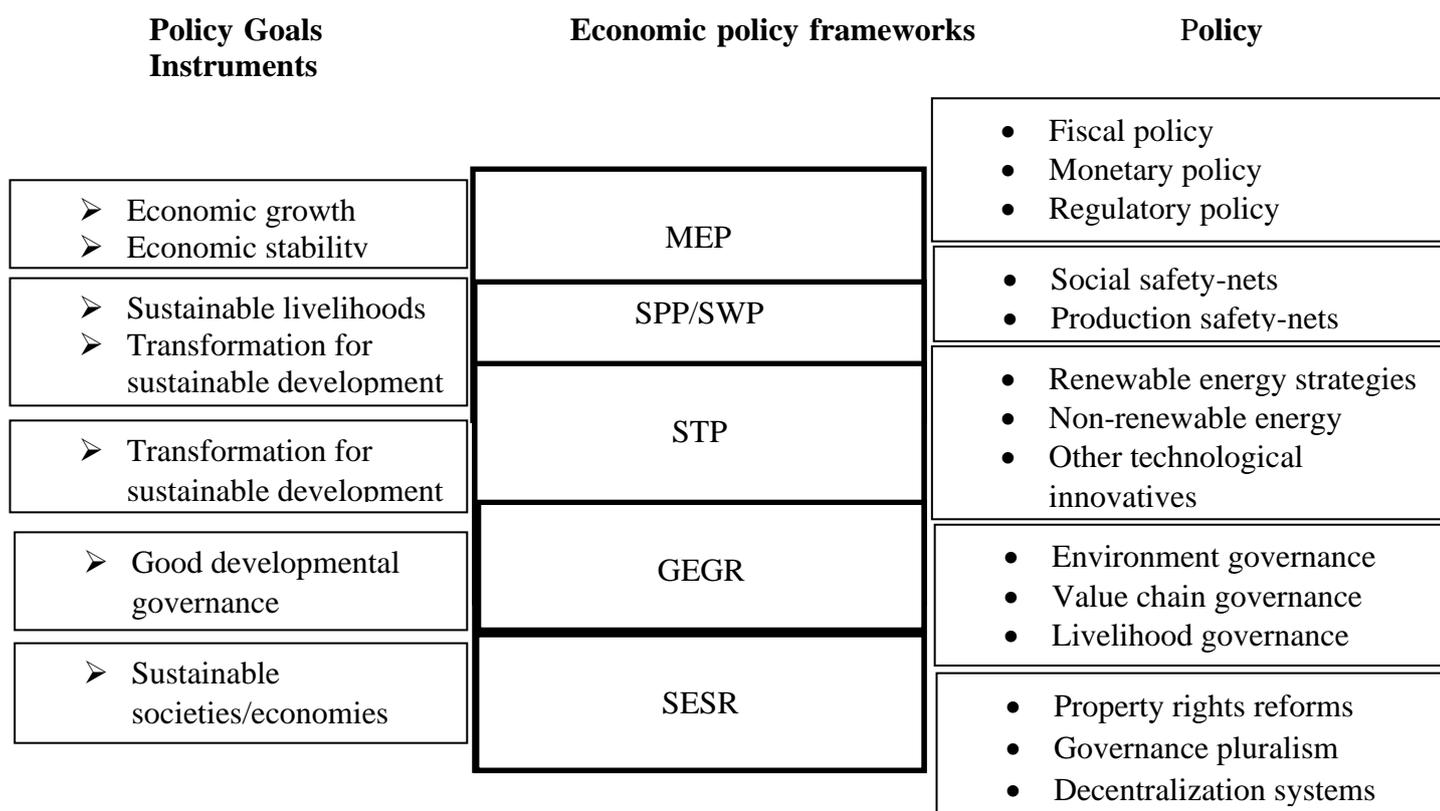
First, we need to understand the five types of economic policies recommended by economists for use by governments to manage the economy in the interest of the wider society. Whereas climate mitigation requires short-term policies, climate adaptation requires long-term policies that transform the functioning of economies to discourage practices and policies that destroy the environment, and that promote GHG Emissions that cause climate change. These Policies, must not only target to achieve positive economic impacts on society but also transform the economy through social and physical technology innovations to perform better and achieve global and national goals for sustainable development. It is increasingly realized that we need a globalized vision for people-centred economies world-wide to drive good co-evolution of economy and ecology for human security. Social technological innovations (STIs) are changes in the social organization of production and exchange that either- internalize the GHGs emission in the economy or reform the social economic systems towards more environmentally friendly systems e.g. from free market capitalism (the American model) to social market capitalism (the Swedish model) or to market socialism (Chinese model) as elaborated by progressive economists (Banugire,2021; Levine 2019;Sachs,2008;Stiglitz 2010).

### **Five types of Economic Policy Interventions**

There are two short-term economic policy frameworks, namely, macro-economic policies (MEP) for stabilizing the economy, generating government revenues, and promoting economic growth, and social protection policies (SPP),also known as social welfare policies (SWP),for improving the quality of life of the socially disadvantaged or vulnerable groups. As the blind spots of neoclassical economics are realized, the former (MEP) have been adjusted to include policy instruments for environmental conservation, including climate change. The latter can also address then climate change shocks to the economy that erode social welfare. However, the emergency of SBE will substantially increase the policy space for both macro-economic policy and social protection policy. Fig 2 below outlines the and broad policy interventions in terms of their goals and broad policy instruments. The short-term policies must be complemented with more long-term ones for structural transformation, namely,

- Structural transformation policies (STP)
- Good economic governance reforms for restructuring the social organization of production and exchange to ensure sustainable societies, with human security from climate change and social conflicts

**Fig 2: Linking good economic governance with economic policy – making**



Source: Banugire (2017, 2018)

**Climate change policies: major market-based policy instruments**

(i). *Carbon taxes*

A carbon tax is an excise tax levied per ton of GHG emissions generated by a producer/ enterprise of a good or service (e.g. factory or consumer) as the generator of the pollution as an externality of production or consumption. Its purpose is to reduce emission by penalizing the generator of the GHG. Current taxes world wide range between 1/ton-5 Europe/ Australia/ Canada whereby rates vary with the tax- structure of each country (Economides 2018; 75-90). They also depend on the discount rate used to calculate costs and benefits. The tax raises the price of the energy products (taxes especially) thereby discouraging its use in favor of alternative sources preferably renewable sources. By reducing GHG emissions, taxation policy targets either stabilizing climate or stabilizing emission to levels indicated by the results of the analytical model used, currently recommended at 2.0-1.5

(ii) *Carbon captures and trade policies*

There are two capture and trade policy instruments which involve the creation of markets for credits or permits granted to companies that emit gases to reduce GHG emissions as specified by a regulatory agency. These markets are forms of social technology innovations designed for the purpose of facilitating emissions/ reductions. They are popular because they create business spaces for private sector and are

consistent with market liberalization policies. Some experts criticize them for creating a market in public bads popularizing bad business deals. (Economides, 2018).

The purpose of these policies is emissions reduction by creating a market in negative externalities which is good for business but does not discourage polluters. The USA was the first innovator as their businesses were seeking profitable ways of avoiding carbon tax policy. They were followed by the European Union which established the European emission trading system (EU-ETS). Recently LDCs are also following, whereby the EU-ETS trading system is being recommended for regional cooperation bodies such as the EU-ETS East African Community (EAC). The rationale for ETS in these organizations is their feasibility and effectiveness in an environment/ context of corruption and widespread rent seeking. However, this assumption has not yet been verified in these regions and should be empirically tested.

The ETS has been operationalized as a market model for buying and selling allowances to pollute which is characterized by six elements, namely; (1) actors: a regulator or and polluter firms as traders, (2) regulator defines activities and plants / installations to be regulated, (3) Specific amount of emissions are allowed to each polluter for which a permit or rest is granted, (4) tradable permits granted to each polluter (5) a process of granting permits, either free of charge or based on a greed criteria or by auctioning the permits, and 6 an aggregated no of permits is allocated to specific markets based on the targeted level of emission reduction in that market

(iii) REDD policy: The REDD policy is about reducing GHG emissions from deforestation and forest degradation and enhancing forest carbon stocks and sinks. It has the potential to generate large, cheap and quick reductions in global GHG emissions worldwide, especially n LDCs, like Uganda where the rate of deforestation is very high. (Economides, Ibid)

REDD involves mitigation programs that include;

(1) Grants to forest owners as users to reduce deforestation and improve forest management

(2) Tradable forest *carbon credits* designed to facilitate / drive deforestation reduction (deforestation, afforestation or regeneration/ rehabilitation activities

The REDD concept was designed to create a multi-level (global-national-local-community) system of payments for environmental services that will reduce emissions and increase forest carbon stocks (Economides, 2018: 88-90). Its outreach and effectiveness depend on global economic and environmental governance, application of the principle of property rights pluralism, and prioritization of structural transformation policy for sustainable rural development in LDCs countries, including effective land use policy which is currently non- existent or ineffective (Banugire,2017,2018). This is a new physical technological innovation to capture GHG and store them in safe and permanent sites (e.g. exploited oilfields, saline fields/ formations).

It is still an emerging, proposed innovation to be financed by market revenues, or alternative sources, where these are inadequate or not available.

(iv) *Green credit facilities*

According to Economides (2018), the monetary and Credit policy should start prioritizing green credit facilities managed by conventional financial institutions and supervised by central banks. With the current challenge of Covid 19 recovery programs, green finance, has been recognized as a new market-based policy instrument for climate change mitigation and adaption. This approach will lead to

development of new tools of credit delivery not only by commercial and investment banks but also by microfinance institutions world-wide.

#### **5.4. Structural-Institutional policies**

The emergence of a SBE opens new policy spaces for social and institutional reforms for environmental conservation and climate change policies. By removing the blind spots of MBE on wise use of the natural resources and on critical role of social welfare economics in the market place, social economics opens the door for social economic systems reforms, good economic governance reforms and new innovative social-technological innovations for improving both economic performance, social impacts on society and the environment. The specific instruments for climate change policy are;

- Property rights reforms based on the principle of economic pluralism
- Decentralized economic governance systems, including livelihoods governance that enhances eco-system conservation and regeneration [Banugire 2018]
- National economic governance systems that restructure markets towards conservation through new incentive structures and regulations,[Banugire 2018]

It is very clear that, the main structural barrier to use of specific institutional reforms is free market economics and the vested interests of free market capitalism. However, as Levine (2019) and others have clearly argued we cannot hope to address the climate challenge successfully without radical and progressive structural institutional reforms of free market capitalism and free market economics as Stiglitz (2010) has also demonstrated.

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## Chapter 15

### **The Analysis of Value Chain for Irrigated Horticultural Crops around Sand Dams and Water Ditches in Dodoma and Bahi District, Dodoma, Tanzania**

By

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#### **Abstract**

This chapter present information on the value chain of irrigated horticulture products in Dodoma, the study was conducted as a result of the felt need of having information regarding the linkages of the actors of the horticultural sector along the value chain and their associated impacts to the livelihood of the farming communities who are experiencing poor livelihood conditions despite the available opportunities. The study was conducted in Dodoma Urban District and Bahi District involving farmers who were conducting their irrigated farming activities by the use of sand dams and water wells. The study found that producers are working under isolation; they are rarely exchanging production ideas or seeking for government assistance for improvement. These have resulted in low use of improved technology, inadequate marketing for their produce and low return to investment. This study recommends that stakeholders such as the government, nongovernmental organizations and development partners should empower the producers to improve the linkages to stakeholders along horticultural value chain.

**Key words:** Value chain, irrigated horticultural crops, sand dams and water ditches, Dodoma district, Bahi district, Tanzania

# **The Analysis of Value Chain for Irrigated Horticultural Crops around Sand Dams and Water Ditches in Dodoma and Bahi District, Dodoma, Tanzania**

By

David Kasian Msola, Elizabeth M. Msoka and Clarence Hugo Nyoni

## **Introduction**

In recent years development actors have been interested in promoting collective action among farmers as a strategy for reducing poverty among the small farmers. Efforts by government, institutions and Nongovernmental organisation especially in agricultural value chains call for farmer's collective actions which take the form of producer and marketing organisations. In Tanzania, value chain development approach has been adopted by many development organizations, Nongovernmental organizations (NGOs) like MVIWATA for Tanzania and other international organizations, like USAID and World Bank just to mention a few (Trevor and Lewis, 2015). Most of these value chains intervene along food crop commodities such as: organic cashew nuts, cassava, fresh fruits maize, rice, cotton and sunflower. The focus of most of these value chains interventions has been on facilitating smallholder farmers' linkage to the market in order to increase profit and reduce poverty. Much less attention has been paid on the availability of enabling environment that will link both the input suppliers and consumers of horticultural growers in order to develop an effective household's income for the farmers through irrigated farms while improving the business of input suppliers.

Many horticultural growers in Tanzania and specifically in Central Tanzania are still rudimental despite the existence of sand dams, water ditches and some manmade water wells. Since central Tanzania is characterized by arid weather (Msambichaka, 2005), irrigation system for some valuable crops is inevitable. According to Juma, (2011) return from Irrigated land is 20% more than that of rain fed agriculture. Agriculture activities in Central Tanzania are highly affected by arid conditions and prolonged dry weather which affect crops production (Namwata, *et al.*, 2014). The availability of sand dams, water ditches and some manmade water wells in Dodoma serves farmers in growing horticultural crops under irrigation system, yet the contribution of these irrigated farms to their livelihoods is not realized in the study area

Effort of transforming the agricultural sector started just after independency in which agriculture was put under policy and political options. In this period; agriculture was linked with politics under the policy statement of politics is agriculture in 1972, this was followed by agriculture for life and death in 1974, and Irrigation Agriculture in the same 1974 (Mlozi, 2000). In addition; In 2006 Tanzania launched Agricultural Sector Development programme which among other issues it focused in improving agriculture productivity of farms to small holder farmers (URT, 2006). This was followed by intensifying the extension services and training to improve farming technologies along with the value chain in agricultural products to local people. Based on Trevor and Lewis (2015) improvement of agricultural sector can only be realized along with emphasis in value chain. In addition, URT (2017) reports further that in 2017/2018, the government set aside Tanzanian Shillings 139.1 Billion for improving agriculture sector, with emphasize of transforming subsistence farming to more productive sector and an income generating sector in different regions including Dodoma.

While all the above efforts are evident, Poverty levels among farmers are increasing in Dodoma, Evidence of street children and even beggars are highly significant in Dodoma as compared to other cities (Namwata, *et al.*, 2014). Rate of malnutrition and food insecurity is also reported to be high among the people and the farming communities in Dodoma (WFP, 2013). While the population is increasing in Dodoma, yet the market for the horticultural products is not much documented to have an impact to the farming communities. In addition, while there is evidence of the increasing agriculture input supply in the region (URT, 2017), its linkage with the improvement of horticultural sector is not well known. The general assumption of this study is that government effort in promoting agriculture could also be reflected along the value chain of the horticulture sector in Dodoma. It is not known on whether government effort to improve the agricultural sector had made any impact on promoting the value chain and improving the income of horticultural growers in Dodoma.

This study aimed on analysing the linkages of the available actors along the value chain of horticulture sector in Dodoma. Specifically, the study focused on examining the current technology that are used by the horticultural producers in their farms, analysing the status of the market for the horticultural products and examining the available value chain for the horticultural products in the study area.

The availability of disaggregated information regarding the linkages of actors in horticulture value chain will inform policy makers and the ministry of agriculture and Food security in particular on the missing knowledge regarding the improvement of the horticultural sector and hence assist in developing an effective policy and intervention procedures that will focus in reducing poverty and improving the livelihood condition of the horticultural growers in Dodoma. This study is vital and timely especially at this era when the government is focussing in transforming the country into upper middle income nation, in which improved horticultural sector will be of potential towards this national goal. The study is also in line with different national development policies and programs such as the National Five Years Development Program (URT, 2015) National Strategy for Growth and Reduction of Poverty (NSGRP) (URT2010), Tanzania Agricultural Sector Development Plan (URT2015), Kilimo kwanza strategy (URT, 2010) and other related strategies.

### **Statement of the Problem**

The government of Tanzania has made a number of efforts of transforming the agricultural sector. However, many horticultural growers in Tanzania and specifically in Central Tanzania are still rudimental. According to Msambichaka *et al.*, (2005) the traditional problems that are facing crops growers in Tanzania is highly linked with poor use of adequate farming technology, small area of cultivation and insufficient market for crops products; this project will focus on identifying some common problems that affect these forming communities in the study area, and developing a participatory farming model that will address the identified problems.

The essence of the study is based on the fact that, many horticultural growers in Central Tanzania are still rudimental despite the available water for irrigation, this is evidenced in some irrigated farms in dams like Mkalama, Hombolo, Aman Makulu, Zuzu, Mbwanga, Ntyuka and other places, their production per unit land is insignificantly low, and the use of modern technology is compromised. In addition; while there is evidence of low use of inputs like fertilizers and pesticides and technologies like irrigation pumps; the suppliers are complaining to have no market for these inputs. In other hand while the population at Dodoma is increasing to attract

the market for horticultural crops, these growers are also not having an organized means to trap the growing market for their produce and hence increasingly becoming poor. Based on these; there is a need to conduct a study that will provide recommendation on how to develop a link between both the input suppliers and consumers to horticultural growers in order to develop an effective household's income for the farmers through irrigated farms while improving the business of input suppliers.

### **Review of Related Literature**

Agriculture sector is identified to have a significant impact on the economy of different nations; in Sub-Saharan countries; Agriculture contributes about 50 to 60% of the Income of Rural communities (URT, 2009), the sector accounts for 34% of the GDP and employs 64% of labor force of African Countries (Juma, 2011). In Tanzania, agriculture sector that includes Horticultural crops contributes about 25% of the GDP (DLV, 2015). With increasing climatic change that impact negatively to agriculture development, overreliance of rain fed agriculture is becoming a worse option in realizing agriculture development. Based on URT, (2009), over 95% farming practices in Africa that includes Tanzania is rain fed agriculture; In this case, effective investment in irrigated agriculture with particular attention to high value crops as for the case of horticultural crops like those of Dodoma region is inevitable: According to Juma, (2011) return from Irrigated land is 20% more than that of rain fed agriculture. Studies have indicated that any effort to promote agriculture should emphasize on promoting activities along the value chain of production.

Different authors in different time have defined value chain differently. For example, Kaplinsky and Morris (2001) defined it as the full range of activities which are required to bring a product or service from conception, through the different phases of production, delivery to final consumers, and final disposal after use. Trevor and Lewis (2015) define value chain as a system which involves participants from production to consumption; it involves producers, traders, processors, national and local market to consumers.

In the other hand value chain analysis is defined as a segmentation of the different activities and mapping of interactions that may generate costs or value in the production and sale of a product or service (Webber and Labaste, 2010).

### **Value Chain Actors**

According to Lundy *et al.* (2004) value chain actors can be defined as a people who directly involved in the exchange of goods; and it starts from input suppliers, producers, rural traders or assemblers, processors, urban wholesalers, retailers and consumers. The author grouped value chain actors into four based on the function they contribute to the market chain system. These include: Production actors; Post-harvest and processing; Trading actors and Provider of business development services

**Production actors:** The actors whose roles are directly associated to basic agricultural production, starting from input provision, for elaborating the market chain's product(s). This category can comprise pre-production, production, harvest, or extractive activities.

**Post-harvest and processing:** The actors whose roles are directly linked to post harvest management (cleaning, sorting, and packaging) or processing of primary

goods into value added products. These activities may be performed in the hands of individual actors or rural or urban companies, within or outside the territory.

**Trading actors:** These are actors whose tasks are connected to the buying and selling of the market chain's product(s). Generally, these actors transport the product from the production area to the end markets (as

### **Pre requisite on Strengthening Effective Value Chain**

URT (2016) identified several preconditions that are required in strengthening the value chain of agricultural products. These include empowering farmer's organizations in order to strengthen technical capacity of farmer's organizations training and extension services.

Promoting value addition through agro-process: agro processing increases value of the raw products, it reduces post harvest loss, and it creates favorable quality for the end user. Improved marketing infrastructure for agriculture products: this include building producers and traders and raising awareness of the required quality of the product.

In addition to the above emphasis in proper use of farming technology is of paramount important. The use of poor tools like hand hoes inadequate use of fertilizers, and agrochemicals in controlling pests and diseases are some of hindrances of promoting agriculture. URT (2016), highlighted the need of the government in empowering farmers in proper use of technologies, adequate use of technology that includes the use of the right quantity of inputs at right time ensures effective productivity per unit land. However the availability of extension services to local farmers has significant impact in improving productivity of horticultural units. Based on Juma (2011), research and extension services yield 35% rate of return in horticulture crops.

Intensification of the market infrastructures and its linkages is also an aspect to be considered. It is a role of the government and non government organization in providing an enabling marketing environment to farmers, this include empowering farmers to access different market opportunities both international and local market. Based on TAHA(2011), intensification of market for horticultural products in Southern highland zone, Northern zone, and coastal zone attracted market for the horticultural products in EAC and SADEC market where 10 to 20% of the products are sold to these markets 80 to 90% of the products are sold under organized local market.

### **Empirical Studies of Value Chain of Agricultural Products**

A number of studies have been undertaken to examine value chain analysis of horticultural crops from different areas in Tanzania. Fore insistence: the mapping of grape value chain in Dodoma Region, which was conducted by Kulwijila *et al.* (2018). Who found limited access to marketing information, lack of credit, poor knowledge on postharvest handling, poor roads, inappropriate post-harvest technologies and spoilage of the commodity to be the major constraints along the grapes value chain in the area? The study recommends government intervention to subsidize grape inputs and infrastructure development. Another study which was conducted by Fischer *et al.* (2020) focused in participation in gains from traditional value chain, this study found that farmers were found to report more balanced intra-household labour arrangements paired with less-balanced income and expenditure shares, while traders indicated less-balanced labour contributions that went hand in

hand with more-balanced shares of benefits. Farmers related limited household development not only to imbalances in benefits but also to a lack of trust and cooperation between spouses.

The study recommended on the importance of gender-transformative approaches in agricultural value chains. In another case; the study on horticultural value chain which was conducted in 2017 identified different problems that faces the actors, among them are:: higher price of modern input supply, no proper labeling of seedlings, farmers preference on recycled seeds due to perceived 'high' costs, high postharvest losses, inadequate extension staff with specialization on horticulture, the problem of supply shortage, lack of storage facility, problem in information flow, low product quality, lack of support from concerned bodies and price volatility outside the contractual markets. The study recommends establishment of inclusive extension system, mobilize farmers into groups as an avenue through which. Despite the available information on value from the above author, little information regarding the influence of linkages between the actors of the value chain in the irrigated horticultural units in Dodoma is scant. It is imperative therefore to conduct a study that will address on the impact of linkages between the actors to the improvement of the horticulture sector in Dodoma.

## **Methodology**

### **Study Area**

This study was conducted in Dodoma and Bahi district where rain fed agriculture is highly affected by dry weather and arid climatic conditions; special attention was given to small scale and pro poor farmers who are utilizing both natural and manmade dams and water ditches for irrigated horticultural crops production in Dodoma District and Bahi Districts of Dodoma region. Emphases was given to horticulture producers who had been practicing irrigation farming in dams such as Ntyuka, amani Makulu and Nkuhungu in Dodoma Urban District and some selected wells and water ditches in Bahi district of Dodoma.

### **Research Design**

The study adopted a cross-sectional design. This design was preferred to this study because it allows gathering and analysis of data within short period. Under this method, study informants were interviewed at a single point, which saved money and time. Also, the cross-sectional design was preferred as it supported not only the use of a variety of analytical techniques such as quantitative and non-quantitative analyses, but also the making of comparison of many different variables at the same time. Among others, the study observed the current technology used for horticultural units around sand dams and ditches (the supply side or backward linkage), the status of market for horticultural products in the study area and the possible value chain for the horticultural products around the thematic area. In this study, both quantitative and the qualitative approach was utilized to get views and perceptions of respondents on the existing value chain for irrigated horticultural producers around sand dams in Dodoma.

Although each approach has its own methodology which stems from different philosophical assumptions influencing how researchers approach research problems, collect and analyse data, the two approaches are complementary. In fact, when paired together they help to boost issues of reliability and validity of a research undertaking (Babbie, 2000). In this regard, the application of both research approaches ensured

that there was not only methodological rigorousness but also enhanced robustness of the study in terms of reliability and validity of the research findings. As such, quantitative information supplemented the qualitative data in line with the study's objectives.

### **Population Sample, Sample Size and Sampling Procedures**

The total population for this study included all farmers who were conducting irrigation farming around sand dams in Bahi and Dodoma Urban Districts. The study also involved input suppliers and retailers who had been selling the products to final consumers. Statistically, in order to generalise the statistic information, a sample of at least 30 must exist (Cooper and Schinder, 2003; Hair *et al.*, 2006). Kotler *et al.* (2001) contends that if well chosen, samples of about one percent (1%) of the population can often be a source of good reliability. Other literatures indicate that sample size selection to a large extent is judgmentally decided. In this regard, the study employed 90 farmers who were conducting their farming activities through irrigated horticultural units around sand dams in the mentioned study area. In addition; the study involved 30 input suppliers and some 6 retailers to obtain rich information regarding the market. It also involved 6 key informants who were picked purposively based on their knowledge and experiences in the horticultural sector. The study deployed both probability and non-probability techniques. It used non-probability techniques to sample purposively study locations where there are irrigated horticultural units around sand dams. Simple random sampling was used to select farmers who are conducting their farming activities through irrigated horticultural units around sand dams in Dodoma Urban and Bahi District Chamwino Purposive sampling was applied to select input suppliers and retailers.

### **Sources of Data**

Data may be classified as either primary or secondary data. Exclusive reliance on one source might bias or distort the reality of the phenomenon; therefore, no single research source is adequate in gathering requisite information. Thus, a combination of secondary sources and primary sources were used in this study. Primary data were needed because they generate new and original information. In this regard, data were obtained through the use of structured questionnaires and key informant guide. Data were also obtained through secondary data. Secondary data were collected through documentary review of various records, reports, books, journals, websites and other important electronic sources.

### **Data Collection Instruments**

#### **Questionnaires**

The study used questionnaire to collect primary data. The questionnaires in this study were in form of closed and open-ended questions. The open-ended questions provided additional information that would not be captured in the close-ended questions. Questionnaires were preferred since they were easy to administer and time saving. Drop and pick method was used. This allowed the respondents to give their responses in a free environment and it helped to get information that would not be given if interview were to be uses. Two research assistants were selected to assist in gathering the information. To minimise bias likely caused by working with Research Assistants (RA) and to ensure there was consistency and quality in the data collected, the questionnaires were designed to include specific instructions to the respondents on how to present their responses, which questions to answer and which not to, under

specified circumstances. Besides, the Research Assistants (RA) were also trained and briefed on the objective of the research and questionnaire content beforehand to boost the validity of data collected. In this particular study, farmers who are conducting their farming activities through irrigated horticultural units around sand dams in Dodoma Urban and Bahi Districts were given a questionnaire to respond to. The questionnaire was used to collect information about the current technology used for horticultural units around sand dams and ditches (the supply side or backward linkage); to identify the status of market for horticultural products in the study area and to analyze the possible value chain for the horticultural products around the thematic area.

### **Interview Guide**

Interviews can be of three types as manifested by forms of questions applied, namely structured, which provides limited response; semi-structured, which were open and allow individual response; and unstructured, which are in form of broad questions. This study utilised unstructured interview. Unstructured/in-depth interview was used to collect data from input suppliers retailers and key informants. Unstructured interview was utilized because it allows for flexibility in probing much more information from the respondents, thus increasing the comprehensiveness of the data collected. This method was chosen to obtain in-depth data for intensive understanding as it gives a respondent's ample time and enough scope to present about one's views on a particular subject in accordance with the objectives of the study. In this regard, the interview schedule was an appropriate instrument for collection of data from input suppliers and representatives of the marketing centers.

### **Data Analysis**

#### **Quantitative Data Processing and Analysis**

Descriptive statistics were analyzed through the use of IMB SPSS version 20 of the computer software. In this case data were screened, coded, analyzed and were presented in form of tables, frequencies and percentages for discussion. In this regard, the study deployed descriptive statistics to derive meaningful distribution of scores using statistical measures of central tendencies, dispersion and distribution (Kothari, 2011).

Descriptive statistical analysis helped to examine the current technology used for horticultural units around sand dams and ditches (the supply side or backward linkage); to identify the status of market for horticultural products in the study area and to analyze the possible value chain for the horticultural products around the thematic area.

#### **Qualitative Data Processing and Analysis**

The data collected through the qualitative approach; interviews were organized systematically. The researcher went through the notes and pictures, organized the data, identified patterns and themes constructed, checked the emerged patterns against the data, cross-validated data sources and findings and making linkages among various parts of the data and emergent dimensions of the analysis. Along with that, the investigator had to glean insight and develop meaningful conclusions from the data collected. This has become of great potential since it helped into identifying ideas to be put into recommendations for immediate action and further research.

## **Ethical Considerations**

The study adhered to research ethical issues. These included obtaining research permit to conduct the study from the responsible authorities from the Region, respective Districts, at Ward and Mtaa levels. Participants were informed of the purpose and nature of the study, rights to participate, privacy and confidentiality, and potential harm and benefits of the study. They were also informed on their right to decide on whether to participate in the study or not

## **Principal Findings**

### **Background information of the respondents**

#### **Demographic characteristics of the respondents**

The major demographic factors that were considered in this study (Table.1) were sex, age, marital status and level of education of respondents. These factors were included in the study in order to assess their linkages to horticultural value chain in the study areas.

#### **Sex**

Based on sex, the findings from the study revealed that 81.1% of the respondents were males while 18.9 % were women. This was due to the fact that investment in irrigated agriculture requires high capital expenditure in terms of inputs like Irrigation pumps, spraying machines, pesticides etc of which many women do not afford. However this findings was centrally to other studies like Trevor and Lewis 2015 who reported that the majority of workforce in agricultural value chain is occupied by women

#### **Age of the Respondents**

With regard to age of respondents, the findings from this study found that that 57.8 % of the respondents were aged between 36-60 years old; 25.6% comprised those who were aged between 19 to 35 years old; and those who were below 19 years old and all with above 60 years old had 10% and 6.7% respectively. These findings revealed that majority of farmers who are involved in horticulture production in central Tanzania are of middle age followed by the youth. It was expected that youth could form majority of the work force in the horticultural sector but this was contrary to the findings. When asked about poor involvement of youth in horticultural production one Key informant reported that, *“gardening in Dodoma requires high capital and many youth lack enough resource to invest in the sector”* (Male KI, Aged 25, Bahi district, 20 June 2019)

Activeness in labour force is determined by among other factors the age of an individual, as one become too old the body ability to offer labour power declines. Elderly people are highly susceptible to hard conditions due to age related factors as compared to youths; Means *et al.* (2002) found that elderly people are also exposed to various diseases which are linked to their elderly condition. When asked as to why he was dealing with gardening activities despite his old age one Key informant reported that, *“This is my traditional occupation, I did not get opportunity to go to school otherwise I would have been employed and by now would be enjoying my pension. But also all my children are away and they are not assisting me in anyhow, so I have to struggle otherwise I may die with hunger”* (Male KI aged 69, Bahi District, 19 June 2019)

#### **Marital Status**

Based on marital status, it was found that 60% of the respondents were married while 22.2% were single. In addition, 10.0% and 7.8% of the respondents comprised those who were either separated or divorced and others who were either widow or widower respectively. Domination of married people in this study is due to the fact that, married families are expected to be highly committed in utilizing any available opportunities that will ensure availability of income to sustain the family. This finding was also supported by Mende *et al.* (2015), who found that marital status has implication on social organization and economic activities such as agriculture and resource management. Married couples are likely to be more productive than single persons due to labour supply in economic activities and access to productive resources.

### **Education Level**

The findings from this study revealed that 68.9 % of the respondents were standard seven graduates, 14.4 % comprised of those who did not have formal education had ; 12.2% and 3.3% of the respondents had ordinary level of education tertiary level of education respectively. Form six graduates were reported by only 1.1%. Literate rate determine to large extent the efficiency of production at work. I assist in decision making and in adopting adequate technology for production. According to Mende *et al.* (2015), low level of education contributes to large extent in lowering the farmers' effort to improve productivity. This finding imply that educated people do not engage in horticultural production and yet has negative perception towards agriculture sector and focus more on formal employment

**Table 1: Background information of the respondents**

<b>Information of Respondents</b>	<b>Frequency</b>	<b>Per cent</b>
<b>Sex of Respondent</b>		
Male	73	81.1
Female	17	18.9
<b>Age of Respondent ( Years)</b>		
<19	9	10
19 - 35	23	25.6
36-60	52	57.8
>60	6	6.7
<b>Marital Status</b>		
Married	54	60
Single	20	22.2
Widow/widower	7	7.8
Divorced/separated	9	10
<b>Education level</b>		
Never attended school	13	14.4
Standard 7	62	68.9
Form 4	11	12.2
Form 6	1	1.1
Tertiary level	3	3.3

Source: Field Survey 2020

### **Current technology used in horticulture production**

Respondents were asked to identify the kind of technology that they have been using in the production of horticultural crops. It was found that technologies that were found to be commonly used by farmers in horticulture production involved, the use of equipments for seed bird preparation, application of industrial fertilizers, use of improved seeds, the use of irrigation machines, spraying machines and the application of insecticides.

Based on the type of equipments (Table 2) that were employed by farmers in preparation of seedbed, it was found that majority of farmer (86.7%) were using hand hoes, power tillers were used by only 5.6%, where oxen plough and tractors were used by only 4.4% and 3.3% respectively. Type of farming equipment influences to large extent the quality of seedbed, time spent and the acreage of the land in production. The application of traditional tools in farming in the study area implies that improvement of horticultural sector in the study area will be affected negatively by the use of poor technology as for the case of hand hoe. The above findings are in line with URT (2017), which reported that the use of merchandised equipments in Tanzania is still low and such that more than 90% of farmers are still using hand hoes in farming.

**Table 2. Equipments used in horticultural production**

Type of inputs	Responses	
	Frequency	Percentage
Hand hoe	78	86.7
Oxen plough	4	4.4
Tractor	3	3.3
Power tiller	5	5.6
Total	90	100.0

Source: Field Survey 2020

**Other inputs that are used by respondents in the study area**

Respondents were also asked to identify other technologies apart from farming equipments that they had been using in the production of horticultural crops. The findings of the study (Table 3) revealed that 47.7% of the respondents were applying industrial fertilizers while spraying machines were reported to be used by 44.4% same percentage (44.4%) were reported to be applying spraying machines. Improved seeds and the application of Irrigation pumps accounted for 24% and 22.2% respectively. The above result suggests that less than 50% of respondents had been using industrial fertilizers and agrochemicals along with spraying machines.

The use of other technologies like the irrigation pumps and improved technology were not adopted by more than 70% of farmers. This suggests that improved production in horticultural sector among farmers in central Tanzania will continue to be affected by poor technology use unless intervention is made to improve adoption. Proper uses of fertilizers account 75% of the yield growth (URT, 2007). For the case of low use of improved seeds, it implies that majority of farmers use traditional seeds which do not guarantee high yield. When asked as to why some farmers do not use improved seeds one Key informant said:

...Some farmers have lost trust in buying the seeds from input suppliers, because in most cases seeds that are bought are similar to those that can be processed locally by farmers. So it is useless to waste money buying these seeds, it is far better to process them from our own means (Male, KI. Aged 45, Dodoma, 22 March, 2017).

The above response from the Key informant reveals that some input suppliers are selling poor quality seeds to farmers; this in turn lowers the effort of farmers in improving productivity of their farms

**Table 3: Other inputs used in production process (n=90)**

Type of inputs	Responses	
	Frequency	Percentage
Industrial fertilizers	43	47.7%
Irrigation pump	20	22.2%
Agrochemicals	40	44.4%
Improved seeds	22	24%
Spraying machines	40	44.4%

**Source: Field Survey 2020**

### The status of market for horticultural products in the study area

#### The common horticultural crops grown in central Tanzania

Different studies have indicated some common horticultural crops that are grown in Central Tanzania, this include among others: Chinese cabbage, swischurd, amaranths, tomatoes, okra, eggplants, pumpkin leaves, Sweet potatoes leaves (matembele), and onions (URT 2012; URT 2007). The above mentioned crops were also reported by respondents to be the most commonly grown horticultural crops in the study area.

#### The market situation for horticultural products

Respondents were asked on the general status of the market for their horticultural products. Based on the findings from the study 33.3% found that the market for their products was good, 25.6% said the market was moderate and the remaining 41.1% found the market to be poor. This result implies that relative large proportion of the respondents had no adequate market for their products. This means that farmer's returns to investment in the horticultural sector were not easily realized by the majority of the horticultural producers. When asked about the experience in market on Key informant from Dodoma said, *"I have been asking livestock keepers to come and collect the overgrown amaranths vegetables in my farm from time to time due to lack of market."* Female KI aged 40, Dodoma, 15 March 2017). The above findings are in line with URT (2017) which indicated that ideal market for agricultural products had been a major challenge to many farmers. Another key informant from Dodoma said:

...majority of horticultural growers are not organized, many are working under isolation, we do not have any organized farm group to assist improve our production goals (Male KI, Aged 43, Dodoma, 15 March 2017).

#### Market status of Different Types of Inputs

Some selected input suppliers from Bahi and Dodoma were asked to provide their experiences regarding the market of their inputs from their stores. Based on this, 41.1% of the respondents reported that the market for their inputs in their store was poor, 33.3% of the respondents reported to be experiencing good market for their inputs, and lastly, 25.6% reported that they had been experiencing moderate market for their inputs. The above responses imply that input suppliers had not been getting the expected benefit from the sale of agricultural inputs due to experiencing inadequate demand for their products. When one Key informant asked on the views of the market status in her store said:

...Many inputs that are sold have seasonal markets, but also these are industrial products that have expiring dates, lack of ideal market results into loss of some inputs in the store because they are to be disposed away from use, these add loss in the business (Female KI, aged 36, Dodoma, 15 March 2017).

**Table 4. The Status of Market of Inputs**

Response	Frequency	Percentage
Good	30	33.3
Moderate	23	25.6
Poor	37	41.1
Total	90	100.0

**Source: Field Survey 2020**

#### **The possible value chain for the horticultural products in the study area**

This objective focused on identifying the possible linkages that exist between producers, input suppliers and the middlemen. Emphasis was given on the potential of such relations (if any) in improving the value chain in the study area. The term value chain in this study is used to refer the linkages of activities that exist from the point of production to the point of consumption. However this study limited itself to study the processes taking place from the production to retailers who sell the products to ultimate consumers. Trevor and Lewis (2015) define value chain as that system which comprises participants from production to consumption. The findings from this study revealed the following limitations along the horticultural value chain

#### **At the production side**

Producers are working under isolation; they are rarely exchanging production ideas or seeking for government assistance for improvement. These have resulted in low use of improved technology, inadequate marketing for their produce and low return to investment. When asked on why horticulture production had not been a paying business, one key respondent said:

I cannot get loan from any financial institutions to assist increasing my capital because these institutions needs us to be in a registered farm groups with constitution and leadership, many farmers are reluctant to be in group and prefer working alone (Male KI, aged 29, Dodoma, 20 March 2017).

Farm groups assists famers to get different assistance from various stake holders, including the government, nongovernmental organizations, private investors like the input suppliers and different development partners. Section 3.2 of this study reported low use of improved technology like industrial fertilizers, agro chemicals, irrigation pump and others. In other side section 3.3 indicate availability of inadequate market for the above mentioned inputs. This signifies the mismatch between demand and supply side along the value chain which need to be addressed

#### **4.4.2. Processing of the horticultural products**

The term processing in this study was used to refer any attempt that was employed for raw horticultural product with the aim of adding the value before reaching ultimate consumers. Trevor and Lewis (2015), define processing as all activities that take place

from harvesting point until the product reaches the final consumer as food. Type of processing varies based on type of crop. For the case of horticultural crops; the common processing activities that are practiced in include sorting, preliminary cleaning, packing, drying and storage.

The findings from this study revealed that majority of suppliers practice sorting, preliminary clearing, grading and packing. Drying and storage was found to be not practiced by the people for marketing but rather they are used by few farmers for home consumption. When asked about the handling of the products after harvesting one Key informant said:

After harvesting producers, are involved in sorting debris, cutting roots for some vegetables like Amaranths, putting into different sizes of bunches depending on the need of the customer and packing mainly in baskets or polythene bags for transportation to the market (Male KI, Aged 42, Dodoma, 19 March 2017).

In other case, when responding on whether they have being drying and storing products for marketing purpose, another Key respondent reported that:

Drying is currently not a common practice for farmers; it is done locally in a very small proportion of farmers for their home consumption”. Drying is done for some products like pumpkin leaves, eggplants, and even tomatoes. The products are sorted, washed with clean water, cut into small pieces, boiled for few minutes with salt and then dried for some days by sun or with other sources of heat before been stored for future use (Male KI, Aged 42, Dodoma, 19 March 2017).

### **The market Side**

Information regarding the market of the horticultural products were organized in two categories namely the market at farm gate and the market at the retailer side. At farm level producers were found to be waiting for buyers at their farm boundaries, but others were forced to travel in streets to sell their products. More experiences were gathered from one key informant who said: “Despite the effort to search the market yet vegetables do not fetch enough market because they have no organized market for them” (Male KI, Aged 40, Dodoma, 19 March 2017).

For the case of retailers; responses from the sellers revealed that despite the availability of some species of horticultural products throughout the season , some products like tomatoes and onions are seasonal and their price are erratic as a result of this fluctuation. When asked on whether these retailers have organized marketing group, one Key Informant said: “...everyone is struggling to get products to sell here using his/her own means, in most times we go to sabasaba early in the morning where we meet different farmers selling their products.” Female KI Aged 34 Dodoma, 23 March 2017). Like for the side of production; the above findings reveal a mismatch between supply and the demand side. This creates more challenges that hinder effort to improve horticultural sector in the study area.

### **Conclusion and Recommendations**

Based on the findings from this study it is concluded that since there is inadequate use of the technology in horticultural production it is likely that the improvement of horticulture sector along the value chain will continue experiencing challenges. For the side of inefficient processing practice, it is concluded that since most of horticultural crops are perishable, inadequate emphasis in processing and storage will increase reducing the value of the agricultural products in the study area. With regard to inadequate market that has been facing participants in this study it is concluded that unless intervention measures which include the formation of organized farming groups is put in place; the market situation will continue been poor.

This study recommends that stakeholders such as the government, nongovernmental organizations and development partners should empower the producers to improve the linkages to stakeholders along horticultural value chain. In addition these stakeholders should provide training and facilitate farmers to develop farming groups to enable them access different services like the financial services, inputs under organized loan contracts, processing and the extension services.

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## Chapter 16

### **Trends in Livestock Grazing in the Protected Forests at Mount Kenya Region: Evidence from year 2013 to 2018 using Time Series Analysis**

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#### **Abstract**

Mount Kenya comprises Kenya's largest mountain ecosystem, largest protected forests, mountain wildlife areas, and water catchment for Tana River that supports over half of country's hydroelectric power supply. The ecosystem is a hotspot for many threatened and endangered species, and a leading destination for mountain ecotourism in Eastern Africa. During the last ten years, Mount Kenya ecosystem has become increasingly threatened by wide-spread degradation. Despite the threats, current government policy provisions allow communities living adjacent to protected forests access to, and utilization of a variety of non-timber forest products, including livestock grazing. The overall objective of this research conducted in Mount Kenya West protected forest was to analyze seasonality patterns of smallholder dependence on protected forest for livestock grazing. The specific objectives of this chapter were to (i) investigate monthly seasonality and trends in cattle grazing in Hombe, Chehe and Kahurura protected forests during 2013 to 2018 (ii) analyze annual trends of cattle grazing in the protected forests during the same period. Monthly data for the six years were obtained from the Kenya Forest Service (KFS). Results of the time series analysis revealed significant monthly and seasonality patterns in cattle grazing in all the three forest blocks. However, the findings indicated that there were significant differences in the magnitude of peaks of influxes and low seasons across the three forest blocks. It was found that all the three forest blocks experienced highest cattle influxes during the month of July, with Kahurura experiencing the highest cattle influx, compared to Hombe and Chehe. Yearly trends revealed a persistent decline in cattle grazing in all the forest blocks throughout the 2013 to 2017, with sharp rise beginning 2018. Proper forest management by KFS and Community Forest Associations might be required to ensure the influx during the peak season is well managed to minimize conflicts between forest conversation benefits and costs. On policy issues, the government and stakeholders need to incentivize smallholder's farmers during high season peaks to provide alternatives livelihood sources for rural households.

**Key words:** Mountain Kenya ecosystem; protected forests; livestock grazing trends; livelihoods; forest pasture

**Trends in Livestock Grazing in the Protected Forests at Mount Kenya Region:  
Evidence from year 2013 to 2018 using Time Series Analysis**

By

Paul Mwari Maina & Daniel M Nzengya

## **1.0 Introduction and background**

Globally, mountain ecosystems have been particularly important to more than 2 billion people because they form an important source of products and services for their livelihood along with other environmental benefits (Issaka, & Richard, 2016). Mount Kenya is the largest mountain ecosystem in Kenya, comprising the country's largest protected forest and mountain wildlife areas (FAO, 2015). It is a hotspot of the country's mountain biodiversity, and majority of the country's threatened and endangered species. However, Mount Kenya is threatened by wide-spread environmental degradation. The Kenya Forest Conservation and Management Act (2016) allows communities living adjacent to protected forests, access to a variety of non-timber forest products, that includes fruits, nuts, fibre, livestock grazing, among others, for a modest fee. Hombe, Chehe and Kahurura forests are part of the expansive Mount Kenya Forest Reserve managed by the Kenya Forest Service (KFS).

Communities living adjacent to protected forests are required to form Community Forest Associations (CFA) to participate in the co-management of the protected forests. The three forest blocks have developed Joint Forest Management Plan (JFMP) and signed Forest Management Agreement (FMA) which are documents that guides on the management of the forest and how best to sustainably utilize the user rights in the forest ecosystem. Members of the CFAs have a variety of user rights, among them, livestock grazing. Grazing of cattle is allowed in the protected forests through livestock user groups, with the forest management charging a monthly fee of \$1 per cow. The current policy and legislative provisions are expected to trigger a rise in forest dependence for livestock grazing particularly because of the rising prices of livestock feeds, compounded by a declining farm sizes due to rising population, as well as declining farm productivity due to climate change.

Major actors who participate in forest management are the KFS, CFA, Non-Governmental organizations and Government of Kenya Ministry of Environment and Ministry of Tourism. All the three forests have management programs in plantation development, natural forest management, infrastructure and equipment, protection and security, human resource management, water, community participation in conservation, tourism and wildlife and research and monitoring program. A major challenge facing KFS is insufficient data to regulate livestock grazing in protected forests. The objectives of this chapter was investigate monthly seasonality and trends in cattle grazing in Hombe, Chehe and Kahurura forest protected forests and to analyze annual trends of cattle grazing in the protected forests during 2013 to 2018.

## **2.0 Statement of the Problem**

Forest ecosystems are very fragile habitats and are faced with numerous environmental threats including excessive use of Non Timber Forest Products (NTFPs) by forest adjacent communities according to Shackleton et al. (2018). Despite the environmental threats, government policies, particularly here in Kenya, continue to support local community access of NTFPs including livestock grazing in the protected forest. These activities, though well-intended, increase the severity of environmental threats to the forest ecosystem. These practices have the potential to

exacerbate forest degradation which not only threatens to trigger far reaching implications on the national and regional economies but also predisposes communities living adjacent to such forests to various vulnerabilities, including unsustainable livelihoods development. Previous studies in other countries have focused on livestock grazing pressure without capturing livestock head count. Researchers, for example in Tanzania investigated impacts of livestock grazing without focusing on season's intensity to help inform policy. Other scholars have investigated livestock grazing in protected areas but failed to measure trends and threats over the years or consider periods when destruction of forest was less or more intense. Understanding of the seasonal and annual trends offers opportunities to generate insights into grazing pressures experienced in the three forest blocks and the possible implications on the Mount Kenya forest structure, functions, and ecosystem services. These factors are not well researched by previous scholars and this is what the researchers sought to clarify through this study by examining the trends on forest dependence for pasture for a period of 6 years (2013 to 2018).

### **3.0 Review of Related Literature**

Forest degradation due to cattle grazing presents real challenges to the Kenyan ecosystems in protected forests (Stiebert et al., 2012). At independence in 1963, Kenya's forest cover stood at 12% and it has reduced to 7.4%, losing 12,000 hectares of forests cover per year (GOK, 2012). Allowing livestock grazing in protected forests is likely to be counter-productive to the country's ambitions to restore Kenya's forest cover and combat degradation of the county's forest ecosystems particularly the fragile mountain ecosystems. Giday et al., (2018) have reported a strong correlation between grazing pressure on forests from cattle and the potential of forests biomass feed production and current cattle density relation to the sustainable stocking rate. The researchers showed that cattle forest interaction had evidence of negative effects of cattle grazing in protected forest areas on vegetation attributes on forest reserve. Schmitz and Asselstine, (2020) have revealed the negative effects of grazing system on grassland plant species richness and vegetation characteristics by comparing horse and cattle grazing. The authors reported statistically significant differences among grazing systems for different vegetation variables.

The authors however noted that compared to experimental studies, observational studies are more challenging in data analysis as effects of land use are confounded with those of the site conditions (Schmitz & Asselstine, 2020). Dettenmaier et al., (2017) have reported that while cattle's grazing is not only the predominant use of rangelands but has been implicated in most literature in declines of grouse populations. The authors observed that cattle have predominately negative effects on wildlife and their habitats as supported by the study by Schieltz & Rubenstein (2016). However, evidence in the meta-analysis lacked the knowledge of the direct effects of cattle grazing needed to develop best management practices to balance cattle grazing and forest ecosystem. The gap can be addressed by the study on grazing trends indicating seasonality and annual trends, cattle type, timing and frequency of grazing, duration and stocking rate.

Buffum et al. (2009) investigated forest grazing and natural regeneration in a community forest in Bhutan, South Asia, a country with one of the highest forests covers at 83.9%. Main critique of these findings is that the analysis failed to reveal the monthly, yearly or seasonality patterns when there were peak and low seasons to help inform policy. Tucker (1986) work done in Punjab Himalayas Mountains in Asia

focused on the evolution of transhumance grazing which is a region with an average forest cover of 12.8 %. The region is characterized by seasonal movement of livestock in the mountain regions. The critique on the study is that the author failed to provide data on the impact of migratory herders indicating grazing seasonality patterns outlining the severe and less severe periods to help the Indian Forest Service to make informed forest grazing land regulations.

Research by Hosonumal et al. (2012) conducted an assessment of deforestation and forest degradation in 46 countries. One of the critiques of the study is that livestock grazing as a forest degradation driver was classified as both large and small scale with no actual numbers as operationalized by previous researchers to indicate grazing intensities. Ratovonamana et al. (2013) work was done in Madagascar and the researchers investigated the impact of livestock grazing on forest structure, plant species and composition in Madagascar. The work noted that plant diversity decreased with increase in livestock grazing pressure. The critique of the findings is based on the fact categories of grazing pressure was based on seasons, type of animal and consumption rate per unit livestock per day. There was no quantitative data to determine animal influx in the forest and seasonality patterns and trends over the years. Piana & Masden (2014) research in Peru with a national forest cover at 53.1% and the region has the largest tract of forest remaining in that part of the country. The research noted that distance from the forest as an insignificant driver and there was no significant correlation between cattle density and distance from the forest. The research however failed to capture cattle density in numbers and it was estimated using defecation and dung decay piles and there was no conversation on seasonality trends and patterns based on high or low animal influxes to the protected forest.

Mazzini et al. (2018) have investigated available evidences on positive, negative and neutral effect of cattle grazing on forest ecosystems. According to the authors, 66% of studies reviewed indicate that cattle grazing have negative effect on ecological variables such as vegetation cover. 16% of the studies indicated a positive effect of cattle grazing on forest ecosystems while 18% of the studies indicated that cattle grazing has neutral effects on forest ecosystem and concluded that there no specific ecological variables explicitly mentioned by any of the studies that are positively affected by cattle grazing which came out as a gap in the study. The livestock sector globally is dynamic and is one of the fastest growing agricultural sectors in developing world due to increased demand for cattle products (Shree & Sridhar, 2016). Cattle grazing support livelihoods of 600 million poor smallholder farmers in the developing world across the globe causing massive forest destruction (Godde et al., 2018). However, the study did not consider the periods when destruction of forest was less or more intense. For instance, in the Congo Basin 30 million people live adjacent to the forests and 75 million rely on it for their livelihoods, mainly for food and fodder. There is a need to assess grazing capacities, allocate and enforce grazing quotas, coordinate between forest custodians and the cattle grazers to enhance ecosystem in a sustainable manner (Soofi et al., 2018).

Kikoti & Mligo (2015) investigated the impacts of livestock grazing on Montane forest in Mt Kilimanjaro Tanzania was motivated by the ecology value of forests and the negative effect of livestock grazing on plant species in the hilly forest. The research noted that there has been loss in ecological services of forest due to overgrazing caused by prolonged drought and increasing demand for livestock grazing land. Kikoti & Mligo (2015) research established that livestock grazing on protected forest have serious impacts on vegetation community composition and if measures were not taken, the entire forest ecosystem can be destroyed, a fact also supported by

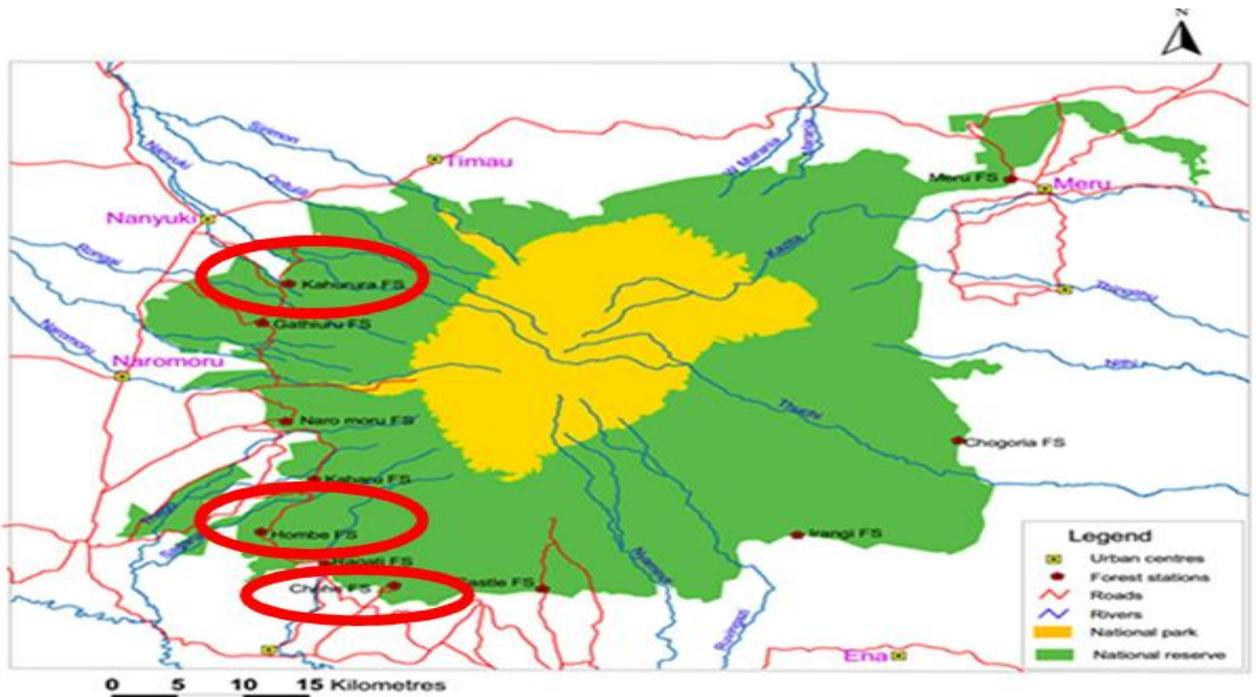
Rosenthal (2010) study. The concern for the research was that the demand for livestock products is increasing which is a big threat since the protected forests are the safety nets for the forest adjacent communities. Kikoti & Mligo (2015) research however did not focus on seasons in a year when livestock grazing is less or more intense on plant species destruction. The research also did not acknowledge the relevance of the rainy and the dry season in an ecosystem. The period of study was limited and did not measure seasonality patterns and threats over the years to inform decision making.

Further research by Mbiba et al. (2019) on the influence of livestock grazing on small animals in Brazil forest was motivated by how the activity affect habitat characteristic changing the structure of the vegetation and reducing biomass cover. The objective of the study was to establish the impact of livestock grazing on other small forest wildlife. Mbiba et al. (2019) study concluded that the presence of livestock in the forest negatively affect the natural habitat of small mammals in the forest. The research however did not take into consideration seasonality patterns and livestock intensity. There was need to confirm if increase in the number of livestock in the forest correlated with the decline in forest natural habitat characteristic. Researchers in India have investigated livestock grazing pressure in and around the elephant corridors. Livestock head was however not captured to determine carrying capacity (Silori & Mishra, 2001). Researchers in Iran have investigated livestock grazing in protected areas and its effect on wildlife in Iran. The study confirmed livestock intensity was a threat but there were no trends to confirm (Soofi *et al.*, 2018). The researchers investigated livestock grazing in National parks across several countries. The period of study was limited and did not measure trends and threats over the years to inform decision (Rosenthal, 2010). Researchers in America documented the negative effects of the practice effects of livestock grazing (Mazzini et al., 2018). However, no data on peaks and off peaks season to guide on policy.

## **4.0 Materials and Methods**

### **4.1 Brief Overview of the Study Sites**

The study was conducted in Mt Kenya West in central Kenya in three protected forest blocks: Hombe, Chehe and Kahurura as shown in Figure 1.



**Figure 1: Area of Study:**

**Source: The Courtesy of Kenya Forest Working Group, East African Wildlife Society, (2014)**

The study sites are part of the expansive Mt. Kenya Forest Reserve which was originally gazetted in 1932 as a crown forest. The total area of Hombe forest is 3618.7 hectares, Chehe 4945 ha and Kahurura 9855 ha. The Hombe CFA membership is the largest in terms of members comprising a total of 748 members, followed by 684 (Kahurura) and 528 members in Chehe respectively. Topographically, the site lies between the heights of 1800-2500 m above sea level and experiences bimodal rainfall ranging from 600 mm to 1500 mm (an average of 1200 mm), with long rains between March and June, and short rains between October and November. Majority of the farm holdings ranges between 1-5 acres (60%) with those less than one acre in size accounting for (35%) according to socio - economic survey (2011). Agriculture is the main economic activities for communities in the study site and livestock farming is a major socio - economic activity.

#### **4.2 Data Collection and Analysis**

To examine seasonality patterns on smallholder dependence on protected forest in the Mt Kenya West region for pasture, the researcher obtained monthly records of the number of cattle grazing in the protected forest from January 2013 to December 2018. Monthly records were obtained from KFS for each forest block. The data was sorted using an Excel Spread sheet while missing data points were checked with the KFS forest reserve officers retrieved from older catalogues and accurately filled. Data was entered into the Excel sheet and analysed for seasonality patterns using the time series analysis. Time series uses seasonality and random components in the analysis of time series data, making the data stationary (Park et al., 2007). Making time series stationary is a statistical technique of accounting for the recurring patterns in the data over the period under investigation, in this case, the 6 years period. The research followed the decomposition method of aggregating monthly data to create annual data. This decomposition method is important in making the time series data smooth

by minimizing data aggregation which transforms monthly data into annual data. To analyze seasonality patterns, the months were averaged to give an averagely 12 month long repeating pattern.

## 5.0 Results and discussion

### 5.1 Seasonality patterns on forest dependence for pasture

The results of analysis of data from KFS on livestock grazing in the protected forest for seasonality of forest dependence are summarized in Figure 2.

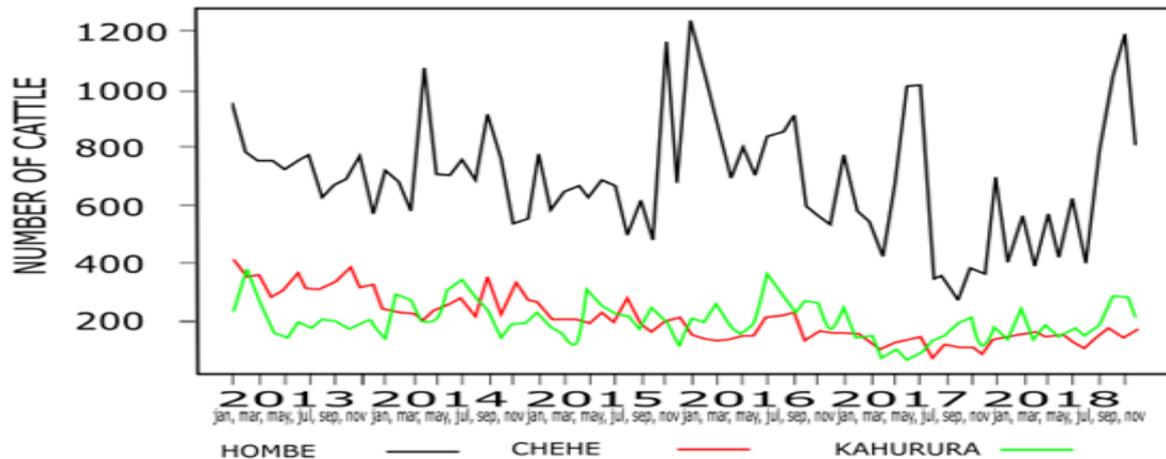


Figure 2: Monthly and Seasonality Patterns of Smallholder Farmers' Dependence on Protected Forest for Pasture (2013 – 2018)

Source: (Author, 2019)

Results revealed that the three forest blocks experienced seasonality patterns in forest dependence for pasture as indicated in Figure 2. Comparatively, Hombe had the highest number of cattle entries to the forest throughout 2013 to 2018. Results revealed that minimum cattle counts were observed in the year 2017, while maximum counts were achieved in the early months of the year 2016 and in 2018. As shown in figure 2, in general, the early months of the year (January) and middle year (July) exhibited peaks in cattle grazing whilst August, October and December had a characteristic low count in cattle numbers recorded.

The months February, March, April and May were noted to have the lowest influx of forest dependence for pasture. Generally, these four months had comparable figures of about seven hundred cattle. The grazing activities began peaking again in June and capped in July such that the following two months, that is June and July showed an average of eight hundred cattle. Again, the figures dropped in the following month of August where they were continually observed to be below the previous low of seven hundred, albeit the numbers in these months (August, September, October, November and December) varied between six hundred and four hundred or even lower (three hundred) such as those observed in the year 2017. The cycle repeated itself throughout the study period.

Hombe seemed to record the highest influxes beginning in January of each year (Table 1). Grazing activities tended to decline in the subsequent months of February, March, April and May. The period around the middle of the year, July, exhibited influxes in cattle grazing whilst August, October and December featured lower figures (Figure 2). The seasonality in forest dependence for pasture was

probably influenced by rainfall seasons where the heavy downpours of long rains in March, April and May was associated with minimum cattle grazing while the lighter rains of the short rainy season in September, through December favourable for grass growth, coincided with peak cattle grazing in the blocks. Eventually, these favourable conditions manifested in that, part of the farmers, directly switched to minimal or maximum dependence on the forest for pasture. One approach to a manage influxes in peak seasons could be by closing some sections of the forest block to allow for grass to recover.

**Table 1: Monthly seasonality indices on smallholder farmers' dependence on forest for pasture**

FOREST BLOCK	Month											
	Jan	Feb	Mar	April	May	June	Jul	Aug	Sep	Oct	Nov	Dec
Hombe	179	0.3	-18	-11.5	4.6	29.5	116	-83	13	-116	13	-127
Chehe	-7.2	-21	-20	-26.2	-13	3.2	13.1	9.8	35	-1.9	17	11.3
Kahurura	2.2	-8.7	18.9	-5.3	-5.5	-4.9	38.3	26.6	2.8	9.4	12	-38

**Source: (Author, 2019)**

Negative indices indicate activities drop in the month relative to other months on average through 2013 to 2018 period (that is a low season). The graph indicates that Chehe and Kahurura had relatively low numbers of animals entering the forest compared to the Hombe forest. In Chehe, the first half of the records showed low forest dependence for pasture compared to the rest of the year (July through December). In Chehe, results revealed that in general, the last half of the year months exhibited peaks in cattle grazing whilst the first half months (January through June) had a characteristic low count in cattle numbers recorded (See Table 1).

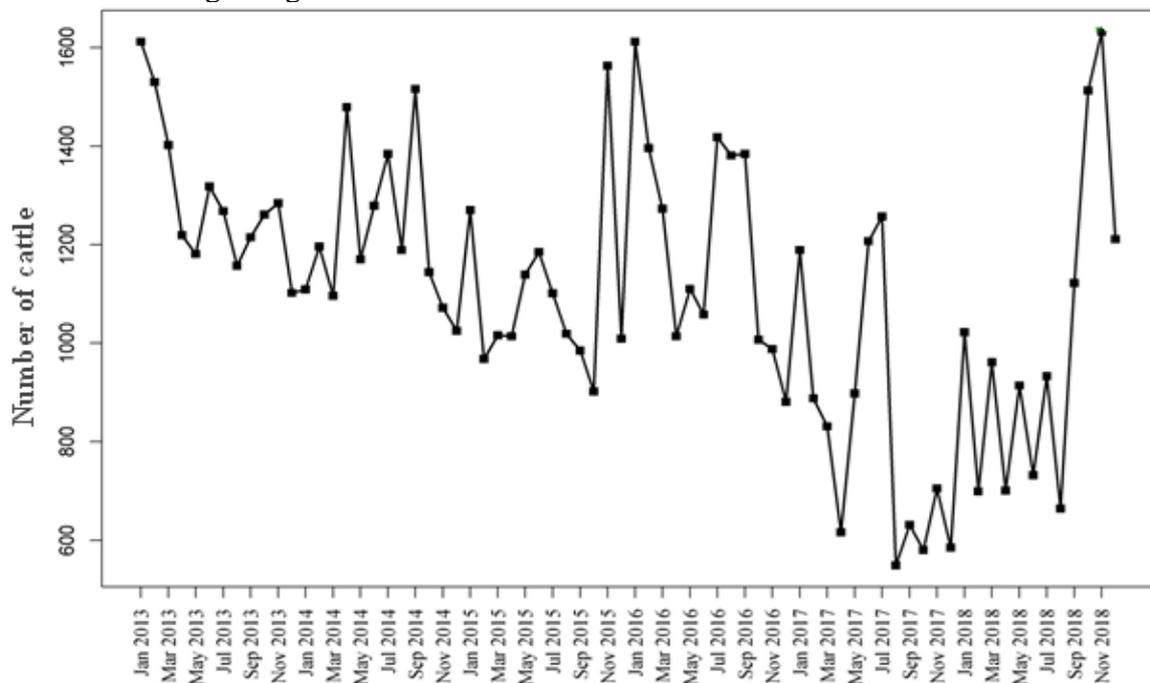
In summary, Chehe experienced the lowest forest dependence in the month of April, with the peaks and the lows in Chehe representing a change of about 50 cattle up or down and the cycle repeated itself throughout 2013 -2018. Results on seasonality patterns analysis revealed repeating seasonality on forest dependence for pasture. In Chehe, the observed rainfall data was obtained from a meteorological weather station within the forest block managed by KFS and the adjacent community for the years 2009 to 2018. In Chehe, the years 2012 through 2016 had an apparent suppressed rainfall compared to the other years in study period albeit the peak seasons of March to May and October to November were maintained. The better part of December to February months during those years observed zero rainfall. Generally, the region exhibits two rainy seasons and two dry seasons that coincide with rainfall regimes of the East African highlands. Here, heavy downpours of the long rains were exhibited in March to May and lighter showers in October to December in some years.

The rainfall data analysis indicated that an increase in values of rainfall was likely to lead to suppressed grazing activities over the Chehe forest block by a unit value, about a month or two, later while a decrease in values of rainfall was likely to lead to increased grazing activities in the Chehe forest block by a unit value, about a month or two, later. A possible reason for this relationship is that light shower rains in the short rain season favour grass growth, leading to enhanced grazing, or suppressed

rainfall leads to reduced pasture for farmers, hence they flock to this forest reserve for grazing. The peak season in the January of each year is followed by a decline in cattle numbers, the lowest being in the month of April. Therefore, the seasonality patterns on livestock grazing in Chehe are apparently influenced by rainfall patterns.

In general, Kahurura seemed to experience two seasons of high influxes and two low seasons. The month of April and the month of December experienced extremely low cattle grazing activities in Kahurura while March and July exhibited characteristic high peak season. Comparatively, the high and the low seasons, the numbers did not change so rapidly from one season to the other as compared to the seasonality patterns in Hombe. Kahurura seemed to experience influxes in the month of May, June and July and August and eventually dropped back into a low in December. Generally, the low season of January to March and September to November were months having stable figures while the other months had varied numbers.

A change in cattle number from low to high season seemed to average around 80 cattle. July seemed to be the major peak season with cattle number around 350, followed by another in March with an average of 300 cattle. The seasonality patterns in forest grazing in Kahurura were apparently influenced by rainfall seasons. This is strongly associated to rainfall seasons where the heavy downpours of long rain season of March, April and May reflected minimum cattle grazing while the lighter rains of the short rain season in September through December, which are favourable for grass growth, coincided with peak cattle grazing in the blocks. Eventually these favourable conditions manifested in that part of the farmers, directly switched to minimal or maximum cattle grazing activities.



Source: (Author, 2019)

**Figure 3: Monthly and seasonality patterns on smallholder farmers’ dependence on protected forest for pasture (2013 – 2018): combined data for the three forest blocks**

Results of the combined data for the 3 forest blocks revealed that in general, the first half of the year experienced a low number compared to the later part of the

year. Comparing the two, the high and low seasons within which the figures are comparable, the cattle numbers did not change so rapidly from one season going to the other. For example, the peak season in September was followed by a low season in January with a drop of about 150 cattle. Seasonality in forest dependency for pasture for the three forest blocks combined revealed a low season in the month of April. Grazing activities tended to increase in the month of July, August, September, October, November and December.

## **6.0 Discussions**

The findings of this study revealed that there were significant seasonality patterns in forest dependence for pasture in all the forest blocks. However, there were significant differences in the magnitudes (seasonality indices) across the three forest blocks, with Hombe showing the highest numbers of influxes. Also, there were differences in high and low peak seasons amongst the three forest blocks. Hombe forest block seemed to have two distinct peak seasons, with a primary peak season occurring in January and a secondary peak season occurring in June and July of each year. Chehe seemed to experience remarkably low seasons during the first months of the year, (January to May), with influxes during the later months of the year. Kahurura seemed to experience low influxes during the first months of the year, with the exception of January and March; however, influxes began to manifest during the latter part of the year, that is, July to November. All the three forest blocks seemingly experienced low seasons during April and peak seasons during July, September and November.

Although all the three forest blocks are within the West Mt Kenya region, there were differences in the seasonally patterns and also magnitudes of forest dependence for pasture. This implies complex interactions of socio-ecological and socio-environmental factors influencing smallholder farmers' choice of switching from cattle grazing in the protected forest. Rainfall patterns are a possible factor influencing these switching decisions. However, there are time lags because on-set of rains may not necessarily imply a switch away from grazing in the protected forest since it takes time for alternative grazing sources to pick to sustain significant quantities of pasture. The findings of this study are supported by Giridhar and Samireddypalle (2015) work in New Delhi that established that seasonality fluctuations affect availability of forage for livestock. Also, an on-set of a dry spell does not necessarily imply an immediate switch to grazing into the forest. This is because after rainfall cessation, farmers still have alternative sources of pasture still available, such as crop waste that may be significant to sustain cattle before farmers are faced with shortages to trigger switching into the protected forest. Similar results were found in Nepal, that climatic fluctuations make it difficult to switch between forest dependence and reliance on fodder (Gurung, Nelson & Smith, 2009).

Also, as Murray et al. (2017) has pointed out, climate change has interrupted the cycles of wet and dry seasons. There is therefore significant year to year variability on the onset and cessation of rainfall. This variability may further complicate farmers' responses to switching between forest dependence for pasture and other alternative but free options mentioned by respondents such as grazing on the roadside and seeking for available crop wastes for sustaining livestock. Poor rainfall patterns trigger crop failures and also interfere with the quantities of fodder produced and also quantities of crop waste from farms, implying extended decisions to rely on forest for pasture. Conversely, extended periods of rainfall months may be accompanied by huge quantities of pasture availability outside of the protected forest, and also huge and significant availability of farm waste that are able to sustain cattle

for longer periods without the need to depend on the forest for pasture. Furthermore, behaviour such as harvesting and purchasing crop waste for feeding cattle during the dry season months further complicated seasonality behaviours on forest dependence observed amongst the three forest blocks. Further research is needed to investigate how smallholder farmer practices such as harvesting and purchasing farm waste such as maize to sustain cattle during dry spells influences seasonality patterns and decisions to graze in the protected forest.

This seems to be supported by the results of analysis of rainfall at Chehe forest block (2009 to 2018) using time series that revealed that evidently, the area experiences dry seasons some of the year characterized by least rainfall compared to other months. Low rainfall months include December to February and June to September of every year. In some years, these months seemed to experience a completely dry spell, with zero observed rainfall during some months. The high rainfall peaks were noticeable in March to May and October-November months of the year. Results corroborate with the Kenya Meteorological report (2019) in this region which noted that generally, the Mt Kenya region exhibits two rainy seasons and two dry seasons that coincide with rainfall regimes of the East African highlands. Heavy down pours are characteristic of the long rains, March to May and lighter showers in October to December in some years. In between those seasons are the drier seasons of June to September and a shorter one of January to February. The lighter rains of the short rain season are favourable for grass and leguminous crops' growth.

Results of the scatters plot revealed a negative correlation between livestock grazing data and rainfall data. This therefore suggests that lower rainfall values are associated with increases in cattle grazing in protected forest. Several authors have noted extreme climate changes events such as prolonged droughts to be associated with farmers and pastoral communities opting to graze on protected forest and protected wildlife areas (Munanura et al., 2018). The Kenyan print media has also further reported influxes of pastoral communities moving to graze animals in protected forest and national parks as noted in the year 2017. Areas reported to be affected by this phenomenon include wildlife sanctuaries and also forest in the central Kenya region (Boles et al., 2019), including Mt Kenya forest.

## **7.0 Conclusions and Recommendations**

The research concluded that monthly and seasonal variation in livestock dependence for pasture exist across the three forest blocks; however, with significant differences in the magnitude of peaks of cattle influxes. Of the three forest blocks investigated in this study, Kahurura was found to experience high cattle grazing influxes during most of the months of the year with characteristic primary peaks in January and secondary peaks in July respectively. On the contrary, Chehe was found to experience a low peak season during most of the earlier months of the year, with very marginal influxes experienced during the months of July. The magnitude of influxes during the month of July in Chehe was low compared to Kahurura which experienced almost nine times the number of cattle influxes reported in Chehe during the same period. Secondly, the Kenya Forest Service needs to determine dry season period carrying capacity when the forest blocks experience influxes to avoid overgrazing problems. KFS also need to devise ways of regulating grazing activities during high season peaks.

The government need to incentivize smallholder's farmers during high season peaks to provide alternatives for rural households pressed to graze animals during the months identified. Proper forest management may be required to ensure the influx during the peak season is well managed to minimize conflicts between forest

conservation benefits and costs. Further studies are needed to understand clearly rainfall and grazing patterns in the long run sustainability therefore there is need for long term data of more than 30 years which include grazing hours, area, opening and closing of grazing sites. There is also need to corroborate the trends revealed with field observation, surveys with smallholder farmers, and data from remote sensing data on trends of vegetation cover the last 6 years. Similar studies are needed for other forest blocks, and for other mountain ecosystems in East Africa, for comparison.

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## Chapter 17

### **Strategic Marketing, a Technical Approach for Company Performance in The Telecommunications Industry in Rwanda**

By

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#### **Abstract**

Marketing strategies are one of the most essential tools for business growth and competitive advantage in the telecommunications industry. It is a key strategic factor contributing to market leadership and under all ways, has a greater contribution on building the market value. The main objective of this study was designed to examine the role of Strategic Marketing as a significant tool for performance of Telecommunication industry in Rwanda and to assess the moderating influence of legal and regulatory framework on the performance of Telecommunication industry in Rwanda. This study report applied descriptive survey design and utilized both qualitative and quantitative data. Hence the distribution of questionnaires and interview was subjected to the top and middle level management teams of both MTN and Airtel as an efficient mechanism of collecting data that helped the researcher to arrive at reliable findings. The study population included the 133 Top and middle level, managers of mobile phone operator companies in Rwanda which comprised of MTN and Airtel company Headquarter and different branches within Kigali City from which a sample size of 100 respondents were calculated using the slovens formula which is commonly used for calculating sample size in research. The data collection instruments were pre-tested using the Cronbach's alpha and factor analysis of dimensions reductions to determine the validity and reliability of the tests. The data collected was analyzed and presented using tables, by help of the SPSS statistical Package for Social Science. The results on, reliability test, descriptive statistics, demographic information of respondents, correlation analysis, normality test, heteroskedasticity test, factor analysis and regression results were established on the variable of strategic marketing plus the intervening variable of the legal and regulatory framework. Moderating variables showed a positive and significant correlation with Performance of Telecommunication industry. The conclusion here was that the companies benefits tremendously when the strategic marketing practice was taken into account for the efficient performance of the telecommunication industry in Rwanda. The research managerial recommendations emphasized the need for telecom policy makers Rwanda Utility and Regulatory Authority (RURA) to ensure a successful evolution towards competing markets, regulate and properly supervise the relations between the incumbent telecom companies and the new comers, who are known to depend on the incumbent's services.

**Key Words:** Strategic Marketing, Technical Approach, Company Performance, Telecommunication Industry in Rwanda

**Strategic Marketing, a Technical Approach for Company Performance in the Telecommunications Industry in Rwanda**

By

Kirabo Joyce, Prof. Gregory. Namusonge and Prof. Mike A Iravo

### **Introduction**

Strategic marketing is a market driven process of strategic development that takes into account constantly changing environment and the need to achieve high level of customer satisfaction, Cravens, [2000]. It focuses on organizational performance, rather than no increasing sales. It links the organization with the environment and view marketing as the responsibility of the entire organization rather than as specialized function. However, a strategy is an intentional process. Oyedijo, [2013], stated that organizations must be consistent with serving the needs of the target market within the framework of a long-term plan which is the key to achieving organizational goals and objectives. He stated further that the major proposition of strategic marketing management is to align marketing activities with organizational objectives, while marketing opportunities must be found by systematically analyzing the competitive and industry situational environment. However, organizations that take cognizance of strategic marketing management as a sustainable competitive advantage through the development of long-range marketing plans has the opportunity to outperform firms that has not strategically identify the needs and wants of customers in order to tailor those needs within the framework of long-term plan [Oyedijo, 2013].

Odongo [2008] also stated that organizations can use environment scanning to determine whether or not to enter new market and also to know the present situation or condition of its environment. Environmental scanning is the monitoring, evaluating, and disseminating of information from the external and internal environment to key people within the corporation or organization. Oyedijo, [2013], confirms the positive effect of strategic marketing management of organization performance in terms of competitive advantage, profitability, survival and market share. Their study also reveals that strategic marketing management has some effects on performance measures, such as process efficiency, service quality, cost saving, organization and process flexibility and customer satisfaction.

### **Statement of the Problem**

Survival of a company in the telecommunications industry depends of the contemporary tactics, techniques and strategies they apply in order to position themselves and differentiation from their rivals. According to Odunlami & Ogunsiji, (2011), postulated that in spite of the numerous marketing strategies and techniques available to many organizations, it is important to note that many telecommunication companies have not yet appreciated how to effectively and efficiently utilize these strategies and techniques in attempting to enhance their organizational performance. Kithamba (2014) conducted a study on competitive business strategies adopted by mobile service providers in Kenya. He found out that the telecom companies employed cost leadership, price leadership and outsourcing strategies (Kithamba, 2014). A research conducted by Kamande, (2010), on competitive strategies adopted by mobile phone companies in Kenya and discovered that, the mobile phone companies have adopted several marketing strategies which include cost leadership, differentiation, marketing, diversification, expansion, technology, customer services and corporate social responsibility (Kamande W. , 2010). There is still a remarkable scarcity of scientific knowledge that describes a more detailed representation of major roles of strategic marketing practices and how it influences organizational

performance. Although telecommunication companies in Rwanda have similar products and services, they all differ from one another based on the customer subscriber base and their visions, innovations and marketing strategies differ significantly. The continued drop in profitability, sales volume shrinkage and loss of market share are part of the problems that have seen the transfer of all shares of Millicom International Cellular Company Tigo Rwanda acquired by (BhartiAirtel, 2016). One can argue that the need for such technical marketing approaches into the operations of telecommunication companies in Rwanda will become more important as the competition is becoming fiercer than before, due to many new mushrooming telecommunication companies in the country. Consequently, a better understanding of the influence of strategic marketing practices on the performance of telecommunication companies especially in a Rwandan context is now indispensable.

### **Objectives of the Study**

1. To evaluate the influence of strategic marketing on the performance of Telecommunication industry in Rwanda.
2. To assess the moderating influence of legal and regulatory framework on the performance of Telecommunication industry in Rwanda

### **Research Hypothesis**

**H<sub>1</sub>:** There is no significant relationship between strategic planning and performance of telecommunication industry in Rwanda

**H<sub>2</sub>:** There is No significant correlation between legal and regulatory framework and the performance of Telecommunication industry in Rwanda

### **Review of Related Literature**

#### **Market-based Theory**

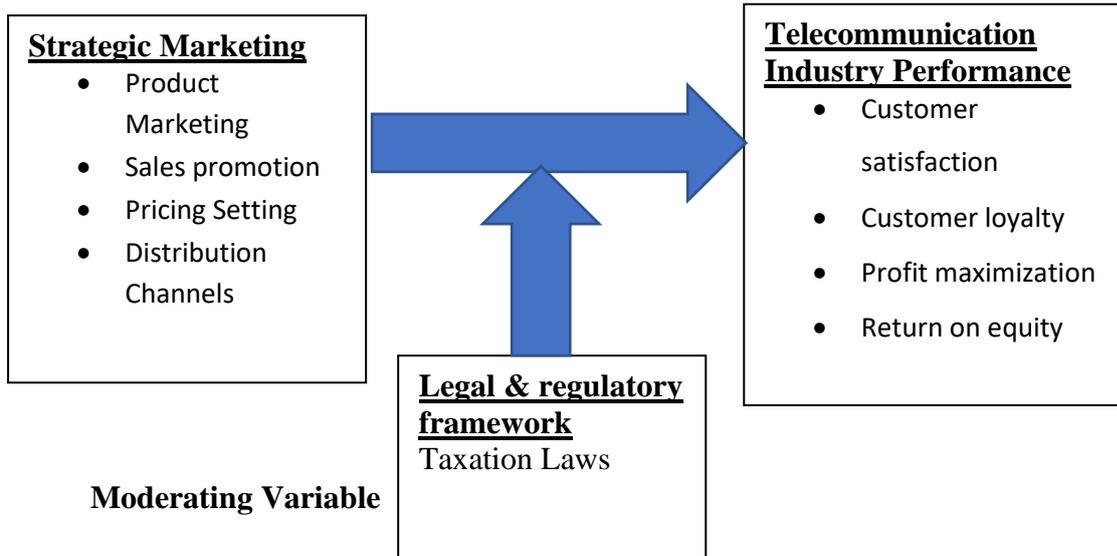
Market-based view of the firm postulates that the industrial factors plus the external market orientations are the most fundamental determinants of the firm's performance. The source of value for the firm are embedded in the competitive situation which distinguishing its end-product strategic position. The strategic position is the firm's unique set of activities that are distinctive from those of its rivals. In this context, the firm's performance or probability are determined exclusively by the structure and competition dynamics of the industry within which it carries out its operations. Researchers observed that; the firm's performance considerably dependent on the on the industrial environment within which it operates. In the context of industry, they viewed strategy as a whole and the position of the firm in market comparative to its competitors. Market-based theory of the firm is founded on the premise that; innovative firms endeavor to manipulate changing market conditions. Such market conditions are set to offer the original conditions, which govern the direction and quality of an organization's groundbreaking activities. The ability of any organization to customize its strategies with branded enablers and restraints in their environment are extremely influential to its competitive advantage [Askarany & Yazdifar, 2012].

Organizations need to develop strategies in response to the structure of the industry in which the organization is set to compete in order to gain a strategic competitive advantage. The market-based view strategy designs the company's policies and strategies based on the trends and the nature of the industry's environment. It helps in the selecting the market combination for the product in which the company utilizes its strategy. The strategy helps in designing the approach and the structure of the company based on the market analysis of the industry. During this

phase, the focus was on the organization’s internal environment plus the external factors. The firm’s performance was extremely significant and dependent on the environment of the firm. In this sense, strategy was viewed in the industrial context as a whole and the position of the firm in the market relative to its competitors. Organizations need to develop strategies that respond to the industrial structure in which within which organizations compete so as to acquire a competitive advantage. Firms normally make a general evaluation of their own competitive advantage through an assessment of the external environment [Bradley, 2008]

**Independent Variable**  
**Variable**

**Dependent**



**Figure 1: The Conceptual Framework**

Source: Field Data 2020

**Strategic Marketing**

This conceptual framework explains four significant attributes under the marketing strategy including product marketing, sales promotion, price setting and distribution channels. On the other hand, the communication and signaling of an organization’s pricing strategy affects the distribution channel, which include competitors and customers, as well as the internal sales force [Varadarajan, 2010].

Every business must research and test its pricing to determine at which price point consumers will buy or consume enough product to yield enough total profits to justify price change. Similarly, sales promotion is an initiative undertaken by Organizations to promote and increase sales, usage or trial of a product or service [Muala & Qurneh, 2012]. Sales promotion refers to the provision of incentives to customers or to distribution channel to accelerate demand for a product. It is an important component of an organization’s overall marketing strategy along with advertising, public relations and personal selling. Sales promotion acts as a competitive weapon by providing an extra incentive for the target audience to buy or support one brand over the other. Its main aims are communication to create and maintain relationships by informing and persuading one or more audiences.

According to Hollensen, [2015] strategic marketing is the way a firm effectively differentiates itself from its competitors by capitalizing on its strength (both current and future potentials) to provide consistently better value to its customer

than its competitors. Marketing strategies have been associated with the field of strategic management from its earliest foundations Hollensen, [2015]. The relationship between strategic marketing and the firm's performance is a key issue to the survival of the Organization. Marketing strategies can be qualified as a key to measure of Firm performance. It is a concept of identifying the reason why a company exists and how it can benefit target consumers over the long term cannot be divorced from organizational performance [Ward & Peppard, 2016].

According to Del Chiappa, [2013], Marketing strategies is a necessity to meet the demands of an increasingly complex and dynamic environment. Knowledge and evidence-informed decision-making are instrumental in marketing strategies; and entails getting focused on important goals, and involving others in achieving them. In all these cases, when the company is already aware of why it exists and has a clear marketing mix strategy on what to do when, how and where, there is absolutely no doubt such a strategy will have a direct impact into how the company will perform. Firms may utilize communication channels like newsletter, e-mails and podcasts in their new strategies marketing activities. The central objective of any company will be customer satisfaction so they may dominate the market and become leaders in their industry and thus providing substantial business.

### **Legal and Regulatory Framework**

All regulatory outcomes including unbundling policies and mandated access prices are the effect of political and administrative processes, which can interact with the investment decisions of firms. This is crucial for the econometric modeling of the investments and known in the econometric literature as endogeneity problem. These political and institutional factors include governments' attitudes towards market regulations, electoral system, political systems (presidential vs parliamentary), accountabilities and independence of the regulatory agencies. One indication of the benefit of telecommunication investment is the strong correlation between telecommunication development and overall economic development [Bauer, 2010]. Del Chiappa, [2013], argued that Independent Regulatory Authority (IRAs) can be evaluated by looking at i) their impact on performance on the markets they regulate and capacity to strike a balance between possibly conflicting goals, ii) their capacity to produce high quality regulation and iii) the extent to which they respect the accountability standards. According to the author, the first and second aims can be measured through an econometric analysis assessing the link between IRAs and a range of indicators of market performance (defined widely to include the interests of both firms and consumers) and regulatory quality, while the third needs an assessment on a case-by-case basis

### **Strategic Marketing and Organizational Performance**

This way, the new forms of strategic marketing and corporate administration are then better understood giving a complete outline of the strategic thinking and business planning to its implementation in the telecommunications strategies. Justification of strategic marketing practice as my independent variable was set to expose the indispensable relationship between strategic marketing, business processes and techniques of working in the telecommunications world that allows the 21<sup>st</sup> Century business managers align their organizational, financial and technological innovations to warrant maximum degree of competitiveness across the new paradigm of interconnected global market. This knowledge will allow the 21<sup>st</sup> Century business managers align their organizational, financial and technological innovations to

warrant maximum degree of competitiveness across the new paradigm of interconnected global market [Wambua & Mulyungi, 2019].

Contemporary strategic marketing practice is a completely a new paradigm shift that addresses the need for managers to have comprehensive knowledge of different technological innovations, tactical global markets, standard management plans and digital marketing tools of today's and future networks. Knowledge on strategic marketing practice provide the concrete foundations for innovation in the telecommunications business which is based purely on proper management and alignment of company strategies with those of the broader industry. While strategic marketing knowledge leads to the knowledge and skills on how the company is run, telecommunications lead to knowledge of possible network potentials and capabilities. When these two are connected the new management, space is created which links business administration and telecommunication management [Namusonge, Muturi & Olaniran, 2016]. This therefore, stamps the theoretical knowledge on the telecommunications well-connected to the methods and tools that are used currently plus the international experiences which are related to strategic marketing practices [Mutindi, Namusonge & Obwongi, 2013].

### Methodology

This study applied descriptive survey design by collecting general information through administering questionnaire to the selected sample of respondents. This design was appropriate since it provided an accurate account of characteristics of a particular event or scope of real-life situation [Kothari, 2004]. Both qualitative and quantitative data was collected in order to answer the question formulated for this study

### Results and Discussion

#### Total Variance Explained for Performance

Explained variance sometimes referred to as explained variation is used in research to measure the inconsistency and discrepancy between the said model and the actual data. Actually, it is part of the model's total variance that is explained by the different factors which are essentially present and are not caused by the error variance. The higher percentage of explained variance indicates a strong strength of association. In essence, the percentage of the variance Colum gives the ratio that is expressed as a percentage of the variance accounted for by each component to the total variance among all the variables. This therefore implies that better predictions were made [Rosenthal & Rosenthal, 2011].

#### Total Variance Explained for performance

Component	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.302	61.456	61.456	4.302	61.456	61.456
2	.732	10.463	71.920			
3	.533	7.612	79.532			
4	.438	6.251	85.783			
5	.413	5.906	91.689			
6	.350	4.997	96.686			

7                      .232                      3.314                      100.000

Extraction Method: Principal Component Analysis.

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**Source:** Field Data 2020

Further, the high factor loading scores showed that all the items explained Performance of Telecommunication industry. The EFA extracted 1 factor with an Eigen value of 4.302 which is above the accepted value of 1 and cumulative extracted variance of 61.456 %. Thus, none of the items was dropped [Yong & Pearce, 2013].

### Strategic Marketing Descriptive Statistics

Opinion Statement	Mean	Std. D	N
The company always identifies one or more sustainable competitive advantages and allocate resources to explain them	4.08	.750	87
Our firm effectively differentiates itself from its competitors by capitalizing on its strength to provide consistently better value to customer than its competitors	4.18	.724	87
We have an overall game plan for reaching people and turning them to customers of the product or service that the business provides	4.11	.672	87
We have a long-term forward-looking approach to planning with the fundamental goal of achieving a sustainable competitive advantage	4.14	.650	87
We have a competitive Pricing strategy compared to our competitors	4.30	.701	87
The firm has always adopted the Sales promotion strategy to expand our market base	4.02	.747	87
The firm has always adopted the Advertising strategy to expand our market base	4.18	.674	87

**Source:** Field Data 2020

Strategic marketing influences the performance of the Telecommunication industry in Rwanda also was sought by the study. The company always identifies one or more sustainable competitive advantages and allocate resources to explain them 4.08, Our firm effectively differentiates itself from its competitors by capitalizing on its strength to provide consistently better value to customer than its competitors 4.18, We have an overall game plan for reaching people and turning them to customers of the product or service that the business provides 4.11, We have a long-term forward-looking approach to planning with the fundamental goal of achieving a sustainable competitive advantage 4.14, We have a competitive Pricing strategy compared to our competitors 4.30, The firm has always adopted the Sales promotion strategy to expand our market base 4.02 and The firm has always adopted the Advertising strategy to expand our market base 4.18. This symbolized that most respondents agreed to the statement marketing strategy is key in achieving telecommunication company's objectives.

### Strategic Marketing Total Variance Explained

It is part of the model's total variance that is explained by the different factors which are essentially present and are not caused by the error variance. The higher percentage of explained variance indicates a strong strength of association. In essence, the percentage of the variance Colum gives the ratio that is expressed as a percentage of the variance accounted for by each component to the total variance among all the variables. This therefore implies that better predictions are made

### Strategic Marketing Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.630	66.136	66.136	4.630	66.136	66.136
2	.658	9.400	75.536			
3	.481	6.873	82.409			
4	.375	5.360	87.768			
5	.357	5.102	92.870			
6	.297	4.243	97.113			
7	.202	2.887	100.000			

Extraction Method: Principal Component Analysis.

**Source:** Field Data 2020

Further, the high factor loading scores showed that all the items explained strategic marketing. The EFA extracted 1 factor with an Eigen value of 4.630 which is above the accepted value of 1 [Yong & Pearce, 2013] and cumulative extracted variance of 66.136 %. Thus, none of the seven items was dropped.

### Legal & Regulatory Framework factor analysis

#### Descriptive Statistics for Legal and Regulatory Framework

The research further subjected the variable legal and regulatory framework on the factor analysis tests. To that effect, the dimension of the data was reduced into more super-variables. The research utilized measures of central tendency especially the “mean” which was used to describe the central position of the frequency distribution. Similarly, the measures of spread including the standard deviation described how spread out or dispersed the scores are.

#### Legal & Regulatory Framework Descriptive Statistics

Opinion statement	Mean	Std. D	N
Our employees are aware and adheres to the laws and regulations governing the telecommunications industry in Rwanda	4.03	.723	87
The laws and regulations favour the operation of our telecommunications industry in Rwanda	4.16	.680	87
The investments regulations do favour the operation of our telecommunications industry in Rwanda	4.14	.632	87
The firm is always able to comply with the tax laws in the country	4.14	.613	87
The company always comply with labour laws in the country	4.31	.653	87

**Source:** Field Data 2020

This section of the analysis shows the descriptive statistics on Legal & regulatory framework. The results are reported in the above table. As presented in the Table below, our employees are aware and adheres to the laws and regulations governing the telecommunications industry in Rwanda 4.03, The laws and regulations favors the operation of our telecommunications industry in Rwanda 4.16, The investments regulations do favors the operation of our telecommunications industry in Rwanda 4.14, The firm is always able to comply with the tax laws in the country 4.14 and The company always comply with labor laws in the country 4.31. This suggests that the respondents mostly agreed that Legal & regulatory framework is a vital trait in the success of the firm.

### **Legal & Regulatory Framework Total Variance Explained**

It is part of the model's total variance that is explained by the different factors which are essentially present and are not caused by the error variance. The higher percentage of explained variance indicates a strong strength of association. In essence, the percentage of the variance Colum gives the ratio that is expressed as a percentage of the variance accounted for by each component to the total variance among all the variables. This therefore implies that better predictions are made [Rosenthal & Rosenthal, 2015].

**Table 4.4 Legal & Regulatory Framework Total Variance Explained**

Compon ent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulativ e %
1	3.089	61.781	61.781	3.089	61.781	61.781
2	.722	14.440	76.220			
3	.486	9.716	85.936			
4	.416	8.323	94.260			
5	.287	5.740	100.000			

Extraction Method: Principal Component Analysis.

**Source:** Field Data 2020

Further, the high factor loading scores showed that all the items explained strategic marketing. The EFA extracted 1 factor with an Eigen value of 3.089 which is above the accepted value of 1 and cumulative extracted variance of 61.781 % [Yong 2013]. Thus, none of the items was dropped.

### **Correlation Results**

Statistically, correlation coefficient always falls between -1.0 and +1.0 such that if the correlation ( $r$ ) is positive, there is a positive relationship whereas if correlation ( $r$ ) is negative, then the relationship between variables is negative. Further, if the correlation ( $r$ ) falls within 0.00 to 0.10 then it is a negligible correlation; 0.10 to 0.39 means weak correlation; 0.40 to 0.69 infers a moderate correlation; 0.70 to 0.89 implies a strong correlation and 0.90 to 1.00 signifies a very strong correlation. Accordingly, bivariate correlation analyses were performed and Pearson correlation coefficients were generated to measure the strength of the link between the study variables [Field, 2000].

### Correlation Results

		Performance	Strategic marketing	Legal and regulatory
Performance	Pearson Correlation	1		
	p-value			
Strategic marketing	Pearson Correlation	0.846**	1	
	p-value	.000		
Legal and regulatory	Pearson Correlation	0.905**	.752**	1
	p-value	.000	.000	

**Source:** Field Data 2020

From the results shown in table above, there is a positive and significant correlation between the independent variables and Performance of Telecommunication industry. From the results, Strategic Marketing is positively and significantly correlated with Performance of Telecommunication industry ( $r = 0.846^{**}$ ,  $\rho < .05$ ).

Moderating variables showed a positive and significant correlation with Performance of Telecommunication industry. As revealed, Legal & regulatory framework ( $r = 0.905^{**}$ ,  $\rho < .05$ ) is positively associated with Performance of Telecommunication industry. Based on the above results there is an indication of the linear relationship between all predictors on performance, hence the need to perform a more sophisticated model such as multiple regression model to show a cause-effect relationship.

### Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.846 <sup>a</sup>	.715	.712	.53656025

**Source:** Field Data 2020

From table 4.61 above, the combined prediction of all the variables accounted for approximately 72% of the total variation in Performance of Telecommunication industry ( $R^2 = .715$  and Adjusted  $R^2 = .712$ ) as depicted in Table 4.61. Thus, the model was fit to predict Performance of Telecommunication industry using strategic marketing.

### Analysis of variance

		ANOVA				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.529	1	61.529	213.718	.000 <sup>b</sup>
	Residual	24.471	85	.288		
	Total	86.000	86			

**Source:** Field Data 2020

The results in the table above indicates that the overall models were a good fit since the variables; Strategic Marketing, were found to have a value of F-statistic of 213.718 and the p-value was found to be 0.000 which is less than the critical value of 0.05.

### Hypothesis summary

No	Null Hypothesis	Decision criteria	Conclusion
	<b>H<sub>1</sub>:</b> There is No significant relationship between strategic marketing and performance of Telecommunication industry in Rwanda.	Reject the null hypothesis if $p < 0.05$	The null was rejected since p-value was found to be $< 0.05$
	<b>H<sub>2</sub>:</b> There is no significant moderation effect of legal and regulatory framework on the relationship between strategic management practices and the performance of Telecommunication industry in Rwanda	Reject the null hypothesis if $p < 0.05$	The null was rejected since p-value was found to be $< 0.05$

**Source:** Field Data 2020

### Conclusion and Recommendations

The indicators of strategic marketing include; product marketing, strategic sales promotion and strategic pricing and distribution channels. Descriptive statics was applied as a focal starting point for data analysis thereby organizing, simplifying and summarizing data for advanced inferential statistics. The research utilized measures of central tendency especially the “mean” which was used to describe the central position of the frequency distribution and the measures of spread including the standard deviation described how spread out or dispersed the scores were. The high factor loading scores showed that all the items explained strategic marketing.

The study found out that strategic marketing measurers had strong effect on the performance of telecommunication firms in Rwanda. The company always identifies one or more sustainable competitive advantages and allocate resources to explain them, the firm effectively differentiates itself from its competitors by capitalizing on its strength to provide consistently better value to customer than its competitors, we have an overall game plan for reaching people and turning them to

customers of the product or service that the business provides, we have a long-term forward-looking approach to planning with the fundamental goal of achieving a sustainable competitive advantage, we have a competitive Pricing strategy compared to our competitors, the firm has always adopted the Sales promotion strategy to expand the market base and the firm has always adopted the Advertising strategy to expand our market base. It was discovered that digital marketing played a significant role to spur growth in both the telecommunication companies. It was clear that, without strategic marketing, the company would fall far below the competition line. From the results, Strategic Marketing was positively and significantly correlated with Performance of Telecommunication industry at ( $r = 0.846^{**}$ ,  $\rho < .05$ ). It focused on organizational performance, rather than no increasing sales. Strategic marketing linked the organization with the environment and viewed marketing as the responsibility of the entire organization rather than as specialized function. The two telecommunication companies were consistent with serving the needs of the target market within the framework of a long-term plan which was the key to achieving organizational goals and objectives.

### **Recommendations**

This research recommends that; Policy should require that, Rwanda Utility and Regulatory Authority (RURA) ensures a successful evolution towards competing markets, regulate and properly supervise the relations between the incumbent telecom companies and the new comers, who are known to depend on the incumbent's services. Policy-makers should ensure that the services of the regulatory authorities are periodically evaluated concerning performance of the market they regulate plus their ability to draw a balance between the possible conflicting goals and their ability to yield high quality regulations as well as the degree of adherence to the accountability standards. This is because, it is possible that some company operators hide and manipulate important information required for the evaluation process.

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## Chapter 18

### **Voice, Agency and Silences: Traditional African Women's Tools for Accessing Centers of Power Shaping the Development Agenda**

By

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#### **Abstract**

Traditional African custom thrived on a platform that recognized women's voice, agency and silences, whenever invoked in any discussions regarding familial, or communal development agenda. Unfortunately, much of the available literature, with a western capitalist cue, paints African custom as barbaric, retrogressive and as an inhibiting factor towards women's empowerment agendas. That trajectory ignores the fact that Africans in their traditional setting were developmental with values and virtues that accommodated the participation of women and men, albeit at varying levels, in the shaping of society. Equally unfortunate is a fact that what is fronted in the contemporary world as the women empowering agenda, as can be discerned from the United Nations Sustainable Development Goals (SDGs), is a paradigm that aims at forcefully flattening the curve across the globe on women's rights. This is not possible considering that in actual fact there are variances between African and Western world women, or women in other parts of the world. The forceful attempt to flatten this curve is an historical agenda of the imperialist western hegemony expressed in the colonial trajectory about the African continent. This was initially supported by the inhuman slave trade and brutal colonization episodes of the African people, and now aided by the neo-colonial deceitful paradigm championed by the same imperialistic forces, pretending to be giving back power to the very people they deliberately disempowered. The thread of self-aggrandizement by the Western powers throughout history remains unbroken even in the current seemingly globalized world. This chapter, therefore, argues that African custom, values, and virtues, which are not written, were, and remain women empowering. They recognize the force of voice, agency, and silences by women, whenever invoked. Consistent use of the tools of voice, agency and silences to resist oppression of the ideology of patriarchy has yielded positively towards women's integration in the development agenda. Some men, even in high political offices have yielded to the pressure exerted by women in a drive to flattening the curve of inequalities in favour of equal rights for all. Much as the feminists fight for women's rights, some men have facilitated realization of the women's dreams. The chapter concludes that the invasion of African values and virtues spaces by the western powers did not only disempower African women, but equally disempowered African men, leading to the current low levels of participation of Africans in the overall global development agenda. It recommends a reincarnation of the lost African values and virtues that are now conspicuously absent from the discussions that shape the global development agenda.

**Key words:** Uganda, Agency, feminism, power centers, silences, voice

## **Voice, Agency and Silences: Traditional African Women's Tools for Accessing Centers of Power Shaping the Development Agenda**

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### **Introduction**

A discussion of the role played by voice, agency and silences in inscribing African women into the centers of power can best be analyzed using the lenses of feminism. Broadly, feminism is a philosophy that advocates for inclusion of women in all aspects of social, legal, economic and political agendas, where, they were forcefully removed by the ideology of patriarchy without their participation or acquiescence. Feminism inquiries into the role of law, custom and practice in perpetuating the exclusion of women from these agendas (Busingye, 2018). In so doing, it delegitimizes the oppressive side of the law, custom and practice and enables society to progress without such hindrances. Feminism's common focus is on the crucial role of the researcher/activist alliance in the push for integration, first of 'women', then of the power aspects of male-female gender relations in the analysis of 'development' as well as in the practice of development assistance (Arnfred and Ampofo, 2009).

Viewed from an historical perspective, of African colonialism by the Western World, global development agenda is materialistic, and the cause of conflicts and struggles in the relations between the mode or means of production and the relations of production (Lord and Ingram, 2019). It thrives on the class divisions created within the realm of the ideology of patriarchy and its cohort, the capitalist mode of production. The dynamism of the capitalistic mode of production extended to the social realm too; even "traditional and unchanging" societies (such as the African societies) and peoples were inevitably drawn into its fold and rescued from the "idiocy of rural life" and old prejudices (Parthasarathy, 1994). The idiocy of rural African life, however, was the one that sustained women's voices and agency in the African development agenda that was globalized through colonialism. That idiocy was silenced, and women were edged out of the development agenda by the colonialism, only to re-incarnate in a more potent form, enunciated by feminism, which resist oppression created by the class echelons of the capitalist globalized agenda. Within the realm of feminism, voice, agency and silences are the most powerful tools used to re-inscribe women into the socially constructed class echelons and thereafter repel the whole notion of 'social class' to create a classless and equal society of human beings.

The war against construction of social classes is, however, not a one-time off event, because the processes that created those classes were not one-time off events as well. It is a lifelong process that must be fought relentlessly, but tactically. Voice, agency and silences of the historically oppressed and excluded women from the construction of the social classes when used in a consistent and tacit manner crumple the walls of the ideology of patriarchy, the medium through which social classes were, and continue to be constructed. African women voices, like the beats of the African drum, signal and attract the attention of the patriarch to attend to the needs of the African woman in the socio-legal, political and economic development agendas. That signal is not a mere request, but a command to undo what the ideology of patriarchy did without consulting African women. It is a hard knock on the doors of

the domineering ideology of patriarchy, and it has managed to weaken the strongholds of that ideology to the extent that it has accepted the clarion call made to it.

Agency for women gives a philosophical account of self-determination by not only giving due weight to each woman's unique desires, capabilities, values, interests, and goals, but also accommodating their intra-psychic, inter-personal, and social realities insofar as they shape an individual's identity (Meyers, 2002). In its totality, agency recognizes and re-shapes women's diverse socio-cultural backgrounds, making them aware of their common adversary, the ideology of patriarchy (Unilever, 2017). The ideology of patriarchy shapes women's lives on their sexuality overtones, which inhibits their agentic skills and ability to flatten the power curve (Singh, 2016). This position, however, has been aptly counteracted by feminism which sees women's sexuality as an empowering resource—capable of moving them into the legal and even political power arenas (Tamale, 2006). Within the realm of feminism, silences are “voices that do not speak”. Power-knowledge relations work through these silences (Singh, 1997). Silences (voices that do not speak) by the oppressed and excluded from the centers of the development agenda, are much louder than the shouting voices of the oppressors—those silences create discomfort in the minds of the oppressors, thereby initiating a process of being attended to, and eventual inclusion in the development agendas of their societies.

### **Statement of the Problem**

The process of removing African women from the centers of the traditional development agendas was protracted and extremely long. It began with the brutal rapture of the continent by the slave traders, who sequentially and schematically were followed by the theologians from the Western and Arab Worlds. Those episodes were capped with the colonization, neo-colonization and globalization agendas. These entrenched a foreign ideological philosophy in the minds of the Africans. The foreign ideology changed the *status quo*, in general terms, but its specific objective, which it achieved, was the removal of women from the traditional centers of power that shaped the African development agenda. Those developments conscripted African women in the global development agenda, where they do not have spaces to express their views, and hence are silent and unrepresented participants. Tools to dismantle the strongholds of the ideology of patriarchy have only recently been developed and have not yet been understood and internalized by all the oppressed women in Africa. Applying these tools, namely, voice, agency and silences cannot immediately produce the desired fundamental change in favour of re-inscribing women in the traditional development agendas. The worst case scenario is that some African women, who are also victims of oppression and exclusion imposed upon them by the ideology of patriarchy, try to pull down their kin who accede to high political and decision-making positions in Governments.

### **Objective**

The objective of this chapter is to highlight the instrumental role played by voice, agency and silences of African women in order for them to be re-inscribed in the traditional, before moving into the global development agenda spaces. It is also the objective of this chapter to inform readers that exclusion of women from the traditional development agendas is disadvantageous to the whole society, not only the women. **Theoretical**

### **Framework**

The chapter uses the feminism paradigm to unravel the role played by the ideology of patriarchy in the exclusion of women from the development agendas. Feminism is a broad perspective, with various strands, including Afro-feminism. Afro feminism distinctly seeks to create its own theories and discourses that are linked to the diversity of African realities. It works to reclaim the rich histories of Black women in challenging all forms of domination, in particular as they relate to patriarchy, race, class, sexuality, and global imperialism (Tamale, 2020). While there is still resistance and at times overt hostility to feminist work in male stream institutions across the region, feminist critique clearly has much greater legitimacy today, than it did half a century ago (Ahikire, 2014).

In its broadness and diversity, feminism does not only provide a platform to question unfair norms but more importantly, it provides an alternative to the rigid patriarchal thoughts and structures (Singh, 2016). Feminism requires that its proponents, in diversity maintain a distance in critical solidarity between academic feminism and the activist movement. This is not only in order to support activism in itself, but also to allow for better theoretical development, with the aim of better capturing the reality. The idea is to further intelligent collaboration and solidarity towards a common goal (Casimiro and Andrade, 2010). Feminism is an organizing paradigm. It implies a vision, a sense of alternative possibilities of greater social justice alongside the liberation of women from all sources of oppression; collective feminist energies being mobilized to bring about change in this direction (Pereira, 2017). Feminism is equality in political, social, and economic rights for people of all genders (Dangwal, 2020). It uses a number of media to achieve its objective. This chapter singles out voice, agency and silences, tools that have been organically developed within the realm of feminism to fight male oppression and to communicate women's dissent, appreciation, pleasure or displeasure of the society they live in (Oyekan, 2014). These tools can be employed by women, singularly or in unison with others, the ultimate aim being to resist oppression imposed upon them by the ideology of patriarchy. Whenever all, or any of these tools are employed, the message is very clear, the oppressed are not lying down waiting for their unborn saviour to liberate them (Busingye, 2016).

### **Review of Related Literature**

There are several inhibitors in Africa that prevent women from actively and effectively participating in the development agendas in their respective countries. Common inhibitors include, low levels of formal education, youth pregnancies, uncontrolled birth rates, all of which lead to higher unemployment rate of women compared to men. The root causes to these inhibitors are well known, namely: lack of access to resources (AUDA-NEPAD, 2018), early marriages and pregnancies (WHO, 2012), discrimination in recruitment and conditions of work, and lack of recognition by men outside households (AUDA-NEPAD, 2018). These inhibitors can only be tackled when African women are united as resisters to oppression imposed upon them by the ideology of patriarchy. Fortunately, they are now in position to ably use the tools of voice, agency and silences to achieve the desired goal (Busingye, 2016).

Voice, agency and silences when used within the feminism paradigm, express the desire of all humanity to attain gender equality. No one wants to be silenced. Women in Africa have been socialized to hold fear in high esteem while agonizing in silence, watching their liberation fades away. With the keeping of lips sealed, women have signed their death warrants (Akina Mama wa Afrika, 2019). Self-chosen silence can, however, be more powerful than speech in many circumstances (Morrison,

2018). Self-chosen silence is a powerful tool used to signify resistance to patriarchal oppression. Indeed, where there is power, there is resistance, and the desired goal shall be achieved (Tamale, 2017). Empowered women are capable of acting challengingly and disclosing their foes to the world. Their actions are instrumental in starting to reclaim the lost grounds and entrench themselves in the socially excluded arenas in the development agendas in Africa (Oxford, 2006). That reclamation and entrenchment is necessary to create a society of equal genders.

Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world (UN SDG 5; ICCPR, Article 3). Since the founders of the United Nations noted their faith in “the equal rights of men and women” on the first page of the UN Charter 60 years ago, studies have shown that “there is no tool for development more effective than the empowerment of women” (UN News, 2005). International human rights paradigm, must however, be viewed within the spectre in which they it was constructed. The Charter of the United Nations anticipated that its scope would cover the then State Parties to it and any other States that would come up in the future.

The UN Charter established conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained. It particularly states that: “The Organization (United Nations) shall ensure that States which are not Members of the United Nations act in accordance with these Principles so far as may be necessary for the maintenance of international peace and security”. It is, however, understood that cultural relativists, primarily from the global South, have tried to justify their views about global human rights and development paradigms, contending that they played no part in defining the Eurocentric universal rights (Tamale, 2020). Whatever reasons might be advanced within the ambit of cultural relativism, enjoyment of human rights, especially those related to gender equality do not depend on whether or not the beneficiary participated in their codification. Moreover, African feminism shares a lot with the Western feminism perspectives, especially on the right to equality for women and men.

Unlike many Western feminists, however, who tout gender neutrality and the “anything you can do, I can do better” mentality, African feminists do not attempt to rob the man of his value and worth. They simply want to be given value and worth, as well (Knowles, 2012). The feminist tools of voice, agency and silences in the African context, therefore, aim at enabling women attain the same level participation, with the men, first in the traditional and later in the global in the development agendas. They clearly do not aim at pulling down the men from whatever levels they have attained within the patriarchal circles. To do the latter would be to drag society into a backward movement, because the development agenda developed by the capitalist and patriarch has brought about development, albeit in a skewed manner, when it comes to the distribution of the benefits of that development.

The demand made by African women thorough the media of voice, agency and silences is genuine and legitimate. In any case, traditional African custom thrived on a platform that recognized women’s voice, agency and silences, whenever invoked in any discussions regarding familial, or communal development agenda (Sekyiamah, 2013). African women’s role in the development agenda was, however, erased from the memory of society during the period of Western brutalization and colonization of the continent. In that period, women lost power and economic autonomy with the introduction of cash crops and ideologies that excluded them from the global marketplace. Many of them continued growing food for their family’s consumption

while men earned wages by working on tea and cotton plantations or, by going to work in gold, diamond, and copper mines (Sheldon, 2018). Colonialism in Africa derailed the path hitherto taken by the African society towards attainment of substantive equality of women and men on the continent, and eventual development of the African continent. Colonialist must, therefore, be blamed because they introduced top-bottom approaches to development well aware that those approaches first and foremost, were not made by Africans in totality—women and men, and secondly, they would derail the path of development on the continent, as they edged women out of the development agenda.

Colonialists imposed a cash economy on the Africans in general, but ensured that women supported that economy not as active participants, but as background supporters of African men as they toiled to sustain the alien cash economy. Voices of African women would not be listen to any longer, even by the African men, because African men had to fulfill their obligations towards the colonialists, such as paying head tax, without considering the contribution of their wives, mothers and sisters made in the whole chain of production for the global market. In that problematic constructed order, women would never be heard by the colonialists and even the African men, who they supported by providing the necessary subsistence needs of families. The under-reported and often ignored African substantive equality values were hence sacrificed in favour of the Western World civilizing human rights values espoused in the Charter of the United Nations and other human rights instruments within its ambit. The latter cannot deliver to the African woman substantive equality in the echelonized class society. This is because even in the globalized development agenda, the notion of substantive equality requires decision makers to hear and respond to the voices of women rather than imposing top-down decisions (Fredman and Goldblatt, 2015).

The paradigm shift forward since independence reflects the tremendous energies and various forms of intellectual and activist agency that African women have imbued their respective societies with. They have initiated the transformative processes and relationships that have changed the African landscape, as constructed during the colonial era, and have opened up new ways of seeing the world and of being in the world (Makina, undated; Benett, 2010). Consistent use of the tools of voice, agency and silences to resist oppression of the ideology of patriarchy has yielded positively towards women's integration in the development agenda. Some men, even in high political offices have yielded to the pressure exerted by women in a drive to flattening the curve of inequalities in favour of equal rights for all. Miria Matembe, a Ugandan feminist, human rights advocate, a former Cabinet Minister, and a critic of President Museveni's ideology of governance, said that although they (feminists) fought for women's rights, it was President Museveni who facilitated their dream and saw women out of kitchen and occupying offices (Kamukono, 2020).

Ironically, however, the same person seems to have a different measure for gender equality in the political and development agenda. She does not consider that each and every women appointed to political office has the capacity to effectively engage with the patriarchal male leaders in order to influence the desired socio-economic and political changes capable of benefiting all women in the country (NBS TV News (Uganda), 9.00 Pm, 9 June, 2021). What is required, however, is not who among the women ascends to the highest political offices in the country, but how such a woman is capable of using political power and authority responsibly, and managing institutional hierarchies so that they take care of the women's interests. Moreover, silence and even other tools of resistance, particularly agency do not necessarily

thrive on individual merit alone, but also on the support given to those few women that have physically penetrated the realm of political power. Subjecting such women to the same standards of delivery as the men, who outnumber them, would act as a torn-down effect on the whole gender of women in the country.

### **Conclusion**

The invasion of African values and virtues spaces by the Western and Arab powers during the episodes of African plunder and colonialism did not only disempower African women, but equally disempowered African men. That led to the current low levels of participation of Africans in the overall global development agenda. African custom, values, and virtues, which are not written, were, and remain women empowering. They recognize the force of voice, agency, and silences by women, whenever invoked. The post-colonial African women are not lying down waiting for the unborn saviours to liberate them from the chains put on them by the foreign powers that bedeviled African cultural institutions and the virtues they supported. Instead, they have, to a great extent, in partnership with feminists in other parts of the world, while working specifically within the Afro-African feminism perspective, come out clearly to oppose the oppression imposed on them by the Western World and other invaders of the African continent. African women aptly use the tools of voice, agency and silences to ensure that they penetrate the centers of power in the global development agenda. African women are progressively attaining commendable success in their endeavours, especially by conditioning the minds of African leaders to re-inscribe them in the traditional development spaces of governance as they strive to move into the wider global arenas of power. It suffices to note that the global development agenda is eclipsed by the Eurocentric views of human rights and development, which do not specifically benefit the African women in their fight for spaces in the globalized development agenda. Strict adherence to the Eurocentric norms of rights, therefore, is not the panacea to the African women, but rather understanding how best that would work for them and improving on the methodologies to be used in the future to attain substantive equality in the spaces that govern the current global development agendas.

### **Recommendations**

The foregoing discussion clearly brings out the fact that African women are endowed with reason and ability to do what they wish to, but that they were forcefully removed from their positions by adherents of the ideology of patriarchy. It also makes it clear that overtime, African women have come to realize that they can overturn tables in favour of their re-inscription into the centers of power. Feminism, as a perspective has greatly contributed to this realization. Building on this stance, this chapter recommends that those fighting for African women's rights must strive to talk with a unified voice, otherwise, they will not be able to crumble the structures constructed over time by the adherents of the ideology of patriarchy. Afro-feminists, in particular must understand that they have a duty to ensure a reincarnation of the lost African values and virtues that are now conspicuously absent from the discussions that shape the global development agenda. African governments should address the root causes of low levels of women's participation in formal education and employment. Formal education and employment are springboards for anyone to access centers of powers in

the globalized world. Others stakeholders, including donors, development partners, local non-governmental organizations and the civil society should support African governments to address issues such as youth pregnancies, uncontrolled birth rates, all of which reduce women's chances to penetrate centers of power and hence the globalized development agenda. Lastly, African, who understands the value of voice, agency and silences, should not renegade on their obligation to liberate themselves and kin from the chains of the oppressive and exclusionary ideology of patriarchy. These should work with other feminists in other parts of the world to ensure that their lobbying efforts are heard far and beyond and are not frustrated.

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## Chapter 19

### Gendered Finance for Peace, Solidarity and Social Injustice in Southern Africa

By

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#### **Abstract**

Gender equality and social cohesion are seen as the appropriate strategies for each country. The need to maintain peace, solidarity, and upheld social justice has continued to be an essential debate for scholars and states, especially in Southern Africa. There has been ample evidence of how strategic financial inclusion fosters gender equity, reduces poverty, limits disaster risks, and facilitates resilience, enhancing women's empowerment. The SADC economies have tried to enable women and girls to have access to finance and gender equality within their constitutional rights, yet the effort seems futile. The chapter examines gender financial inclusion as a key to resilience and post-disaster recovery amongst Southern Africa countries. The article specifically focuses on identifying the benefits and challenges affecting gender financial inclusion. Furthermore, the study analyses the existing government measures and the effectiveness of shared approaches on financial inclusion amongst the countries. The derived result yields significant insight into the southern economies trajectories in gender politics and the importance of further research in gender economic policies affecting the economies. Relevant data are distilled from journals, articles, reports on financial inclusion and online resources.

**Keywords:** Southern Africa, Financial Inclusion, Political Economy, Resilience, Post Disaster Recovery, Women Empowerment

# **Gendered Finance for Peace, Solidarity and Social Injustice in Southern Africa**

By

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## **Introduction**

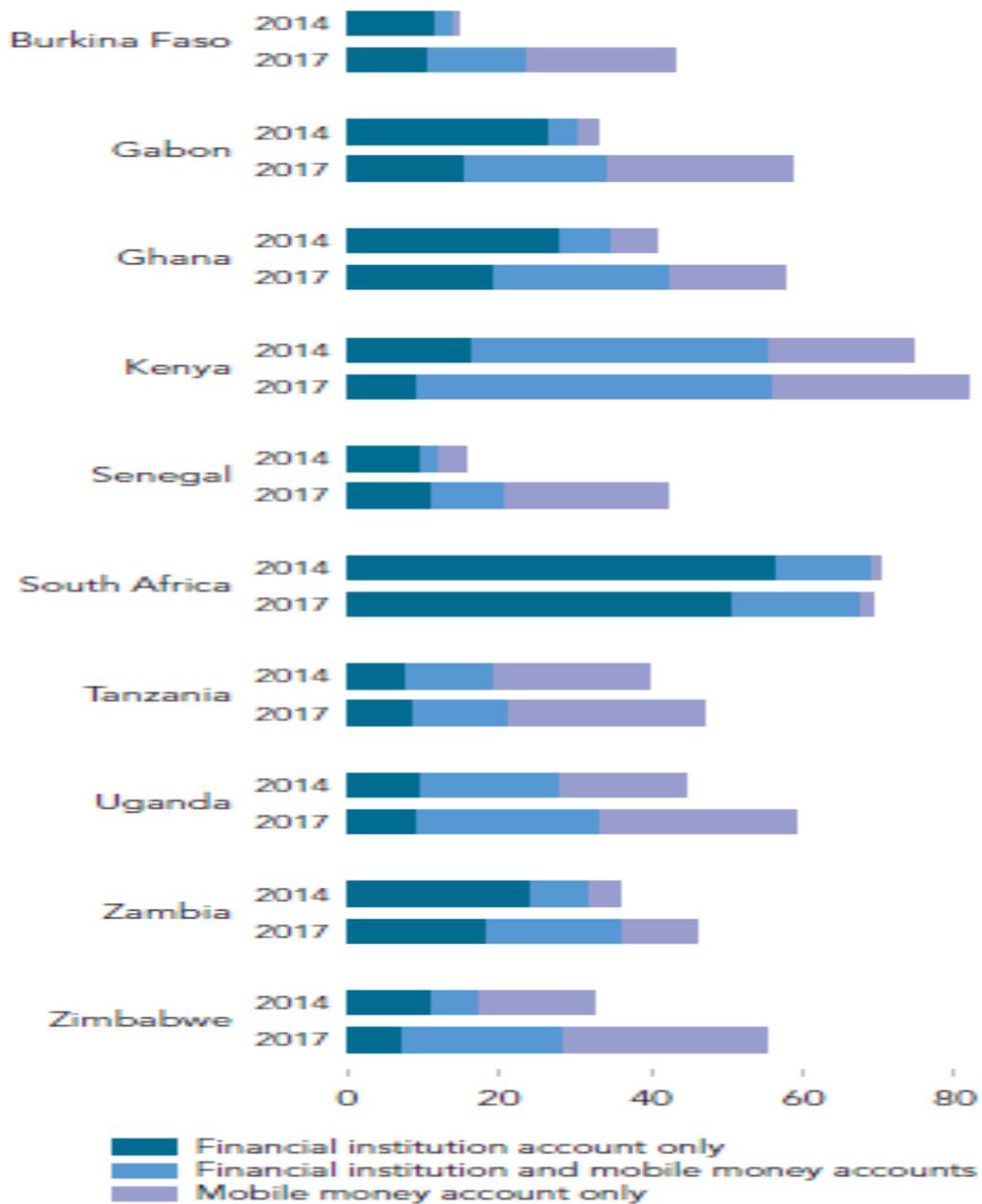
Gender financial inclusion for women remains a conflict of interest between nations. It supports and reinforces international conventions and declarations that stipulate equal rights for women and prohibits policies and regulations that constrain social cohesion. The 2017 Global Findex report on the global financial inclusion statistics facilitated by the World Bank group analysed the current state of financial institutions in Africa, which lags from financial institutions in developed economies (Klapper et al., 2017, 2). In Africa, the share of adults owning a bank account Africa barely exceeds 10 per cent, which has been the consensus since 2014. Although the mobile money hub was restricted mainly to East Africa, as of 2017, the mobile money accounts have spread widely into other parts of the continent. For example, in Senegal, mobile money has risen to over 30 per cent, while in Gabon, there is a percentage of 40 per cent on mobile money accounts (Klapper et al., 2017, 2). On his part, Ouma, Odongo and Were (2017) stated that 80% of the adult population in Africa has no access to essential financial services, which is an issue of concern for the African region.

World Bank Group (2019, 107) positioned Africa's growth as significantly slower than expected due to the weaknesses in Angola, Nigeria and South Africa. It estimated the increase in the continent to be at 2.7 per cent in 2018. However, it is assumed the growth rate will pick up by 3.4 per cent in 2019 and 3.7 per cent in 2020-21. In Nigeria, oil production fell due to pipeline closure in the middle of 2018, while other resources (farming) were crippled by the conflicts over land between farmers and herders. In Angola, the second-largest oil economy in Africa, non-oil activities were crippled by a contradiction in oil production, which fell sharply due to inadequate planning towards investment and the inability of field oils to reach full maturity (World Bank Group 2019, 107).

On the other hand, the Global South economy survived the recession by middle 2018 due to improved agricultural and manufacturing sectors. Despite this, SADC's growth especially, South Africa's growth, remains subdued as conflicts in the mining and construction activities affected the policies and reduced business confidence amongst foreign investors. To mitigate this, the Global South state government proposed different measures to support the economy through reprioritised spending and structural reforms to improve the business environment and infrastructure delivery maturity (World Bank Group 2019, 107). As a result, the growth rate in the rest of the region was steady, although performance varied for each country.

Figure 1.1 Mobile Account owners in Global South.

**Mobile money has boosted account ownership in parts of Sub-Saharan Africa**  
Adults with an account (%)



Source: Global Findex database.

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Source: (Klapper *et al.*, 2017).

From the figure presented, out of the SADC countries, South Africa have the highest range of financial inclusion services, and other countries have a long way of achieving financial inclusion. In Africa, policy emphasis has shifted from economic development towards developing inclusive financial systems in most economies (Evans, 2017, 2). Following the G-20 (an international forum of different government and central banks governors in 19 countries and the European Union) implementing financial inclusion, most African countries, including Lesotho, Nigeria, and Rwanda,

have set up policies to achieve universal access 2020. Aside from the policy interest, financial inclusion is believed to be a fundamental key in eradicating poverty, especially the feminization of poverty in the continent. The motivations for this study access the growth momentum in the African economy based on an increase in the economic activities and corporate profitability faced by each economy (Evans, 2017, 2).

Empirical studies have stated the improvement in financial inclusion in different economies across the African continent. Ouma et al. (2017, 32) surveyed four countries: Kenya, Zambia, Uganda, and Malawi. The result showed that the financial landscape has increased in these countries despite the persistent challenges in each economy (Ouma et al., 2017, 32). To Allen et al. (2016), population density is more important for financial development and financial inclusion than elsewhere, while Dupas and Robinson (2013, 163-171) found the correlation between financial inclusion and investment. From the findings of his study, Jabir (2015, 18) denotes that financial inclusion significantly reduces poverty in the Global South in Africa. The results pose significant policy directions because each economy should make formal financial services easily accessible to the disadvantaged people in society. He further proposed that further analysis is needed on macro-economic factors that constraints individual's financial inclusion and poverty reduction in the formal economic systems in Southern Africa (Jabir 2015, 18). The chapter examines gender financial inclusion as a key to resilience and post-disaster recovery amongst Southern Africa countries. The chapter specifically focuses on identifying the benefits and challenges affecting gender financial inclusion.

Furthermore, the study analyses the existing government measures and the effectiveness of shared approaches on financial inclusion amongst the countries. The derived result yields significant insight into the southern economies trajectories in gender politics and the importance of further research in gender economic policies affecting the economies. Relevant data are distilled from journals, articles, reports on financial inclusion and online resources. The sessions discussed the theory of social exclusion and financial sector development in Africa. The second session discusses the concept of digital finance and financial Inclusion, Gender and Financial Inclusion in Africa and Women's Oppression and Resilience. The third session narrates the concepts of financial inclusion in SADC Economies and financial inclusion as a key for gender resilience and post-disaster recovery.

### **Statement of the Problem**

According to Equal Footing (2014), "the 'unrecorded economy' an adage used to represent the gender state in Africa, continues to be undervalued and underappreciated. Insufficient reliable and credible data" on women led to women's socio-economic and political participation in Africa remaining obsolete and undocumented. As a result, women's role is sometimes disregarded and seems insignificant to the patriarchal role in society. There has been ample evidence of how strategic financial inclusion fosters gender equity, reduces poverty, limits disaster risks, and facilitates resilience, enhancing women's empowerment. The SADC economies have tried to enabled women and girls to have access to finance and gender equality within their constitutional rights, yet the effort seems futile.

There is consensus that financial inclusion for women is of global concern (Klapper et al., 2017). However, especially in Africa, gender financial exclusion exceeds 70 per cent as women's accessibility to finance, and financial services are unequal to their male counterpart. Therefore, there is a need to facilitate programs that

advance women's economic opportunities and rights which enables the women to fully participate in the country's socio-economic issues and developmental schemes.

The Findex report further presented the countries with a higher gender gap in bank account ownership, which happens to be included amongst the SADC countries; they include Botswana, Swaziland, South Africa and Mauritius. However, South Africa is the only country with a positive gender gap since the statistics highlighted women more financially than men. "This may be mainly driven by women receiving social grants through SASSA card" (Klapper *et al.*, 2017).

Debates on the financial exclusion in Africa are centred more on the women, youths and the disadvantaged living in rural areas of the African economy (Abrahams, 2017; Klapper *et al.*, 2017). From findings, the general constraints are the fact that most financial institutions find the establishment of local branches in the low-density area as economically non-viable (European Investment Bank [EIB], 2017, 3). Furthermore, more people who have bank accounts do not attest that they have access to financial services, savings account, and other financial products. With only 34% of adult formally banked in Africa, there is considerable potential for the development of financial services in Africa to address the needs of the unbanked (Klapper *et al.*, 2017).

### **Theory of Social Exclusion in Africa**

Every nation has the moral imperative to promote inclusive growth and development in its society. However, certain groups such as migrants, indigenous population, minorities of each economy are most often excluded from their practices. Denial of such practices on stereotypes, stigmas, superstitions, race, gender, religion, sexual orientation, and disability status as denial of these practices can strip them of their dignity and possibility of living a peaceful and sustainable life (WorldBank, 2019). This definition was supported by the United Nations (2018). They stated that social inclusion is necessary for each economy to ensure that the basic needs of the vulnerable (children, women, older persons) and disadvantaged groups such as the indigenous population like people with disabilities are addressed.

The social inclusion theory states that all countries must implement strategies to socially integrate all groups in society, and no one should be excluded (WorldBank, 2019). Social exclusion reflects the dynamic process of being fully or partially shut out from social, economic, political, and social citizenship rights (Cardo 2014, 3). Another definition is the non-realization or denial of people's socio-political and civil rights in a country (Cardo 2014, 3). Denial of these fundamental rights can reinforce decisions that promote poverty and exclusion amongst social and political institutions, especially women. Therefore, the reality and importance of social inclusion led the United Nation in 2015 to implement the mandate of "leaving no one behind" to promote inclusive growth and implement achievable Sustainable Development Goals (SDGs) in all nations (Gupta, Vegelin & Clvegelin, 2016; WorldBank, 2019).

For any country to build and facilitate social inclusion; the countries need to; (a) engage local and global experts on social and policy issues, (b) implement strategies that can be assessed, monitored, evaluated to produce valuable results, (c) there is need to collect accurate data on the specific population of the disadvantaged groups, (d) analysis should be conducted on the capital, social impact and level of inequality amongst the population both in the rural and urban and provide specific intervention plans for the disabled in the society (U.N., 2018). Politically, social inclusion is a viable alternative to social exclusion as it fosters diversity and liberalism by enabling equity and providing exemplary national values for a

sustainable society (Cardo 2014, 7). Social inclusion allows the convergence of citizenship and human rights discourses in all countries. It makes provision to build a strong case for the excluded, vulnerable and disadvantaged regarding decisions affecting their individual lives.

The state of social inclusion in Southern Africa has been an issue of debate. It entails implementing a socially cohesive society in need of a socio-economic and political transformation with an essential precondition (Saloojee & Saloojee, 2011, 11). The SADC community has tried to achieve this by implementing national policies that eliminate poverty and reduce inequality in each country, promoting economic growth and sustainable development (Cardo 2014, 14).

### **Financial Sector Development in Africa**

The African financial sector has witnessed several developments in the past one and a half-decade. The product identified within the continent has been segregated and only beneficial to the selected few in Africa. Despite Africa, they witnessed robust economic growth in the past decade and labelled as part of the ten fastest-growing countries in the world. The development in the continent is only beneficial to the selected few in Africa (Tita & Aziakpono, 2017, 2). The major initiative was to establish mobile and digital technologies that have significantly boosted the African economy over the years (EIB, 2017, 1).

Financial Technology (FINTEC) and Telecommunications industries have filled the gap left by traditional banks by providing modern mobile and digital money services to fulfill the European Investment Bank (EIB) mission on financial development in Africa. Another goal was to provide financial services that will aid women entrepreneurs and small-medium enterprises. European Investment Bank (2017, 1) strategized to facilitate and implement a balanced digital financial inclusion in Africa to enforce a comprehensive and coherent multi-stakeholder approach of partners' joint efforts in digital finance. To achieve this, policy objectives, financial education with local and global collaboration must be articulated to promote interoperable, adaptive, and scalable solutions.

### **Digital Finance and Financial Inclusion**

According to the Global Findex report in 2017, digital technology is an integral part of increasing financial inclusion (Klapper *et al.*, 2017). It is a concept that has attracted the attention of policymakers and academics as different issues have been raised, which can make digital finance work better for both the government and its citizens (Ozili, 2018). However, for most scholars, there is still a persistent gap in each economy on the availability of finance, its accessibility and its usage (World Bank, 2016; Klapper *et al.*, 2017; Ozili, 2018). The definition of digital finance is regarded as the financial services provided through the use of mobile phones, computers, the internet and cards linked with a specialized digital payment system (Ozili, 2018). Its goal is to reduce poverty and achieve financial inclusion objectives while amongst its many benefits of facilitating and expanding financial services, providing affordable and secure banking services, boosting the country's gross domestic product (GDP), and the utmost use is to provide an innovative long-term effect on digital finance for effective banking performance.

Despite these benefits, it is of utmost importance for all African states to ensure that their citizens benefit from digital financial services, requiring a well-developed payment system. Especially the marginalized and disadvantaged groups, such as women, children, disabled, poor, to mention a few, are expected to have equal

access to digital financial services even if illiterate and cannot access numeracy skills (Klapper *et al.*, 2017; Ozili, 2018). This is an issue of contention as most developing economies are still battling to deliver effective digital services to their citizens.

According to the International Finance Corporation's report (IFC, 2018), digital finance users in Africa more than half of its 700 million population continent. The report showed that 43 per cent of the African population at the close of 2018 are now financially included. In addition, countries such as Kenya, Tanzania and Congo have doubled on financial inclusiveness since 2012 due to the government policies (IFC, 2018). All these statistics reflect the government's efforts to implement strategic policies addressing digital finance. However, critics such as Alliance for Financial Inclusion (AFI) (2018), FinMark Trust (2018) and Ozili (2018) criticized the notion of digital finance as a means of contributing towards greater financial inclusion. Instead, they argued that digital finance leads to financial data inclusion, which means it focuses more on merging people's biometrics into their bank accounts which improve financial transactions as individual information is verified and linked to the specific user (AFI, 2018; FinMark Trust, 2018; Ozili 2018). This means that digital finance is different from financial inclusion itself as financial inclusion aims to provide access to disadvantaged people who do not have financial services. Most importantly, gender financial inclusion has been overlooked in digital finance leading to a persistent gender gap in financial inclusion.

### **Gender and Financial Inclusion in Africa**

The financial gap amongst women persists globally despite the global efforts by each economy to abate this challenge (Klapper *et al.*, 2017; Cornish, 2018; Ngwenya, Pelser & Chivaura, 2018; Sahay & Cihak, 2018; Taejun, 2018). Women continue to be a victim of gender inequality regarding access and usage of financial services, especially in developing regions like Bangladesh, Pakistan, turkey and Sub-Sahara African countries (Klapper *et al.*, 2017; Cornish, 2018). The world economic forum in the year 2006 introduced the concept of the Global gender gap index in all sectors emphasizing the need to integrate women as users and benefactors of financial services as this boost the macro-economic development of any country.

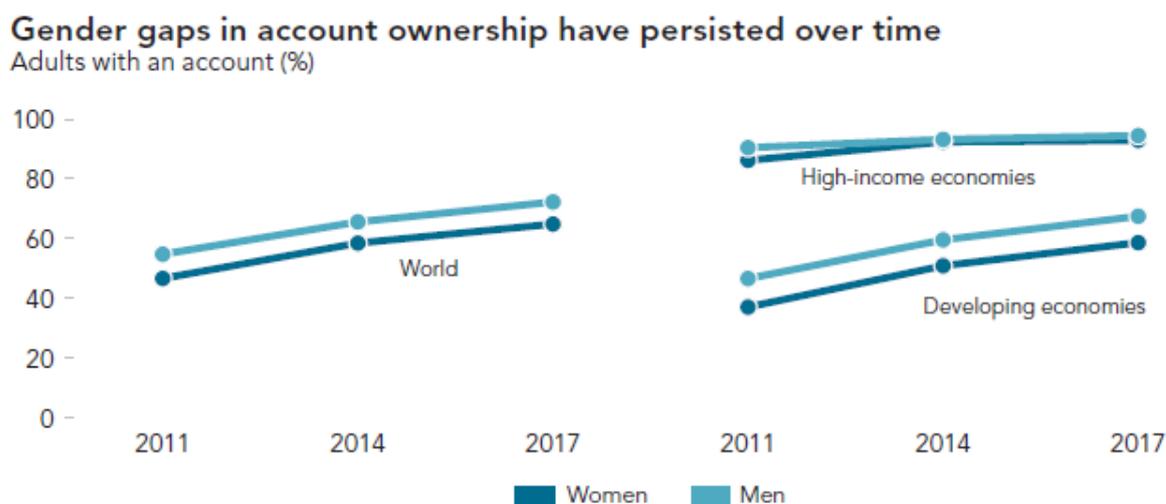
This study highlights the gap of accessing the social-political factors affecting the financial gap for women in Africa, as little literature has focused on this. The chapter agrees with Sahay & Cihak (2018: 6) that women's access and usage of financial services promote socio-economic development and personal development. It is a critical tool for poverty alleviation (Arun & Kamath, 2015; Ouma, Odongo & Were, 2017). Saviano, Nenci and Caputo (2017, 204) maintained that certain factors are considered when addressing gender financial inclusion. According to Saviano *et al.* (2017, 206), innovative strategies for accessing and learning financial services must be made available for women to establish an effective financial inclusion.

Furthermore, Saviano *et al.* (2017, 206) maintained that understanding women's specific needs and providing financial services promote gender inclusiveness on financial products. Literature attests that women understand the aversion on the impact of taking risks and exhibits little knowledge on engaging in financial services (Mzobe, 2015; Holloway, Niazi and Rouse, 2017; Johnstone-Louis, 2017; Grohmann, Klühs and Menkhoff, 2018). This knowledge attribute enables women to display prudent financial behaviour that prevents them from investment losses and be victims of financial fraud. However, this behaviour has constrained women from participating in profit opportunities within the financial marketplace

(Saviano et al., 2017, 209). Most women refrain from opening accounts in a formal setting but will instead engage in transacting money in an informal setting.

On its part, the 2017 Global Findex database (Klapper *et al.*, 2017, 23) gave a report stating that the growth for account ownership has and is still not benefitting all groups equally since the 2011 Findex report. This is so as the percentage rate of the gender gap from 2011 -2017 remain unchanged globally (Klapper *et al.*, 2017, 23). From a global perspective, the gender gap is approximately seven per cent, with men owning accounts of 72 per cent and women holding funds of 69 per cent.

Figure 1.2 Gender gap in Financial Inclusion Globally



Source: Global Findex database.

Source: (Klapper *et al.*, 2017).

Figure 1.2 presents the gender gaps for economies that have a higher percentage of financial inclusion. At this joint, the researcher would like to highlight that although SADC countries are part of the economies with a high rate of gender equality in terms of bank ownership, savings and long-term investment. However, most of them, especially South Africa, are amongst the least, which is a call for concern on the massive gap in savings and investment indicators.

### Women's Oppression and Resilience

According to Saviano, Nenci & Caputo (2017, 210), certain constraints affects women's financial gap. Different literature sources provide other concepts of constraints on the gender gap in the financial sector. For Hussain *et al.* (2017) and Rajeev and Vani (2017), the constraints causing the gender gap is poverty, while Zins and Weill (2016b) and Sahay and Cihak (2018) argued that it is the policy challenges affecting women's financial gap. On their part, Fomum, Anthanasius & Aziakpono (2017), Cornish (2018), and Deléchat *et al.* (2018) proposed that gender inequality, historical exclusion are the constraints affecting women's financial gap. And Ouma et al. (2017) and Steinert *et al.* (2018) proposed inadequate savings and long term investments as constraints affecting women financial gap. Cornish (2018) argued that the constraints preventing gender financial inclusion are socio-political barriers aside from economic obstacles, which prevents women's access in economies where gender equity is the lesser percentage of financial services. However, Voorhies, the head of

the Global Growth & Opportunity Division at the Bill & Melinda Gates Foundation (See Cornish 2018), stated that the current report has identified strategies that have helped bridge the gender gap in certain economies. These strategies include public sector engagement; exiting cash transfer programs and government-to-person payments.

These strategies have transitioned mere family or general accounts into gender-disaggregated accounts and have been achieved in countries like Mongolia and Sri Lanka (Cornish, 2018). Out of these strategies, Voorhies (see Cornish 2018) stated that the commission intends to use public-sector engagement strategies for future purposes. It serves as the critical solution for the financial gap for women. This will be beneficial, especially in countries where women need a man's permission before accessing financial services.

On his part, Savis (2015) argued that women worldwide had suffered great oppression within the household and workplace, which has led to vulnerability amongst the female gender. It can be defined as the increase of gender discrimination as a determinant of poverty that differentiates the concept of feminization as a significant cause of poverty (Medeiros & Costa 2008, 116). To Medeiros & Costa (2008, 116), feminization of poverty is categorized in two terms; The first is that it entails the increase in the difference between poverty levels amongst female gender and male gender. Secondly, it increases the contrast between poverty levels amongst female-headed households versus poverty amongst male and couple headed families. As a result, both the male and female gender experienced poverty, and poverty's feminization is not only a feminine context. Restricted to the female gender and the male gender and couple households (Ojo, 2020). Brady and Kall (2008, 996) supported this notion by arguing that men and women are victims of poverty due to economic growth, unemployment, social security transfers, public health spending, and labour force participation, which determines the factor influencing poverty level in the society.

For Savis (2015), there are two leading causes of feminization of poverty: women spend more hours working for unpaid jobs rather than having quality time with paid work. The second part is that women experience visible gender wage gaps in their work worldwide (Savis 2015). And the solution to these challenges involves implementing policies to raise, promote, and enforce strategies that will close the pay gap on priority status. For Brady and Kall (2008: 996), the feminization of poverty is universal and a particular social problem that different economies must address with caution.

### **Financial Inclusion in SADC Economies**

The Southern African Development Community (SADC) was established as a coordinating development conference in 1980 and community development in 1992. SADC is expected to be an international organization to promote sustainable, equitable and socio-economic development achieving productive systems. The organization was also expected to produce good governance that yields durable peace and security in its fifteen (15) member states. The member states in SADC include.

- a) Angola
- b) Botswana
- c) Comoros
- d) Democratic Republic of Congo (DRC)
- e) Swaziland (Eswatini)
- f) Lesotho

- g) Madagascar
  - h) Malawi
  - i) Mauritius
  - j) Mozambique
  - k) Namibia
  - l) Seychelles
  - m) South Africa
  - n) United Republic of Tanzania
  - o) Zambia
  - p) Zimbabwe
- (SADC, 2018).

Financial Inclusion in SADC economies is more prominent than in other parts of Africa. Altogether the 15 member states have a Gross Development Program of USD 721.3 billion with only a representation of 23 per cent women in parliament, in line with the 2018 report (SADC, 2018). The report reflects the socio-political gender state in SADC economies. However, the results vary as some members have a higher financial inclusion rate than others, as present in the figure below. In Lesotho, Mauritius, Namibia, and South Africa, women and men are within the same margin on access to financial services. In contrast, the financial access is even higher in Lesotho, South Africa, and Namibia.

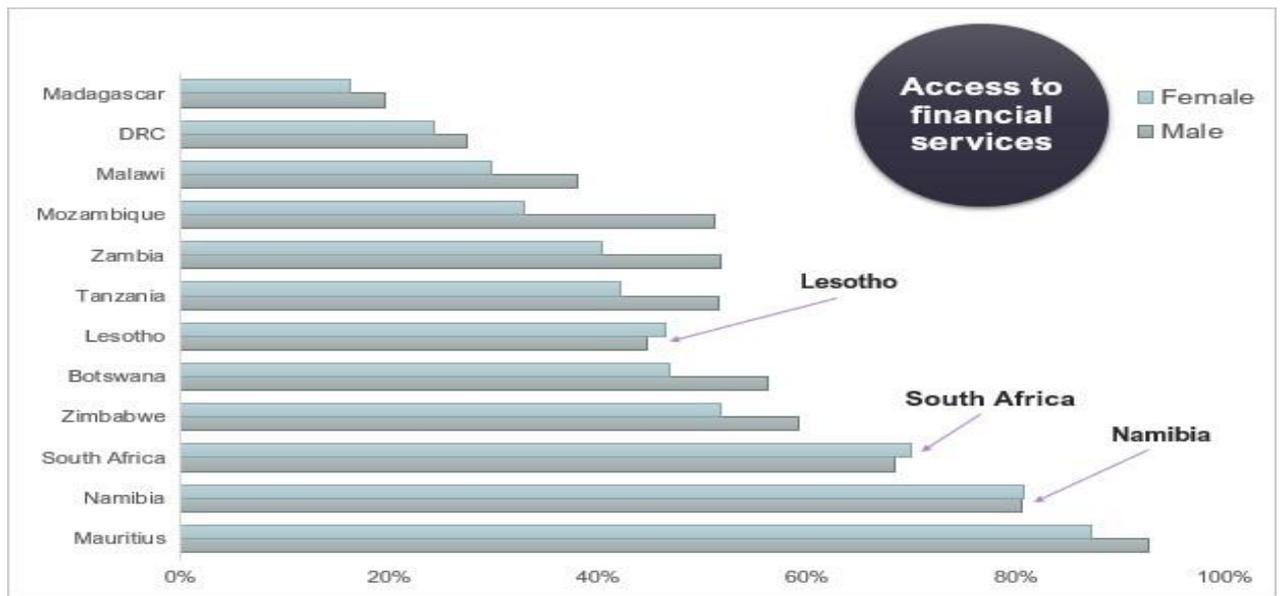
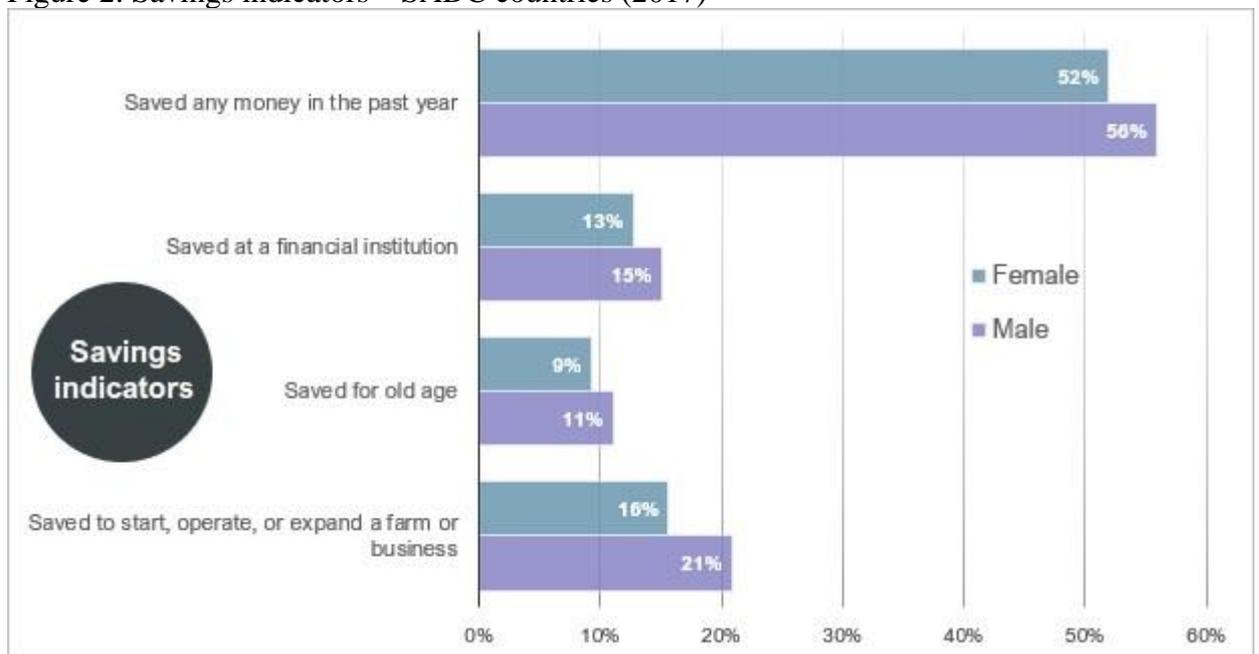


Figure 1.2 Gender Gap on Financial Inclusion Indicators in SADC.

Source: (Klapper *et al.*, 2017; Hope, 2018).

The report presented in the global index 2017 reflects a considerable gender gap in other financial inclusion indicators in SADC countries. For example, there is a significant gap between men and women in the economic hand of savings and credit ownership (Hope, 2018).

Figure 2: Savings indicators – SADC countries (2017)



Source: (Klapper *et al.*, 2017; Hope, 2018).

According to Tizora and Motsomi (2018), the significant challenges constraining gender financial inclusion in SADC regions are financial literacy, indecision or lack of trust in formal financial services, long distancing on financial accessibility. In terms of financial literacy, most women are illiterate and do not

understand or have adequate knowledge of the financial provision given by the government and financial institutions. In addition, most women live in rural settlements where access to formal financial institutions is non-accessible, and it takes a long distance to access financial services. As a result, most SADC women rely more on the informal economic sector than the formal financial sector. The stokvels and cooperatives group have been a financial landmark for African women over the decades. The informal financial groups have been a source of support systems for most women, which is more effective and accessible for most women in rural and urban areas than the formal institutions that charge rebates on every transaction made in the banking sector.

### **Financial Inclusion: A key for Gender Resilience and Post Disaster Recovery in Southern Africa**

Financial literacy and gender financial inclusion are essential tools in alleviating the feminization of poverty and a key for resilience and post-disaster recovery. It assigns authority to women to exercise power to achieve an end (Gangadhar & Malyadri 2015, 1). Fanta and Mutsonziwa (2016, 1) argued that gender affects financial inclusion, and women are financially biased in every sector of the economy, including households. According to a world survey conducted by the United Nations in December 2014, empowering women has improved economies and achieved environmental sustainability worldwide (Aluko & Okuwa 2018, 441). The African Union (A.U.) in 2015 proposed women empowerment and development towards Africa's Agenda for 2063 (Department of Women 2015, 2). During the summit held in South Africa, all African heads of States made commitments to implement strategies to eliminate social, political, and economic challenges restricting women and girls by 2020. The responsibilities made at the African Union Summit include.

- a) The state must promote women's role and benefits in agriculture or the agro-business value chain.
  - b) There should be equal access to women's health.
  - c) Establish women's socio-economic and political empowerment.
  - d) Promote women's agenda on peace and security.
  - e) Enforce women's participation in governance.
  - f) Facilitate women's and girls' access to education, science and technology.
  - g) To assist women in having mutual accountability to actions and results.
- (Department of Women 2015, 2)

All these strategies enable resilience and prevent post-disaster recovery in African communities. However, the debates on financial empowerment for women have become a continuous debate. According to Kabeer and Santos (2017, 6), women's financial empowerment enables disadvantaged women to make strategic life decisions. Women are empowered through the financial empowerment of these strategic life decisions. The decisions affect women economic activities, resources and household expenditure. Financial empowerment also increases women's self-esteem and capacity training within the social context (Gangadhar & Malyadri 2015, 1). On his part, Banuri (2007, 7) stated that women's financial empowerment stipulates the ability of women to reduce their socio-economic vulnerability and dependency on male figures in each household. Women can now participate in household decisions, economic activities and resources without being subordinated or excluded in society. Furthermore, Aluko & Okuwa (2018, 441) argued that

empowering women financially relates to equipping them with skills that can increase financial status and enable them a good standard life of living.

All the arguments stipulated the need to empower women for the growth and development of the economy. OECD (2012, 1) argued that women's economic empowerment is needed to sustain society. If sound policies, a holistic approach, long-term commitment is implemented to address the gender-specific perspectives, pro-poor growth and effective economic empowerment will be achieved (OECD 2012, 1). In addition, women economic empowerment will increase women's rights to economic resources and opportunities such as having the proper employment and access to the right financial services (OECD 2012, 4 and Aluko & Okuwa 2018, 441). Hope (2018), on her part, argued that 'trade' is an essential contributor to financial inclusion and, if embedded as a critical context in gender empowerment, will contribute immensely towards economic growth.

To bolster the importance of women economic empowerment, the former United States President, Bill Clinton stated in his speech he gave in September 2009 that:

Women perform 66 per cent of world's work and produce 50 per cent of the food, yet they only earn 10 per cent of the income of their workload and only owns one per cent of the property (Bill Clinton 2009).

He further reiterated that empowering women is a significant factor in achieving a sustainable world for each economy achieved (OECD 2012, 5). Therefore, women's empowerment does not only contributes to women's self-development and status in society, but it is an issue of social justice (Verdier-Chouchane 2016, 46). The statement was supported by Mr Senzeni Zokwana, the Minister of Agriculture, forestry and fisheries in South Africa (Onditi and Odera 2017, 149), who stated that:

...empowering women financially is indispensable not only to the wellbeing of each individual, families and community but also for the productivity of the entire economy.

The factors restricting women financial inclusion include poor state weaknesses, women exclusion on all structural levels, and other challenges hindering women from enjoying their rights to access opportunities, decision-making, and essential services (Onditi and Odera 2017, 149). The World Bank in 2012 argued that bridging the gap of economic opportunities impacts society development through; (i) productivity gains, (ii) international gains and (iii) positive results in the institutional and policy sectors (Verdier-Chouchane 2016, 46). The South African government has designed and implemented legal policies to achieve women's empowerment regarding financial inclusion, which has been effective. However, there is a call for more preference on gender financial inclusion to foster peace, solidarity, and social justices in all SADC communities.

### **Conclusion and Recommendations**

SADC communities still have a long way to achieve sustainable development goal five on gender equality, especially financial security, and economic rights. Each economy needs to intensify financial literacy and promote achievable strategies that

can liberate women financially and include them as active economic participant. The importance of gender financial inclusion is essential for African women, especially in the SADC region. It fosters inclusive development and constrains post-disaster recovery. However, certain constraints affect women's financial gap. Conditions such as poverty, policy challenges, socio-economic barriers, political barriers are all contributing factors that affect women's access in economies where gender equity is the lesser percentage in terms of financial services. However, strategies such as public sector engagement, exiting cash transfer programs, and government-to-person payments have bridged the gender gap and promoted resiliency. All these strategies enable resilience and prevent post-disaster recovery in African communities.

Gender equality fosters socio-economic development, which translates to women's financial empowerment. In addition, economic empowerment promotes active participation for disadvantaged African women in socio-economic and political structures, including the social and cultural aspects.

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## Chapter 20

### **Analysis of Mechanisms Used to Handle Conflicts in Public Primary Schools in Geita District, Tanzania**

By

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#### **Abstract**

The study was conducted on analysis of the mechanisms used to handle conflicts in primary schools in Geita District. The study aimed at analyzing the nature of conflicts at school environment, evaluating the experiences of school stakeholders in managing conflicts and to explore the experiences of school leaders in managing conflicts. Simple random and purposive sampling techniques were used to obtain the sample. Data were collected using interview guides and were analyzed by using descriptive method (content analysis). Results revealed that, most conflict experiences in primary schools were between teachers and pupils, Staffs and administration at school and between staffs and employer. The factors that were cited to be the causative of conflicts among these groups were; laziness in doing class exercises and stealing of school personal properties. Also laziness in preparing of lesson plans, attending late at working station, lack of transparency, favoritism, allocation of the administrative tasks and improper communication. Most mechanism that were used to resolve the conflicts by school stakeholders were, class meeting and School Baraza, teachers' meetings, effective communication, use of power, ignoring and keeping silence. In addition, the study revealed that, most of the stakeholders have no any training related to conflict resolution though are the main actor in conflict resolution. These indicates that, were participating in conflict resolution through their experiences and understandings only. Further mores the study revealed that; head teachers only and school board chairperson have participated in formal training for conflict resolution this saved as an advantageous in their leadership experiences. Therefore, it is recommended that Seminars, training and workshops should be provided for improving rapport between heads of schools and their staff and building good working relations between them and to acquire leadership skills and conflict resolution strategies so as to improve their managerial effectiveness.

**Keywords:** Conflicts mechanisms, Conflict resolution, Tanzania, School managements, public primary schools

# **Analysis of Mechanisms Used to Handle Conflicts in Public Primary Schools in Geita District, Tanzania**

By

Newton M. Kyando and Sarah M. Ulimboka

## **1.0 Introduction**

Conflict has turned into a matter of concern universally as it has effects on national strength and development. (United Nations High Commissioner for Refugees (UNHCR, 2006). Awosusi's (2005) study identified conflict in Nigerian and African educational institutions in the form of staff-management conflict, student-management conflict, staff-government conflict, student-student conflict and staff-staff conflict through the findings revealed that conflicts were there to all categories.

Conflict is a common occurrence in organization. It is an inevitable part of organizational life because the goals of different stakeholders are often incompatible. The level of conflict present in the school has important implications for the schools' overall performance. When there is little or no conflict, organizational performance suffers. Lack of conflict in an organization often signals that managers emphasize conformity at the expense of new ideas, are resistant to change and strive for agreement rather than effective decision making (Jones, 2000). When conflict increases from a low level to a very high level it escalates, organizational performance suffers. When an organization has a dysfunctionally high level of conflict, administrators are likely to waste organisational resources to achieve their own ends, to be more concerned about winning political battles than about doing what will lead to a competitive advantage for their organization, and to try to get even with their opponents rather than make good decisions.

When an organization has an optimum level of conflict, organizational effectiveness is likely to increase. Administrators are likely to be open to encourage a variety of perspective, look for ways to improve organizational functioning effectiveness and view debates and disagreements as a necessary ingredient for effective decision making (Mullins, 2010). Conflicts at present continue to be a factor in academic life. Schools frequently appear to be centers of tension on occasion. The term conflict is viewed in a variety of ways because of its confusion with those conditions which lead to situations of different conflict (Okotoni, 2002) According to Wynn and Guditus (1984), change in schools may cause conflict amongst teachers if the process is not adequately planned, implemented and evaluated.

Communication is one of the major causes of conflict. People communicate differently. Sometimes they use negative body language which may cause conflict amongst people in different institutions, including school. The possible sources of conflict are poor communication, competition for common but scarce resources, incompatible goals and the like. Fisher (1997) notes, "...both individuals and groups have undeniable needs for identity, dignity, security, equity, participation in decisions that affect them. Frustration of these basic needs.... becomes a source of social conflict". However, conflicts are neither constructive nor disruptive but the ways these are handled make them either positive or negative. Schools, like other human organizations, are inclined to one or other type of conflict. Various conflict management strategies are adopted for handling conflict; the most important among these are, mediation, negotiation, avoidance, collaborating etc (Ghafer, 2010).

International Labor Organization states that globally, teachers are a key determining factor in the quality of any education system. Some teachers work under

appropriate and effective conditions. However, the conditions under which many teachers have to work, particularly in developing countries where the situation of child labour is critical, are often appalling. For decades, teachers have been teaching children despite the lack of physical infrastructure, learning materials and other essential support services. While education systems in most countries are usually among the largest administrative sectors of government, the ultimate success or failure of the system to deliver services to millions of children depends upon the abilities and attitudes of teachers. Teachers have been expected to fulfill national educational goals and objectives despite inadequate or even inappropriate conditions for learning and teaching. In many countries, teachers are often forced to take on additional jobs in order to supplement their income out of economic necessity. These situations stretch the limits of teachers' capacities and require a deep sense of commitment, resourcefulness and tremendous amounts of energy from them to meet expectations.

## **2.0 Statement of the Problem**

Universally it is believed that, quality education is addressed on the quality and the effectiveness of the teachers, availability of teaching and learning resources, infrastructure and the ability of the pupils or students to grasp and reproduce the concepts. A little, care is paid to what happened in the school environment/workplace environment, in the classroom when teaching is in progress and the kind of relationships that flanked by teachers and pupils, between teachers, between pupils, between teachers and their school heads, teachers and their employers and even between the schools and the communities in which the schools exists. Stress in the workplace can have many origins or come from one single event. It can impact on both employees and employers alike. It is generally believed that some stress is okay (sometimes referred to as "challenge" or "positive stress") but when stress occurs in amounts that you cannot handle, both mental and physical changes may occur.

However, the teachers service commission act no.25 of 2015 (URT, 2015) is addressing well on how the conflicts can be dealt between teachers. The evidence from TSC & TTU reports shows that, teachers' service commission (TSC) and Tanzania teachers union (TTU) receives various conflicts among primary school teachers in Geita District. Since conflicts are happening in day to day in primary schools, Therefore, this is intensifying the need of carrying out a research study on the mechanisms used to handle conflicts in primary schools basing on identifying the nature of conflicts existing between teachers and the workplace environment and its management, experiences of schools' stakeholders in managing conflicts and experiences of school leaders in managing conflicts at school level.

The purpose of this article is to assess the mechanisms used to handle conflicts in primary schools in Geita District. This purpose is further broken into three thematic questions as follows: -

- i. What are the types and nature of conflicts at school environment?
- ii. What are experiences of school stakeholders within and around the community in managing conflicts at primary school environment?
- iii. What are the experiences do administrative school leaders have in managing conflicts and conflict resolution at school level?

## **3.0 Theoretical and Empirical Reviews**

### **3.1 Theoretical Reviews**

#### **3.1.1 Social Conflict Theory**

Karl Marx is the one of the proponent of the social conflict theory and the greatest materialist and dialectic interpreter of society was born on May 5, 1818 in Treves near Coblenz in Rhineland province of Germany. Conventionally, Marx's thought derived social conflict theory. By definition conflict may be defined as a struggle or contest between people with opposing needs, ideas, beliefs, values, or goals. Conflict on teams is inevitable; however, the results of conflict are not predetermined. Conflict might escalate and lead to nonproductive results, or conflict can be beneficially resolved and lead to quality final products. Marxist frameworks argue that today conflict is based on authority relations, not on property relations. There is conflict between this who exercise authority and those who lack authority as the one major variable which divides the upper from the lower class (Sonia & Sadia, 2016).

#### **3.1.2 Justification of Social Conflict Theory by Karl Marx**

The Social- conflict is a framework for building theory that sees society as an arena of inequality that generates conflict and change. This approach highlights inequality. The premier conflict theorist and Sociologists like Karl Marx, used the social-conflict theory looking at ongoing conflict between dominant and disadvantaged categories of people - the rich in relation to the poor, white people in relation to people of colour and men in relation to women, Typically the people on strive to protect their privileges, while the disadvantaged try to gain more for themselves. A conflict analysis of our educational system shows how schooling reproduces class inequality and caste inequality in every new generation. From a structural-functional point of view, tracking "benefits everyone by providing schooling that fits pupils" abilities. But conflict analysis counters that tracking often has less to do with talent than with social background. In this way, young people from privileged families receive the best schooling and later pursue higher income careers. The children of poor families are not prepared for college and like their parents before them, typically enter low paying jobs.

#### **3.1.3 Sources of Social Conflicts**

According to Karl Marx conflicts may occur in a society as the result of class and identity differentials, economic competition, differences in ideas, values, ideology and religion, Scarce resources (resources in general) that form the necessities of life, competition for example political, business, entertainment, and sports, diplomacy or intellectual prowess. Many sociologists use the social conflict program not just to understand society but to bring about societal change that would reduce inequality.

#### **3.1.4 Criticism of Social Conflict Theory**

Conflict theory argues that conflicts are physically viable and usually leads to violence/conflicts that lead to revolution. However, not all conflicts are physically viable and not all conflicts lead to violence/revolutions. Conflict theory reduces social reality into two pairs of opposites bourgeois and proletariat, the elite and the masses, the rulers and the ruled. Nevertheless, reality is quite different. Social conflicts manifest themselves in a variety of ways and numerous interest groups and any attempt to reduce them to a common principle or a dualistic conception is inevitably hygienic. Equally conflict theorists assume that human society is in a continuous and

unending process of change. This assumption however is the negation of an historical reality exemplified for thousands of years by many traditional societies and tribal states which have changed very little. On the other hand, substantial changes have occurred without significant conflicts, as in the case of many new nations - states where silent revolutions have been initiated and legitimized by enlightened political elites. Marx paid much attention to the role of property to the economy (capitalism) while neglecting socialism. Thus social conflict does not always cut across entire society. In addition, property relations do not deplete manifestations of power relations in society.

In the context of this study, socio-conflict theory was the roadmap that helped to trap out the reality and existence of conflicts, sources and the mechanisms that has been used in making resolution in primary schools.

## **3.2. Empirical Literature Review**

### **3.2.1. The nature of Conflicts in an Organization**

Conflict is a fact of life in organizations. Conflict is not something that is a concrete product but it lies in the minds of the people who are parties to it. It does become tangible when it exhibits itself in arguing, brooding, or fighting. The problem lies with the inability for people to manage and resolve it effectively. If managed effectively, conflict can be constructive. If not, conflict can be a destructive force in people and organizations (De Janasz, *et al*, 2006). Different literature points out various natures of conflicts that occur within organization. These conflicts occur at the work place when two or more people disagree over issues of organizational substance and or experience some emotional opposition with one another.

The frequently natures of conflicts that existing in schools environment and that school heads need to know and learn how to manage them effectively (Mosha, 1994) includes the following; Intrapersonal conflicts a conflict which occurs as a result of internal pressure, this may arise when an individual is required to perform the task which is incompatible with his/her goals or value, Interpersonal conflicts, a conflict that occurs between two or more organization members at the same or different level it covers priorities and ways of doing things, Intra-group conflicts which occurs among members of a group they are associated with differences in values and orientations, Inter-group conflicts; occurs between two or more groups within an organization, caused by improper assignment of responsibility, limited resources or maintenance of department, Intra –organizational, this occurs within organization, due to incompatibility among various groups within an organization.

Individuals are likely to form alliances to deal with one another in ways planned to attract support for their concern from other group members, Individual and institutional; occur between individual and organization. They are the result of incompatibilities between the expectation which are consistence with the goals of institution and the needs of individual within it (Mosha, 1994). However, Conflicts encompass several ingredients and occurs at several levels and appears in different forms and it has been observed that, most of the schools' conflicts is between teachers and heads of schools, teachers and pupils, teacher to teachers or teachers and parents occurred often (Hakielimu, 2007: Mosha, 2006: Champoux, 2003: Rahim, 2001). Like birth and death, conflict is a constant fact of life. It's also a fact of the workplace, especially when you deal or interact with people. While disagreements and differing opinions are normal, even healthy, in work relationships, conflicts can cause your company productivity, money and employee satisfaction.

Fifty-three percent of workers say they lost time at work worrying about a past or future confrontation with a co-worker (Bell, 2003). Nevertheless, Conflict is inevitable and often good and the conflict isn't the problem, it is when conflict is poorly managed that is the problem (Ghaffar, 2001). Meanwhile Chadwick (1995) identifies five factors associated with conflict which are, change, power, scarcity, diversity and civility. Mullins (2010) also identified factors such as individual differences, limited resources, departmentalization and specializations schools, inequitable treatment of staff, and violation of territory, environmental changes and communication. Studies have shown that the drive for the acquisition of power often causes conflict in schools. However, Horde and Sommers (2008) further explains that, power differentials often cause conflict in schools because those in power may push for more attention and struggle for higher social positions.

According to Chadwick (1995), identified issues like resources, such as money, staffing and time may also cause conflict in school contexts. Diversity in the school community may result in conflict. Individual differences usually cause conflict among teachers because they do not accept their differences in respect of socioeconomic background, attitudes, personalities, values and expectations (Mullins, 2010). Differences in cultural practices may also cause conflict among teachers. A lack of civility often causes conflict among staff members' in schools. If individuals are not treated with respect, equality and dignity, conflict may arise through a lack of participation by all staff members in decision making (Hord & Sommers, 2008).

### **3.2.2 Management of Conflicts in Schools**

Conflict is a basic social process; there is no plausible way of eliminating all conflict from an organization (Woodland, 1990). In managing conflict, a key element is feedback, which can be used as an effective communication tool. Though, feedback is a key element in managing conflict many writers viewed different styles of managing conflicts in an organization as shown below. Angela (2014) in the study an assessment of heads of schools' strategies in managing conflicts in secondary schools in Kinondoni Municipality.

The study focused on the strategies used by school heads in managing conflicts in secondary schools, in his finding he noted that the most strategies that are used by head of schools to handle conflicts among teachers, teachers and students, students among themselves in secondary school are competitive, collaboration, compromising, accommodating and avoiding. Through the findings Angela found that there is no single strategy that can be used to manage conflict since every conflict depends on its nature, therefore in order to minimize conflicts in schools Angela suggested that, District Education Office should organize seminars and workshops aimed at improving rapport between heads of schools and their staff and building good working relations between them, Teachers, parents, school heads, pupils and the communities should be made aware of the long and short term negative effects of conflict on teaching and learning, the Guidance and Counseling Committees in the schools should be strengthened so that they can educate the pupils on better ways of handling conflict.

Dramani & Charles (2010) in their journal article "*managing workplace conflicts in the school environment*" they describe conflicts as providing opportunity to improve an organization. Therefore signs of conflicts should not be eliminated or suppressed. The task is managing conflict so that it enhances peace among people and organizations, rather than destroying them. In managing workplace, they proposed different conflict management styles that can be employed. Competing has

variously been linked to sharks and has been explained that, by Nature, sharks have the need to win. This means that others must lose (win-lose situations). Another style is avoiding or withdrawal conflict management, further accommodating, is appropriate where there is the need of maintaining the relation is much more important than other considerations, however Compromising has been noted as necessary when important complex issues leave no clear or simple solution; all conflicting people are equal in power and have strong interests in different solutions lastly collaboration was mentioned where by the mediator have to view conflicts as problems to be solved and finding solutions agreeable to all sides (i.e. win-win). And this is said to be appropriate when there is the need to maintain relationships.

Pukkapan, (1999), identifies that, the most techniques used in conflict resolution is mediation and negotiation. These occurring in the school settings which are composed of different people with different generational gaps and that negotiation and mediation must be identified as the best strategies for mitigating conflicts. Mediation is structured process adopted for the solution of conflict between two or more individuals or groups whereas negotiation refers to the process where the people in conflict are brought face to face to each other and then with mutual consent of both the parties a solution is reached upon. Kipyego, (2013). Negotiation is one of the most common techniques for creating agreements during conflict situations.

Although negotiation embroils more controlled communication than other conflict situations, the overall process is marked by greater ambiguity because of the stakeholders' lack of control over the outcome. Negotiations are sometimes inundated by drawbacks that might hinder any success in resolving the conflict situation. Aspects such as cultural factors and how they have a potential of hindering negotiations. Negotiators need to have an implicit understanding of cultural assumptions which are likely to determine how negotiators from different places perceive the world. "Lacking such knowledge, negotiators from different cultural backgrounds are likely to misunderstand one another and apt to engage in behavior that is unwittingly, offensive to the other: circumstances not conducive to constructive conflict resolution" Fleetwood (1987), viewed that, strategy of effective communication is also one of the best ways to resolve conflicts in an organization. Because it would make the group aware of the kind of communication which could lead to problem solving. Indeed, problem solving, appeal to superior organizational goals, prevention and avoidance, expression of opportunities and resources, use of authority and command, changing the structure of the organization and compromise as management strategies for resolving conflicts in organizations.

Johdi and Apitree (2012), identify conflict management strategies in many ways such as suppression, smoothing, avoiding, compromise, third part intervention, cooperation, democratic process, job rotation as well as confrontation. Other strategies included withdrawal or avoidance, which is one of the simplest of all conflict management styles. It means to do nothing in any conflicting situation; it assumes that by ignoring the conflict it will be resolved by itself. Heads of secondary schools can utilize this styles when they perceive that; the parties involved regarding the issue is minor one, and when both parties require additional time to cool off. Robinson *et al.*, (1991). Effective head of schools should have the qualities of managing teachers in various ways, in their book identifies five conflict solving strategies; which are smoothing, compromising, forcing, withdrawal and problem solving. However, pin pointed out that, out of five strategies there are other branded techniques of dealing with conflicts in schools these techniques are; competitive, collaborative, compromising, accommodating and avoiding. These techniques differ

in their degree of cooperativeness and forcefulness. School heads need to understand what is entailed in conflict management and need high conflict competence to be able to be effective in their schools.

Wheeler (1995) has identified five types of conflict management styles which include Collaboration, according to Wheeler, and this style enables people to work together so that everyone can be a victory. In using this style people try to find a solution that will help everybody meet their interest and help everyone maintain a good relationship, this is supported by Nelson-Jones (1995) says that, the collaborative approach enables both parties to work as a team to prevent needless conflict and also to arrive at mutually satisfactory solution in real conflict; thus, neither of them attempts to impose his or her concern on the other. Further competing style as mentioned by wheeler (1995) described by Hayes (1996) indicates, people who adopt a competitive style try so hard to get what they want that they end up ruining friendships or relationships. Meanwhile compromising style as viewed by Whetten and Cameron (2005) that, compromise is try to have a partial satisfaction for both parties in the sense that both receive the proverbial “half loaf...” and this compels both parties to make sacrifices to obtain a mutual gain.

Wheeler’s (1995) has mentioned avoiding style as another strategy for conflict management with the concept that people who choose the avoiding style do not usually get involved in a conflict because such people accept whatever their opponent does in order to escape conflict. This is also emphasized by Bettmann and Moore (1994) that, the avoiding style encompasses a manners that is unassertive and uncooperative, as a result an individual chooses this style to stay out of conflict, ignore disagreements, or remain neutral. The avoiding approach might reflect a decision to let the conflict work itself out. Lastly wheeler (1995) pointed out Accommodating style as another method for managing conflicts whereby Larson and Mildred (2002) indicate that this style involves a manner that is cooperative but not assertive and which may mean an unselfish and a long term strategy to encourage others to cooperate or submit to the wishes of others. They describe that accommodators are usually favorably assessed by others but are also perceived as feeble and passive. Therefore, conflict is inevitable and often good and the conflict isn't the problem – it is when conflict is poorly managed that is the problem.

#### **4.0 Methodology**

The study carried out at Geita district in two wards which are; Kalangalala and Kasamwa wards with a total of 8 primary schools. The researcher Selected Geita district because has perfect knowledge about the area and that simplified the process of data collection. Hence facilitated the collection of viable data within a time frame, and avoided unnecessary costs.

The study employed qualitative approach which allows the collecting and analyzing data through qualitative way in a single study. The advantage of this approach is based on the fact that, it has the power to provide stronger extrapolations and greater variety of divergent views on the issue studied (Creswell 2007). The study used a case study design, through this design helped in examining the nature of conflicts in primary schools and the mechanisms employed to handle the conflicts in primary schools in Tanzania. According to Cohen *et al* (2007), case study design enables the researcher to gather data at a particular point in time with the intention of describing the nature of the existing conditions. As a matter of fact, findings using this design enabled the researcher to answer the key questions of this study.

Target population means the full set of cases from which a sample is taken (Kombo *et al* 2006; Saunders *et al*, 2009). The target population in this study included primary school teachers, head teachers, pupils, school board chair persons and community members around the schools. These were the potential people who provided necessary information like the nature of the conflicts and mechanism used to resolve the conflicts in primary schools when they arouse. The study applied simple random sampling and purposive sampling whereby, the respondents were selected to answer questions based on the nature of conflict in primary schools and mechanisms used to resolve them. The study included 40 primary school teachers, 40 pupils, 8 head teachers, 8 school board chairpersons and 8 Community members. The total number of 104 respondents from the study area was involved. This number was appropriate enough to offer information concerning the nature and mechanisms employed for managing conflicts in primary schools.

This study applied interview as main tools for data collection. The method is popular used in collecting data in research survey (Kothari, 2004). This method helped to collect the required information. Interview is basically about asking questions and receiving answers. It is a way of accessing people’s perception, meaning and definitions of situations and construction of reality (Enon, 1998). Interview was conducted to primary school heads, school board chairperson, pupils, head teacher and community members. Through interviews, the researcher was able to ask questions related to the mechanisms used to resolve conflicts in primary schools. Since the interview method is quite flexible it was easily adapted to a variety of situations. Analysis of data is a process of inspecting, cleaning, transforming and modeling data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making (Dey, 1993; Kothari, 2004).

## 5.0 PRESENTATION OF THE FINDINGS AND DISCUSSION

### 5.1 Participants Profile

#### 5.1.1 Education

The researcher was of interest to know the age and education level of the respondents involved in the study in giving information. From the findings it was found that respondents with certificate level were 32(31.4%), Diploma 21(20.6%), Degree 6 (5.8%), Masters 3(2.9%) and those with primary level were 40(39.2%). Meanwhile respondents with the age ranging from 10-20 were 40(39.2%), 20-30 were 36(35.3%), 30-40 were 21(20.6%), 40-50 were 3(2.9%) and 50-60=2(2%). From the data above it can be concluded that most of the respondents in exception of pupils in Geita district possessed certificate and diploma and few of them degree and masters. Furthermore, the big number of the respondent their age ranged from 10-20 years, 20-30years and 30-40years but few of them were above 40years (Table 1).

**Table 1 showing Age and education level of the respondents**

Age	Subjects	%	Education level	Subjects	%
10-20	40	39.2	Masters	03	2.9
20-30	36	35.3	Degree	06	5.9
30-40	21	20.6	Diploma	21	20.6
40-50	03	2.9	Certificate	32	31.4
50-60	02	02	Primary education	40	39.2
Total	102	100	TOTAL	102	100

Source: Field Data (2020).

### **5.1.2 Gender**

The study comprised of 104 subjects, where by male teachers were 20(19.23%) and female were 20 (19.23%), male pupils were 20 (19.23%) and female 20(19.23%), male head teachers were 06(5.77%) and female 02(1.92%), male community members were 04(3.85%) and female 04(3.85%), male school board chairpersons were 06(5.77%) and female 02(1.92%). The aim of making gender Inclusion in the sample study was to minimize the biasness that may happen during data collection (refer to Table 2).

**Table 2. Respondents categories by gender and percentages**

Teachers	%	Pupils	%	H/Teachers	%	Board CP	%	CM	%
M	20	19.2	3	M 20	19.23	M 06	5.77	M 06	5.77
F	20	19.2	3	F 20	19.23	F 02	1.92	F 02	1.92
Total	40	38.4	6	40	38.46	08	7.69	08	7.69

Source, *Field Data (2020)*. KEY: % =Percentage, CM=Community members, CP=Chair person

## 5.2 The nature of conflicts at school environment

The first objective of this study catered on analyzing the nature of conflicts in primary school environment. In order to get the nature of conflicts in primary schools, three questions were developed in interview guide. The questions were; *have you encounter with any conflicts at school? Which kind of conflicts rises frequently at your school? What do you think were the causes of conflicts?*

### 5.2.1 Encountering of conflicts at school environment

The respondents were requested to indicate (YES/NO) if they have witnessed conflicts in the school Environment and the responses were as indicated in table 3, below.

**Table 3. Encountering of Conflicts at school environment**

Responses	Frequency	Percentage
Yes	87	83.7
No	17	16.3
Total	104	100.0

Source: *Field Data (2020)*.

From the data above 83.7% of the respondents had witnessed incidences of conflict in their school environment while 16.3% did not observe any form of conflict within their school environment. This inferred that, conflict occurrences are common in primary schools as highlighted by many school stakeholders. Meanwhile those who opted No can be are those who were fulfilling their duties, laws and regulations as directed to be observed in school environment.

### 5.2.2 Kind of conflicts rises frequently in primary schools

In responding to the kinds of conflicts that occurs frequently, respondents were asked to mention regarding to their experiences. The following were the responses;

**Table 4. Kind of conflicts rise frequently in primary schools**

SN	Kind of conflict	Frequency	Percentage
01	Between teachers and pupils	22	21.15
02	Between pupils themselves	41	39.42
03	Staffs and administration at school level	09	8.65
04	Staffs and community members	03	2.88
05	Between staffs and employer	29	27.88
<b>Total</b>		<b>104</b>	<b>100.0</b>

Source: *Field Data, (2020)*

Given the data in the table 4 revealed that, the kind of conflicts rise frequently in primary schools were; teachers and pupils 22(21.15%), between pupils themselves 41 (39.42%) staffs and administration at school level 09 (8.65%), staffs and community members 03 (2.88%) and staffs versus employer 29 (27.88%). basing on the findings from the field, conflict between teachers and pupils are caused by absenteeism of pupils at school, writing notes, not doing class exercises and home works. And also coming late at school. One of the teachers contended that;

“.....wanafunzi wangu nagombana nao sana kwenye somo langu la hisabati wengi wao hawapendi kufanya mazoezi.....” This literary meant .... I always inter into conflict with my pupils because they are lazy in doing class exercises. Furthermore, conflict between pupils themselves (39.42%) and conflict between staffs and employer (27.88%) were most noted, the conflict between pupils themselves were caused by stealing of school personal properties like; mathematical sets, books, exercise books and sports and games issues. Also conflicts between staffs and administration at school level were noted to be caused by preparing of lesson plans, attending late at working station, Different perceptions of the same issue, lack of transparency, favoritism, allocation of the administrative tasks and improper communication. Meanwhile conflict between teachers/staffs and employers were caused by, insufficiency resources, lack of clear and formal procedures which led to Poor fulfillments of responsibilities and some directives given from the employers. One of the teachers argued that;

“..... tunapokea maelekezo mengi mno mpaka yametuchosha na tumeyazoea hata hatuyatimizi sasa....” translated as; we receive many directives to the extent that we are tired to hear them..... (author's Translation).

This indicates that, teachers they are tired of many responsibilities given by their employers to perform and which are additional to their normal works. Finally conflicts between Staffs and community members as occupied (2.88%) was the least mentioned by respondents with the reason that, pupils sometimes lack care and guidance from teachers to the extent that they go to community member to take some properties like groundnuts and cassava. The finding above under this objective collaborates with (Moshia; 2006: Champoux, 2003 & Rahim, 2001). Argued that, however Conflicts encompass several ingredients and occurs at several levels and appears in different forms most of the schools' conflicts is between teachers and heads of schools, teachers and pupils, teacher to teachers or teachers and parents, this occurs often due to different reasons like attending late at working station, Different perceptions of the same issue, lack of transparency, favoritism, and improper communication. Furthermore, conflict between staffs and employers were caused by, insufficiency resources, lack of clear and formal procedures.

### **5.3. Experiences of school stakeholders in managing conflicts in primary school**

The second objective of this study was to evaluate the experiences of school stakeholders in managing conflicts in primary school. In order to obtain the responses on the experiences for school stakeholders in managing conflicts the following questions were asked. *Have you participated in resolving conflicts at this school? YES/NO, what are the ways you used to resolve such conflicts? Have you attended any training related to conflict management? YES/NO*

### 5.3.1 Participation of school stakeholders in resolving conflicts at school

In responding the above item respondents were requested to indicate (YES/NO) if they have participated in conflict resolution at school Environment and the responses were how indicated in table 4.4 below.

**Table 5 Participation of school stakeholders in resolving conflicts at school**

S/N	School stakeholders	YES	%	NO	%
01	Head teachers	08	7.7	00	00
02	Teachers	32	30.8	08	7.7
03	Community members	02	1.9	06	5.8
04	Pupils	28	26.9	12	11.5
05	School board chairpersons	06	5.8	02	1.9
<b>Total</b>		<b>76</b>	<b>73.1</b>	<b>28</b>	<b>26.9</b>

**Source:** *Field data, (2020).*

According to Table 5, the majority of the respondents 76(73.1%) opted YES, agreed with the fact that they have participated in conflict resolution at school. For that case we can say they have experience in resolving conflicts. Yet minority 28 (26.9%) of the respondents opted No, that they have never involved in conflict resolution at school. This was an indication that solving of conflicts at school levels involves stakeholders like teachers, pupils, school board members and community depending on the nature of conflicts. Furthermore, the data above indicates that, some stakeholders are not involved in conflict resolution these might be are the one who were found absent at the point of resolving conflicts.

### 5.3.2 The ways used to resolve conflicts in primary schools

In exploring the ways used in resolving conflicts, respondents were required to mention the ways according to their experiences. The following were the responses (table 4.6);

**Table 6 responses on the ways used for conflict resolution in primary schools**

S/N	Ways used to resolve conflicts	Frequency	Percentage
01	Class meeting and School Baraza	38	36.5
02	Teachers meetings	32	30.8
03	Effective communication	08	7.7
04	Ignoring and keeping silence	06	5.7
05	Use of power	20	19.2
<b>Total</b>		<b>104</b>	<b>100.0</b>

**Source:** *field Data (2020).*

According to table 6 above, (36.5%) of respondents indicated that, class meetings and school Baraza are the most strategies used for conflict resolution, this followed by teachers' meetings as occupied (30.8%). Also the use of power was mentioned as it occupied (19.2%) of all respondents. Moreover, effective communication (7.7%), ignoring and keeping silence (5.7%) were the least mentioned by the respondents. Therefore, basing on the findings it is meaningful to say that, school stakeholders are aware with some ways of resolving conflicts and therefore there is no common ways used in resolving conflict in primary schools as it has been found, for that case different conflict are handled in different ways depending on its nature and all ways seemed to be successfully.

### 5.3.3 Training related to conflict management

Basing on this item of question, the respondents were required to accept by opting YES if they have attended any training related to conflict management, also those who have not attended were required to opt NO as indicated in table 4.7 below;

**Table 7 Training related to conflict management**

S/N	School stakeholders	YES	%	NO	%
01	Head teachers	08	7.7	00	00
02	Teachers	12	11.5	28	26.9
03	Community members	00	00	08	7.7
04	Pupils	04	3.8	36	34.6
05	School board chairpersons	05	4.8	03	2.9
<b>Total</b>		<b>29</b>	<b>27.9</b>	<b>75</b>	<b>72.1</b>

**Source: Field data, (2020)**

The majority of the respondents 75 (72.1%) indicated that, they have not attended training related to conflict resolution. And the rest 29(27.9%) of respondents agreed that they have attended training related to conflict management. According to this data most of the stakeholders have no any training related to conflict resolution though are the main actor in conflict resolution. This indicates that, they are participating in conflict resolution through their experiences and understandings only. Meanwhile those who said they have participated in conflict resolution are the head teachers and School board chairpersons, this might be because of their position they have at school, pupils and staffs (teachers) who have reserved training are very few this probably there is no programs for enriching conflict management strategies to these groups. Furthermore, community members seem to have no idea with training related to conflict management. Generally, this can be summarized that, some education stakeholders have experiences and knows some strategies for conflict resolution. Although the findings indicate that there is the need for undertaking training program related to conflict management to primary school stakeholders. The finding under this study were in line with Angela (2014) in the study an assessment of heads of schools' strategies in managing conflicts in secondary schools in Kinondoni Municipality. He noted that the most strategies that are used by the heads of schools were; competitive, collaboration, compromising, accommodating, proper communication and avoiding. Further (Fleetwood, 1987). Supports that, strategy of effective communication is also one of the best ways that has been used by teachers to resolve conflicts in their working area and other organization, therefore from these we can point out that, school stakeholders have experiences in managing conflicts and they are using different techniques according to their nature.

### 5.4 Exploring of experiences of school leaders in conflicts management at school level

The last objective of the study anticipated at exploring of experiences of school leaders in managing conflicts at school level in primary school in Geita District. In order to get the responses on experiences of school leaders in resolving conflicts, three questions were developed; *have you attended any training related to conflict management? YES/NO, If YES above, as a leader how many conflicts have you come across a/None, b/1-5, c/5-10, d/10 Above, did you resolve the conflicts on your own? YES/NO and If no, did you get any support from other teachers?*

On responding to the questions that asked *have you attended any training related to conflict management? Respondents were required to opt for 'yes' or 'no'*. Through the findings most of the respondents opted Yes about 68(65.4%) of all respondents.

Indeed, about 36(34.6%) opted for No, this can be evidenced from some of the respondents who contended that;

Respondent 1. (one of Head of schools): *I have attended one seminar which was organized by TSC; it was about conflict resolution in schools*

Respondent2. (another Head of schools): *we always held some meetings with our head of department to discuss some issues that may bring conflicts in our working area and we expose ourselves to strategies that can help to escape from conflicts.*

Respondent3 (Head teacher): *I attended short course for management and administration in 2011 at Butimba TTC.*

Through these findings it is meaningful to say that; some leaders in primary schools are attending seminars and various training related to conflict management and few of them still yet to get any training, these might be are leaders with few days in position.

On responding to the question that asked; *how many conflict have you come across-* (a) none, (b) 1-5, (c) 5-10, (d) 10 above. Through the findings most of the respondents they have experienced 10 above conflicts in their working environment which is about (75%) But few of them mentioned (b) 1-5 conflict they experienced in their working area which is equivalent to (25%). Furthermore, those who didn't experience any conflict in their working areas were 0(00%) Therefore this indicates that school leaders were encountering with many conflicts in their working stations hence there is the need of imparting them with knowledge for conflict resolution. Lastly the researcher wanted to understand if school leaders were resolving conflicts individually or they seek for assistance from other colleague and the question; *Did you resolve the conflicts on your own? YES/NO and If no, did you get any support from other teachers?* Was asked. Basing on this question it was revealed that, some conflicts were resolved by a leader herself or himself, and some by involving group of leaders where necessary. As one of the head teacher contended that

*'..... Shuleni kwangu niliyo kutana nayo ni mengi japo haitokei mara kwa mara na tulitatuwa kwa kushirikiana na walimu kwakutumia vikao vya kawaida shuleni...'* translated as; I met with many conflicts at this school, but I always involve teachers through meetings to resolve them ..... This collaborates with (Wheeler, 1995) as identified that the effective conflict management styles include Collaboration, according to Wheeler; this style enables people to work together so that everyone can be a victory. In using this style people try to find a solution that will help everybody meet their interest and help everyone maintain a good relationship, this is also supported by Nelson-Jones (1995) says that, the collaborative approach enables both parties to work as a team to prevent needless conflict and also to arrive at mutually satisfactory solution in a real conflict; Through this basing on the findings we can generally say that, teachers they do take action quickly to respond to the conflicts collaboratively once they happen by calling meetings to discuss and came up with agreed solution.

## **6.0 Conclusion**

According to the results from the study, can therefore be concluded that, conflict occurrences are common in primary schools and the most frequently conflicts are between teachers and pupils, between pupils themselves and between staffs and employer. Indeed, experience of school stakeholders in managing conflicts it seems to be successfully. However, on the case of exploring of the experiences of school leaders in conflicts management the data revealed that, teachers and school board

chairperson reserved conflict management training. Although trainings are offered in rare cases but were advantageous in their leadership.

### **7.0 Recommendations**

Having analyzed the collected data, the presented findings on section 5.0 and conclusion in section 6.0, this part of the chapter carries the recommendations outlined below as:-

- i. As it has been noticed that within the school environment diversity of conflict arise due to heterogeneity of the society. Teachers in school are expected to handle only conflicts that relate to pupils for enhancing effective learning, therefore other conflicts that may be linked to school setting affects the process of teaching and learning. Therefore, it is recommended that Seminars, training and workshops should be provided for improving rapport between heads of schools and their staff and building good working relations between them and to acquire leadership skills and conflict resolution strategies so as to improve their managerial effectiveness.
- ii. Following the observed nature of conflict that occurs more frequently in the school environment. The ways of handling conflict vary depending on the nature of conflicts. Therefore, it is recommended that, some conflicts may not be handled formally, while others may be handled formally so as to provide rooms for teachers and heads of schools to concentrate on constructive activities rather than destructive issues.
- iii. The study therefore recommends that, training, seminars and workshops are required, head teachers of the public primary school needs a broad knowledge of the managerial skills such as conceptual skills, technical and human/ social skills to enable them manage their school effectively and handle conflicts effectively.

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## Chapter 21

### **Strategic Leadership for Effective Resource Mobilization: A Case of Public Universities in Kenya**

By

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#### **Abstract**

Universities are facing more resource mobilization challenges than ever before. These challenges are not unique to any specific university but affect all public universities in Kenya. These institutions have continued to receive less allocation from governments than their estimated expenditure. Further, public universities have suffered financial loss due to decrease in numbers of the self-sponsored student admissions. The situation has been worsened by effects of COVID 19. With a decline in the revenue, University Funding Board has proposed that the business model in the universities be reviewed in order to improve their resources mobilization capacity. Therefore, this study seeks to determine the influence of strategic leadership on resource mobilization of public universities in Kenya. The specific objective will be to establish influence of strategic direction on resource mobilization and to determine the mediating effect of strategic orientation on the relationship between strategic leadership and resource mobilization. The study will be guided by strategic choice and resource mobilization theory. Explanatory research design will be used in this study. The study will be conducted in 18 public chartered universities targeting 108 respondents. The study will sample 85 respondents using stratified random sampling technique. Quantitative data will be analyzed using STATA version 15. Model estimation and hypotheses will be tested using Structural Equation Modeling using AMOS version 23. Path diagram will be used to establish the interrelationship between strategic leadership and resource mobilization via strategic orientation. Strategic leadership has been lauded as the new agent of transformation of organizations, yet little is known about its efficacy in resource mobilization of Kenyan universities. Therefore, this study will add new knowledge and the Commission for University may develop policies that will make universities sustainable in the wake of the turbulence experienced occasioned by shrinkage in funding avenues.

**Key Words:** Strategic leadership, strategic orientation, resource mobilization, public universities

# **Strategic Leadership for Effective Resource Mobilization: A Case of Public Universities in Kenya**

By

Ezekiel Wechuli Wanyama

## **Introduction**

Ng'ethe (2012) indicated that universities in Kenya are operating in highly competitive environment worldwide and locally and this calls for management styles that enhance institutional performance. One of the biggest challenges for the sustainability of organizations is lack or less emphasis on local resource mobilization. Resources mobilization, which refers to all activities, involved in securing new and additional resources for an organization; and involves making better use of, and maximizing, existing resources (Seltzer, 2014) is the focal point of any organization.

Currently, there are four key challenges faced by universities, namely, pressure to deliver value for money, increased costs and shifting fund, changing demands on facilities, and the workforce that is not static. These challenges require universities to have sound resource mobilization structures and stable income flow. Resource mobilization is undeniably critical to ensure the university's goals are achieved by guaranteeing that the institution produces enough income to enable it to invest in its future activities. However, resource mobilization is a key challenge for many universities (Sazonov et al., 2015).

According to the European University Association resource mobilization will be one of the key challenges for universities in the next decade (Estermann & Claeys-Kulik, 2013). Only those institutions that have sound resource mobilization structures and stable income flows will be able to fulfill their multiple missions and respond to the current challenges in an increasingly complex and global environment. Indeed, resource mobilization is not an end in itself; it aims to ensure a university's goals are reached by guaranteeing that the institution produces enough income to enable it to invest in its future academic and research activities' (Di Carl et al., 2019).

In most African countries higher learning institutions rely on the government for most of their financing (Psacharopoulos, 2012). Consequently, resource mobilization and quality of universities in these countries is closely linked to the performance of the national economy. Indeed, this was demonstrated in the 1980s and 1990s as many African countries went through phases of rapid population growth, coupled with economic slowdown, which led to the prioritization of more pressing needs such as healthcare, housing, food and primary education. As a result, higher education lost out in the extreme competition for financing. This wasn't helped by the frosty relationship between academics and governments at the time (World Bank, 2018). Governments and foreign donors began to insist that African universities justify their reasons for existence and that they account for the large sums of public and private money that was allocated to them (World Bank, 2018).

Ahmed (2015) indicated the resources allocation to universities in Nigeria were inadequate to meet all the university research, recurrent and development expenditure. The foregoing was in tandem with Okebukola (2006) and Oseni (2012) who established that resource allocations to universities were not enough to run the institutions' operations. As such, Ahmed (2015) noted that the institutions of higher learning ought to venture into other resource mobilization activities to supplement the small allocations from the government and more so prudently utilize the available

resources. Ogada (2000) states that resources available for university education has been reduced and Puntland universities have been urged to put in place strategies which can enable them generate resources using internal resources to finance the shortfalls.

The Kenyan government's priority to universities in terms of funding has been declining over the years and this has limited the ability of the Public Universities to effectively and efficiently perform their duties, particularly the traditional roles of teaching and research. Underfunding in Kenyan Public Universities is a consequence of the expansion of the higher education in response to the growing demand for the University education and the intensifying needs of modern economy driven by knowledge, without an increase in the corresponding available resources. When universities asked for more funding, they have been advised to diversify their income streams. This seen the establishment of income generating units and enterprises to improve resource mobilization of the public universities in Kenya. However, recent decline in student enrolment, stiff competition from private universities as well as TVET has emerged as now threat to public universities in Kenya. Various proposals have emerged not limiting to merging of universities, merging of faculties and reducing number of campuses so to enhance financial sustainability of public universities in Kenya (Oketch, 2016). Wangenge-Ouma and Nafukho (2011) noted that strategic leadership is one of the tools that can be used to ensure resource mobilization in institutions of higher learning.

Strategic leadership involves resources mobilization in universities in order to create conducive and facilitative environment. According to Harray (2008), strategic leadership refers to persuading employees in the fulfillment of the long-term aspirations of a firm without compromising the short-term goals of an organization. On the other hand, Özer & Tmaztepe (2014) defined it as the ability to foresee, envision, maintain flexibility and influence others to create strategic change as necessary. Makgone (2012) further noted that strategic leadership is about balancing fulfillment of short term and long-term aspirations of an organization. The strategic leader must be able to make strategic decisions, develop skills and capacity to execute these decisions, and keep on communicating the key expectations in the strategy execution as well as addressing the arising challenges.

According to Johnson et al, (2012), strategy orientation involves a philosophy which directs business movement and has its roots deeply in values and beliefs which are infrastructures for organizational activities and attempts for directing competitive advantage. Slater et al, (2006) explains that strategy orientation is reflected in appropriate organizational activities which result in supreme performance. Strategic orientation has positive impacts on innovation, competitiveness and organizational performance (Kumar et al, 2012). In fact, strategy orientation involves models for responding to an environment in order to increase performance and competitive advantage (Hambrick, 2013). Although many studies in the Management literature incorporated strategic orientation, the effect on resource mobilization and the relationship between strategic leadership remains unclear. Therefore, this study sought to establish influence of strategic leadership, strategic orientation on resource mobilization in public universities in Kenya.

### **Statement of the Problem**

Public Universities in Kenya have continued to receive less resource allocations from the government than their estimated expenditure (Murage & Onyuma, 2015). This has resulted to the accumulation of debts, delayed payments to suppliers and delayed

payments to service providers, among others. Furthermore, effects of inadequate resources are evident in the fact that the physical facilities in the universities are in a state of despair and several capital projects have been abandoned. Public universities have suffered financial loss due to decrease in numbers of the self-sponsored student admissions courtesy of the 100% government absorption (Obutu, 2019) and during COVID 19 pandemic where some universities have been forced to reduce some of their expenses such as salaries and wages (Wang, Cheng, Yue, & McAleer, 2020).

Further, as of 2019, reports from Auditor General have indicated that most of the public universities are unable to meet their financial obligations such as payment of lecturers and statutory levies (Gok, 2019). The commission of University Education indicated some universities have failed to periodically demonstrate that they are financially sustainable and that there are good governance practices. This implies that the state of resource mobilization of universities in Kenya is under threat (Charo, Okiya & Zaafrane, 2019).

Yego (2016) also identified unclear university policy for privately sponsored student programmes administration, poor management, inadequate and unqualified teaching staff among others as some of the challenges affecting public universities. In some public universities, funds have been channeled to non-strategic projects rather than equipping the institutions with the necessary infrastructure for enhanced performance. Clearly, there is need for emphasize on stewardship, control, meeting regulatory requirements and accountability. Therefore, this study sought to examine influence of strategic orientation on the relationship between strategic leadership and resource mobilization of public universities in Kenya.

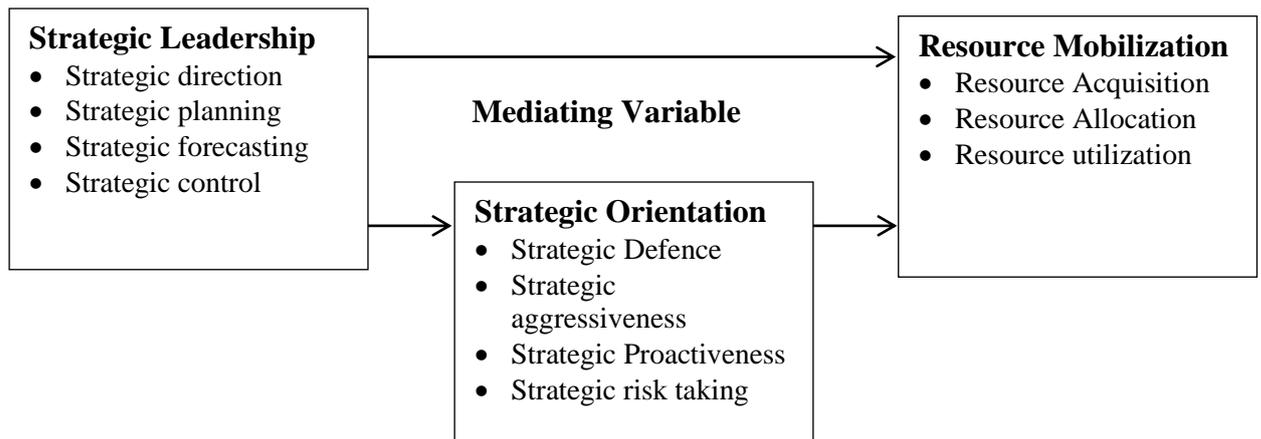
### **Significance of the Study**

Resource mobilization of public university continues to attract attention from various stakeholders both locally and internationally. Reports have indicated that most of the public universities unable to meet their obligations due to inadequate resources. The commission of University Education indicated universities have to periodically demonstrate that they are financially sustainable and that there are good governance practices. This implies that the state of resources of universities in Kenya is threatens realization of Sustainable Development Goals (SDGs), Big Four Agenda and Vision 2030. Alleviating the financial stress currently faced by the Kenyan university sector requires an immediate infusion of resources, but for a long-term solution, a multipronged, creative rethinking of resources mobilization is needed. This involves a well thought-out and structured resource mobilization, transparency in financial decision-making at the institutional level, separating ownership from management and tying budget decisions to realistic enrollment trends. Therefore, this study will have academic, policy and practical implications.

## **1.4 Conceptual Framework**

**Independent Variable  
Variable**

**Dependent**



**Figure 1: Conceptual Framework**  
**Source: Researcher (2020)**

### **Theoretical Framework**

According to Selznick (1984), strategic theory delves on organizational leadership and more specifically, the transformation of the organization as a whole. According to this theory, strategic leadership involves the capacity to learn and change as well to appreciate managerial wisdom and human capital development. It thus implies that strategic leadership is a leadership first, focused on transforming an organization so that its operations are sustainable, competitive and profitable both in the short and long runs. This theory posits that strategic leadership must, therefore, focus on people who can embrace and take the overall responsibility within the organization.

Boal and Hooijberg (2017) emphasize that although strategic leadership is seen as a mantle of the top executives of an organization, members of the senior management teams are also important players as they are actively involved in strategy and performance execution of the organization. The whole organization looks up to the organization's strategic leadership for essential activities such as formulation of strategic direction through strategic decision making, creation and communication of vision, development of key competences and capabilities, development of organizational structures, control systems and processes. Strategic leadership theory, therefore, proposes that strategic leaders need cognitive complexity to easily absorb capacities needed to spearhead these activities in an organization (Mihelic & Tekavcic, 2018). A greater focus is achievable with leaders with clear vision of the organization for which resource allocation can guarantee success. Such visions are only reached with critical examination of the present and future environments though human capital development (Kahiga, 2017).

## **Empirical Studies**

Mbuva (2014) studied an investigation into the factors influencing resource mobilization of women owned SMEs in Kenya in Machakos County. The study established that financial management influence resource mobilization of women owned SMEs in Machakos County. Lastly, on financial management; financial management skills, management style (management supporting workers with innovative talents) and attendance of entrepreneurship training, business seminar and forums enhanced resource mobilization of women owned SMEs.

Amisano (2017) examined the relationship between leadership and resource mobilization in small businesses. The participants were 80 members of a Miami, Florida chamber of commerce. The findings from this study indicate that a manager's fairness in procedures, practices, and decision-making correlate to concern for stakeholder and societal well-being as well as concern for the business's environmental impact. Also, trustworthiness, ensuring personal and subordinate compliance with ethical codes, decision-making based on the right thing to do, and acting with others' best interests at heart correlate with consideration of the greater good in decision-making.

Al Breiki and Nobanee (2019) aimed at exploring the role of financial management in promoting resource mobilization. Based on thematic analysis of resources from varied scholars, it confirms that appropriate financial management models are necessary to enhance productivity while mitigating issues of financial risks. The findings also indicated that allocating capital budgeting for sustainable issues enhances the competitive advantage of the business, and utilization of western and the Islamic financial are efficient sustainability measures. The study concludes that financial management plays a vital role in promoting resource mobilization.

Davenport (2010) found that personality type and leadership style both are important predictors of resource mobilization. He found that employees with internal locus of control are more committed towards organization/s; similarly, employees who follow transformational leaders are also more committed towards their organizations. Shirbagi (2007) states that there is a positive relationship between leadership and overall resource mobilization; he also found a positive relationship of leadership style with three components of resource mobilization.

Kariuki (2017) sought to establish relationship between fraud risk management and resource mobilization of non-governmental organizations in Kenya. The main variables of the study include the techniques of fraud risk used within NGOs in Kenya, extent of adoption of these techniques and relationship between fraud risk and resource mobilization within Kenyan NGOs. The study used an explanatory research design. From the findings, the study concluded that management style positively correlates with resource mobilization and has a statistically significant relationship with resource mobilization.

## **Research Methodology**

The study adopted explanatory research design which explores cause effect relationships. The study was carried out in 18 public chartered universities targeting 108 respondents. The target population was categorized into Deputy Vice Chancellor Finance and Planning, Finance Officers and Income Generating Units Directors. Stratified proportionate random sampling technique was used to select the sample. The study grouped the respondents into three strata i.e. Deputy Vice Chancellor Finance and Planning, Finance Officers and Income Generating Units Directors. From each stratum the study used simple random sampling to select 85 respondents from a

target of 108. The study used Yamane (1973) formula to arrive at a sample of 85. The study utilized primary data collected using questionnaire and interviews. The relationship between level of the independent and dependent variables was measured using Structural Equation Modeling (SEM) which is best suited to analyze path for latent variables. These analyses were done using STATA version 14 and the quantitative data was presented in terms of tables and charts. The Structural equation modeling was done using the Analysis of Moment Structures (AMOS) software version 23.

### Findings and Discussions

The study sought to assess the mediating effect of strategic orientation on the relationship between resource mobilization and strategic leadership. The mediating effect is a three-step analysis. In stage one of the analysis, direct effect was established between variables. In the second stage, indirect effect was established between variables. In the third stage, total effect was established between variables. Table 1.0 shows the summary statistics for the models at each stage of analysis.

**Table 1.0 Summary statistics for the models at each stage of analysis**

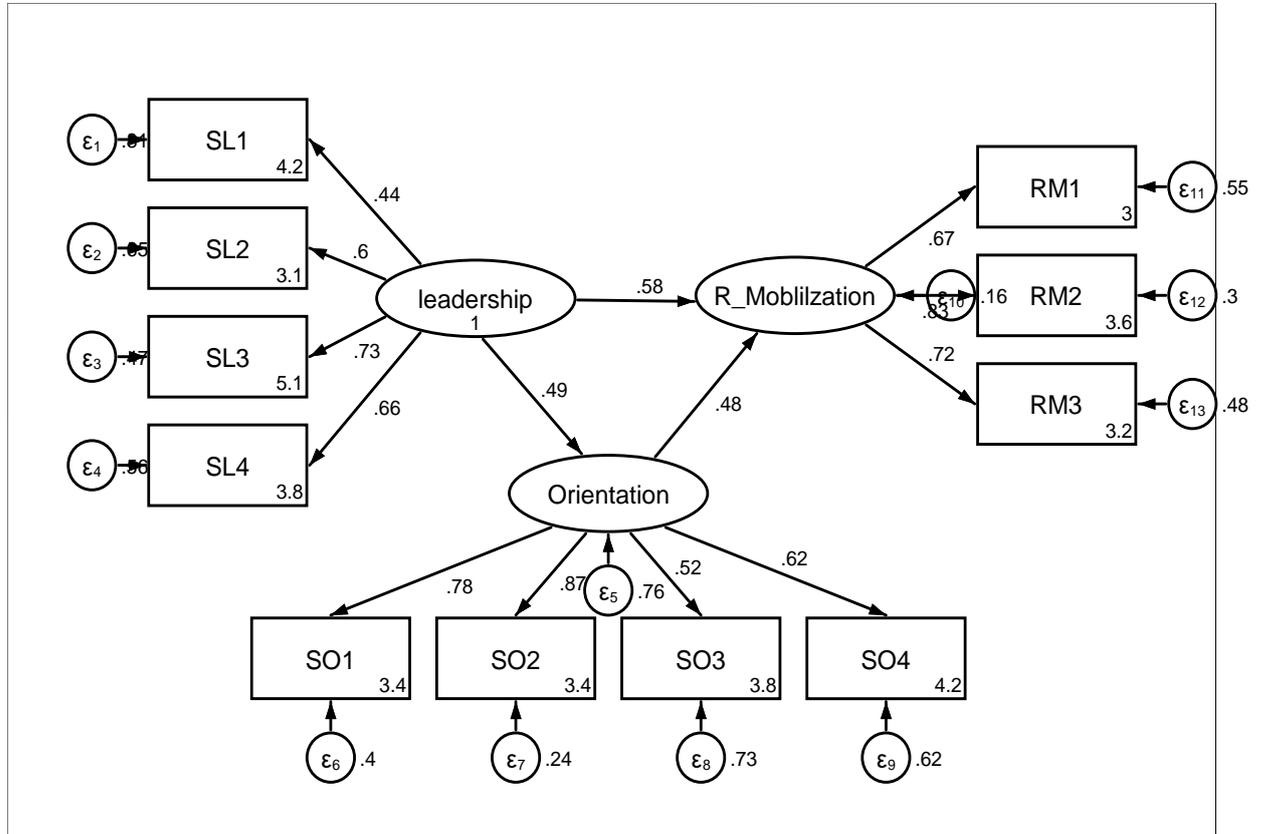
	Coef.	Std. Err.	Z	P>z	[95% Conf. Interval]	
<b>Direct Effects</b>						
<b>Resource mobilization</b>						
Strategic orientation	1.124142	0.196496	5.72	0.000	0.739017	1.509267
Strategic leadership	0.086224	0.079333	1.09	0.277	-0.06927	0.241714
<b>Strategic orientation</b>						
Strategic Leadership	0.236593	0.062446	3.79	0.000	0.114201	0.358986
<b>Indirect Effect</b>						
<b>Resource mobilization</b>						
Strategic orientation	0	(no path)				
Strategic leadership	0.265964	0.065917	4.03	0.000	0.13677	0.395159
<b>Strategic orientation</b>						
Strategic leadership	0	(no path)				
<b>Total Effect</b>						
<b>Resource mobilization</b>						
Strategic orientation	1.124142	0.196496	5.72	0.000	0.739017	1.509267
Strategic leadership	0.352188	0.09422	3.74	0.000	0.16752	0.536856
<b>Strategic orientation</b>						
Strategic leadership	0.236593	0.062446	3.79	0.000	0.114201	0.358986

Source (Data Analysis, 2020)

The direct effect of strategic leadership on resource mobilization is positive and statistically insignificant ( $c = 0.086224$ ,  $P > 0.05$ ). The indirect effect of strategic leadership on resource mobilization, through the mediating variable of Strategic orientation, is estimated to be 0.265964 ( $P < 0.001$ ). We add the direct and indirect effects to get a slightly positive total effect of strategic leadership, amounting to 0.352188 which is significant. Therefore, Strategic orientation has partial significant mediation between strategic leadership and resource mobilization.

#### 4.8.2 Development of Framework

The development of framework entailed fitting study variables which entailed independent, mediating and dependent variables. The process involves direct influence of strategic leadership and mediating effect of strategic orientation on resource mobilization.



**Figure 1.0: Path Diagram**

**Source: Field Data (2020)**

Where SL= strategic leadership, SO= strategic orientation, RM= resources mobilization, SL1= strategic direction, SL2= strategic planning, SL3= strategic forecasting, SL4= strategic control, SO1= strategic Defence, SO2= strategic aggressiveness, SO3= strategic Proactiveness, SO4= strategic risk taking, RM1= Resource Acquisition, RM2 = Resource utilization and RM3= resource utilization.

The path coefficients of the estimated model were tested for significance to establish the significance of the causal relationships between the variables. Table 2.0 Presents the estimated path coefficients of the fitted model with the standard errors (S.E.), the critical ratios (C.R.) and the p-values of the CRs. SEM was fitted based on maximum likelihood estimation for a large sample therefore the critical ratios follow a standard normal distribution (Z-distribution) thus the p-values are determined considering the Z-distribution. The critical ratio following a standard normal distribution considers 1.96 as the critical point at 5% level of significance

**Table 2.0: Path coefficient estimates**

			<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
SO	<---	SL	.265	.057	4.635	***

			<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
RM	<---	SO	.285	.085	3.374	***
RM	<---	SL	.365	.095	3.846	***

**Source: Field Data (2020)**

Strategic leadership (SL) with coefficient estimates ( $\beta=0.285$ , C.R =3.374). The critical ratios are greater than 1.96 implying significance at 5% and the estimate is greater than zero. This implies that Strategic leadership is positively related to resource mobilization. Strategic orientation with coefficient estimates ( $\beta=.265$ , C.R =4.635). The critical ratios are greater than 1.96 implying significance at 5% and the estimate is greater than zero hence strategic orientation is positively related to strategic leadership.

#### **4.7.1 Model Fit Index**

Model fit assessment is important in structural equation modeling to gauge how well the estimated model best fits the data. It is therefore essential that studies test for model fitness since the assessment of how a specified model fits the data is among of the most important steps in SEM (Yuan, 2005). The analysis of the structural equation model is presented to show model fitness, path coefficients and the structural equation diagram. The model was fitted to achieve the objective of the study which was to investigate the causal relationships to study variable and resource mobilization in public universities in Kenya. The fitted model was tested for goodness against the set cut-offs as shown in table 3.0.

**Table 3.0: Goodness of fit statistics**

<b>Index</b>	<b>Model</b>		<b>Desired (good fit) threshold</b>	<b>Status</b>
Chi-square	Statistic	21076.395	p-value <0.05	Good fit
	P-value	0.000		

**Source: Field Data (2020)**

The model was found to meet all the fitness tests. It was found to be of good fitness based on both absolute and relative fitness tests. The traditional chi-square goodness of fit statistic was 21076.395 with a p-value of 0.000 which is less than 0.05 implying significant fitness at 0.05 level of significance.

#### **Discussion of the Findings**

The study indicated strategic leadership has insignificant positive influence of resource mobilization among 18 chartered universities in Kenya as indicated in Table 1.0. However, the indirect effect of strategic leadership on resource mobilization, through the mediating variable of Strategic orientation, is estimated to be 0.265964 ( $P < 0.001$ ). Hence, strategic orientation has partial significant mediation between strategic leadership and resource mobilization. In this regard, strategic leadership dimension such as strategic direction, strategic planning, strategic forecasting and strategic control cannot guarantee resource mobilization among public universities. This shows that strategic leadership is not an important factor. As this study is done on public universities basically lead them and they are basically are strongly oriented towards operational rather than the strategic direction of the organization. Mui, Basit and Hassan (2018) showed that strategic leadership have insignificant positive impact on organizational performance and developing people have insignificant negative

impact on organizational performance. Obiwuru, Okwu, Akpa, and Nwankwere (2011) showed that leadership style had positive but insignificant effect on performance. This contradicts other studies which have indicated direct relationship between strategic leader leadership and performance metrics. Mbuva (2014) established that financial management influence resource mobilization of women owned SMEs in Machakos County while Al Breiki and Nobanee (2019) also revealed that financial management plays a vital role in promoting resource mobilization. Shirbagi (2007) states that there is a positive relationship between leadership and overall resource mobilization; he also found a positive relationship of leadership style with three components of resource mobilization.

The results also revealed that strategic orientation is significant mediating variable in the relationship between strategic leadership and resource mobilization. The study therefore concluded that the strength of the relationship between strategic leadership and resource mobilization depends on strategic orientation derived from strategic leadership. The findings may be supported by several bases. The role of strategic orientation is that of major competencies of an entity that enable it mobilize resources. Kiiru, Iravo and Oloko (2013) found that strategic orientation has partial mediating effect on the relationship between strategic leadership and performance among small and medium retail enterprises in Kenya. Ferreira, Coelho and Weersma (2019) empirical findings indicate that strategic orientation positively mediates the relationship between strategic leadership and performance, In turn, strategic orientation mediated the relationships between dynamism and performance and between complexity and performance.

#### **IV Conclusion and Recommendations**

The study established that strategic orientation is significant mediating variable in the relationship between strategic leadership and resource mobilization. The study therefore concluded that the strength of the relationship between strategic leadership and resource mobilization depends on strategic orientation derived from strategic leadership. The mediating effect of strategic orientation was used to get a better understanding of the links between strategic leadership and resource mobilization. The results show that strategic leadership has an indirect effect on resource mobilization, via strategic orientation. Strategic orientation exerts a strong and significant influence both on strategic leadership and resource mobilization.

This chapter makes two contributions to the strategic management literature. Firstly, this chapter provides new empirical evidence of the mediating effect of strategic orientation in the context of resource mobilization and strategic leadership. The chapter advances the emerging postulations which anchor a conclusion that the direct effect of strategic leadership on resource mobilization is contested and hence inconclusive due to possible mediating influence of strategic orientation. It is hoped that the chapter's postulations would guide empirical research in various contexts to hasten addressing of the extant knowledge gaps.

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## Chapter 22

### **The Polemics of Policies and Institutions Governing Unreserved Forests: Forest Sustainability Practice in Tanzania**

By

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#### **Abstract**

Governance of forest land in Tanzania is vested under different stakeholders, including the state, local and village governments, community organizations and private individuals. Their roles and scope in forest governance are explicitly defined in existing forest policies and institutions. However, at the landscape level, controversies shadow the governance of open areas (unreserved village forest land). Both state institutions and the community at the village level have a management stake in unreserved forests. While the Tanzania Forest Service Agency eyes these forests for revenue collection, villagers look at it as an opportunity for farmland expansion, collection of forest products and settlement growth. This chapter therefore, provides a critique of the management controversy between communities and the state regarding open area forests and the threat it places on their sustainability drawing from fieldwork in Kilwa District. Data were collected from key informant interviews, focus group discussions and transect walks. By using NVivo tools content analysis was performed and coupled with secondary and observational data. Basing on interpretivism approach as opposed to positivism, the results provide empirical evidence of the threat to forest sustainability and the dilemma brought by contradicting policies to forest management. Therefore, the article concludes that undefined land use is a threat to forest sustainability for it invites multiple actors of different interest resulting to land use antagonism such of that between the state and the community. It is recommends for review of forest and land institutions as well as encouraging the establishment of village land forest reserves for the aim of protecting village land and supporting forest sustainability.

**Key words;** Partnership, Forest sustainability, Open area, village land forest reserve

# **The Polemics of Policies and Institutions Governing Unreserved Forests: Forest Sustainability Practice in Tanzania**

By

Fadhili Bwagalilo<sup>1</sup>

## **Introduction**

This article strengthens the case that secured village land tenure is far more influential factor contributing to forest sustainability. It draws experience of forest governance in Kilwa district where a forest management controversy is observed amid state and private organizations efforts to strengthen forests across the country. Although villages are said to own their land relative to 1982 local government and regional administration Act, practice at the landscape level is different as it allows more than one authority to manage forest use hence compromising sense of ownership and putting forest sustainability in limbo. This motivated the researcher to review institutions governing forest in Tanzania and assess their relationship to sustainability practice in forest sector. Forest governance in Tanzania faces serious challenges among others resulting from policies and legal ambiguities on defining the unreserved forest land. This ambiguousness has allowed more than one authority to manage this land under unclear arrangements hence threatening sustainability. Experience in Kilwa forest has unveiled an overlap of village councils, District authority and Central government through its agency in management of forest on unreserved land.

It is obvious that a huge and rich history of forest institution in Tanzania that we read now have evolved for decades, it came from top down to mixed of both top down and bottom up in late 1980's (Blomley T. &, 2007 and Blomley & Iddi, 2009) see also National Forest Act 2002. A change to bottom up allowed involvement of more partners (community in particular), In this case the reference is made to the raise of Participatory Forest Management (Blomley & Iddi, 2009) which saw the state joining forces with the community in managing forests through Joint Forest Management (JFM) as well as community managing their forest with other stakeholders through Community Based Forest Management (CBFM). The latter allowed the establishment of Village Land Forest Reserves (VLFR's) which gave the village community rights to manage and benefit from the forest in their village land (URT, 1998)

However, in village land there are land which are unallocated to and formal use, or are potential for a village future uses, this land is named open area in the villages and general land in the National Forest Policy 1998, National Forest Act 2002, and National Land Act. No 1999. As provided in the aforementioned institutions open areas or unreserved land governance hangs between the villages and the state control. Each has own interest on the same land, while state accrues revenue from this land yet remain irresponsible of conserving these forests, the villages use the land for their various needs such as settlement expansion, farms expansion, grazing etc., and/or sources of forest resources such firewood, weathers, medicinal plants, building poles to name a few (Sungusia & Lund, 2016). This kind of implicit forest use between two or more different authorities puts forest sustainability in doubt as no clear property rights exists. As it has been argued before an absence of clear property rights open doors for unregulated actors to the resource hence compromising sustainability, see (Ostrom, 1992, Fennell, 2011 & James, et al., 2014). In this case the tenure of resources in village land is important for all forest types resulting from land ownership type.

There is no way one would debate of forest governance without the same on land issues for the ownership to land plays a vital role for robust forest sustainability outcomes. This is why it has been widely debated by scholars (Otsuk & Place, 2001, Mónica & Mahbul, 2017; Yin, 2016 ; Gbedomon, et al., 2016 ). Many have focused on policies and legal frameworks implementation, arguing that they deny the rural poor rights of land resource tenure, or they are not clear in terms of who owns what who is not, other like (Mbwambo, 2015) provided a critique of this kind in relation on Reduced Emission through Deforestation and Degradation projects establishment in Tanzania that its successfulness will depend closely to well defined land tenure system, see also (Kijazi, Joel, Larson, & Cisneros, 2017), (TNR, 2012)who provided a critique in relation to pastoralist rights in north west Tanzania. Pedersen, 2010 argued that the institutional set up for land relies on too much know how of the government leaving the rural poor at the receiving and disadvantage point.

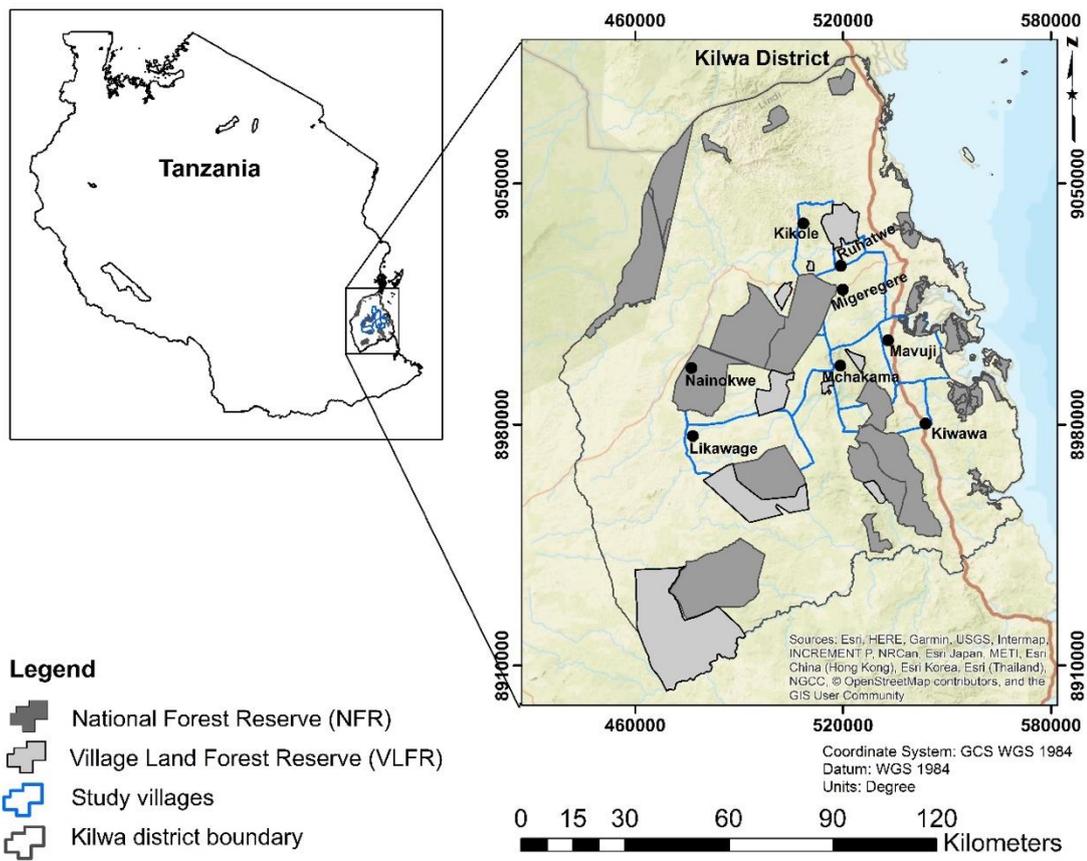
This article, in line with previous similar studies, is built on two objectives. One is to provide a critique of the management controversy between communities and the state regarding unreserved forests and the threat it places on their sustainability. Two, is to provide the best practice for forest suitability in line with forest land tenure in Tanzania by reflecting on the existing policies and institutions governing forests in Tanzania. The article focuses on Land Policy 1997, Forest Policy 1998, Forest Act 2002, Land Act No 4, 1999, Village Land Act No 5 1999, and the Local Government (District Authority) Establishment Act 1982; the aforementioned policies and legal provision are then related to the real practice of forest governance in Kilwa District. Although there are myriad of policies and legal provision which could be analysed to explain the management of unreserved land, the article is limited to those mentioned for clarity reasons. Therefore, the following four parts make this article; description of the study area and methods, results (forest-related policies and legal provisions), discussion, and finally, conclusion and recommendations.

## **2. Study Area, Material and Methods**

### **2.1 Study area Description**

This study was conducted in Kilwa District where the history of CBFM is traced, the District features among the first villages to have VLFR's and one of five Districts of Lindi region. Kilwa District (8°15'-10°00'S, 38°40'-39°40'E) is the most northerly District in the Lindi Region of southern Tanzania. To the East is the Indian Ocean, and to the West is the great Selous Game Reserve (MCDI, 2019). The study was however, focused on eight villages namely, Mavuji, Mchakama, Kiwawa, Migeregere, Ruhawe, Kikole, Likawage, and Nainokwe. The selection of these village considered those with VLFR's, and for comparison purpose those without VLFR's were added. In this case however, all villages are treated as one as they all face a similar challenge when it comes to governance of forests in open areas. See the study area map. According to (NBS,2002/2003 & MCDI, 2019) majority depends solely on natural resources and over 90% of the population is either farmers or fishermen.

**FIGURE 1: KILWA DISTRICT & STUDY VILLAGES**



Source: NEPSUS 2019

## 2.2 Material and Methods

Relative to the nature of the study, which is more of institutional review, the researcher opted to be more qualitative so as to capture a novel content of forest institutions and its impact on sustainability, see (Creswell, 2014, Hennink, 2014). The study based on documentary review, observation, transect walks and interviews. Data were collected in phases and involved different forest stakeholders from local people in the village to district and state officials. At the village level the researcher conducted interview with key informants and village natural resources committee/environmental committees, while at the district level, interviews with forest officials we conducted. Through transect walks, the researcher went around the VLFR's and Open areas to observe the forest structure and related forest activities. Both observation and interviews data were later coupled with the secondary data obtained through documentary review (in this case policies and legal frameworks governing forests in Tanzania).

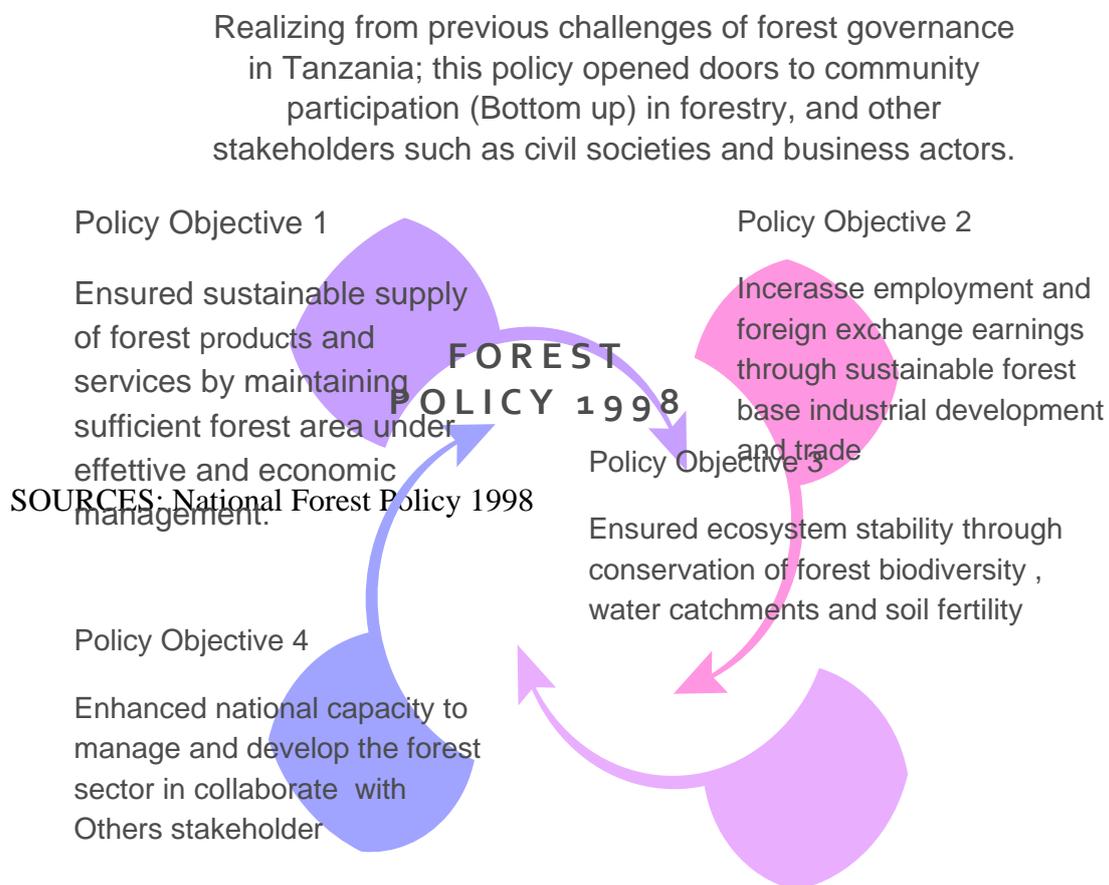
The analysis was of three categories, the first was software based which used Nvivo qualitative data analysis tools, while the second analysis of secondary data and observation was theme specific, for instance targeting institutional set up for forest and land governance only and observed forest and land related activities at the landscape level. It should also be noted that interpretivism approach was applied to set argument and stand of this article (Mölder, 2010) as opposed to positivism (O'reilly, 2009). Since the institutional frameworks discussed in this chapter have different impact in areas with *de facto* forest control and those with *de jure* forest control.

Areas dominated with de jure forest control and falling under village land are here referred to as control villages.

### 3. Results

#### 3.1 Forest Governance institutions

The current National Forest Policy (1998) and the draft review of the same, both have one goal, which is “to sustainably conserve forest”, for that reason it has provided a significant platform for myriad practitioners to exercise different roles in forest management. The policy aims at the following among others, see figure 2. Both policy objectives and policy statement manifest a good intention to manage all forests, much more on engaging more stakeholders so as to realize potentials of forest in supporting national development.

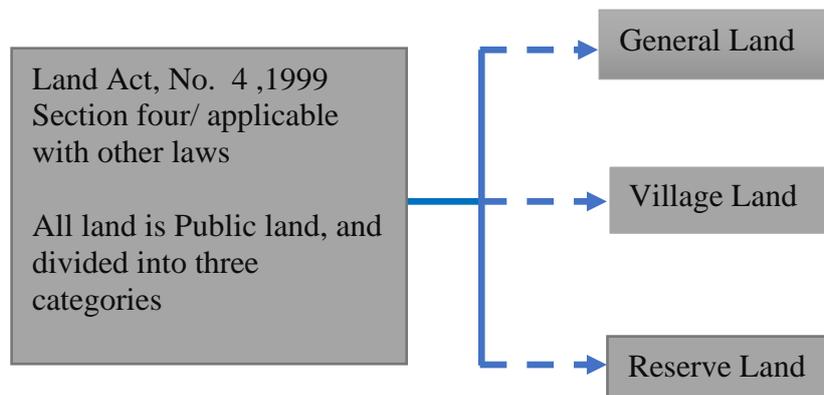


**Figure 2: National Forest Policy 1998 Policy Objectives**

The policy sets a good platform for forest governance in Tanzania, particularly the inclusion of local people (Village Communities) in forests decision making through Participatory Forest Management(PFM). Which was then legally backed up by the National Forest Act (2002)? When this Act was enacted, it classified forests into four categories (National Forest Reserves, Local Authority Forest Reserves, Village Forests and Private Forest), the Act gave local people an authority to own and manage forests through village forests. The two forest establishments (i.e. Forest Policy, 1998, and Forest Act) complement each other and both aim at attaining the triple wins of forest management i.e. to attain forests sustainability, improve people’s livelihoods

and conservation of forest. Moreover, the two do not operate in isolation. Their implementation depends on other establishments, in this regards the reference is made to Land Policy, 1997, Land Act, No. 4, 1999, Village Land Act, No. 5, 1999 and the Local Government (District Authority) Establishment Act, 1982.

The land policy of 1997 is a policy that we would dare call it the mother of all-natural resources policies in Tanzania, for all-natural resources are found. It is from this policy land is categorized and so forest types. Therefore, to gain a better understanding of unreserved forests, we need to first understand its setting from both policies and Acts, most of what is termed “unreserved land” is located in the “village land”, which is one of the types of forests described under the forest policy 1998 and the forest Act 2002. The overall aim of the land policy 1997 is to promote and ensure sustainable land tenure system, to encourage optimal use of land resources and to facilitate a broad based social and economic development without upsetting or endangering the ecological balance of the environment. It is backed up by the land Act No 4 of 1999, under this Act three land categories were defined. Among the three however, village land and the by the definition of general land as provided in this Act, is falling under general.



**Figure 4: Land Act no. 4 Land Categories**

Contrary to land Act No 4 of 1999, the land Act No 5 of 1999, vests management of village land to the village council, which means all land falling in the village boundaries is subject to village authority. This includes establishment of VLFR’s and any other use of this land without external interference. This Act gives the village a right of exclusion, it is further emphasized in part 4 which provides for land and administration where management of the village land is vested on the village council, section 8 and 13 of this Act respectively provides for a village council as a right manager of village land, according to section 8.-(I) “The village council shall, subject to the provisions of this Act, be responsible for the management of all Management of village land” and “13.-(I) The village council shall recommend to the village assembly what portions of village land shall be set aside as communal village land and Communal village land for and other purposes which means the authority to land use and plan is left to the people in the village. Therefore, all these institutions are aiming at attaining sustainable forests, livelihoods as well as conservation. Yet in practice the experience is different.

### **3.2 Forest Management (Unreserved Forest) Experience in Kilwa District**

Kilwa has forests of different management types, there are National Forest Reserves (NFR's) which managed by the central government via Tanzania Forest Services, Village Land Forest Reserve's (VLFR's), managed by local communities through village councils, and Private Forests/land managed by individuals or companies. In the study sites, NFR's are found in Mchakama, Kiwawa, Migeregere, Nainokwe, Likawage, and Kikole villages. VLFR's are found in Mchakama, Kikole, Nainokwe, and Likawage. Private forest/land is found mostly in Mavuji village and partly in Migeregere and Nainokwe villages.

There is another type of forest which is found in all villages of study which bears different names in practice and another one in forest policies and legal provisions. These forests are within the village land but have not been allocated use or are set aside by villagers for different purposes including agriculture expansion. This type of land is called "Open Area" by the villagers, it is also referred to as "General Land" by forest policy 1998, Land Act 1999. This land is subject to exploitation by the villages except if it is for timber harvests, when it comes for timber harvest in this land the only authority eligible to harvest timber in this land is TFS, simply because they are termed as general land. This situation exists in almost all villages of the study.

Along with forest derived livelihoods in these villages. While the unused village forest land is termed as general land the practice manifest that villages have multiples uses of this land apart from forests. For example there is a rapid growing farming of Sesame which resulted from good market availability and price, farmers consider sesame as another significant cash crop after cashew. Since the village council has mandate on the village land, they have a power to decide on land use type of their land. sesame farms expansion has been growing fast and is considered one of the significant income generation activity by the village council.

The village council will collect revenue by leasing part of their land to sesame investor, all this make use of unreserved forests. On contrary, if the unreserved forest land has tree of timber value, they village has no authority to harvest. This is to say, the unreserved village forest land is under scramble between two or more actors hence bringing management controversy. From the land and forest institutions the controversy is seen from double authority allocation to forest management national actor and the village. Should this controversy be left hanging it might lead to serious setback on forest conservation endeavor in Tanzania and Kilwa in particular.

### **4. Discussion**

There has been plenty of scholarly debates on land and forestry in particular, mostly on community forest management and whether it brings the expected triple wins from its multicolor nature (Sungusia & Lund, 2016, Lund & Saito-Jensen, 2013, Lund, Sungusia, Mabele & Scheba, 2017, Scheba, 2015, Kalonga, Midtgaard, & Klanderud, 2016), here I link the controversy of unreserved land governance with forest management dilemma, and possible threat of the same to sustainability. Unlike other articles on land and forest sustainability, this article is built on understanding that forest conservation involves multiple actors, hence creating governance complexities. Complexities which also impact sustainability, the more complex the partnership is the greater the sustainability outcomes and vice versa.

This article treats the villages as sole and first partner in forest conservation as provided by forest policies and legal frameworks. These frameworks give authorities to the villages to choose partners to work with in forest conservations, by doing so

they are inviting multiple actors hence increased complexities. Apart from increasing partnership in forest management, achieving sustainability needs among other proper land allocation, which means well defined property rights (Ostrom, 1992).

Land rights are directly linked to governance of resources on it, be forest, wildlife water etc. the assumption is if a village, community or private investor is given a mandate to own and manage land means the management of resources is vested on them (Elinor Ostrom, 1994), (URT, 1998). On the contrary, governance of unreserved land in Tanzania is hazy and abstruse. Its management is vested on two overlapping authorities, the Central government and the Local government, see (Mongoo, et al., 2014)

Most of the land termed as General land is found in the villages, the villages which according to the Village land Act. No 5 and the Local government (District authority) Act of 1982 is given a legal right of occupancy and management. That is to say, once an area has been declared a village and provided certificate of establishment, all land management issues become vested in the village councils. However, this well sounding legal provision is taken away by the Land Act No 4 1999. This act names all village land as part of the general land. This haziness is more calibrated by the forest Act 2002 which recognizes Village Land Forest Reserves as a forest land under the village council, but goes further defining the entire village forest land reserved or unreserved as “General land”

In the villages studied particularly those with de jure and de facto forest governance, this institutional framework controversy has been causing problems related to forest conservation activities. The most significant one is unregulated forest harvest resulted from conflicting ownership between Villages and TFS, because of this, forest use is done in a prisoner’s dilemma approach. This dilemma further results into failure to create partnership in forest management and pose threat to forest sustainability.

#### **4.1 Problems Related to Forest Management Dilemma**

Multiple involvement of stakeholders in forest governance provides for more benefits to the villages resulting from forest products, this is supported by various researches which have proved the benefit of multiple actors in forest management, particularly villages with VLFRs and have invited other partners in business (Ponte, 2017). These benefits are far from being realized in villages who failed to establish VLFR’s and have so far been in forest management controversies with TFS. Since these villages do not have a VLFR’s their entire forests fall under general land and therefore any potential benefits from their forest are subject to TFS.

In Kiwawa village for example, our transect walk with the village council members proved this controversy between their village and TFS over management of proposed Kijawa forest. Despite that this forest being rich in species of different types and of commercial values, formal management is far from being realized as of lack of clear tenure see also (Mbwambo, et al., 2012). Their land is so far controlled by Kilwa District Council, TFS, and the Village councils; of great concern to the village is that they fail to make partnership with other non-state forest actors because they do not have a clearly defined right to forest management. this challenge is not only observed in villages with no VLFRs, for instance another village named Nainokwe which has a VLFR and other forests in their village land, their forest out of VLFR has been under the control of TFS which has been taking advantage of lack of clearly defined tenure and therefore TFS competing with the villages generating income from

forests. this quote from a key informant manifests competing land use needs between the state and local government.

TFS competing with the Nainokwe village by offering more permits to harvest forest products in the general land (i.e., harvesting forest products in a village land within Nainokwe village, outside the Kijawa VLFR). The competition came after realizing that the villagers are increasingly becoming aware and would wish to set aside more parts of their village land into the VLFRs. Previously, the villagers decided to establish a VLFR covering only 8,502 ha (Kijawa VLFR). Later, the villagers decided to add more land under the VLFR; 7,465 ha. FOR38KII.

There is conflict of interest between TFS and local communities. The TFS works to discourage the establishment of CBFM as they benefit from the revenues they collect from natural forests from the general land. They retains hundred percent (100%) of the revenues collected from forest products harvested from general land. So, when a village decides to establish a village land forest reserve, it means that all the revenues that were once collected by TFS will be retained by the village. Hence the TFS will lose revenues from this source. This is why they become reluctant in supporting local communities to establish and manage their surrounding forests.

Largely due to such competition, Nainokwe village managed to establish a second VLFR for they can legally generate income from their forests, without which the revenue from unreserved village land would be accrued by TFS. This also tells that, the only way the villages will exclude other use rights of forest in their village land is by establishing VLFRs, otherwise the village land becomes an open access resource. If forest in the village land is managed by the village council through VLFR use rights including rights of exclusion is exercised. On the contrary if there is more than one partner managing the forest without clear formal arrangement no user rights are exercised i.e., no right of exclusion. This is not arguing that the institutions are preventing the villages from establishing their VLFRs, but rather see this controversy advantageous to state forest management machinery as it gives them opportunity to collect more revenue from village forest land. These power dynamics between central government and village councils puts forest governance in a dilemma, preventing villages from forest resources benefits. This phenomenon is also ascertained by (Arezo Soltani, 2016) on conflicts between state and local governments in forest government (Mbwambo, et al., 2012).

#### **4.2 Problem Related to Forest Sustainability**

Where more than one authority exists without clear legal arrangements in forest management, conflicts and interests' clashes are likely to exist. hence posing a significant threat to sustainability. Under the theory of the commons (Emilio F. Moran, 2005, Charlotte Hess, 2007) forests in this situation is similar to an open access resource. Moreover, the direct engagement of state in managing forest in village land do not seem promising since the state failure to manage forest has resulted to decentralization and eventually establishment of VLFR's. There are concerns in that TFS put lesser guidelines that attract more timber harvesters to them

than in VLFRs. Not only that TFS attracts more timber buyers, but also invest on village land, see also (Zahabu, et al., 2009)

The involvement of TFS in management of unreserved forests has pushed the villages away from forest management activities. They claim TFS to be the sole responsible because they are the one who benefits from the resource. Unless there is a legal agreement between the village and TFS, via Joint Forest Management (JFM), village engagement in forest harvest is considered illegal. This has made the villages to care less of protecting forest in village unless it was a VLFR. According to (Mongo, et al., 2014) decentralized forest management has far better improved forest sustainability (Lusambo, et al., 2016), this suggests that all forest land management should be vested on the village regardless of whether it's a VLFR or not.

My observations suggest that the legal controversy is affecting forest management in many open areas. A considerable part of the benefit from timber harvest to be shared with the villages by TFS seems to be missing. This not only makes valuable trees in open areas susceptible to illegal harvest, but it also prevents the local government from providing necessary security or investing in other sustainable practices. Consequently, villagers lack a feeling of ownership with regard to forests in open areas, and thus are not likely to contribute to their sustainable management.

## **5. Conclusion and Recommendations**

Hence, this article concludes that, there is a significant controversy between land/forest institutions that threatens sustainability. While Land Act No 4 of 1999 provides statutory right land ownership right to the village, land Act No 5 of 1999 takes it away hence allowing other forest actors to engage in forest activities. The loophole created by the two Acts not only compromise land tenure issues but put pressure on village land forest land use. The experience gained during fieldwork calls for forest experts to revisit forest governance structures and allow quick establishment of a VLFR. This is to avoid the application of general land definition to all village land which is not under VLFR. Although the current process and procedures to establish VLFR's are time-intensive and involve expenses which the villages cannot afford still it is imperative to have VLFR under these ambiguous institutions. Village land forest on open areas face sustainability challenges. They are treated as if they are available for everyone. In this case these areas face unregulated timber harvest hence increasing rate of deforestation.

This study therefore, recommends a thorough review of forests institution to give the village full authority to manage their land. Non village authority actors including TFS should only focus on NFR's and should not interfere with village land. Both Land Act No 4 and the Village land Act No 5 should be revised to categorically state the role of villages in land governance. Apparently these two institutions operate in opposite to one another, while Village Land Act No. 5, 1999 and the Forest Act, 2002 gives right and authority to the village, the Land Act No. 4 takes the right away by defining the entire village land as "General Land".

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## Chapter 23

### **Influence of Globalization on Pre-school Teacher Pupil Ratio in Relation to Education for Sustainable Development in Uasin Gishu County, Kenya**

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#### **Abstract**

The Early Years of a child learning between ages 3 and 6 provide a critical window of opportunity for girls and boys to build foundations and develop skills that can help them to succeed in school and over the course of their lives. Reading and writing are two of the most important milestones that occur in a child's life. Reading and writing are important not only because they enable the child to enter the world of academia, but also because they allow him or her to communicate with other people; become both more sociable; and achieve a more interactive lifestyle. In the case of pre-schools, this is seen in terms of learner ability to read and write. Despite some significant gains in learner enrolment and community initiatives in Uasin Gishu County Kenya, there is a wide variation in the level of acquisition of literacy and numeracy skills in public pre-schools. The study sought to determine the factors influencing pre-school teacher perception on pupils' ability to read and write in public pre- Primary schools in Uasin Gishu County Kenya. The study sought to determine the factors influencing pre-school teachers' perception on pupils' ability to read and write in public pre-schools in Uasin Gishu County namely: the teachers' experience, teachers' qualification, teacher-pupil ratio, the adequacy and quality of the teaching /learning resources on the acquisition of literacy skills. To address the aforementioned issues, this study was guided by the following research objective: to determine teachers' perception on influence of pupil/teacher ratio on pupils' ability to read and write. The study was guided by the Systems Theory. The study used descriptive Survey research design. This study was conducted in the, Uasin-Gishu County, Kenya. The study population was 336 respondents. Stratified random sampling technique was used to obtain the sample. A validated questionnaire was used to collect data, to ensure the reliability of the questionnaire a pilot study was conducted. Data was analyzed using descriptive statistical techniques which include percentages and means. Data was presented in charts and frequency tables. The results indicated that teacher /pupil ratio is critical at this level for effective learning. The study recommended that small classroom population size leads to stronger social skills and enjoyable learning. The findings may also be a source of valuable information for further research in areas related to the study.

**Key Terms:** Globalization, Pre- Primary school, Teacher/ pupil ratio, Education, Sustainable

**Influence of Globalization on Pre-school Teacher Pupil Ratio in Relation to Education for Sustainable Development in Uasin Gishu County, Kenya**

By

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## **Introduction**

The people of this world were brought together by globalization which our ancestors would have ever imagined. In today's world, on the other side of the world, you can learn about problems by just one button or a hint of a screen. It is clear that globalization, such as increased communication and faster dissemination of ideas and new markets, has brought positive changes. Globalization, however, has also had a negative impact on the world (Shahjahan, 2016). Even though the West has kept its own, the Western countries pressured the underdeveloped countries to break down their commercial barriers. This has made it difficult for these countries to export their agricultural products, which has significantly decreased the export income that they receive.

Competition is dependent on education quality in the global economy, while educational objectives are economically dependent. Education changes under these circumstances as economic needs change. Due to the globalization of the economy and the widely accepted concepts of neo-liberalism among developers, education is being viewed in terms of the theory of human capital, which values education, since it is an investment that prepares students to help economic growth (Sheu & Ijaiya, 2017). It is imperative that Early Childhood Education is recognized as the starting point for lifelong learning within education for sustainability. There are still a large proportion of children who do not have access to education in the early years. Early childhood education offers a valuable starting point for early childhood education for sustainable development, and the highest priority is therefore to ensure access for all children to early childhood education.

The improvement in academic performance is preceded through ensuring that learner get the best education as per the national goals of education. The important of Early Childhood Development Education is not just in setting the foundations for cognitive, social, emotional, physical, and language development of children. It is often essential in terms of the detection of impediments to quality learning in public schools which if not addressed could affect country's national goals of education, bill of rights, education for all objectives and vision 2030 social pillar goal. Provision of quality education is one of the goals identified in the new United Nations Sustainable Development Goals (SDGs) (Sitati, Mwangi, Bota & Rapongo, 2016).

Early life education environments and experiences are one thing that can create barriers to development in children if their quality is poor Yıldırım and Akamca (2017). Early life education and experience environments are defined in what is known as early childhood education (ECE). This is part of the cycle for young child from birth to 6 years of age in education systems globally prior to starting school in first-class. This section of the education cycle is referred to differently as early childhood development (ECD) and early childhood education and care (ECDE).

A variety of parameters and indicators are available to evaluate and measure the quality of an ECE or preschool. There are several parameters mentioned in education and studies. These include the number of children in a group; pre-school physical conditions which include buildings, space, activities and activities outside the school; the equipment that needs to be developed and includes materials that allow pupils to play dramatically; as well as materials for art and building work; the use of time and space, including a schedule; and professional experience of growth of

teachers (Denboba, Hasan & Wodon, 2015). The right to education is fully explained in Article 13 of the International Covenant on Economic, Social and Cultural Rights. In this document, education is recognized as a tool of empowerment through which the economically and socially marginalized people of the world can overcome poverty, participate fully in their communities, be safeguarded against labor and sexual exploitation, realize other human rights, protect the environment, and control population growth (UNESCO 7) (Vagenes et al., 2020).

Additionally, it is recorded that education should increase each individual's "sense of dignity" and "promote understanding among all ethnic groups, as well as nations and racial and religious groups" (UNESCO 8) (Vagenes et al., 2020).

Evidence illustrates those improvements in programme quality and learning outcomes are often correlated with better educated and trained teachers. Several studies have also found training to have positive effects on teacher behavior and interactions Bose (2020). Teachers with more training and experience are more likely to hold child-centered beliefs and engage in similar pedagogical practices, which can be associated with better learning outcomes for children. There is evidence from the Organization of Economic Cooperation and Development (OECD) countries that favorable structural characteristics, such as low child-staff ratios, improve both programme quality and child outcomes.

The concept of Sustainable Development is not included as a separate subject in the Swedish school system. However, SD is included as parts of the descriptions of all subjects in the curricula. All teachers are therefore expected to include sustainability issues in their teaching. Teachers should also enable students to train subject specific capabilities for the future. Moreover, SD is described as one of the comprehensive perspectives in education that Swedish schools have to include in their work. The idea of the DESD was to implement ESD at all levels of education. As a consequence, there are clear linkages between the Swedish curricula and the international DESD documents (Njoroge & Murungi, 2018).

In working toward improving quality there have been major revisions in ECE and teacher education policies in countries across Asia and the Pacific. However, the process of policymaking itself is beset with struggles between conflicting interest groups. Most often policies reflect the values of the more dominant groups. Many of these changes can be linked to the effects of global and neoliberal ideologies shaped by capitalist values of a Euro-US 'West'. The core of neoliberalism comprises the ideas of individualism, consumerism, free choice, competition and efficiency – and these are also the core concepts of a market economy. When translated into educational policy and pedagogy these ideas reflect a distinct shift from a group-orientation to an individual-orientation; education pivots from being a social, not for-profit enterprise to a consumer-based, for-profit movement.

In Colombia, the government initiated a programme to assist families with young children. Started in 1986, the initiative was known as Community Welfare Homes. A decade into the programme, the government carried out an assessment of the programmes impact. The quality of the programme was found to be inadequate (Denboba, Hasan & Wodon, 2015). As a result, measures were instituted to improve programme quality. One of these measures was identification of indicators of quality and standards for the community homes. The mothers in these homes have numerous responsibilities. These include organizing and implementing educational and recreational activities, supervising the children's growth and development, and food preparation. This has raised questions over time about the efficiency of the programme. With these acknowledged challenges persistent, efforts continue in

Colombia to improve the quality of services offered and hence improve child outcomes.

In Tanzania, the utilization of instructional media in primary schools is a problem since in most primary schools; there is inadequate use of such materials for improving learners' mastery of reading skills Vagenes *et al.*, (2020). It was further revealed that instructional media are not used frequently due to large number of pupils in classrooms and shortage of recommended resources in school setting, and as a result, pupils graduate with inadequate knowledge and skills to undertake real world tasks. The issue of primary school learners' mastery of reading skills in Tanzania is further reported in the media.

A national survey in Kenya found that more than half of learners in Grade Two are unable to infer meaning from short passages of text hence the introduction of Tusome Program which aims at improving reading outcomes for 5.4 million children in Kenyan by 2018. Parents and stakeholders must start facing the reality that most of their children in school are not learning, reading being the core skill for educational achievement (Chepkonga, 2017).

### **Statement of the Problem**

In ECE practice today, the emphasis locally and worldwide is shifting to programmes that are holistic, integrated, child-centred and child-friendly. It is today recognized that children learn differently from adults. Children learn by doing things practically and through play and discovery. There is a strong consensus that educating for sustainability should begin very early in life. It is in the early childhood period that children develop their basic values, attitudes, skills, behaviors and habits, which may be long lasting. Early childhood programs are meant to foster the interests of a child, support the achievement, motivate, fascinate and capture attention. The program is intended to support a holistic development of a child. When children actively participate in the learning process, they learn well. To this end, adequate teaching/learning materials are needed at the ECE centers. Most ECE centers in Kenya do not receive direct government funding, which requires all stakeholders to work in concert to provide the necessary resources for education and learning. Sustainable development requires people to be able to think critically about things taken for granted, and to find creative solutions and alternatives to unsustainable habits and practices, which tend to dominate at present. The work in the early years should not be about teaching how to read and write early and formally. Despite some significant gains in learner enrolment and community initiatives in Uasin Gishu County Kenya, there is a wide variation in the level of acquisition of literacy and numeracy skills in public pre-schools. The chapter sought to determine the factors influencing pre-school teacher perception on pupils' ability to read and write in public pre- Primary schools in Uasin Gishu County Kenya.

### **Significance of the Study**

The chapter will shed light on the factors associated with teacher pupil ratio and learners acquisition of reading and writing skills in public schools in Kenya. The findings from this review will help the ministry of education to formulate and implement ideal policies to enhance early intervention for learners experiencing reading problems, enhance reading among lower primary school pupils and to equip teacher trainees with relevant knowledge and skills to enable them to handle lower primary school in Kenya where there is high pupil teacher ratio.

## **Review of Related Literature**

### **Factors influencing pre-school teachers' perception on pupils' ability to read and write in public pre-schools**

The ideal pupil/teacher ratios may depend on a wide variety of complex factors, including the age and academic needs of the pupils represented in the ratio (younger children or those with special educational needs typically require more time, attention, and instructional support from teachers) or the experience, skill, and effectiveness of the teachers (highly skilled teachers may be able to achieve better academic results with larger classes than less skilled teachers with smaller classes (Singer-Brodowski et al., 2019).

Nilsen (2021) claim that in developed countries the recommended teacher-child ratio is 1:10 enabling teachers to give quality and individual attention. KICD state that for children below one year the teacher to child ratio should be three to four, children per teacher, for three years old children, it should be 10:15 children to one teacher, for children between 3-5 years old the ratio should be 25:30 children to one teacher and for 5:6 years old, the ratio should be 35 children per teacher. KICD further suggests that the interactive discussions usually generated while playing games greatly encourage and promote children's mathematical perception and understanding (Nilsen, 2021).

Children learn words through contextualized and decontextualized talk during read-aloud. Storybook reading also enables referencing print by, for example, highlighting the forms, functions and features of print: this supports children's code-based skills, such as print awareness, alphabet knowledge and phonological awareness (Wood *et al.*, 2018). Rich language interactions within the context of shared book reading can serve to make children sensitive to the sounds and letters in words.

Teachers should-understand the objectives of play materials to the children which are to explore, and develop personal talents and skills. Play materials increase children's vocabulary and self-expression as children play freely, their large and small motor skills develop, body muscles are strengthened, control and coordinate different parts of the body, develop their accuracy estimation o f skills, relax and enjoy them. Therefore it is very necessary for pre - school educators to provide young children with a variety of play materials (Novitawati, Wamaungu & Astuti,2018).

### **The adequacy and quality of the teaching /learning resources on the acquisition of literacy skills**

The central role of teaching materials is to support teaching by making ideas and concepts clear and making learning interesting and vivid. Teaching/ materials can be invaluable in promoting motivation and retention. Kivati (2017) indicates that for effective and quality teaching and learning, there must be adequate resources. Basic to the success of any attempt at curriculum implementation and improvement is the preparation of suitable textbooks, teachers' guides and other teaching and learning materials. These teaching/learning materials support the teacher in delivering his information. When the teacher has to hand tools for the job, his confidence, his effectiveness, his productivity will increase significantly. With adequate and standardized resources, teachers' professional competencies are more fully utilized and he accomplishes larger and better results. This chapter determined whether the availability of enough teachers affected provision of quality education in public ECDE centers in Uasin Gishu. The ECD teachers' ability to implement program, innovations is a function of the availability of tools for the job such as textbooks,

dictionaries, chalkboards, workbooks and posters in the teaching. Teachers need suitable resources and facilities for them to effectively teach.

Instructional materials include text books, maps, charts, photographs, play materials Hash cards, chalkboard, colored chalks, pencils, colors and water. Play materials are for example swings, ropes and hopes, see saw and balls. They are very essential because they make teaching more effective, meaningful, increase learner's motivation on concentration span and simplify concepts. Performance among the learners can be affected by teaching learning resources, on how they are utilized by the learners in terms of availability frequency of utilization and time allowed for use (Utami, 2016)

Children learn through activities which are the highest phrase for children's development. Through activities, they are able to discover, explore and achieve optimum learning. Early childhood learning is through getting involved in manipulating objects (by doing) which nourishes every aspect of children's development that forms the foundation of intellectual social and emotional skills necessary for school and in life. Therefore, the provisions of teaching and learning materials to children are essential since they provide new experience for children and encourage them learn from one another (Bento & Dias, 2017).

The use of teaching and learning materials help children understand abstract concept, solve problems and develop critical thought process, for example they teach the concept of number (building blocks). Instructional materials also encourage collaboration in solving problems by having children work in groups to discuss and solve problems together. Children also are able to interact with others, adapt new technology and think through logically. The computer may be used in the lecture, arithmetic tutorials, similitudes and problem solving of Andiema (2016). Hoskin, Boyle and Anderson, (2015) notes that some state-of-the-art hypermedia — a storage of information and usage design that combines text, animation and sound to meet individual needs — may be adaptable for use with mentally retarded children.

Teachers use resources to enhance learners' participation in class for effective learning. Textbooks deliver the curriculum and are the single most important instructional material that enhances learning. When textbooks are provided in class, the lesson time is not wasted while teachers and learners copy text on and off the blackboard (Paolini, 2015). Availability of textbooks is critical to learning since there is a positive correlation between pupil's performance and availability of textbooks. According to KICD, these are several varieties of teaching learning resources that can be used like audiovisual aids (television, videos) audio aids such as radio, visual aids such as, flash cards, tactile aids like dolls and toys. All these dusters of teaching learning resources can assist the child to learn and acquire new knowledge. Aids such as charts, pictures can enable a child to learn and remember concepts learnt.

Systems Theory is comparable to the function of education production. According to Yurtseven and Buchanan, (2016), education has a high-priority function in the production of human resources, and that the production function is a relationship between the amount of input and intervening factors to produce a certain good, with consideration to its quality (Broks, 2016). An education production function therefore represents a functional relationship between school and students inputs to an associated measure of school outputs

## **Methodology**

In this study, a descriptive survey model was used to describe the existing situation. The concepts have been analysed and narrated to describe how sustainable

development is affected by the pupil teacher and also development of writing and reading skills. Another goal was to establish the adequacy and quality of the teaching /learning resources on the acquisition of literacy skills contributed to the information for this study.

### **Discussion of Findings**

On factors influencing pre-school teachers' perception on pupils' ability to read and write in public pre-schools, the study has established that the ration of teachers to pupils is still high within Uasin Gishu with 1 teacher still handling over 60 learners in public ECD centers. It was established that teacher to pupil ratio is affected by low number of government employment of ECDE trained teachers. The results agrees to the finding by Nilsen (2021) who claimed that in developed countries the recommended teacher-child ratio is 1:10 enabling teachers to give quality and individual attention.

On the adequacy and quality of the teaching /learning resources on the acquisition of literacy skills, the study established that a number of ECDE centers within Uasin Gishu have been built within each primary school. For learners to acquire literacy schools, centers must be equipped with enough teaching materials which were found not to be sufficient. Availability of textbooks is critical to learning since there is a positive correlation between pupil's performances. In agreement to this, Kivati (2017) indicates that for effective and quality teaching and learning, there must be adequate resources.

### **Conclusion**

This chapter established that there is still high pupil teacher ratio in many public ECDE centers when compared to private ECDE centers. This is an indication that learners in public ECDE centers are likely to develop their reading and writing skills at a lower rate. Given that quality ECDE teaching in the county is affected by ineffective enforcement of education policies regarding recruitment of teachers, it is recommended that employment of ECDE teachers should correspond with enrolment of learners in public preschools.

### **Recommendations**

For pupils to engage reading successfully, all stakeholders in the primary school fraternity should be mobilized and supported to enhance development of quality reading.

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## Chapter 24

### **From Ngaka Cooperative Society to Mlango Mmoja Cooperative: The Case of Coffee Production and Marketing in the Matengo Highlands, Tanzania**

By

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#### **Abstract**

This chapter historically dissects the contribution of cooperative movement in sustainable development of the Matengo Highlands. The main objectives were to examine the evolution and development of coffee farming and marketing in the Matengo Highlands. This activity was important as it directly relates to the formation, evolution and consolidation of cooperative movement as a colonial strategy in controlling production and marketing of coffee as an export crop which earned the colonial power foreign exchange. This contribution was also important for this chapter to address so that it is able to know how was cooperative movement instrumental in bringing about sustainable development through the handling of coffee farming and the marketing thereof. In this case the role of colonial state in the promotion of cooperative movement through enactment of laws, legislations, directives and passing of policies, was also under focus in this chapter. The chapter benefited from a research which was structured in a historical design so that to capture the dynamics of changes and transformations through which coffee production and marketing was implemented in Matengo Highlands in South Western Tanzania. The research was basically qualitative in nature due to the types of historical sources to be used in developing this chapter both primary and secondary sources. The main argument of this chapter is that cooperative life in the Matengo Highlands which has been marked by series of changes emanating from legislations, directives and policies statements instituted by respective political power. Cooperation here had existed in pre-colonial period as an economic production and socio-economic strategy. Cooperation was self-sustaining given the economic and historical conditions obtaining in the Matengo Highlands. The colonial state during British administration institutionalized cooperative movement for the purpose of promoting the export crop economy. Postcolonial state inherited the colonial system of suppressing farmers' cooperative to allow the state accumulate surplus value. The situation was much more precarious during the so-called *mlango mmoja* cooperative movement formed through a government directive to form the Agricultural Marketing Cooperative Societies. As a result, AMCOS and cooperative movement in general are no longer organs for sustainable development of the people who are systematically reduced to poverty-stricken situation.

**Keywords:** Tanzania, Matengo Highlands, cooperative movement, coffee production, AMCOS

**From Ngaka Cooperative Society to Mlango Mmoja Cooperative: The Case of Coffee Production in the Matengo Highlands, Tanzania**

By

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### **Introduction**

This chapter examines the introduction and development of coffee production in the Matengo Highlands. Agricultural production among the Matengo Highlands dwellers have been a common practice. They used to cultivate the highlands with their unique *ngolo* farming method growing maize, beans, legumes, tubers, vegetables and wheat. The labour process had developed kind of cooperative work popularly known as *ngokela*. The coming of the colonialists engendered in transformation of the people in the Matengo Highlands. Colonialists introduced Arabica coffee. This is a crop which was not for subsistence in the Matengo Highlands.

The modern marketing cooperatives were launched to control coffee industry and were institutionalized through legislation of 1932. Section 36 of 1932 cooperative legislation was reinforced by policies of Coffee rules passed by the Wamatengo Native Authority conferred by section 15 of the Native Authority Ordinance of 1933 and amended by the Redrafted Umatengo Coffee Rules of 1938. It was further agreed that Coffee Industry (Improvement and Registration) Ordinance of 1936 be applied to the Matengo Highlands. By this ordinance coffee growers in the Matengo Highlands were obligated to sell their coffee through cooperative union. In 1949 a separate Department of Cooperative was established in Tanganyika which increased the number of marketing cooperatives (Ndomba, 2015:168). Other laws include the 1968 Cooperative Act which repealed the 1932 Cooperative Ordinance, the 1982 Act which reestablished cooperative societies after being abolished in 1976, and the 1993 circular which permitted private buyers to buy coffee from farmers. In January 2018 Prime Minister issued directive on *mlango mmoja* marketing of coffee through the AMCOS (Majaliwa, 2018) and the 2020 Minister of Agriculture directive allowing private buyers to operate alongside the AMCOS. This was the situation of coffee producers in the Matengo Highlands for the whole period.

### **Statement of the Problem**

Cooperative movement in Tanzania has its history associated with production of cash crops. The 1932 Cooperative Ordinance started registering cooperatives in coffee producing areas of Kilimanjaro (NRC, 56/N/D) Mbinga, (NRC, 176) Bugufi, (NRC, 459 & 459A) Mwakaleli (NRC, 68). The colonial administration encouraged coffee production. In 1968 Cooperative Ordinance of 1932 was repealed by Act, of 1968 which ordered multipurpose cooperative societies to be formed. Registrar of cooperative unions was empowered to amalgamate or split up societies. Therefore, all cooperatives were forced to accept the imposed government administrative structure in which unions were amalgamated without members assent. This force applied by state culminated into peasant rebellion.

Given the rebellious situation among peasants in Mahiro and other cooperatives of Matengo Highlands and the response of the district administration called for a deep historical inquiry into the matter. This research intended to investigate the historical circumstances which prompted the eruption of these mass uprisings by coffee farmers in the Matengo Highlands.

### **Main Objective**

The main objective of this study was to investigate historical developments of coffee production, in the Matengo Highlands and what triggered the rebellion of the coffee farmers against their cooperative leadership. Specifically, the chapter examined the evolution and development of coffee farming in the Matengo Highlands from 1920s to 2019. Finally, the chapter will examine the role of the state in production, marketing and supervision of coffee in the Matengo Highlands.

### **Review of Related Literature**

The theory underlying cooperatives in Tanzania have been adopted both from the Rochdale Pioneers in England (Fairbairn, 1994:4) and Chayanov's theory of peasants' cooperatives of Russia (Chayanov, 1991:11). However, the Chayanov's theory is much relevant to this study which advocates for agricultural cooperation among small-scale farmers. This theory addresses how farmers' cooperatives can enhance their sustainability under pressure from large-scale production organizations and private traders, who, are more organized than the small-scale farmers. Thus, agricultural production activities are best organized in small individual units however, in some areas, voluntary cooperation among such units is necessary (Chayanov, 1991:10-11). Given the characteristics of the small-scale farmers in Tanzania, Chayanov's theory is appropriate. Farmers from Matengo Highlands are more relevant to this theory as they were engaged in coffee production a crop which needs very close follow up from production, processing and marketing (Maghimbi, 2010:7). This is true because from its inception in 1926 Ngaka cooperative Society had been preoccupied by marketing of coffee produce (Illife, 1979:215).

Export crops were introduced by the colonialists to meet their demand for raw materials for their home countries. Most popular export crops in Tanzania included sisal, cotton tea, and coffee (Coulson, 2013:65). Export crops were meant to be produced by commercial planters and settlers. This later proved impossible for cotton in the lake zone (Kapinga, 2020:13), coffee and rubber failed as plantation crops in Usambara and Kilimanjaro (Baffes, 2014: VI). Coffee production by settlers failed in Bukoba (Coulson, 2013:65). From then there was an encouragement to make peasant production the main stay of colonial economy in Tanganyika. Coffee was encouraged to be cultivated in Mbozi and the Matengo Highlands.

The policies of Tanzanian government regarding cooperative societies from colonial era have never been consistent and frequent, policy changes have shaken the very foundation of cooperative movement making them unstable to cope with dynamics of production and marketing of crops (Mhando, 2014:1). Furthermore, state coffee boards and cooperatives successfully operated all coffee marketing in terms of inputs, transportation and processing before 1990s (Maghimbi, 2010: vii). The 1990s reforms saw private buyers allowed to purchase coffee from farmers had far reaching effects in coffee industry. Many issues such as taxes, licenses, coffee auction and the role of TCB were not considered by the reforms (Baffes, 2003: IV). The reforms generated policy of liberalization of coffee industry which affected the people of Matengo Highlands. Subsidies to agricultural inputs were abandoned; MBICU and the primary cooperative societies died (Mhando & Itani, 39). Liberalization affected the price of coffee, the quality of coffee, and impoverished coffee farmers (Paschal, 2004:2).

There were attempts by coffee farmers in the Matengo Highlands to devise copying strategies against the effects of liberalization of coffee industry in production, processing and marketing (Mhando & Itani 39). Integrating AMCOS and SACCOS was among the copying strategy (Mchopa & Huka: 1). The application of Warehouse

Receipt System was another copying strategy in the Matengo Highlands (Mapunda et al, 2018:24). However, the farmer's participation in WRS was hampered by lack of education on the services of the WRS (Mapunda, 2019:107).

Matengo Highlands was a coffee production area in Tanzania from colonial period to 2019. The production of coffee was left to the individual farmers with little effort by the state to facilitate production. Apathy reigned among coffee grower's production dropped marketing was left in the hands of PCB who practiced *magoma*) a practice from late 1990s. A state intervention through *mlango mmoja* was again quite chaotic with a state directed Agricultural Marketing Cooperative Organization Society being rejected by the coffee growers on the grounds that they were oppressive and exploitative (Interviews 2019).

The DC of Mbinga admitted that farmers should be prepared for their money being stolen by the body members of AMCOS (Interview, 2019). While the Matengo coffee farmers conceived coffee and its production as a means of earning money the colonialists conceived it as a strategy of earning foreign exchange and raw materials for their industries. On the other hand, the state both colonial and post-colonial conceived cooperatives as mechanism to control coffee farmers and their produce through laws, policies state machineries and directives. This chapter sets to examine the development of coffee production, processing and marketing. To grasp the dynamics and processes which later on culminated into the peasant rebellion against the *mlango mmoja* attempt to control farmers. The state muscles employed to suppress the peasants is partly a testimony of state intervention in coffee production and cooperatives movement against the ICA principles.

### **Methodology**

The research was structured in a historical design so as to capture the dynamics of changes and transformations through which coffee production was implemented in Tanzania. The research was qualitative in nature due to the types of historical sources used in developing this study. The bulk of information and data were generated from Tanzania National Archives where most of the colonial records on coffee farming were accessed, the research also accessed data from National Records Center, Dodoma where most post-colonial records on coffee production have been housed. Mbinga district council and Town council authorities provided the necessary information and documents.

## **Materials and Discussion**

### **The Origin of the Matengo People**

Matengo Highlands are located in the southern western of Tanzania (Kecskesi, 2018:17). The name is derived from the people who are Bantu based on clan system from different parts of Malawi, Msumbiji and Ungoni. To the west is bordered by the rift valley which descends into Lake Nyasa. To the east, north and south it is bounded by lower Matengo of Mpepo division, and eastern parts of Mbinga urban division (Kapinga, 1993:32). The topography is an extension of Livingstone mountain ranges which are cut by perennial rivers entering into Lake Nyasa (Pikes, 1938:7). Population was estimated at a steady growth (Ebner, 1959:123-124, (CSB, 1967/1968:9), (BS, 1978:97 (BS, 1988: ii, URT, 1996:14), and (URT, 2016:16). This population pressure on land caused constant migration southwestwards and eastwards.

The original inhabitants of this area are the Matengo. It is said to be a derogatory word used by Wanyasa, Wangoni and Wanindi to denote the people who were living in the bush (Interview, 2020). Most of the records and informants interviewed could trace their ancestry only as far back as seven generations (Interview, 1993). If generation is 30 years, which will give us a round figure of two centuries back (Kapinga, 1993:34). The land started being inhabited by different clans in the 19<sup>th</sup> century from Nindi origin found in the Tanzania and Mozambique boarder. Others came from Malawi. Yet many others are said to come from Upangwa. The last group migrated from Songea (TNA, SDB).

Economically the Matengo cultivated maize, sorghum, millet and beans for food. Agriculture was supplemented by hunting and trapping of wild game and gathering of forest products (TNA, SDB MF 40). Few animals and chicken were tamed to supplement protein intake.

### **Development of Coffee Production in the Matengo Highlands**

Coffee farming in the Matengo Highlands was associated with the introduction of colonial economy and its cash crop production project (TNA 155/A). This project was engineered by the missionaries, the colonial government, and the African entrepreneurs. Colonial economy was introduced to produce raw materials for their metropolitan industries and generate income and revenue in the form of foreign exchange (Ilffe, 1979:165).

In order to spread Christianity missionaries of Benedictine Order arrived in the Matengo Highlands in 1899 and erected a Parish at Kigonsera with series of outstations in the interior (Kapinga, 2016:16). The missionaries carried out coffee production experiments at Peramiho, Kigonsera and Litembo. The coffee plants flourished well at Kigonsera and Litembo but it was neglected during the World War I. After the war it was evident that coffee could successfully be grown in the Matengo Highlands (Kapinga, 1993:64) and (Ebner, 1959:122).

### **British Period 1919 to 1961**

When the British took over the Matengo Highlands there was no potential export crop in the area. This is because German rule was not entrenched in the area because of poor communication, lack of entrepreneurs (Haule,1973:157) and perhaps the Matengo were already integrated in capitalist production through engaging in migrant labour to the coastal sisal plantations (Kapinga, 2021:31). From 1920s there was a steady rise of prices of coffee and cotton export crops. This was an incentive to the expansion of export crop production by peasants. This was followed by expansion of

export crops in new areas during the 1930s. Coffee began to be cultivated by the Hangaza of Bugufi in 1924-25, the Nyiha and Matengo in 1928 (Iliffe: 1979: 286-70). The introduction of cash crops in Matengo Highlands was prompted by the national and international demand for grow more crops. The governor made speeches on the topic while the chief secretary issued circulars, District Officers held numerous conferences with Provincial Commissioners and Director of Agriculture strongly advised people to grow more crops (TNA 155/A).

Therefore, introduction of coffee in the Matengo Highlands was the result of motivation from the Tanganyika administration. When inaugurating the Matengo local court at Mahenge in March 1926 the District Officer G.W. Holmes urged the people of Umatengo to realize that land embraced great wealth (TNA/AR). Coffee planting in Matengo Highlands began in 1921-22 when an officer in-charge of Litembo *boma* L.V.A. Haviland planted some Arabica coffee at Lipumba experimental station. The thicket of the coffee trees in the Ngaka river valley remained in good condition up to 1928 when the Director of Agriculture, A. H. Kirby, came for the economic survey of Umatengo. In 1933 the government provided grants-in-aids for coffee planting demonstrators. Henrick Limka and Kalistus Kayuni were under this program. They were sent to Moshi where they obtained tuition for seven months on matters concerning coffee. That is, the choice of land and seeds; preparation of nurseries, planting, weeding, compost pits, manuring, capping, topping, pruning and bundling, preparation of the crop identification and control of insect pests and preparation of time table of seasonal work (TNA 155 A. 3/22). Upon their return these Matengo apprentices were entrusted with assisting the coffee growers on matters pertaining to coffee production under the supervision of Agricultural Officer.

Encouraged by results at Lipumba experimental station, the District Officer brought Kent Coffee seed which was planted at Lipumba, Litembo, Pilikano, and Myangayanga nurseries by the agricultural officer in 1939. The seedlings were distributed under close supervision to 213 Matengo coffee growers who planted 17, 551 trees in 1935 (TNA 155 A. 3/22).

### **Local Entrepreneurs in Coffee Farming**

Chrisostomus Makita was born in 1901 and raised at Myangayanga. Makita was a son of *Bambo* Mtwara Bunungu and grandson of *Bambo* Makita I the founder of Makita clan. In 1910 the colonial government ordered the chief and *jumbes* to persuade parents to send their children to school. Five boys from Myangayanga were sent to the Roman Catholic Elementary School at Kindimba. Makita joined the school in 1911 learning elementary arithmetic, reading, writing and catechism. In 1913 he went to Kigonsera to continue his studies and there he was converted to Christianity. From 1914 -16 he joined another school at Ugano where he completed his formal schooling. He worked in the district office and then to the Bambo palace as a clerk. In 1924 Chrisostomus Makita and his colleagues went to the Tanga sisal estates where he worked as a clerk until 1925 when he went home to work as a court clerk of Umatengo (Kapinga, 1993:78-79).

When the District Officer brought coffee seed from Moshi, he gave it to Makita for planting. Later, Makita resigned from his post as a clerk to spend more time and energy caring for coffee seedlings in the nurseries. The Senior Agricultural Officer gave subsidies of 25/- to each nursery for paying casual labourers. Seedlings were distributed to interested people for transplanting. These were old Christian people with at least formal education, Makita's relatives and school mates, court

elders and ex-migrant labourers. Makita was assigned to supervise the day-to-day operation of nurseries and distribution of the seedlings.

When coffee growing started in Matengo Highlands the agricultural officer, one clerk and Makita acted as instructors and inspectors. In 1935 Makita was sent to Moshi for studies. He was removed by the district officer allegedly for practicing nepotism in the distribution of coffee seedlings. In 1939 Makita was transferred to Songea to work as clerk with Ngoni Matengo, Cooperative Marketing Union Ltd (NGOMAT). In 1942 Makita resigned and returned to Mbinga where he initiated formation of Matengo Marketing Cooperative to deal with coffee. In 1952 Makita became a *bambo* of Myangayanga *baraza* until 1956 when he was crowned as paramount chief of the whole Umatengo.

### **Peasant Coffee farming in Matengo Highlands**

By 1934 peasants in the Matengo Highlands were already growing coffee as follows 8 growers (1929), 9 growers (1930), 13 growers (1831), 15 growers (1932), 43 growers (1933), and 46 growers (1934). In terms of coffee trees the following were the figures: 613 trees (1929), 2213 trees (1930), 3323 trees (1931), 3437 trees (1932), 9610 trees (1933) and 10442 trees.

Most of the coffee grown was not the KENT. For instance, at Luwaita river, a native called Joseph had planted sixty arabica coffee trees from seeds he bought from Arusha where he had been working as migrant labourer in a coffee plantation (TNA, 1929). Unlike the 1927 circular which prohibited native coffee growing, the British colonial state started encouraging coffee growing. The Chief Secretary advised the Provincial Commissioner for Mahenge Province to help the people of Matengo Highlands improve coffee production (TNA 1/). In 1933 the colonial government issued coffee rules. The aim of the rules was to closely supervise coffee industry for better quality hence better price (TNA). Again in 1934 government supplied Kent Coffee beans from Moshi to the Matengo tribal coffee nurseries. The District Agricultural Officer advised that government should not police of coffee industry instead it should encourage new planting altogether (TNA 1). It was further agreed that Coffee Industry (Improvement and Registration) Ordinance of 1936 be applicable to Matengo Highlands. The ordinance required peasants to sell their coffee to a cooperative union. The British colonial government played a very crucial role in the introduction, spreading, and improvement of coffee industry in the Matengo Highlands. The results are partly revealed by the production trends of coffee handled by unregistered Ngaka Society (TNA Coops/27/11).

In Post-World War Two situation coffee production and the demands of increase of exports stimulated production. Prices of coffee went skyrocketing from 3cents per kilogram in 1937 season (TNA 155) to shs 5/50 per kilogram in 1950 season (TNA 155). The rise of price contributed to the rapid expansion of coffee planting in the Matengo Highlands. The number of coffee trees increased from 271, 909 in 1940s to over 1,000,000 trees in 1952. The number of villages producing coffee in the Matengo Highlands rose from six in 1938 (TNA 155) to 24 villages in 1952: (TNA 155). The number of coffee growers in the Matengo Highlands increased from 278 in 1935 to 4420 in 1952 (TNA 155).

Furthermore, coffee planting extended to non-traditional coffee areas. For example, Makita denied coffee seedlings to the people of Matengo Highlands when he was entrusted with the duty of distributing coffee seedlings from the government nurseries. On the other hand, Henrick Limka an agricultural instructor recommended that the Hagati valley was not favourable for coffee production. In 1945 coffee was

for the first time planted in Hagati Valley and gained rapid expansion in 1950s (Interviews 199). Production of coffee as a result increased ten-fold from 12 tons in 1941 to 110 tons in 1950 and further increased almost two-fold from 110 tons in 1950 to 196 in 1952.

The increase in the number of coffee producers, acreage, villages, and volume in 1950s further witnessed the development towards export cash crop production. In 1953 a warehouse was built at Mkinga. Therefore, the activities pertaining to coffee handling were transferred from Songea to Umatengo. Such duties as weighing and packing of coffee were done under the supervision of Ngaka cooperative society formed in 1926. More primary societies were formed at Mhagawa, Pilakano and Mapera. These primary societies were then united to form Matengo Native Cooperative Union which was registered on 10<sup>th</sup> September 1954 to handle the Matengo Coffee instead of being handled by NGOMAT (Tanganyika, 1956).

### **Coffee Production in Post-colonial Period in Matengo Highlands**

At the eve of independence and after independence, the whole of Matengo Highlands was flowered by farms of coffee trees intercropping with trees, Irish potatoes and bananas. Each household had at least 200 coffee trees especially the young couples. This was partly because for a young boy to get married as a matter of necessity must have a coffee farm of at least 200 coffee trees. These trees guaranteed the new couple of a comfortable life coffee being the potential income earner in the Matengo Highlands (Mtecha).

The improvement approach of the late colonial era affected coffee farming in the area as a response to the claim by coffee consumers that Mbinga coffee was of poor quality. The coffee was claimed to be harvested and processed under poor conditions. Farmers picked coffee early in order to pay debts and processed it at home using hand pulpers, buckets and dirty water. In response to these challenges, efforts were put in place along with the improvement plan. The question of improving the quality of coffee produced in the Matengo Highlands was high in the agenda. There had been attempts to improve coffee processing under the Matengo Native Cooperative Union (MANCU). From 1963 to 1964 a number of central pulperies were built at Lituru officiated by Julius K. Nyerere in 1964, Ngima officiated by Rashid M. Kawawa 1964, Kindimba/Ngaka officiated by Abdul Jumbe Mwinyi 1964 Mkumbi/Pilikano (1964), Wukiro, (1966) Mahenge, Nyoni, (1963) Ntua/Tukuzi (1964) and Mhagawa Asili (1964) were operated for sometimes by the cooperatives and Ugano central pulperies was operated by MANCU (Mtecha 2020). The pulperies were run very well by very honest and reliable though uneducated people (Mtecha, 2020).

The results were good; production of quality coffee was ascertained in the late sixties, in the seventies and early eighties. Area under coffee farming increased in the Hagati valley, number of coffee farmers went escalating production of coffee rose and income generated out of coffee sales went very high. For two consecutive years the income per capita of Mbinga district during this period was the highest in the country (Kapinga October 2020).

Marketing system under the MANCU with its fleet of primary cooperative societies was something to reckon with. There was rapid increase of registered primary cooperative societies. (NRC, 1973) Farmers achieved remarkable socio-economic development. They earned a lot of money as reflected in their changing pattern of consumption. There was mushrooming construction of standard houses from baked bricks and thatched with corrugated iron sheets, many parents sent their

children to private schools especially in Kilimanjaro private schools and colleges (Interviews Mtecha 2020). Procurement of motorized grain grinding machines was fashionable among the farmers of coffee in the Matengo Highlands. Construction of schools, churches, offices, dispensaries, coffee warehouses, buying trucks and tractors, safes on self-help basis was the spirit of the coffee farmers of the Matengo Highlands. The coffee growers' cooperative societies as they were registered under the Cooperative Societies Ordinance (Ordinance No. 7 of 1932) in the Matengo Highlands among other activities stipulated in their by-laws and budgets were maintenance of roads, bridges, gardens and education at KNCU Coffee College and Mzumbe cooperative college (NRC, By-laws). The other services which were provided by the co-operatives were such as wholesale and retail trade.

In 1976 marketing cooperatives were abolished without regard of the regulations regarding liquidation or dissolution of co-operatives. The government imposed on its place the Coffee Authority which was a parastatal organ. Coffee Authority in collaboration with European Economic Community undertook to implement two projects of Coffee Improvement Programme 1977-1981 and Coffee Development Programme 1982-1984 in the Matengo Highlands. The focus of the projects was to train extension officers and provide transport facilities to the extension officers. To educate coffee farmers on best farming methods and production of best quality coffee. The impact on crop output was quickly felt as the government faced a shortage of foreign exchange due to the decline in crop production. The treasury also lost the potential of local revenue that would have resulted from increased crop production. Cooperative principles were compromised at the expense of politics of ujamaa and self-reliance policy. Until their abolition in 1976, co-operatives had played a great role in economic development in Matengo Highlands. It did not take long for the government to realize that abolishing cooperative movement was a big mistake.

### **Coffee Farming in the Matengo Highlands during Liberalization from 1990s**

In 1989 MBICU was created separating from Ruvuma Region Cooperative Union to cater for coffee market (Ringo, 1995). However, MBICU did not live to the purpose because of lack of working capital and managerial skills and heavily depended on loans from commercial banks for its operations (NRCMBICU, 1989). This was detrimental to the running of and sustainability of the union. Liberalization of the domestic coffee market began in 1993 and entailed the opening of the coffee market to private buyers who were allowed to compete with farmer cooperatives. Consequently, the liberalized markets replaced the previous coffee trade monopolized by cooperative unions. The private buyers had little concern on the production and processing of the produce. The farmers were unable to get the needed agricultural inputs including fertilizers fungicides and pesticides. The central pulperies fell into disarray especially when quality was no longer rewarded in the system of payments to farmers. In early 1990s some of the pulperies were rehabilitated with European Union Funding and one more was built. However, the cooperatives were by then in shambles and unable to run the pulperies. The second attempt was in 1997 where two companies under the same management Soochak Bush and Tropex decided that it was time to make concerted efforts to improve the quality of coffee from Matengo Highlands through proper processing. They agreed with the villages in which the pulperies were situated to rehabilitate and manage them. They also built 13 central pulperies and 8 mini pulperies, all but two of which they also managed (Soochak & Tropex).

However, the efforts of AU and other development partners to improve production, processing and marketing of coffee have not brought positive results to the Matengo smallholder farmers. The aids were selective to those cooperative potential societies whose produce finally as taken by the donors at market place. For example, the coffee processed by Soosack and Tropex had built a central facility at Mbinga town to properly process and milled the coffee into grades. Thereafter the coffee was transported to the company's warehouse in Makambako. The lot was auctioned by Tanzania Coffee Board at Moshi auction while at Makambako. Soochak and Tropex repossessed their own coffee in the auction and move it to their warehouse in Dar es Salaam where it was loaded in the first available vessel to the destination Soochack & Tropex, 2002).

Under liberalization coffee farmers experienced serious problems ranging from losing their properties such as farms, houses, and other valuable assets to their creditors. Some coffee farmers were forced to seek refuge in other areas to escape from their creditors. Villages lost their prestige which they used to brandish for years. Instead of rise in price of coffee; apart from 1993 to 1998 when coffee price fetched between 100 to 150 US dollars per 50-kilograms bag from 1999 onwards the price dropped to 40 and 50 US dollars for 50-kilograms bag. Above all the quality of coffee dropped dramatically because private coffee buyers did not provide agricultural inputs as the cooperatives used to (Paschal, 2004:2). By 2000 the market power of MBICU and the primary societies had declined while foreign companies dominated exports and domestic coffee trade (Ponte, 220-221). Coffee production in the Matengo Highlands dwindled in terms tonnage, number of producers and number of trees.

### **Coffee Farming under *Mlango mmoja***

Out of liberalization and privatization of coffee industry the *mlango mmoja* concept was conceived. It meant the establishment of single channel through which coffee industry will be coordinated in terms of production, processing and marketing. Studies done in the Matengo Highlands, revealed that farmers have continued to keep coffee trees which are old, which resulted to lower productivity. Distribution of new variety produced by Tanzania Coffee Research Institute (TaCRI) at Ugano was limited by price and ability of the authorities to distribute seeds to farmers (NRC Dodoma). Moreover, farmers were hesitating to purchase and plant new varieties.

Farmers were afraid that new varieties must use agricultural inputs while most of them are not sure of accessing and using them. TaCRI is funded by the European Union and stakeholders of the coffee industry and government. However, there is confusion among stakeholders as to whether TaCRI is a public institution or a private company. This is because it is funded by the taxation from coffee. Thus, various NGOs, for example TUTUNZE Kahawa, DAE Ltd in Mbinga District have emerged and taken over the role of training farmers. However, these NGO are business oriented and sometimes, their roles in assisting farmers are questionable. Most of these NGOs are the ones at the end of the day repossessing their coffee at the auction (TPB, 2019). Infrastructure mainly the central pulperies such as warehouses, roads and bridges which from the inception of cooperative societies were involved in the maintenance of coffee industry (NRC).

Within the context of liberalization of coffee production and marketing AMCOS are left on their own to support their members with very limited resource base at their disposal. MBIFACU the district union did not seem to hold strong grips of primary cooperative societies under their umbrella. Its function and management structure according to its by-laws was not complete. There were many important posts

like marketing officer, legal advisor, and agricultural officer which were not filled (MBIFACU LTD). Liquidity problem to both the AMCOS and the union was apparent hence unable to support farmers in coffee production, processing and marketing. Only well to do farmers were able to prepare and procure their agricultural inputs from private dealers whose prices went skyrocketing (Melkion 2019).

STARBEX/EU supported improvement of road network and research in coffee producing areas of the Matengo Highlands. They have played a crucial role in supporting coffee production and even marketing. There are local government authorities who have been supporting coffee production through subsidizing on coffee seedlings, researched by TICRI at Ugano in Mbinga (TICRI Ugano). As farmers sell their coffee at their gate at Kindimba village in Mbinga, the same farmers will not be able to purchase 200 grams of processed coffee at 4,500 Tanzania shillings. Before liberalization of the trade cooperatives were not purchasing coffee from the farmers (Ruben, et al. 2018).

The cooperative societies have not been able to live to their expectations according to their by-laws (NRC RPS). That of assisting members gets agricultural inputs for their farms, advance their socioeconomic well-being and enabling them achieve sustainable development as envisioned in the millennium goals statements. Besides, AMCOS in the Matengo Highlands have been involved in bickering between members and their leaders over different grudges ranging from unequal distribution of agricultural inputs, misuse of resources, embezzlement and outright theft of members money and other property of AMCOS (DC Mbinga, 2019). According to the DC of Mbinga opposers of *mlango mmoja* system were the beneficiaries of the old system of liberalized coffee marketing viz *vikundi huria*, individuals, PCBs and other beneficiaries of the old system (DC Mbinga, 2019).

The government and TCB wanted farmers of Matengo Highlands to keep on producing coffee regardless of their challenges, because it depends on coffee to earn revenue and generation of foreign exchange (DC Mbinga, 2019). Matengo farmers have the feelings that they have been abandoned and neglected by the government. The government has done very little to assist them to sustain coffee production. Farmers wanted extension services and distribution of agricultural inputs on loan basis as it used to be before (Councilors, 2019). Many coffee farms are not cared according to the required procedures as advised by extension officers. Worse still there is an acute shortage of extension officers and the few available are unable to access transport means (DARDO 2019).

### **Conclusion and Recommendations**

Coffee farmers in the Matengo Highlands have kept on producing, processing and marketing their produce. However, their voice in all these processes through-out 1926 to 2019 was not heard even in their own cooperative societies. Their coffee belonged to them until the point when cooperative societies collected from them. From that point a lot of stakeholders would jump in the remaining processes until coffee was exported. At the same time their cooperative unions and societies were manipulated by the state from colonial period to post-colonial period through laws, regulations, directives and force. Despite of its being big income earner the growers are continually impoverished. The impoverishment was alarming and the cooperatives were turned into an instrument of exploitation rather than liberation. Cooperatives created classes of people including the peasant farmers who are the producers; AMCOS board members who are suspected to be exploiters; the union and federation of union are perceived as parasitic organs; marketing boards TCB as regulators;

TaCRI as parasitic research institute, state appropriates surplus through taxes, cess, tolls; and banks which facilitate auction. The claim of sustainable development by *mlango mmoja* 2018 did not add anything.

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