



The Actualisation of the Aims of the Christian Religious Studies Curriculum by Senior High School Students: The Affective Domain Inquiry

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ABSTRACT

This study focused on the attainment of the aims of the Christian Religious Studies (CRS) Curriculum from the perspectives of Senior high school students in Cape Coast. Particular attention was given to the role the aims play in shaping the affective domains of the students. The cross-sectional survey design was used to conduct this study. Data were collected with a 42-item questionnaire (Cronbach Alpha reliability coefficient of 0.79) from 200 CRS students in Senior high schools in Cape Coast who were sampled through the proportionate simple random sampling procedure. Descriptive statistical tools (frequency, percentages, mean and standard deviation) were used to analyse and interpret the data with the help of SPSS (version 25). Results from the study indicated that CRS students in Cape Coast have a low understanding of the biblical texts that are highlighted and read in the specified themes in the CRS curriculum. Also, CRS students in Cape Coast to a low extent embrace healthy attitudes and skills learnt from the Bible in their lives. It was therefore recommended that CRS teachers should also encourage and expose students to the need to develop and uphold good behaviours. Also, teachers of CRS should use approaches to teaching that foster understanding of passages that are read in class.

Keywords: Aims, Christian Religious Studies, Curriculum, Students, Affective domain

I. INTRODUCTION

England in the 19th Century, introduced religious education in their schools. This was a collaboration between the state and religious groups. This occasioned the development of religious education curriculum (Jackson, 2013). Since the creation of the world, religion has played a very essential role in the life of man in society. Religion gives direction to the daily activities of human beings. Bulkeley (2001) viewed religion as something that exerts a certain social control and defined it as a belief about the unseen, with such attendant feelings as fear, wonder, reverence, gratitude, and love and such institutions as prayer, worship, and sacrifice. Mbiti (1969) observed that religion has the greatest influence on the life of the people and it inculcates values and knowledge in every generation which is a requirement for any society to prosper. Gilgoff and Ginwright (2013) affirm that religion produces public direction in humanity. Religion gives importance and pilots the social behaviour of people in society.

In Africa, Christian Religious Studies (CRS) as introduced in the Kenyan Educational system prior to their political freedom. The missionaries aimed to add value to education for character formation both secular and religious purposes. This education was purposed to produce socially, morally, and mentally developed persons. Learners were exposed to the logic of duty, and ideas of rights about the environment and were instructed with abilities necessary for life and services. One of the subjects the missionaries left on the shores of Nigeria was CRS. They introduced the subject to give the people the needed knowledge and skills to help them with their work as missionaries. It was developed to expose the indigenous people with good behaviour, moral values and norms. In a broader sense, it was targeted at making students develop a good moral life, and help them to rationalise their views, character, ethics, and ambitions. Many people have questioned the relevance and effectiveness of moral education in Tanzania. This is as a result of the widespread and daily reports of immoral acts in the society. To the extent that it has gained international attention.

Places like the Lake Zone where albinos are killed for rituals as well as violence against children (Ingber, 2013; Gilgoff & Ginwright, 2013; Lindner, 2014). These incidents are likely to impend harmony, coherence, and calmness which are critical causes of national growth as well as for the progress of people (Sulaiman, 2016). Since the aim of both research and education is to solve societal problems, these disturbing circumstances demand that researchers, moral educators and relevant partners in education develop strategies that would ensure that students come out of school disciplined and cultured (Amare, 1964). This paper seeks to find out how best CRS is helping instil good behaviours in the lives of the students. Wanjau and Begi (2019) emphasized that religious education is one of the academic subjects taught in pre-tertiary schools in different countries due to its intended purpose to instil moral uprightness and discipline among students.

To some extent, some countries have not made CRS a compulsory subject especially in secondary schools, (Ngussa & Role, 2015), even though it is full of moral values. Jain and Jain (2012) have maintained that some immoral acts are perpetrated by the educated and therefore there is the need to integrate moral education into the school curriculum. Findings show that there is high level of immorality in societies because of the neglect of moral education in the school curriculum (Harish, 2011). Religious education is seen as the only panacea to the plethora of moral decadence in the world and the core of moral values (Ilechukwu & Ugwuozor, 2014; Musongole, 2010). CRS has not been properly integrated into the secondary school curriculum in Tanzania. According to the ministry, statistics have shown that most of the students decide not to take the subject (Ngussa & Role, 2015).

In Ghana around 1951 and 1966, the late Dr. Kwame Nkrumah instigated the Accelerated Development Plan where CRS was taught under the auspices of Religious Studies. In 1960, the name changed to Scriptures and the content was the Bible (Asare-Danso, 2011). Since then, it has always been part of the elective subjects for the General Arts programme in senior high schools in Ghana. The rationale for teaching and learning CRS is to help students understand the role the Bible plays in the lives of people as a source of guidance, direction, and counsel on the various problems facing the world today. It added that CRS is based on the Holy Bible as a framework for handling a good deal of teaching about personal and social values that are essential for individuals and societal growth and development as enshrined in the Curriculum Research and Development Division (CRDD, 2010).

Christian religious studies as one of the subjects taught in most of the secondary schools in Ghana is one of the means to ensure spiritual well-being and instil a high level of morality in students to affect their life and the society in which they live. This is made clear in the aims of the CRS curriculum which include; demonstrating knowledge, understanding, and appreciation of the Biblical texts as set in the selected passages, analysing the religious and social background of the specified themes/passages, applying the religious and moral lessons in the set passages or themes in their lives, adopting healthy attitudes, concepts, and skills acquired from the Bible for their personal living and impact on society (CRDD, 2010; Teaching Syllabus for CRS).

The aims of a subject are mainly driven by the rationale established. Aims direct teaching and learning are the spirit that backs the curriculum. Therefore, a teacher who teaches without knowledge of the rationale and aims of the subject is likely to fail in the classroom. Mensah and Owusu (2022) have recognized that a teacher's knowledge of the aims of a subject is critical to the success of both the curriculum and learners. This is why it is important that out-of-field teaching should not be encouraged (Owusu & Mensah, 2022). It is relevant to establish that, the aims of CRS are targeted at moulding the lives of its students, using the religious and moral characters and lessons from the Bible. The attainment of these aims by students would go a long way to establish and produce students who are morally developed, with good healthy attitudes, and impact positively on society. Teachers' knowledge of the aims and their ability to develop lessons and assess learning is very crucial. The assessment of these aims in the teaching and learning of CRS for the development of the students be based on three domains of learning; cognitive, affective, and psychomotor. Nti (2012) regretted that for many years assessment in schools was limited to paper and pen only. That is, an assessment was done on testing students' cognition neglecting the affective and psychomotor learning. To correct this, the National Policy of Education (NPE) (2004), states that attitudes, values, physical skills, and abilities are equally important.

Several studies (Biesta, 2017; Román, Sundberg, Hirsh, Forsberg, & Nilholm, 2021; Mensah & Akorful, 2018; Oluoch-Suleh & Ekene, 2020; Njoku & Njoku, 2015; Eshun, 2018) have been conducted in many subject areas with a focus on the importance of aims of the curriculum in general in the lives of the learners. Whiles some (Biesta, 2017) focused on the generality of aims in shaping the character of learners, others (Mensah & Akorful, 2018; Oluoch-Suleh & Ekene, 2020; Ezeobi, 2022; Njoku & Njoku, 2015; Eshun, 2018) specifically focused on CRS as a subject both from the African and Ghanaian perspectives. Although these studies looked at the aims of the CRS curriculum, the focus was on implementation strategies that would aid its attainment. Most of these studies indicated that the aims of CRS are being attained. But what is the impact on the students? Although literature abounds in Ghana on the implementation of the CRS curriculum and the attainment of the aims, there has not been much focus on the impact of the subject on the lives of the students. Looking at the aims of CRS, it is important to find out how important these aims are in shaping the

lives of the students. What contribution have these aims made to improve the lives of these students? How do these students perceive the CRS?

II. CONTEXT AND PURPOSE

It is believed that the sole aim of education is salvation. Echoing the voice of Socrates, 'life well examined is life worthwhile'. This clearly states that the totality of human existence hangs on the choices we make when we are brought to this earth. Assessing our day-to-day conduct is so paramount that, it informs us how we are either progressing or retrogressing (Yeboah, 2010). The level of moral uprightness has reduced drastically in our societies leading to high levels of moral decadence. This has led to a total deterioration of social values, norms and ethics (Njoku, 2016). The situation is not different from what is happening in the Senior High Schools in Cape Coast and Ghana as a whole. Most senior high students in Cape Coast breach school regulations, insult authorities, engage in robbery, prostitution, etc. The focus of students is on their grades and not the application of the knowledge and experience they acquire, especially from CRS.

WAEC Chief Examiner's report (2020) on CRS reports that the behaviours and attitudes of students are reflected in their performance. While a few of the candidates perform excellently, the majority perform averagely. Students are not able to apply the concepts in CRS in practical scenarios. The report further indicated that students of CRS are yet to attain the third and fourth aims of the CRS curriculum. Students are not able to apply the religious and moral lessons in the set passages or themes in their lives and adopt healthy attitudes, concepts, and skills acquired from the Bible for their personal living and impact on society. This assertion is supported by Afari-Yankson (2021) who found that students of CRS in Cape Coast have difficulty in understanding and applying the aims highlighted in the syllabus in their lives. According to Okeke and Okoye (2016), the inability and lack of the CRS curriculum application is the obvious cause of moral decadence among students in senior high schools.

Several studies (Mensah & Akorful, 2018; Mensah, 2018; Oluoch-Suleh & Ekene, 2020; Njoku & Njoku, 2015; Eshun, 2018) have indicated that the aims of CRS are been attained. However, the behaviours (hooliganism, disrespect for school authorities, rape, armed robbery, stabbing of students, etc.) of Senior high school students who read CRS, coupled with the Chief Examiner's report on CRS leave a lot of questions unanswered. Can it be that the attainment of the aims of CRS does not relate to the lives of the students? Are the successes of the implementation of the CRS curriculum only tagged to the cognitive domain of the students? How well do the aims of CRS impact the lives of the students who study it? What is the role of the aims of CRS in the lives of these students who study it? The need to get information and answers to these questions related specifically to CRS students in senior high schools in Cape coast necessitated this study. To do this, the following research questions were formulated;

1. To what extent do CRS students apply the religious and moral lessons in the set passages in their lives?
2. What is the level of CRS students' understanding of the Biblical texts that are highlighted in the specified themes in the CRS curriculum?
3. To what extent do CRS students adopt healthy attitudes and skills acquired from the Bible for living?

III. METHODOLOGY

From the positivist orientation to research, this study hinged on the quantitative approach to research. In the positivist paradigm, it is believed that a phenomenon can be observed, measured, and understood to gain knowledge and understanding (Cohen, Manion, & Morrison, 2018; Babbie, 2021). In this study, data was collected from CRS students in senior high schools in cape coast to determine the impact the aims of CRS have had on their lives. The study employed a descriptive cross-sectional survey design A cross-sectional survey study produces a 'snapshot' of a population (Leavy, 2017; Creswell, 2014). This design because, it helped collect data for both retrospective and prospective inquiry into the role of the aims of CRS in the lives of students, despite the known demerits.

3.1 Sample

The population comprised all form two and three Christian Religious Studies students in the various Senior High Schools in the Cape Coast Metropolis. There were 290 Form Two and Three students of CRS in Senior high schools in Cape coast for the 2022 Academic Year (Cape Coast Metropolis office; GES). The Form Two and Form Three CRS students were chosen for this work because they have been taught CRS for a year or more. With the help of Adam (2020), 200 students out of 290 were selected for the study. The selection of the CRS students was done using the proportionate simple random sampling technique. CRS students from the SHS in Cape Coast that teach CRS were selected based on the proportion of a school's population to the entire aggregate of students forming the population (Neuman, 2014). The number of students to be selected from each school was determined and was the core for

approximating the sample size for each based on the total sample size of 200. In each school, the table of random numbers through a simple random sampling technique was employed to select CRS students.

Table 1: Demographic Characteristics of CRS students (n=200)

Variable	Subscale	N	%
Gender	Male	94	47
	Female	106	53
Age Group	12-14 years	12	6
	15-17 years	110	55
	18 and above	78	39

3.2 Instrument for Data Collection

A structured questionnaire was developed for data collection. The questionnaire was made up of 42 items and was divided into four sections, that is Sections A, B, C, and D. Section A consisted of two items to collect information on students' demographic characteristics. Sections B (16 items), C (11 items), and D (13 items) consisted of items on how CRS students apply the Religious and Moral lessons in the set passages in the Bible in their lives in the learning of CRS in Cape Coast, the level at which CRS students understand the Biblical texts that are highlighted in the specified themes in the CRS curriculum, and the extent to which CRS students adopt healthy attitudes and skills acquired from the Bible for their personal living respectively.

3.3 Validity and Reliability

The validity of the questionnaire was ensured by matching each item to the objectives of the study. This helped to check for both face and content validity. As a result, some items were rephrased, reworded and some realigned. Again, some ambiguous words and items were disambiguated as a result of the responses from a pilot study conducted in 3 senior high schools in the Abura Asebu Kwamankese District in the Central region with 68 CRS students. Their responses illuminated items and words that needed to be reviewed. The pilot test helped in the determination of the reliability of the questionnaire. The questionnaire was deemed to be reliable because the composite Cronbach Alpha reliability coefficient was determined to be 0.79 (Leavy, 2017; Cope, 2015).

3.4 Ethical Issues

It is important to be mindful of ethical issues in research. Ethical issues like, informed consent, confidentiality, anonymity, etc were taken into consideration and ensured. The respondents were made aware that they were at liberty to decide on participation or responding to the items. Permission was sought from the headmasters of the senior high schools that were involved in the study. In each school, the CRS teachers were consulted for information on days and times that would be convenient for sampling and data collection. After all these, data was collected from CRS students with the help of the teachers.

3.5 Data Analyses

Data collected from the 200 CRS students in senior high schools in Cape Coast was processed and managed by coding and editing where appropriate. The data was fed into Statistical Package for the Social Sciences software (SPSS version 25) to run the data for analysis. Descriptive statistical tools (frequency, percentages, mean and standard deviation) were used to analyse and interpret the data.

IV RESULTS AND DISCUSSION

4.1 To what extent do CRS students apply the religious and moral lessons in the set passages in their lives?

This research question was aimed at unearthing whether CRS students can apply the life lessons they experience during CRS lessons in class to their lives in and outside the school setting. This is a very important factor in determining whether the aims of CRS are playing any role in their lives. The students were required to indicate their agreement or disagreement (5=Strongly agree; 4=Agree; 3=Undecided; 2=Disagree; 1= Strongly disagree) to 16 statements that were carved out of the third aim of the CRS curriculum. The responses of CRS students are detailed in Table 2. The mean scores were interpreted as follows: 4.50-5.0= Very High Extent, 3.50-4.49 = High Extent, = 2.50-3.49 = Undecided, 1.50-2.49 = Low Extent, and 1.00-1.49 = Very Low Extent.

Table 2: CRS Students' Application of the Religious and Moral Lessons in their lives

Statement	Mean	SD
My behaviour has changed positively since I started learning CRS	4.0	0.9
The passages in the Bible relate to my life	3.5	0.5
Every day, I do my best to apply lessons from CRS to my life	2.5	0.2
CRS has motivated me to work for positive social change	4.2	0.5
Studying CRS has helped me to reinforce social unity and stability	3.5	1.5
CRS has helped me to challenge stereotypes and tackle extremism	3.5	0.3
I can promote cohesion because of CRS	4.5	0.5
I can coexist with people from different religions because of CRS	4.5	0.2
I have developed personally since I started learning CRS	2.8	1.2
My religious and spiritual development has improved because of CRS	3.7	0.5
The lessons in CRS have promoted my mental wellbeing	4.7	0.8
CRS has promoted my physical wellbeing	3.7	0.5
I frequently do apply some of the lessons taken in class in my daily life	3.9	0.6
I relate to certain topics being taught in class based on experience	3.8	0.2
I have become a better person as a result of CRS	3.3	0.4
I am now able to relate with my family well since I started learning CRS	3.6	0.4
	3.73	0.6

Source: Field Survey (2022)

Results in Table 2 indicate CRS students' responses to statements regarding the extent to which they apply the religious and moral lessons in the set passages in their lives. The results show their disagreement or agreement with these statements and it is used as a yardstick to determine the extent of application. It is seen that majority of CRS students either strongly agreed or agreed that the lessons in CRS have promoted their mental well-being ($M=4.7$, $SD=0.8$). Similarly, the majority of CRS students either strongly agreed or agreed that they can promote cohesion ($M=4.5$, $SD=0.5$) and coexist with people from different religions ($M=4.5$, $SD=0.2$) because they study CRS. Again, the results show that majority of the students agreed that CRS has motivated them to work for positive social change ($M=4.2$, $SD=0.5$) and their behaviour has changed positively because of CRS ($M=4.0$, $SD=0.9$). Also, most of the students agreed that they frequently apply some of the CRS lessons in class to their lives ($M=3.9$, $SD=0.6$) and relate to certain topics taught in class due to their past experiences ($M=3.8$, $SD=0.2$). Interestingly, some CRS students either disagreed or were undecided about having had personal development due to CRS ($M=2.8$, $SD=1.2$).

Putting the means of the individual statements together, an overall mean of means of 3.7 ($SD=0.6$) was attained. From this, the overall results indicate that CRS students in Cape Coast to a high extent do apply the religious and moral lessons in the set passages of CRS in their lives. This finding may be due to the strategies that CRS teachers adopt to teach. Also, most of the students are from religious homes where religious and moral principles are always enforced. This has been found to influence their attitudes toward religious issues. This finding corroborates the findings of previous studies (Mensah, 2019; Smith, 2003; Yenilmez, Ayranci, Ay, Erkaya, Ozdemir, & Kaptanoglu, 2006; Awopetu, & Fasanmi, 2011; Kasomo, 2012; Arndt, & Bruin, 2006; Mukama, 2010). This finding also confirms what Owusu and Asare-Danso (2014) found when they explored the use of Life themes pedagogy in teaching CRS. They found that Students can apply the religious and moral lessons from CRS when teachers use the life themes approach to teach.

4.2 What is the level of CRS students' understanding of the Biblical texts that are highlighted in the specified themes in the CRS curriculum?

The study also sought to find out how well CRS students understand the texts in the bible that are referred to during CRS lessons. Understanding biblical texts are the foundation for the ability to apply religious and moral lessons in their lives. CRS students were to indicate their agreement or disagreement (5=Strongly agree; 4=Agree; 3=Undecided; 2=Disagree; 1= Strongly disagree) to 11 statements carved out of the first and second aims of the CRS curriculum. Table 3 details the responses of CRS students. The mean scores were interpreted as follows: 4.50-5.0= Very High, 3.50-4.49 = High, = 2.50-3.49 = Undecided, 1.50-2.49 = Low, and 1.00-1.49 = Very Low.

Table 3: CRS students' understanding of the Biblical Texts in the CRS curriculum

Statement	Mean	SD
I can read the biblical texts highlighted in CRS	2.5	0.4
The language of the RSV Bible aids my understanding of the texts	3.2	0.3
I learn a lot about God in my study of CRS	3.1	1.0
My understanding of the passages and stories in the bible has increased	2.1	0.3
I don't struggle to relate the text and stories to the current situation	1.3	0.2
I learn a lot about prominent people in the Bible in my study of CRS	2.3	0.8
My teacher makes understanding stories in the bible very easy	2.5	0.9
I don't struggle to answer comprehension questions in CRS	2.8	1.1
I understand most of the themes of the Bible that I have been taught in CRS	2.7	0.9
My appreciation of the knowledge I acquire from the Bible is top notch	2.3	1.0
Relating the themes of the Bible is very easy for me	2.4	1.2
	2.4	0.7

Source: Field Survey (2022)

Results in Table 3 show CRS students' responses concerning their agreement or disagreement with statements related to their understanding of the biblical texts that are highlighted in specified themes in the CRS curriculum. Their responses are used as a yardstick to determine their level of understanding of the biblical texts used in the teaching of CRS. Most of the CRS students were undecided that the language of the RSV bible helps them to understand the texts ($M=3.2$, $SD=0.3$) and that they have learnt a lot about God through CRS ($M=3.1$, $SD=1.0$). These students may already have difficulty reading or know how to read already so their comprehension of the texts of the bible may not be due to the language used to write the text. As said earlier, most of the students are from religious homes and have been exposed to the attributes of God already. Again, most of the CRS students either were undecided or disagreed that they understand most of the themes of the bible in CRS ($M=2.7$, $SD=0.9$), that they do not struggle to answer comprehension questions ($M=2.8$, $SD=1.1$), that their teachers make understanding of texts very easy ($M=2.5$, $SD=0.9$) and that they can read biblical texts highlighted in CRS ($M=2.5$, $SD=0.4$).

The overall mean of means was 2.4 ($SD=0.7$). This result indicates that CRS students in Cape Coast have a low understanding of the biblical texts that are highlighted in the specified themes in the CRS curriculum. This may be due to the entry behaviour of the students as well as the strategies and methods the teachers of CRS use in teaching CRS. Several studies (Mensah & Akorful, 2018; Owusu & Mensah, 2022; Mensah & Owusu, 2022) have bemoaned the lack of qualified teachers to teach CRS in Senior high schools in Ghana. But if the students have a low understanding of these texts, then how are they able to apply the religious and moral lessons in the set passages in their lives? This confirms the speculation earlier that, most of the students are from religious homes where religious and moral principles are always enforced. This finding confirms the findings of Oluoch-Suleh and Ekene (2020) who revealed that, most CRS students are able to read the bible texts but are not able to appreciate the contextual meanings attached.

4.3 To what extent do CRS students adopt healthy attitudes and skills acquired from the Bible for their living?

The study finally sought to determine if CRS students can adopt healthy attitudes and skills from their experiences and exposure to CRS lessons and also the extent to which they can do so. CRS students were to respond in terms of their agreement or disagreement (5=Strongly agree; 4=Agree; 3=Undecided; 2=Disagree; 1= Strongly disagree) to 13 statements carved out of the fourth aim of the CRS curriculum about their ability to adopt these attitudes and skills. It is only when students can find strategies to adopt these attitudes and skills that the aims of the CRS curriculum can be actualised in their lives. The responses of CRS students are detailed in Table 4. The mean scores were interpreted as follows: 4.50-5.0= Very High Extent, 3.50-4.49 = High Extent, 2.50-3.49 = Undecided, 1.50-2.49 = Low Extent, and 1.00-1.49 = Very Low Extent.

Table 4: CRS Students' Adoption of Healthy Attitudes and Skills for their Personal Living

Statement	Mean	SD
I have developed communication skills from my experience with bible stories	2.5	0.3
CRS has helped me develop the ability to cope with a variety of situations	2.2	0.6
I have become disciplined due to the values taught in the Bible stories	2.5	0.6
I have realised through CRS that loyalty is very key to family and friendship	3.1	0.8
I have learnt a lot of leadership skills through CRS	1.5	0.6
My decision-making skills have been sharpened by CRS	1.9	0.9
My respect for my mates and other people in society has increased through CRS	2.6	0.4
I pay more attention and respect to authority because of CRS	2.0	0.2
CRS has taught me to care for other people and the environment	2.0	0.2
I have developed an attitude of fairness since I started learning CRS	2.5	0.5
It is important to seek the well-being of others and society at large	2.8	1.2
CRS has taught me that good citizenship is key to the development of society	3.0	0.3
CRS has taught me to cherish human values	3.1	0.2
	2.4	0.5

Source: Field Survey (2022)

Results from Table 4 represent the responses of CRS students about their agreement or disagreement with statements on their ability to adopt healthy attitudes and skills acquired from the Bible for their living. Their agreement or disagreement with these statements is used to determine the extent of adoption. The mean scores show that most of the CRS students were undecided that CRS has taught them to cherish human values ($M=3.1$, $SD=0.2$), that through CRS they have realised that loyalty is key to family and friendship ($M=3.1$, $SD=0.8$) and that CRS has taught them that citizenship is key to the development of society ($M=3.0$, $SD=0.3$). Some of the students either disagreed or were undecided about the importance of seeking the well-being of others and society ($M=2.8$, $SD=1.2$), that their respect for their mates and others has increased ($M=2.6$, $SD=0.4$), and that they have developed good communication skills from experiences with bible stories.

The overall mean of means was 2.4 ($SD=0.5$). The results indicate that CRS students in Cape Coast to a low extent adopt healthy attitudes and skills acquired from the Bibles for their living. Thus, they do adopt these healthy attitudes and skills but not that much. This finding does not surprise me as it is already established that CRS students have a low understanding of the biblical texts used in the teaching and learning of CRS. If they do not understand, how do they interpret and identify the various values, attitudes, and skills embedded in the curriculum? This certainly would lead to poor performance as intimated by the findings of Kesmen and Mellemut (2022). They attributed the poor performance of students in CRS to lack of relevant effective teaching methods and strategies, moral decadence, etc. Itolondo, (2012) is of the firm assertion that the curriculum's role in the lives of students transcends into society and transforms. Wanjau (2019) opines that religious education is key to transforming students and society by instilling moral uprightness and discipline among students.

V. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The findings of the study imply that CRS students in Senior high schools in Cape Coast are religious and morally developed. This is because they are able to apply the religious and moral lessons inherent in the passages they read during CRS lessons. Based on the conclusion, it is expected that these students would exhibit good moral characters contrary to what is witnessed. Also, based on the findings it can be concluded again that, teaching and learning of CRS in senior high schools in Cape Coast is not effective. The CRS students do not understand what they read so how can they gain the expected experiences intended in the CRS curriculum? This also implies that the first and second aims for teaching CRS is not being attained in senior high schools in Cape Coast. Again, it is evident from the findings that, CRS students in Cape Coast do not exhibit healthy attitudes and skills in their daily lives. These healthy attitudes and skills are embedded in the lessons on CRS and are expected to be acquired through the experiences these students encounter in the classroom. This implies that the fourth aim for teaching CRS is not being attained in senior high schools in Cape Coast. It can generally be concluded that although CRS students are religious and morally developed, their behaviour

and lives both in school and outside school do not reflect and give indication of the attainment of the aims of teaching and learning CRS.

5.2 Recommendations

CRS teachers in Cape Coast should adopt appropriate teaching strategies in teaching CRS. This will ensure that CRS lessons are not reduced to reading of biblical texts but delving deep into the stories to bring out the essential life lessons that can help build the students religiously and morally. Also, teachers should also encourage and expose students to the need to develop and uphold good behaviours. Teachers of CRS should use approaches to teaching that foster understanding of passages that are read in class. They should adopt techniques of expository discourse and explanation. Again, Teachers of CRS should help their students to read during lessons through model reading. The concept of language across the curriculum is very essential when it comes to reading subjects like CRS. Teachers of CRS should endeavour to highlight healthy attitudes and skills that are inherent in the CRS lessons and their benefits in class. This can be done if they employ the appropriate teaching methods and approaches.

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Influence of Agricultural Practices and Activities on Conservation of the Ol-Bollosat Wetland in Kenya

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ABSTRACT

Literature shows that most of the wetlands are threatened ecosystems due to increased human activities. The proper conservation and management of the wetlands is an important step to ensure that the human population continues to benefit directly and indirectly from the wetlands, and thus the need for this study that focuses on the influence of agricultural practices and activities on the conservation of the Ol-bollosat wetland. The study adopted a descriptive survey research design, targeting 1000 households and the key informants, including the Nyumba kumi representative, Area Chief, Sub chief, KWS officers, MCA's from Ndaragwa and Ol-jororok sub counties in Nyandarua County. Stratified random sampling was used to select two hundred and eighty seven (287) household heads as the respondents of the study. The data collection tools were interview schedules for key informants and guided questionnaires for household heads. A pilot study was carried out in Rwamuthambi wetland in Kirinyaga County. The researcher used Statistical Package for Social Scientists (SPSS version 26) to analyse data. Both descriptive and inferential statistics were used for data analysis, and the results were presented in form of bar graphs, pie charts and tables. The findings showed that agricultural activities and practices have an adverse effect on the conservation of Ol-bollosat wetland. The analysis showed that the community engaged in unsustainable agricultural practices and activities which were deleterious to the conservation of the wetland. Overgrazing on the riparian land, abstraction of water for irrigation are some of the unsustainable agricultural practices that the local community routinely engages in. The study recommends that inter-agency collaboration be enhanced so as to address the multiple challenges facing the Ol-bollosat wetland. The role of the County and National government in the management of the wetland should be enhanced, and local communities must be engaged. Further, agricultural practices and activities must be upgraded so that more cost-effective and environmentally friendly methods of irrigation are adopted. The study also recommends that further investigations be done to explore areas of meaningful community engagement in the management of the Ol-bollosat wetland.

Keywords: Agricultural Practices, Agricultural Activities, Conservation, Ol-Bollosat Wetland, Kenya

I. INTRODUCTION

Globally, wetlands have for long been considered as wastelands and consequently worthless (Davidson, 2014). They were regarded as wastelands and were not thought to have any significant contribution. Statistics indicate that at least half of the world's wetlands may have disappeared within the last 100 years (Kingsford, Basset, & Jackson, 2016). In the United States of America alone, a conservative estimate indicates that more than 50 per cent of its original wetlands have been lost. Similar pattern of wetland conversion is also common in third world countries (Kingsford et al., 2016). Wetlands have assumed a new attraction and value in the recent decades as their chemical, biological, hydrological, physical, and socio-economic benefits are acknowledged and as they become degraded at an alarming rate (Davidson, 2014). Wetlands are rich ecosystems, which provide essential livelihood products and services such as fish, water and moderation of climate.

At the regional level, communities living around wetlands have continued to exploit them in total disregard of whether such exploitation is sustainable in the long run or not (Gichuki, 2003). This issue is compounded further by the lack of legal instruments or their enforcement to provide adequate protection for wetlands. The communities living in settlements adjacent to the wetlands and who earn their livelihood from wetland resources have remained largely ignorant of the conservation policies and the implications of their socio-economic practices and are mostly uninformed about the new conservation trends and the benefits they could get from implementing these new environmental conservation efforts.

In East Africa, communities living adjacent to the wetlands have contributed to their conservation since they are the primary beneficiaries (Zamberletti, Zaffaroni, Accatino, Creed, & De Michele 2018). In Kenya, the Ministry of Environment Water and Natural Resources estimates Kenya's wetlands to cover 2 to 3% of the country's surface area

(Wachenheim, Roberts, Addo, & Devney, 2018). Most of these wetlands are threatened ecosystems with the main threats arising from human activities (Government of Kenya, 2019). Environmentalists stress the need of preserving the natural balance of soil and water, as well as ensuring food safety and maintaining the health and quality of life of rural people and their communities (Rockström, Williams, & Daily, 2017).

Hammer and Bastian (2020) posits that wetlands are highly vulnerable and valuable areas supporting a diversity of species and habitats and as such they require an environmentally compatible agriculture. Beuel et al. (2016) argues that wetlands are rich ecosystems, which provide essential livelihood products and services such as fish, water and moderation of climate. However, in Kenya, the local community has been involved in depleting the wetlands. The rate at which the wetland is being depleted and degraded is very alarming which begs the question; can the local community be used to protect and conserve the wetland instead of depleting, and therefore what are the issues that would influence their participation in the conservation of the wetland? Schweizer, Colloff and Pittock., (2022) states that farmers as well as land owners are aware of the benefits of the wetland since they have directly benefited from the wetland for years. Conserving the ecological balance, structure and functions of wetlands while simultaneously maintaining the agricultural resource base by practicing environmentally compatible agriculture should therefore go hand in hand (Rockström, Williams, & Daily, 2017). The role of the local people in management and control of environmental degradation should be enhanced (Davidson, 2018).

As shown by the preceding discourse, wetlands play very important roles in maintaining biodiversity, clean water, food security among others; they have also indicated that local communities have a role in either maintaining or depleting the wetland. Communities living around Ol-bollosat wetland have over the years subjected the wetland to severe anthropogenic disturbances. These include pollution from agrochemicals, over use of water for agricultural purposes, drainage of swamp for settlement as well as overgrazing. This clearly shows that the local community has been involved in depleting the wetlands although literature has shown that the wetland is of significant value if it is well maintained, protected and sustained. The rate at which the wetland is being depleted and degraded is very alarming which begs the question; can the local community be used to protect and conserve the wetland instead of depleting, and therefore what are the issues that would influence their participation in the conservation of the wetland? This study seeks to assess the influence of community participation in the conservation of the Ol-bollosat wetland in Nyandarua County.

II. LITERATURE REVIEW

2.1. Theoretical Framework

This study is guided by the theory of Deep Ecology developed by Arne Naess (Hewer, Scott, & Gough, 2015). The theory is basically anchored on the following central tenets; one is that all living things- whether plants or animals- have an intrinsic/inherent value within themselves. Secondly, the full variegation of life forms contributes to the realization of these values. The third tenet is that human beings through their activities have no right to reduce this richness and diversity whatsoever, unless they are satisfying some very vital human needs. The theory's final tenet is that the prosperity of human life and civilizations is consistent with a significant reduction in the human population, while the flourishing of non-human life necessitates such a reduction (Burns, 2015).

This theory guided the study in investigating the role of the local community in sustainability of the Ol-bollosat wetland in Nyandarua County, Kenya. The theory advocates for appreciation of biodiversity and the need to realize that all living things have a positive intrinsic contribution to the beauty of the planet. Wetlands by their very nature have intrinsic values and form part of the most important ecosystems, owing to the array of benefits that human beings derive from them. When applied against this background, the Deep Ecology theory helps to refocus attention from capitalistic consumerism to the realization that all species are interrelated, and that destruction and degradation of the environment and more so the wetlands with have lasting dire consequences on the quality of human life as we know it today. The rallying call underlying the Deep Ecology theory is that there must be a shift from human-centred anthropocentrism to eco-centrism, an idea in which all living things are regarded as having an intrinsic inherent value. Within this background, conservation and therefore ultimately the sustainability of the wetlands can be achieved.

2.2 Empirical Review

Agriculture is the biggest land use in terms of area globally and also the most significant in terms of impacts (Deichmann, Goyal, & Mishra, 2016). Any use of land has some impacts on it, with effects varying in terms of intensity of use and the type of use. However, Kurtener, Torbert & Krueger (2008), notes that low intensities of land use do not necessarily imply that there were no effects, or that they are negligible.

While environmental degradation may occur naturally, human activities accelerate these processes. This may be through introduction of foreign materials (chemicals, plants, animals) that may not occur naturally at the same levels in that environment or through creating an environment that allow natural processes to be accelerated. For example cultivation may open up land to the natural elements hence accelerating soil erosion.

Sadler et al (2016) posits that in Kenya agricultural policies have focused on agro-chemical use as an important focal point in the effort to increase production. Efforts in promoting fertilizer use in Kenya have included fertilizer trials, demonstrations and extension programs and provision of subsidies on fertilizers. However, use of fertilizers is already impacting on water resources. Studies in Lake Victoria show that agricultural land runoff may contribute up to 22% of the nitrogen and up to 55% of the phosphates (Kumar *et al*, 2017)

Nyangi (2015) states that, the use of agro-chemicals has deleterious effects on the environment. Studies worldwide indicate that the use of fertilizers in a watershed affects the concentrations of nutrients in the water systems within the catchments. Fertilizers increase the concentration of nutrient in the surface soil and consequently in the runoff. The amount of fertilizer applied in a given watershed has been found to relate to the amount of nutrients in the river served by the watershed (Mburu *et al.*, 2015).

According to OECD, the concern about environmental degradation by agriculture has gained currency, as its associated cost to society has become better known. These include degradation and depletion in the form of soil loss and forests loss, desertification, overgrazing, deterioration of quality surface and ground water, reduction in genetic diversity of fish stocks, water-logging, salination, accumulation of toxic metals and organic compounds, siltation and eutrophication caused by improper use of pesticides and fertilizers (Tsuji, 2001).

Thenya et al., (2011) points out that, globally, wetlands have provided an easy and cheap source of water for irrigation, as well as water for domestic use. This water is provided by the streams and springs that drain into the lake. As a result of increased horticultural activities by the nearby commercial horticulture farms, there has been increased abstraction of water from the wetland. Consequently, there has been a marked decreased in water levels over the last decade. Most of the riparian lands surrounding the wetland have been converted into arable agricultural land, with farmers relying heavily on the wetland for irrigation water. Therefore, the farming practices adopted by the neighboring community will ultimately affect the conservation efforts of the wetland.

Challinor, Watson, and Lobell (2014), on the other hand, claims that local communities can spearhead efforts to sustain the wetlands, particularly through conservation practices. In most cases, the local people have a deeper understanding of the changes taking place in the wetlands, and can therefore provide important information necessary for making wetland inventory as well as data regarding socioeconomic conditions of a particular named resource. When properly engaged, the local people can volunteer their knowledge, information and skills that can prove vital in the all-round sustainable management of wetlands in general. The active inclusion of the local communities during the planning phase of an intervention is important since it helps to develop a sense of ownership of the process. This is important since they are the direct beneficiaries of the wetlands and therefore are directly affected (Brown et al., 2020).

III. RESEARCH METHODOLOGY

3.1 Research methodology

This was a descriptive survey study that aimed at determining the influence of agricultural practices and activities on conservation of the Ol-bollosat wetland. The study was done in Nyandarua County, Kenya. The study used stratified random sampling to sample the households as the respondents of the study. Data collection tools used for the study were interview schedules for the household heads and guided questionnaires for the Key informants. The study gathered both qualitative and quantitative data which was analyzed using descriptive and inferential statistics. Ethical considerations and requirements were adhered to.

3.2 Research Design

The study adopted a descriptive survey design. Mugenda and Mugenda (2003) describe descriptive survey as design in which data is collected in order to answer questions concerning the current status of the subject under study. Descriptive study also engages an assessment of the situation of affairs describing, analyzing and reporting conditions that exist or that existed (Kothari, 2019). The descriptive design was preferable for this study since it ensured a broad description of the influence of agricultural practices and activities on conservation of the Ol-bollosat wetland.

3.3 Location of the study.

The study area was the sub-counties surrounding Lake Ol'Bolossat wetland, that is Ndaragwa and Ol-jororok sub-counties. It is a freshwater body which is about 4km², and lies at a longitude of 36⁰, 26'E and a latitude of 0⁰,

09°S. The lake is located at the northern foots of the Aberdare ranges, and to the West of Satima escarpment which is very conducive for agricultural activities both subsistence and commercial agriculture (WEF, 2018). Ndaragwa sub-county borders the lake generally on the Eastern side, while the Ol-jororok Sub-County borders the lake on the western side. The types of soil found in Nyandarua County are mainly of volcanic origin, and are suitable for agricultural purposes (Arora, 2019). Consequently, residents living in these two sub counties are mainly involved in agricultural production, and therefore they hold important information regarding their interaction with the wetland.

3.4 Target population

The target population of the study was 1000 household heads living adjacent to the wetland i.e. Ol-jororok Sub-county and Ndaragwa Sub-county. Additionally, the study also targeted the local community leaders including the KWS officials, representative of *Nyumba Kumi* initiative, M.C.A, chiefs and sub chiefs as the key informants. The wetland lies between the two sub counties and the respondents were likely to have had first- hand interaction with the wetland as opposed to people who are further away from the wetland.

3.5 Sampling procedures and techniques

The study used multistage sampling techniques. First, the study used purposive sampling to sample the two sub counties (Ndaragwa Sub county and Ol-jororok sub county) which border the wetland. The community members neighboring the wetland hold important information about its use, conservation and depletion status. Secondly, the study used cluster sampling to sample one constituency from each Sub County; i.e. (Ndaragwa constituency and Ol-jororok Constituency). Thirdly, from the selected constituencies simple random sampling was used to select two hundred and eighty seven (287) households as the sample of the study as explained in 3.6.1. Care was taken to ensure representation of all types of households in the selection of the respondents.

3.5.1 Sample size

Mugenda and Mugenda (2019) pointed out that where time and resources allow, a researcher should take a sample as big as possible. Therefore, the study will adopt a formula from Israel (1992) below to select the sample size;

$$n = N / (1 + N(e)^2)$$

Where n = sample size

N = Target population

e = Acceptable error (5% for this study)

When substituted in the formula above, the sample for household will be:

$$n = \frac{1000}{1 + 1000 \times (0.05)^2}$$

The sample size for the study will be 287 household heads and 25 key informants totaling to 312 respondents.

3.6 Data collection instruments.

The study used guided questionnaires for the household heads (Appendix V) and interview schedules for the key informants (Appendix IV).

3.6.1 Guided Questionnaires for household heads

Guided questionnaires consisting of unstructured questions were administered to the household heads, as the respondents of this study. Guided questionnaire was important for this study because it yielded important information regarding the influence of community participation on the conservation of Ol-bollosat wetland. Guided questionnaire helped to collect data from all the households even those with low or no education at all. They were used to collect information on how land ownership influences conservation of the wetland, information on how agricultural practices and activities influence the conservation of the wetland and also to establish the ways through which the stakeholder intervention can influence community members to participate in the conservation of the Ol-bollosat wetland in Nyandarua County.

3.6.2 Interview schedules for key informants.

The researcher used interview schedules to elicit responses from the key informants. Through the use of interview guide, the researcher was able to collect first-hand information regarding the influence of community participation on the conservation of the Ol-bollosat wetland in Nyandarua County. Interview schedules are important for this study since they helped in getting in-depth data which is impossible to get using the questionnaires. Further, interview schedules were suitable for this study since the researcher was able to clarify on the purposes of the study as well answer any questions that the respondents had, and this resulted in more accurate data for the study which helped

to address the objectives of the study.

3.7 Validity and Reliability of Data Collection Tools

Before carrying out data collection exercise, the researcher carried out a pilot study in Rwamuthambi wetland, which is located in Kirinyaga County so as to test the reliability of the data collection instruments. The researcher used the test-retest method, which involved issuing the same questionnaire to the same respondents after a pre-determined period of time, and then checking the responses for consistency. This helped the researcher to point out the weaknesses and establish whether the respondents found clarity in the questionnaires. The researcher also carried out interviews with a few randomly selected key informants to test the reliability of the tool.

In order to test the validity of the data collection instruments, the researcher analyzed the results of the pilot study so as to identify any modification that needed to be done on the questionnaire and interview schedules. In order to test the validity of the data collection tools, the researcher used inter-rater reliability, which shows the degree of agreement among independent observers of an occurrence or phenomenon.

3.7.3 Data Collection Procedures

Data collection methods are either primary or secondary depending on the research objectives. The researcher used both primary and secondary data collection methods. The researcher delivered the guided questionnaire to the household heads and requested them not to disclose their identity so as to cultivate more honest responses, especially on contentious issues as shown by Leedy and Ormrod (2013). The interview procedure started by booking appointments with the key informants (chiefs, sub chiefs, MCAs, KWS officers, village headman/Nyumba kumi representative), and the questions were guided by the interview guide. The researcher carried out data collection in the month of August 2022.

3.8 Data Analysis Techniques and Procedures

The study used descriptive statistics to analyse the quantitative data. This involved the use of standard deviations, means, frequencies and percentages. The process of data analysis required the use of Statistical Package for Social sciences (SPSS) version 26. The data was coded, assigned labels to identify categories of variables and fed to the computer program to be run. Qualitative data was analysed through the use of thematic content analysis whereby the data was coded, similar relationships, themes and patterns were identified for analysis. The results are presented in form of figures, tables, graphs and charts.

IV. FINDINGS & DISCUSSIONS

4.1 Response Rate for guided questionnaires and interview schedules

The respondents for this study were household heads in the Ol-bollsat region of Nyandarua County. The table below shows the response rate for guided questionnaires and for interview schedules.

Table 1

Response Rate for Guided Questionnaires

Response rate	Frequency	Percent
Response	260	90.6
Non- response	27	9.4
Total	287	100

Table 1 above shows that out of the total number of guided questionnaires administered, at least 260 were properly filled representing 90.6%. There was a non-response rate of 9.4%, indicating that 27 respondents failed to participate in the study. This finding indicates that a majority of the intended respondents for the study participated, while only 27 failed to fill the questionnaires properly.

Table 2

Response Rate for Interview Schedules

Response rate	Frequency	Percent
Response	20	80
Non- response	5	20
Total	25	100

Table 2 above shows that there was a response rate of 80%, indicating that 20 respondents participated in the interviews while 5 participants failed to participate in the study representing 20%. This finding shows majority of the respondents were willing to participate in the study. This response rate agrees with Jafari et al (2015) who posited that researchers should strive to achieve a return rate of at least 60% of the research instruments. The data gathered can then be generalized to represent the opinions of the respondents in the target population.

4.2 Agricultural Practices and Their Influences on Wetland Conservation

The main objective of the study was to examine how agricultural practices by the community influence the conservation of the lake Ol-bollosat wetland. The study findings under this objective will be discussed under the following sub headings; Reclamation of riparian land by the community, average land sizes reclaimed by the community members, reasons for land reclamation and agricultural activities and wetland degradation.

4.2.1 Reclamation of Riparian land by the community

The table below shows the percentage of community members who had reclaimed the riparian land for various uses.

Table 3

Reclamation of Riparian Land

Have you reclaimed any riparian land in the last one year	Frequency	Percent
Yes	160	62
No	100	38
Total	260	100.0

The study found that 62% of the respondents had reclaimed land from the riparian reserve, while 38 percent had not. As shown in the table above, this indicates that the majority of the respondents had reclaimed parts of the riparian land for their use.

One of the key informants for the study, an elderly woman representing *Nyumba Kumi* stated;

“The people here have no choice but to use any available land for farming and grazing of their livestock. Because of the dwindling land sizes and the growth in population, as well as the over exploitation of the available arable land, people are ready to cultivate on any available piece of land”.

The area chief lamented:

“Despite our best efforts to sensitize the community against cultivating in the riparian reserves, or calls have gone unheeded, but mainly because people have no more farming land. As an administrator, my work is made much more difficult because of the growing population and the high levels of poverty”

Another key informant for the study who is a KWS officer stated:

“There has been a notable pattern of gradual encroachment on the riparian land over the last couple of years. This is mainly because of the unchecked population growth, failure to differentiate between government-owned land and community owned land and failure to apply the laws”

These findings agree with a study done by Yusoff, Kamari, and Aljafree (2016) in which they found that there was lack of clear understanding among the communities living adjacent to the lake as to where the boundaries of the lake were. Further, the study findings collaborate with a study by Ruiz and Vernooy (2012) who described farmers as the custodians of environmental resources that fell within their areas and therefore any successful intervention to conserve and protect the environment (and wetlands in particular) must necessarily involve them.

Moreover, the study findings are also in line with De Dreu and Gross (2019) who in their study concluded that illegal occupations of government land usually start as small harmless encroachment, and before very long slums spring up.

4.2.2 Average Land Sizes Reclaimed by Community Members

Table 4 below shows the average acreage reclaimed from the riparian reserve.

Table 4*Average Land Size Reclaimed on the Riparian Reserve*

Land size reclaimed	Frequency	Percent
Less than 2 acres	114	44
2 to 5 acres	90	35
More than 5 acres	56	21
Total	260	100.0

From the table above, majority of the respondents (40.7%) had reclaimed less than 2 acres, while 25% had reclaimed more than 5 acres. These findings indicate that majority of the community members had reclaimed an average of two and half acres; while very few had reclaimed more than five acres. The key informants for this study disclosed that riparian land reclamation posed a real and serious threat. The sub chief stated:

“Most of the people here see no issue in using the riparian land for their own use. They pay no attention to the wildlife found there, and have the misplaced notion that their farming activities are more important than the survival of the wildlife found in this area. This is quite saddening. Again, the lack of clear demarcation on the boundaries of the wetland encourages encroachment by the local community, which in turn exacerbates the human-wildlife conflict in this area”

This statement was supported by officers from the Kenya wildlife Service who quipped;

“People see no value in the wild life found in this vast wetland. They view them as an unnecessary towards carrying out their farming activities. As such, human-wildlife conflict is a routine issue which brings conflict between the residents and the KWS”.

These findings are consistent with the study done by Abong’o et al (2014) in Sri Lanka, which concluded that communities would most likely utilize riparian land in instances where regulation was weak, or the community had a cultural connection with the land in question. Further, a study done by Edwards et al (2022) concluded that communities who were disenfranchised of their lands and therefore depended on the environment for sustenance were likely to settle on any available parcel of land, regardless of whether such occupation was lawful or not. The study further surmised that the manner of occupation of such land is largely dependent on the unique socio-economic circumstances of the community in question (Edwards et al., 2022).

4.2.3 Reasons for Land Reclamation

Table 5 below shows the reasons for land reclamation.

Table 5*Reasons for Land Reclamation*

Activity	Frequency	Percent
Farming	104	37.1
Grazing	58	20.7
Settlement	94	33.6
Others	24	8.6
Total	280	100.0

Table 5 indicates that that the majority (37.1%) of the respondents had been using the riparian land for farming, mostly for cultivation of maize. These findings indicate that socio-economic activities carried out around Lake Ol-bollosat wetland inherently influence the participation of the community members in how they participate in the conservation efforts.

The area MCA when commenting on the matter of land reclamation said:

“Local community members reclaim the land for various reasons, but the key issue witnessed here is that the livestock is left loose to graze on the riparian reserve. Unchecked stocking of livestock is a serious problem. The lack of clear demarcation of the land between the settlement and the riparian land is a major issue, considering the wetland straddles 3 different wards. It’s a potential source of serious conflict”.

The Nyumba kumi representative concurred, stating:

“Local area residents will continue to use the available land for agricultural activities so long as enforcement of the laws remains weak and uncoordinated. People will always seek the easy way out. If left unchecked, this wetland will dry up eventually”.

This study finding correlates with Gyawali (2018), who noted that conservation is a complex undertaking that requires a multifaceted approach, and at the center there must be community participation since they are the major stakeholders. Further, the study also agrees with Njagi et al (2012) who found that the unregulated encroachment of the wetland by the local community posed serious threats to the community. He noted that the local community felt justified in using whatever resources in order to survive, even if such resources were protected by both local and international laws.

4.2.4 Agricultural Activities and Wetland Degradation

This section of the questionnaire sought to establish whether the respondents were aware of the effects of various agricultural practices on the wetland. The results are discussed under three subheadings; Use of pesticides and other agricultural chemicals, abstraction of water for irrigation, awareness on impacts of overgrazing on riparian zone and fishing activities on wetland.

4.2.4.1 Use of Pesticides and Other Agricultural Chemicals

The figure below represents the use of pesticides and other agricultural chemicals by the local community.

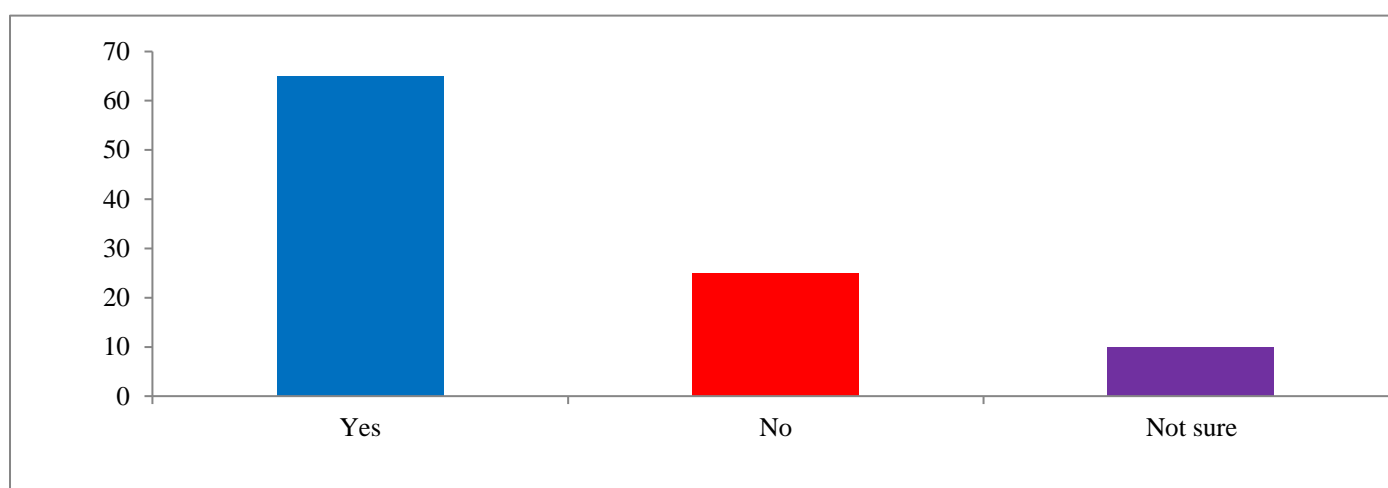


Figure 1

Awareness of Harmful Effects of Pesticides on Wetland

The Figure 1 shows that 65% of the respondents were aware that various agricultural practices did have deleterious effects on the immediate environment and the wetland, while 25% indicated that they were not aware of any negative effects. 10 % of the respondents were not sure whether agricultural pesticides and chemicals had any effect on the environment. These findings indicate that majority of the respondents are apprised of the effects of pesticides on the environment and the wetland, while only a few of the respondents were not sure.

The officers from KWS who were key informants for this study stated;

“The continued use of agricultural chemicals and pesticides has a serious impact on the wetland, especially due to surface run off from the adjacent farms. The water with chemical residues eventually ends up in the wetland, endangering different species of aquatic life. Eventually, the whole wetland will be poisoned especially because of the extensive use of these chemicals by the nearby commercial flower farms. It is a really serious situation.”

The chief reported:

“Over the last few years, there has been reported cases of fish dying in large numbers from the open waters of the wetland. It has been suspected that there is contamination of the wetland by the nearby farms, due to the various pesticides and other chemicals used in farming”

These findings agree with Maitah, Zidan, Hodrob, and Malec, (2015) who studied the perception of farmers towards the harmful effects of pesticides in Jordan and identified that in general, farmers had a higher than average awareness of the harmful effects of the use of pesticides in their farms. In their study, they identified the key role by agricultural extension officers in sensitizing farmers about sustainable agricultural practices. Further, these findings agree with the findings of a study done by Stadlinger et al (2012) which concluded that farmers were generally aware that pesticides and other chemicals had harmful effects on the immediate environment, even though they couldn't quantify the extent of the effects. This study concluded that farmers needed adequate training on the effects of pesticides and their safe usage.

This finding however contradicts with one of the basic tenets of the Deep Ecology theory, which holds that human beings have no right to reduce the richness and diversity of nature whatsoever, unless as a last resort to satisfy some very basic human needs.

4.2.4.2 Abstraction of Water for Irrigation

The study sought to find out from the respondents whether they understood the deleterious effects of unregulated water abstraction from the wetland. The results are as shown below.

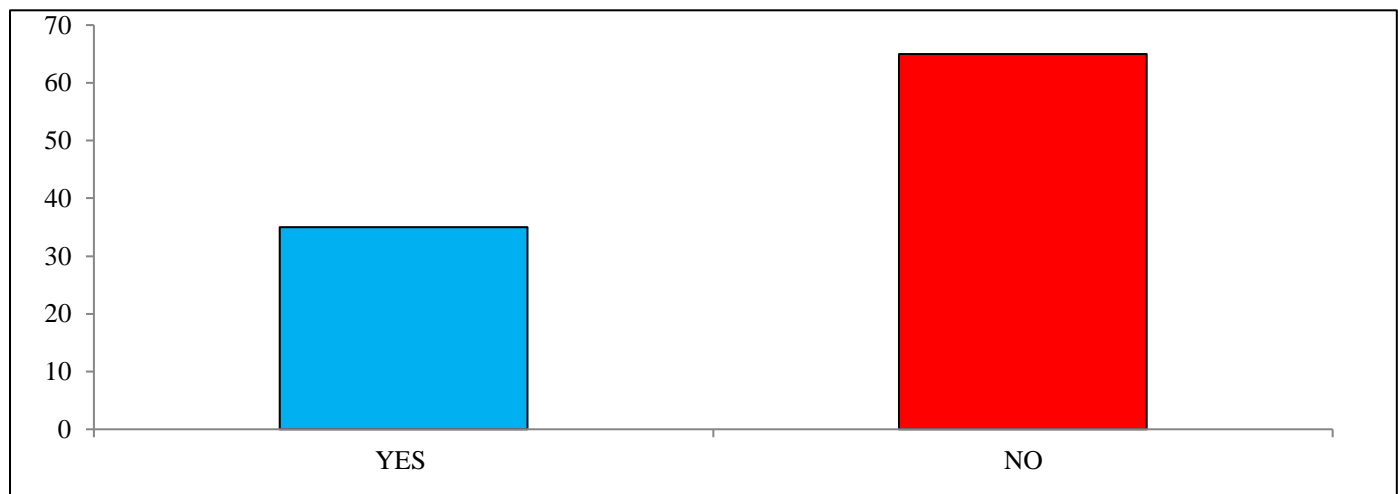


Figure 2

Abstraction of Water for Irrigation

The Figure 2 indicates that that majority of the respondents (65%) were unaware that the unregulated water abstraction had any harmful effects on the health of the wetland, while only 35% of the respondents understood the effects.

This finding indicates that majority of the respondents believed that the abstraction of water from the wetland for irrigation did not have any negative impacts on the wellbeing of the wetland.

This finding however disagrees with the view of the area chief who lamented:

“My people in this area do not understand that the use of water from both the rivers draining into the wetland, and the wetland itself does have some negative consequences. There is the mistaken belief that the open waters in the wetland cannot be depleted by human activities, especially the use of the water for irrigation. Unregulated use of the water will have long term environmental effects”.

Further, the elderly man representing Nyumba kumi stated:

“People in this region do not realize how wasteful our irrigation methods are. The more people irrigate, the more harm they cause to the wetland. Sadly, they cannot see it because they are led by the short term desire to produce food for their families and for selling”.

The study finding agree with Nabahungu (2012), who identified that most rural farmers were unaware that continued water abstraction from the wetlands did have both short terms and long term effects on the quality and health of the wetlands. This study finding is also confirmed by Taiwo (2013) who concluded that small scale farmers would continue to use the shared water resources unconcerned about its long term sustainability so long as the short term demands of food production was satisfied. The study also found out that in most regions, shared resources suffered from the ‘tragedy of the commons’, a situation in which every individual resource user tries as much as possible to get the maximum benefit out of the shared common resource.

4.2.4.3 Awareness on Impacts of Overgrazing on Riparian Zone

The study sought to find out from the respondents whether they were aware of the impacts of overgrazing on the riparian land. The results are as shown below.

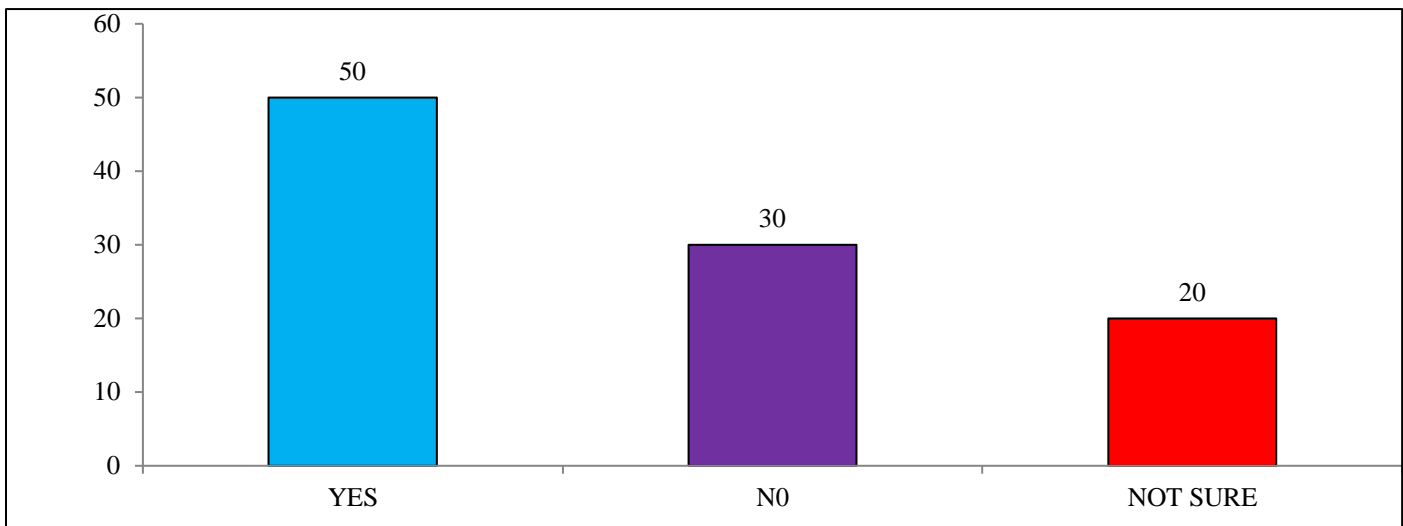


Figure 3

Awareness on Impacts of Overgrazing on Riparian Land

Figure 3 above shows 60% of the respondents were aware of the impacts of overgrazing on riparian land, while 30% reported that they were not aware and 10% reported that they were not sure. This finding indicates that majority of the study respondents knew that overgrazing had negative impacts on the riparian zone, while only a few indicated that they were not sure whether it had any impacts.

The area sub chief who was a key informant for this study reported;

“People here know that overgrazing near the lake has serious impacts, and yet they cannot be convinced to stop. This is because they have cultivated all the arable areas within their farms and therefore they have nowhere else to graze. The only freely accessible place is the wetland”

The Nyumba kumi representative revealed;

“During the dry seasons in the past, we have had an influx of Maasai cattle herders with their animals swarming this place due to water and grass. This leaves the local people dissatisfied since the herders have hundreds of animals and deplete the grass within no time. This situation if not well handled can flare up tensions and lead to clashes between the immigrant herders and the local communities”.

The KWS official lamented;

“People are aware of the imperious effects of overgrazing on the riparian land, and yet they cannot be convinced to stop. Perhaps we need to carry out more sensitizations so that the local communities can understand these things”

This finding agrees with the results of a study done by Mwangi et al (2016) who found that despite the high environmental perception among the local communities, overgrazing was still a serious problem. The study attributed this unfortunate trend to dwindling grazing land, over population and high levels of poverty.

Further, the findings also with a study done by Nyamu, Maitai, Mecca, and Mwangangi (2012) which concluded that local communities knew the impacts of certain farming practices such as overgrazing, use of chemicals for weed and pest control, importance of organic farming among others, and yet they continued with these practices because in most cases they had little or no alternatives. The study cited poverty as the biggest driving force towards lack of sustainable agricultural practices among the rural communities practicing subsistence farming.

4.2.4.4 Fishing Activities on the Wetland

The study sought to find out from the respondents whether they were engaged in fish farming. The results are as shown below.

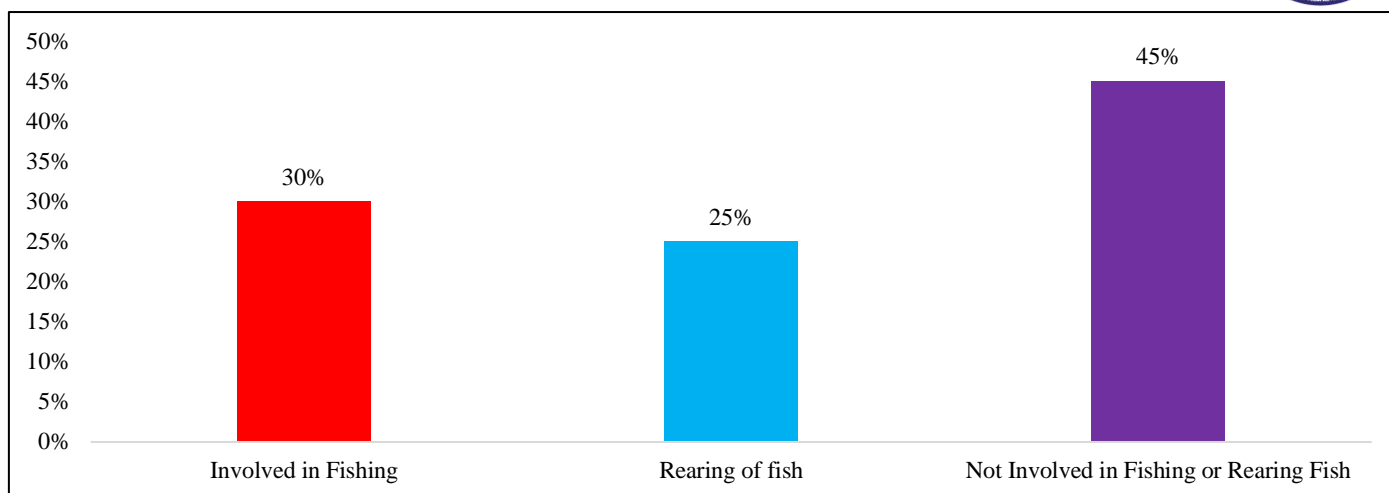


Figure 4
Fishing activities on the Wetland

Figure 4 above shows that the majority of the respondents (45%) are not into fish farming or rearing of fish in fish ponds. Only a small proportion of the respondents (30%) are involved in fishing while 25% are into rearing of fish in their farms.

This finding indicates that the local community does not attach great importance into fishing either as a source of food or as a source of income. This is because the area is primarily inhabited by the kikuyus who practice farming rather than fishing.

One of the key informants for the study, the area MCA stated;

“Most people here are not very keen on fishing as a source of livelihood. As a matter of fact, people would rather go to till their small pieces of land rather than go to the open waters of the lake to fish. This could be due to lack of capacity or the skills needed for fishing”.

An officer from the KWS who was a key informant for the study retorted;

“Unlike other regions where I have worked, people here are not receptive to fish farming as a serious enterprise. Perhaps there is a cultural angle to the whole issue regarding rearing and consumption of fish”

These findings agrees with a report by GOK (2019) on the integrated management plan of the Lake Ol-bollosat wetland, which established that aquatic weeds had infested part of the wetland and this greatly hampered the exploitation of the fisheries potential in the area. The report further maintained that the alkaline nature of the open waters made it impossible for fish to survive and breed and this made the worse. Further, the findings also agree with the findings of a study done by Njagi (2012) who reported that the consumption of fish in this region was low. The study attributed that to cultural reasons, lack of sensitization on the benefits of fish consumption, poor fishing methods among others.

V. CONCLUSION AND RECOMMENDATIONS

5.3 Conclusion

The study concludes that unsustainable agricultural practices have a negative impact on the quality of the Ol-bollosat wetland. Further, the communal grazing land especially the riparian zones were used without due consideration on the sustainability of the grazing land itself and by extension the wetland. The community members lacked proper training on the best agricultural practices, especially sustainable irrigation practices. This has led to unsustainable abstraction of water for irrigation, which when carried out at large scale becomes deleterious to the well-being of aquatic animals such as fish which depend on the same water for their own survival.

5.4 Recommendations

Based on the findings of the research study, the researcher recommends that agricultural activities particularly grazing and irrigation be improved by adopting modern technologies and practices. This in turn will help to relieve the pressure exerted on the wetland resources by the local communities especially through unsustainable grazing practices and irrigation methods and practices. The national government and the County Government must be deliberate and proactive in designing concerted efforts to address the challenges facing the communities living within the vicinity of the Ol-bollosat wetland. These challenges range from land tenure, environmental education, food insecurity, high

population growth, human-wildlife conflict among others. The import of all this multifaceted challenges is that the local communities have to engage in whichever means necessary to address them. Unfortunately, some of the methods adopted such as irrigation using water abstracted from the wetland are outright illegal and unsustainable. It is also the recommendation of this study that there is a need a for further research to determine how the community living around the Ol-bollosat wetland can be engaged in order to participate more on conservation.

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Preparedness of Christian Religious Studies Teachers: Disclosures from Teachers and Students in Missions Senior High Schools in the Western Region of Ghana

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ABSTRACT

The study purported to examine the preparedness of CRS teachers in teaching CRS in the Western Region of Ghana. The descriptive cross-sectional survey research design of the quantitative approach was used for the study. The population was 1,445 and made up of all 45 CRS teachers and 1,400 students from mission senior high schools in the Western Region. The sample size was 365 comprising 45 CRS teachers and 320 CRS students. Using the census method, all 45 teachers of CRS were involved in the study. The proportionate random sampling technique was used to select 320 students. Separate questionnaires were used to collect data from CRS teachers and students and the Cronbach Alpha reliability coefficient for both was determined to be .76 and .79 respectively. CRS teachers in the Western Region were found to have a high level of pedagogical practices needed for the teaching of the subject to avoid indoctrination. Likewise, they had high knowledge of the content for teaching CRS. CRS teachers were found to have high knowledge of the rationale for teaching CRS. There was a weak positive non-significant relationship ($r = .151, p = .358$) between CRS teachers' pedagogical practices and their knowledge of rationale for teaching CRS. Based on the findings, the study recommended that the Regional Education Directorate in partnership with GES should design programmes for teachers to keep on upgrading to ensure that they are abreast with emerging pedagogies for teaching. Institutions (Universities, colleges, etc) mandated to train teachers should emphasis the rationale for teaching CRS in the methods of teaching CRS courses since the rationale (reasons and philosophy of education) gives direction in teaching.

Keywords: Teacher Preparedness, CRS, Pedagogical knowledge, Content Knowledge, Rationale

I. INTRODUCTION

The rationale for education is to make the learner an autonomous critical thinker. Getting an entire human being who has the potential to solve his or her immediate pressing problems without the intervention of others is ideal for most philosophers. Stakeholders in education turn to ask why this present generation which has sophisticated and advanced technology is refusing to impact positively through their thinking. The learners seem not to contribute to any meaningful national development as in the days of old. Momanu (2012) asserted that the problem of both educational policy and society at large is affected by indoctrination. She observed that teachers frequently saw students' brains as banks into which they made deposits. Most of the time, students don't have much time to consider what their teachers are telling them; instead, they just consume it wholeheartedly. The best way to teach Christian Religious Studies (CRS) is to have competent teachers who are prepared to implement the curriculum without any ulterior motive. Teachers should be prepared in interpersonal relations, should have technological skills, be glued to the content and the methods, being conscious of the philosophy of CRS. In this discourse, teacher preparedness entails the pedagogical knowledge of the teachers, their knowledge of CRS content, and its rationale.

Taylor (2017) brought to light that educational methods including teaching, brainstorming, storytelling, discussion, and directed research are the most preferred ways of teaching rather than imposing unrefined dogmas on the learners of CRS. Religious Education frequently needs to take place under the supervision of trained teachers. However, learners

can also edify themselves. Tylor continues to postulate that teachers must be prepared to be open-minded in their efforts to help students form positive attitudes and think about generally accepted values; make sound moral decisions and choices; make moral judgments that will prepare them for responsible social life; to display positive attitudes toward other people and respect for their right to hold beliefs that are different from their own; and to be able to make a reasonable and informed judgment about religious and moral issues. Tylor expects the teachers of CRS to show all the above traits in their classroom practices without brainwashing or indoctrinating. Indoctrination is noted to string up from (a) content designated for teaching, (b) the method adopted in teaching, (c) the intent of a tutor, and (d) the subject's moral objectives (Anti & Anum, 2002; Taylor, 2017). Mensah and Ampem (2023) found that teachers in the Central Region of Ghana have moderate knowledge about indoctrination and some of its practices but could not find out how prepared the teachers are to teach the subject. Castagno and Brayboy (2008) postulated that an elevated CRS instructor can accomplish the subject's goals. Highly qualified teachers who effectively fit and are efficient in all aspects of teaching are needed in performing the duties that are associated with the teaching of CRS. Here, it will be necessary to say that a prepared CRS teacher in content knowledge and methods of teaching CRS achieves the intention of the subject.

The teaching of CRS is not to convert learners to Christianity, look down on any other religion, and make learners a burden unto their parents. This can only be achieved if the rationale for teaching CRS (helping students to comprehend the position the Bible plays in people's life as a foundation of instruction, direction, and advice on the different issues the ecosphere faces today) through the efficient use of the stipulated pedagogies and selecting the appropriate content to be taught. Appiah and Mfum-Appiah (2019) believe a more knowledgeable and skilled person who engages in the action of instructing to assist a less skilled and experienced person in learning is preferred. This suggests that teachers must possess greater expertise than students in terms of pedagogy, material, and technology use.

Content knowledge is familiarity concerning a curriculum that is to be learned or conveyed, such as high school history, graduate-level astrophysics, and Religious Education (Khoza, 2015). Instructors who lack content knowledge in their subject areas may not appreciate the crux of the topics in the syllabus, and face the problem of selecting facts that will develop the civic competencies of the learners (Bordoh, Eshun, Kofie, Bassaw & Kwarteng, 2015). Appiah and Mfum-Appiah (2019) contend that most modern educators believe that competent teachers are those who can provide suitable material, methods, and technology for a given class setting. They further posited that content comes from various interactions between the content, while pedagogical knowledge includes comprehending and conveying the depiction of concepts using pedagogical techniques that suits learners' learning needs. Afari-Yankson (2021) found that CRS teachers had a strong understanding of content when it comes to teaching CRS.

Rationale refers to the motives and reason as well as the purpose behind an action or program or event. Every single activity has got a reason behind its operations. Education as a social phenomenon since its inception with human civilisation has some remarkable motives to accomplish. Christianity is the largest and the leading religion among the mainline religions in the country, and among the various religious books accessible, the Bible is commonly utilised. Mensah and Owusu (2022) highlighted that the purpose of CRS as a curriculum in senior high school is to assist students to comprehend the function that the Bible performs in people's lives as a source of direction, guidance, and advice on a variety of issues and problems that the world experience today. Afari-Yankson (2021) postulated that CRS was mounted to assist students to comprehend the significance of the Bible in people's lives

There are limited studies on the relationship between teachers' knowledge of rationale and pedagogical practices as well as their content knowledge and knowledge of the rationale for teaching CRS. Studies from Khoza (2015) and Betts and Liow (2006) conducted outside Ghana in sciences and mathematics but not Religious Education found that teachers' knowledge of the rationale for teaching correlates with their pedagogical practices in teaching. Again, researchers (Mpungose, 2016; Khoza, 2015; Kehdinga, 2014) have hypothesized that there is an association between knowledge of content and knowledge of the rationale for teaching any curriculum. They saw that the critical levels of reflection on the rationale have a strong influence on teaching the subject content. Miheso-O'Connor Khakasa and Berger (2016) outlined that the rationale for teaching science disciplines such as Mathematics and Physical Science influences what teachers need to know (content knowledge) before teaching and learning processes begin.

Teacher preparedness plays an integral role in seeing to it that the CRS learners are proficient to use the bible to solve the problems in their surroundings. However, due to some problems (having unqualified teachers, students' poor attitudes towards the subject, a weak ground of the content, challenges in selecting TLRs, indoctrination, derogatory perceptions about the subject, low academic performance of students, etc) identified, lots of attention lots of research have been initiated and conducted. The attention of stakeholders and universities that prepare student-teachers has not been drawn to the fact that teacher readiness in teaching the CRS matter. Owusu and Mensah (2013) have stipulated that, as a result of unemployment, Headteachers are forced to appoint instructors without a degree in religious education to teach the subject, and also because of the scarcity of RME, CRS, IRS, and ATRS professional teachers. Most of these teachers are found in missionary schools in the country.

Onuvugah and Mordi (2017) stated emphatically that every Christian or mission denomination that has established a school usually employs the guidelines of the bible and attaches its doctrines to impart religious knowledge to the learners. Thorough investigations b studies (Afari-Yankson 2021, Mensah, 2018; Owusu, 2015; Owusu & Mensah, 2022) revealed that almost all the mission senior high schools have Reverend Ministers who teach CRS because of the supposition that any individual possessing sound Biblical acquaintance could be invited to teach the subject once the fellow has a basis of biblical interpretation. Yet, these teachers are not trained in the methods of teaching CRS. They end up saying and doing things (praying in lessons, speaking against other faiths, not allowing critical thinking, avoiding questions, etc.) beyond the purview of religious instruction. Acquah (2018) and Amuah (2012) also found that in most schools, CRS is seen to be a simple subject therefore, someone without the requisite skills, such as a degree in Religious Education could be employed to teach the subject. CRS teachers who are mostly employed to teach Religious Education have certificates in other fields like social studies, mathematics, government, and history. They have been teaching CRS yet they have not read methods of teaching Religious Education (CRS) as suggested by the scholars (Asare-Danso & Mensah, 2021; Amuah, 2012; Mensah, 2018; Owusu & Mensah, 2022). Afari-Yankson (2021) saw that the CRS teachers in the Aowin district located in the Western north region of Ghana were unfamiliar with some of the Old Testament's contents which is a major part of the curriculum as well as the goals of teaching Christian Religious Studies.

Meanwhile, several studies (Amuah, 2012; Anti & Anum, 2002; Christiansen, 2019 Mason & Wareham, 2018; Momanu, 2018; Taylor, 2017) have indicated that indoctrination and out-of-field teachers exist in schools but they did not go to the teachers to find out from them, how prepared they are to teach the subject in terms of their content, pedagogies usage and the knowledge of the inherent logic. It is against this premise that this study was carried out to find the preparedness of CRS teachers in teaching CRS in the Western Region of Ghana.

The research questions and hypotheses below directed the study.

1. What is mission school CRS teachers' level of pedagogical practices in the teaching of CRS?
2. What is the content knowledge of mission school CRS teachers in the teaching of CRS?
3. What are mission school CRS teachers' knowledge of the rationale for teaching CRS?

1.1 Hypothesis

H₀. There is no relationship between mission school CRS teachers' level of pedagogical practices and their knowledge of the rationale for teaching CRS.

II. METHODOLOGY

This study best matched the positivist paradigm. According to Kivunja and Kuyini (2017), the positivist approach specifies a research worldview that is based on research methodologies as the scientific method of inquiry. In this study, data was collected from both teachers and students of CRS in the Western region to determine CRS teachers' preparedness to teach. The data was collected from both teachers and students simultaneously and with a period of one month. Due to this, the descriptive cross-sectional survey research design of the quantitative approach was used for the study. This design allows for the collection of data across a large sample size within a specific time period. In a cross-sectional survey, data are gathered at a single moment in time (Creswell, 2014; Babbie, 2021).

2.1 Population and Participants

The population was all CRS teachers and students from the various mission schools in the Western Region. There are 45 teachers and 1,400 students of CRS in the 22 mission Senior High schools in the region. Therefore, the study's population was 1445, comprising 45 mission school CRS teachers and 1400 students of CRS students. The sample size for the study was 365 and it comprised 320 CRS students and 45 CRS teachers. The study employed the census method to involve all 45 CRS teachers in the study. Australian Bureau of Statistics (2020) highlighted that a census is an examination of each unit, everybody, or all of that in a community. The proportionate random sampling procedure through the lottery method was used to select the students from each of the mission senior high schools.

Table 1*Demographic Data of Respondents*

Variable	Respondents	Sub Scale	No.	%
Gender	Teachers	Male	27	60
		Female	18	40
	Students	Male	162	51
		Female	158	49

Source: Field Data (2022)

2.2 Instruments for Data Collection

Questionnaires for both CRS teachers and students were used to gather data. McLeod (2018) said a questionnaire can be completed at the respondent's convenience and there is high confidentiality. The questionnaires for teachers had 29 items and nine on students' and were presented under four (4) and two (2) sections respectively. Section A which had three items for teachers and two for students focused on the demographic characteristics of the respondents. Section B had nine (9) items on the questionnaire for teachers and that for students and they concerned CRS teachers' pedagogical knowledge in teaching. Section C had 11 items that focused on teachers' content knowledge in the teaching of CRS. Section D solicited data on six (6) items on CRS teachers' knowledge of the rationale for teaching CRS.

2.3 Validity and Reliability

Questionnaires for both CRS teachers and students were subjected to critical scrutiny with the research objectives as a yardstick to ensure both content and face validity. Through this, items that were not well formulated were amended and refined. To ensure the internal consistency of both instruments, a pilot test was conducted in 7 mission schools in the Central Region. There were 15 CRS teachers and 86 CRS students in these schools. Exploratory factor analysis was employed to do away with items that were not loading enough. Also, all issues of vagueness were made clear to ensure that the instruments were fit to collect the data. The Cronbach Alpha reliability coefficient of the questionnaires for CRS teachers and students were determined to be .76 and .79 respectively, which were considered reliable (Creswell, 2014).

2.4 Statistical Treatment of Data

Data to answer research questions and test the hypothesis were collected from CRS teachers and students in the Western region. Data from respondents were coded, processed, and analysed with the help of the Statistical Package for Service Solutions software. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to analyse data to answer the research questions. The hypotheses were tested through inferential statistics (Pearson product correlation) and the results were used to determine whether to accept or reject the null hypotheses.

2.5 Ethical Considerations

The study was mindful of ethical issues that are very critical. In other to avoid breaching some of the ethical issues careful measures were instituted. Informed consent was sought from school authorities and teachers in the schools. Participants were assured of confidentiality and anonymity while the purpose of the study and the data collection were explained to them. Participants were fully briefed on what was expected of them, how well the data is now to be utilised, and the possible repercussions (Fleming & Zegwaard, 2018).

III. FINDINGS AND DISCUSSION

The results of the data analysis are presented, interpreted, and discussed in the section of the write-up. In the discussion, reference is made to the literature to make meaning of the findings. The outcomes and discussion are presented based on research questions and hypotheses that steered the study's course.

3.1 What is mission school CRS teachers' level of pedagogical practices in the teaching of CRS?

This research question sought to examine mission school CRS teachers' level of pedagogical practices in the teaching of CRS. CRS teachers were asked to express their opinions on each item on a scale of 1 = uncertain; 2= Strongly Disagree; 3 =Disagree; 4 = Agree and 5 = Strongly Agree. The mean scores interval was interpreted as 1.00- 1.9= Low, 2.0- 3.5= Moderate, and 3.6-5.0= High.

Table 2*CRS Teachers' level of Pedagogical Practices in the Teaching of CRS*

Statement	U		SD/D		A/SA		M	SD
	No	%	No	%	No	%		
I have command of various teaching methods, knowing when and how to apply each method	0	0	4	9	41	91	4.46	.68
I am selective of the methods that respect the eventual freedom of the child to refuse to participate in religious practices	9	20	12	27	24	53	3.25	1.27
I know the different forms and purposes of formative and summative assessments and know how different frames of reference impact students' thinking.	0	0	7	16	38	84	4.03	.63
I can motivate students who show low interest in CRS	0	0	0	0	45	100	4.33	.48
I have the competencies to provide an alternative explanation for example when students are confused	0	0	4	2	41	91	4.59	.54
My pedagogical knowledge makes me maximise the quantity of instructional time, handling classroom events and maintaining clear direction in lessons	0	0	6	13	39	87	4.31	.69
I am conversant with the process of using a variety of teaching/learning aids during lesson delivery	0	0	9	20	36	80	3.92	.66
I understand the techniques of using the local environment as a teaching resource to make my lesson more enjoyable	0	0	8	18	37	82	4.03	.54
I understand the procedures for phasing teaching from known to unknown in the lessons	3	7	8	18	34	76	4.00	1.03
Average							4.10	.72

Source: Field Data, (2022)

Table 2 shows the results of CRS teachers' responses on their pedagogical practices in teaching CRS. A majority (n= 41, 97%) agreed that they have command of various teaching methods, knowing when and how to apply each method (M= 4.46, SD=.68). Again, (53%) either agreed or strongly agreed that they are selective of the methods that respect the eventual freedom of the child to refuse to participate in religious practices (M= 3.25, SD=1.27). Majority (n=38, 84%) agreed that they understand many types and purposes of evaluations, and knowledge of how different frames of reference influence how kids think (M= 4.03, SD=.63). All (n= 45, 100%) teachers agreed that they motivate students who show low interest in CRS (M=4.33, SD=.48). Also, majority (n=41, 91%) either strongly agreed or agreed that they have the competencies to provide an alternative explanation for example when students are confused (M= 4.59, SD=.54). Again, 39 (87%) agreed that their pedagogical knowledge make them maximise the number of instructional sessions, handling classroom events and maintaining clear direction in lessons (M=4.31, SD=.69). Majority (80%) agreed that they are conversant with the process in using a variety of teaching/learning aids during lesson delivery (M= 3.92, SD=.66). Out of 39 teachers, 37 representing (82%) agreed that they understand the techniques of using the local environment as teaching resources makes my lesson more enjoyable (M=4.03, SD=.54).

An overall mean score of 4.10, indicated that CRS teachers in the Western region have a high level of pedagogical practices needed for teaching. This finding is supported by studies (Appiah & Mfum-Appiah, 2019; Asare-Danso, 2017) that found that teachers demonstrated good pedagogical and content knowledge that aids the teaching and learning of CRS. Momanu (2012) also found that teachers had moderate knowledge of pedagogy and were able to maintain the skill of knowing and practicing the prescribed action such as not attaching punishments or issuing threats that motivate learners to be critical and autonomous thinkers.

To find out if the teachers demonstrate such skills in the teaching process, the students were also given a set of items on the same issue of the teachers' pedagogical practices results for students' responses are recorded in Table 3. Students were to communicate their ideas with each item on a scale; 1 = Uncertain; 2 = Strongly Disagree; 3 = Disagree; 4 = Agree and 5 = Strongly Agree. The mean scores interval was interpreted as 1.00- 1.9= Low, 2.0- 3.5 = Moderate, and 3.6-5.0= High.

Table 3
Students' responses to CRS Teachers' Pedagogical Practices

Statement	U		SD/D		A/SA		M	SD
	No	%	No	%	No	%		
My CRS teacher has command of various teaching methods, knowing when and how to apply each method	46	14	52	17	222	69	3.67	1.41
My CRS teacher is selective of the methods that respect the eventual freedom of the child to refuse to participate in religious practices	82	26	88	27	150	47	3.06	1.54
My CRS instructor understands the many forms and goals of formative or summative evaluations, as well as how different frames of reference influence students' thinking.	42	13	38	12	240	75	3.81	1.34
My CRS teacher can motivate students who show low interest in CRS,	19	6	25	8	276	86	4.30	1.09
My CRS teacher has the competencies to provide an alternative explanation for example when students are confused	14	4	34	11	262	85	4.28	1.05
My CRS teacher maximises the quantity of instructional time, handling classroom events and maintaining clear direction in lessons.	26	8	45	15	249	77	3.90	1.17
My CRS teacher is conversant with the process of using a variety of teaching/learning aids during lesson delivery	28	9	58	19	234	73	3.84	1.21
My CRS teacher understands the techniques of using the local environment as a teaching resource makes my lesson more enjoyable	21	7	33	10	266	83	4.17	1.16
My CRS teacher demonstrates an understanding of the procedures for phasing teaching from known to unknown in the lessons	39	12	50	16	131	72	3.79	1.30
Average							3.87	1.22

Source: Field Data, (2022)

A majority (n=222) of the students agreed that their teachers are knowledgeable about the numerous teaching strategies and comprehend when to practice them (M= 3.67, SD= 1.41). Most (53%) disagreed that their CRS teachers are selective of the methods that respect the eventual freedom of the child to refuse to participate in religious practices” (M= 3.06, SD= 1.54) which is contrary to what the teachers said. Likewise, a majority (n=, 240, 75%) agreed that their teachers know of different forms and purposes of assessments, and knowledge of how different frames of reference impact students’ thinking (M= 3.81, SD= 1.34). Also, 276 students agreed their teachers can help them show interest in CRS (M= 4.30, SD= 1.09) while a majority (n=261) representing (85%) agreed that CRS teachers have the competencies to provide an alternative explanation for example when students are confused (M= 4.28, SD=1.05). Majority 249 (77%) of them agreed that their CRS teachers maximise the quantity of instructional time, handling classroom events and maintaining clear direction in lessons (M= 3.90, SD=1.17).

An average of all the means of 3.87 showed that the students agreed that their CRS teachers have a high level of pedagogical practices in teaching CRS. The responses of the students are similar to that of the teachers. So, put together, responses from both teachers and students indicate that CRS teachers do practice the appropriate pedagogies in teaching CRS. The findings of Appiah and Mfum-Appiah (2019) and Asare-Danso (2017) are re-echoed but their findings were not from the views of students. Tadesse, Manathunga, and Gillies (2020) focused on the views of students on the pedagogical practices of their teachers and found that the teachers lacked the appropriate pedagogical practices that can aid students learning. Their finding contradicts the finding of the present study, although from a different context.

3.2 What is the content knowledge of mission school CRS teachers in the teaching of CRS?

This question sought to find out the content knowledge of mission school CRS teachers. Through close-ended items on the questionnaire, the teachers were to select their most preferred views to specify their thoughts on each item on a scale of 1= Uncertain; 2, = Strongly Disagree; 3=Disagree; 4 = Agree and 5 = Strongly Agree. The mean scores interval was interpreted as 1.00- 1.9= Low knowledge, 2.0- 3.5 = Moderate knowledge, and 3.6-5.0 = High knowledge.

Table 4*CRS Teachers' Content Knowledge in Teaching CRS*

Statement	U		SD/D		A/SA		M	SD
	No	%	No	%	No	%		
CRS focuses on carefully selected major themes in the bible	0	0	4	9	41	91	4.5	.56
The subject matter of CRS borders on the life stories of prominent characters of the Bible	0	0	4	9	41	91	4.5	.64
CRS contains purely religious issues related to Christianity	7	16	10	22	28	62	3.6	1.3
The content of CRS has some aspects of social issues that reflect on our daily life	0	0	0	0	45	100	4.7	.46
The content of CRS exposes students to biblical principles and values to help them in making a sound value judgment	0	0	5	11	40	89	4.6	.59
The content of CRS should be related to the life experiences of pupils	0	0	9	20	36	80	4.3	.72
The content of CRS has two main sections; Old Testament and New Testament	0	0	4	2	41	91	4.7	.53
The content of CRS is structured in two sections for years one, two, and three	5	11	5	11	35	77	4.3	1.1
The content for year one has headings like Leadership roles Parental responsibility, Disobedience, and consequences	0	0	9	20	36	80	4.3	.77
The content for year one has headings like; Individual responsibilities, concern for one's nation, and faith in God.	0	0	23	51	22	49	3.4	1.0
Average							3.83	.79

Source: Field Data, (2022)

Table 4 presents CRS teachers' responses to their content knowledge. A majority ($n=41$) strongly agreed that CRS focuses on carefully selected major themes in the bible ($M=4.51$, $SD=.56$) and that the subject content of CRS borders on the life stories of prominent characters of the bible ($M=4.51$, $SD=.64$). Again, a majority (62%) of the teachers agreed that CRS contains purely religious issues related to Christianity ($M=3.59$, $SD=1.27$). Again, all ($n=45$, 100%) teachers either strongly agreed or agreed that the content of CRS has some aspects of social issues that reflect on our daily life ($M=4.69$, $SD=.46$). In addition, a majority (89%) either strongly agreed or agreed that the content of CRS introduces pupils to biblical concepts and values to assist them in making intelligent value decisions ($M=4.59$, $SD=.59$). A majority ($n=36$, 80%) agreed that CRS material should be relevant to students' real-life experiences ($M=4.26$, $SD=.72$). Additionally, 41 (91%) teachers either strongly agreed or agreed that the content of CRS has two main sections; Old Testament and New Testament" ($M=4.66$, $SD=.53$). Here again, 35 (77%) agreed that the content of CRS is structured in two sections for year one, two and three ($M=4.26$, $SD=1.14$).

It was revealed that an overall mean score of 3.83 ($SD=.79$) was obtained which showed that the teachers have a high content knowledge for teaching CRS. This may be a result of the training and the religion the teachers are affiliated with. This finding contradicts that of Afari-Yankson (2021), Mensah and Owusu (2022), and Asare-Danso (2012) who found that CRS teachers have moderate content knowledge in teaching CRS.

3.3 What is the level of mission school CRS teachers' knowledge of the rationale for teaching CRS?

This research question sought to discover CRS teachers' knowledge of the rationale for teaching CRS in the Western Region. Through close-ended items, the teachers indicated their thoughts on each issue on a scale of 1 = Uncertain; 2 = Strongly Disagree; 3 = Disagree; 4 = Agree and 5 = Strongly Agree. The mean scores interval was interpreted as 1.00- 1.9 = Low, 2.0 - 3.5 = Moderate, and 3.6-5.0 = High.

Table 5*CRS Teachers' Knowledge of the Rationale for Teaching CRS*

Statement	U		SD/D		A/SA		M	SD
	No	%	No	%	No	%		
CRS subject is to help students understand the role bible plays in the lives of people as a source of guidance	0	0	7	18	38	84	4.26	.68
Religious books, particularly the Bible which is used for teaching CRS are widely used all over the World.	5	11	12	27	28	62	3.85	1.14
CRS helps students to understand the role the Bible plays in the lives of people as a directional foundation and council on various problems facing the world nowadays	0	0	7	12	38	84	4.31	.69
The CRS, which is founded on the Christian Scripture, includes a framework for addressing the teaching of social and personal values that are crucial for students' social transformation.	0	0	6	13	39	87	4.31	.61
The scriptural ideals are the only ideas that apply to students' lives that should be presented in CRS' teachings.	3	7	28	62	14	31	3.08	.77
The understanding, appropriation, and actualization of biblical virtues in the lives of students is the motive of teaching CRS	3	7	20	44	22	49	3.59	.94
Average							3.90	.81

Source: Field Data (2022)

Table 5 presents the results of CRS teachers' responses on their acquaintance with the rationale for teaching. Majority (n=38, 84%) agreed that the subject is to help students understand the role bible plays in the lives of people as a source of guidance (M= 4.26, SD=.68) and it backs students in understanding the role the Bible plays in people's lives as a source for directing and counselling on numerous issues confronting the world today (M= 4.31, SD= .69). Again 28(62%) of the teachers agreed that religious books, especially the scripture, is used extensively worldwide to teach CRS (M= 3.85, SD=1.14). A majority (n=39, 87%) agreed that CRS, which is founded on the Holy Bible, includes a framework for addressing the teaching of professional and individual values that are crucial for students' social transformation (M= 4.31, SD= .61). Again, majority, 28(62) disagreed that the only values presented throughout CRS should be the scriptural values that are appropriate for students' life (M= 3.08, SD=.77). Finally, majority 22(49%) agreed that the goal of teaching CRS is for students to comprehend, accustom themselves to, and live out scriptural ideals (M= 3.59, SD=.94).

An average mean of 3.90(SD=.81) was obtained communicating that the teachers have a high level of knowledge of the rationale for teaching CRS. This could be a result of in-service training and training teachers have partaken in as well as their experience gathered from the number of years they have been teaching. Afari-Yankson, (2021) and Curriculum Research and Development Division (2010) indicate that teachers have and should have an understanding of the rationale of teaching CRS. Similarly, Mensah and Owusu (2022) also found that CRS teachers in the Greater Accra Region have high knowledge of the rationale and aims for teaching and learning the subject.

H₀ There is no relationship between CRS teachers' pedagogical practices and their knowledge of the rationale for teaching CRS.

This hypothesis intended to find out the relationship between mission school CRS teachers' pedagogical practices and their knowledge of the rationale for teaching CRS. To make this a success, Pearson's Product Moment correlation coefficient was used since the variables to be tested (teachers' pedagogical practices and their knowledge of the rationale for teaching) were measured on a continuous scale (interval).

Table 6 presents the results of the Pearson correlation analysis between mission school CRS teachers' pedagogical practices and their knowledge of the rationale for teaching CRS. The results indicate a weak positive non-significant relationship between the two variables (teachers' pedagogical practices and knowledge of rationale (r= .151, sig value of .358). The null hypothesis was consequently rejected. This signals that teachers' pedagogical practices relate to their knowledge of the rationale for teaching CRS to a little extent. The relationship, notwithstanding its degree and direction, is insignificant.

Table 6

Relationship between mission school CRS Teachers' Pedagogical practices and Knowledge of the Rationale for Teaching CRS

Variable	Correlation Coefficient	Sig.
Pedagogical practices	1.00	
Knowledge of CRS rationale	.151**	.358

Khoza (2015) and Betts and Liow (2006) who conducted their studies outside of Ghana and Religious Education found that teachers' knowledge of the rationale for teaching has moderate relations with the pedagogies used in teaching. They found that the only way teachers understand all the learning pedagogies is when they reflect on the rationale of the subject and improve their teaching practices. The locations of the previous research differ from that of the current study and differ in terms of findings. The choice of teaching methods should be strictly allied to educational rationale. This shows that the rationale behind the teaching of CRS relates to the pedagogical knowledge of the teachers.

IV. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Based on the findings from the interpretation of the results of the data analysis and its discussion, it can be concluded that mission senior high school CRS students in the Western region are guided to make autonomous decisions and think critically. This implies that they are not being indoctrinated during the teaching of CRS. This is because teachers of CRS employ the appropriate pedagogical practices and strategies when teaching CRS. This also implies that CRS teachers can motivate learners, design assessment tasks that encourage learners to learn, manage classroom practices, and not set questions in favour of other religions and against others. Again, it is concluded that CRS students are taught the prescribed topics as stipulated in the syllabus for teaching CRS. This is because CRS teachers have high content knowledge. This implies that they teach the subject to reflect the subject's logic and philosophy without making the CRS students behave like robots and deviate from the biblical principles which serve as guidance as well as the values that control people's lives in society. It is finally concluded that for teachers to be able to adopt the best pedagogical practices to teach, they need to know the rationale for teaching the subject.

4.2 Recommendations

Based on the findings and conclusions drawn, it is recommended that the Regional Education Directorate in partnership with GES should design programmes for CRS teachers in the region to keep upgrading themselves to ensure that they are abreast with emerging pedagogies for teaching CRS. Again, CRS teachers should keep on reading to expand their knowledge of issues that revolve around the content of the CRS. This is based on the fact that the teachers overwhelmingly agreed that the content has some aspects of social issues that reflect on our daily lives, and the content of CRS introduces learners to these social issues. Also, institutions (Universities, colleges, etc.) mandated to train CRS teachers should emphasis the rationale for teaching CRS in the methods of teaching CRS courses since the rationale (reasons and philosophy of education) gives direction in teaching.

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Monetizing Politics in Nigeria's Democratic Fourth Republic: Delegates as a Commercialized Political Tool and a Flawed Candidate/Leadership Selection Process against the 2023 Election

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ABSTRACT

The paper seeks to examine the extent to which the Nigerian democratic Fourth Republic has been bastardized by money politics. There were widespread expectations that the arrival of democracy in Nigeria on May 29, 1999, would usher in an era of free and fair elections, tolerance, respect for human rights, and the strengthening of all democratic edifices (courts, civil society, a corrupt-free and independent judiciary, people-oriented development, and so on). Unfortunately, the fourth republic became ensnared in a web of protracted political, economic, and social maladies. One of these has been the pernicious issue of undemocratic methods of leadership selection and election, which have been rife with anomalies such as rigging, thugs, vote-buying, assassination, and so on. This has manifested itself in the current 2022 primary elections in Nigeria in preparation for the 2023 general election. The situation gets worse and more deplorable as the delegates who are vested with the constitutional powers to select those to run for the presidency in 2023 have been transformed into a political nightmare as huge amounts of foreign currency flood the entire process of the primary election. Based on this, the study interrogated the delegate system and how it aided the flourishing of flawed electoral processes for leadership selection, considering the overbearing tenets of money politics. The paper used a qualitative research methodology because the data was primarily obtained from secondary sources: textbooks, journal publications, internet materials, and magazines. Content analysis was used to analyze secondary data. The study discusses some technical and constitutional provisions concerning party formation, the place of the delegate in Nigeria's electoral processes, party primaries, and candidates who contested the primaries of the two major political parties, etc., before discussing issues of money politics and how delegates became a thorn in the country's electoral processes and candidate selection. The investment theory of politics and party competition was explored. The study discovered that the delegate system continues to be anathema to quality and visionary leadership, leading to its abolition and the adoption of a more inclusive and concessional approach.

Keywords: Monetization of Politics, Delegates System, Fourth Republic Nigeria

I. INTRODUCTION

Beginning on May 29, 1999, when the democratic Third Wave euphoria penetrated the global political landscape, Nigeria wasn't spared. The country has conducted several elections for political officeholders. Such elections occurred in 1999, 2003, 2007, 2011 and 2015, and the current general elections to continue the democratic Odyssey that liberated the country from a 32-year military junta. As pointed out by Oravee, Bello, and Danjuma (2020), the hopes of Nigerians were raised as the country journeyed into another political dispensation. This hope, however, was misplaced as a result of electoral anomalies that prevent the elections from translating into good governance—transparency, accountability, free and fair elections, independence of the judiciary, adherence to the rule of law, etc. But as would be shown in the paper, Nigerian democracy is only understood as the conducting of elections, regime change, and the commencement of a new administration. Unfortunately, even the elections are bedeviled with lots of irregularities in the form of monetization of politics and electoral processes, rigging, thuggery, delegate anomalies, etc. The recent and odious expedition of money in politics in the country's fourth republic remains alarming and intolerable, as it takes center stage in leadership selection, thus a hindrance to the country's quest for democratic consolidation, good governance, people-oriented governance, legitimate transition, and nation-building.

Ogunbiyi (2022) opined that, money is a vital component for any activity in an economy. This is factual because nothing can be done without money; therefore, it is safe to say that political activities cannot be executed without money. However, when money becomes the decisive factor in electing quality leadership, this can breed the flourishing of corruption. Money politics in a political system surfaces when a politician is bankrolled by his party members in return for financial support. One major issue with money politics, as in the Nigerian case, is the fact that money politics as a means of funding political activities and participation has now turned into a case of the highest bidder, where only those with the financial acumen and willingness to spend huge money are considered eligible candidates. With such a scenario, the capacity to deliver quality governance is determined by the financial strength of a candidate instead of merit, competency, and track records. Recently, the media revealed the extent to which politicians now go in order to win an election. Reports have it that in preparation for the primary elections, many of the party delegates and party members were paid in dollars. Bearing in mind that each local government is to be represented, this by implication means that even if each presidential aspirant spent at most \$6 million on each delegate, each of the presidential aspirants would have expended not less than N4.6 billion in total, considering that Nigeria has 774 local governments.

Baje (2022) eloquently opined that, the recent public outcry spurred by the high costs of nomination forms for the various political posts as announced by the ruling All Progressives Congress (APC) party is alarming. Money has become *ultima ratio* and decisive factor in politics, as evidenced by the presidential candidate for the APC's N 100 million versus the opposition party, the People's Democratic Party (PDP's) N 40 million. Given Nigeria's bleak socioeconomic realities, where, according to World Poverty Clock data as of March 2022, 70 million people were living in extreme poverty, accounting for 33 percent of the country's population, the costs of nomination forms are a direct affront and insult to the long-suffering Nigerians. As reported by the Business Insider Africa media platform, only India surpassed Nigeria with 83 million people living below the U.N. estimated poverty line in 2022. Worrisome still is that the country with the highest number of school-age children still out of school, put at 10.5 million, representing one-third of Nigerian children and one in five out-of-school children in the world, has politicians that are not worried by this scandalous scenario. Neither are they concerned that the beleaguered country has overtaken Iraq as a country vulnerable to terrorism in the whole wide world. Their concern is that of battling for political power by all means—legal and crooked—and retaining it more by the latter than the former. The grave implication is that Nigeria's brand of democracy is completely not that of "a government of the people, by the people, and for the people." but of the rich, by the rich, and for the rich political juggernauts. That is plutocracy or plutarchy for you! That is a society that is ruled or controlled by people of great wealth or income, as occurred in England in 1631.

On this backdrop, the paper analyzes the technical issues surrounding the 2022 primary elections as a prelude to the 2023 general election, which will oust the current administration of President Muhammadu Buhari. Salient and technical issues such as party formation and registration, party conventions, the *modus operandi* for selecting delegates, the primary election outcome for governorship and presidency, and the challenges of the monetization of politics will be critically examined.

1.1 Statement of the Problem

More than three decades after seizing power in a military coup, Muhammadu Buhari emerged as the first Nigerian former military head of state that came into the democratic political era to oust an incumbent and seat an opponent (President Goodluck Jonathan) via the ballot box. thus putting him, President Buhari, in charge of Africa's

largest economy and one of its most important but turbulent democracies. The election, which took place on the 28th and 29th of February 2015, came to an end with Muhammadu Buhari emerging the winner with a total vote of 15,424,921 (54.55%). While former President Jonathan got 12,853,162 votes (45.45%). (Reuters Publication, 2015). Although there were 14 candidates for the presidency, the most popular contestants were President Goodluck Jonathan and Muhammadu Buhari. The election that saw the emergence of Muhammadu Buhari was not without some irregularities (Sule, Sani, & Mat, 2018). Gabriel (2014) argued that Jonathan severely got admonished on every issue ranging from security, conflicts, politics, governance, infrastructure, and the opposition, which threatened to make Nigeria ungovernable and made good on their intentions to form a parallel government should Jonathan win the 2015 presidential election. The abduction of about 300 Chibok schoolgirls and the subsequent inability to rescue them have been one issue of contention both at home and abroad. This was distasteful news to a country where, already, 10.5 million children of school age were out of school and where no more than four percent of girls in the northeast of Nigeria ever manage to complete secondary school. Ibekwe (2015) pointed out the corrupt practices in Jonathan's regime; thus, the granting of a presidential pardon to former governor of Bayelsa State, Diepreye Alamieyeseigha, who was convicted of money laundering, sparked outrage among Nigerians. He also did nothing until it was too late, when the former Aviation Minister, Stella Uduah, bought two armored BMW cars for N255 million. When he eventually acted, he only notified the minister of her appointment without ordering or calling for her prosecution. Based on the foregoing premises, which correspond to the shortcomings of Jonathan's regime, Mr. Jonathan handed over the constitution and national flags before President Buhari took the oath of office at Abuja's Eagle Square. Mr Buhari reiterated his commitment to combating Boko Haram, which he described as "a mindless, godless group that is as far away from Islam as one can think" (BBC News, May 29, 2015).

Buhari pointed out different issues that bedeviled the Nigerian state as his reasons to contest for the presidency, so he could fix them. For instance, so many failures on the part of his predecessor, President Jonathan, were obvious: his obnoxious policy of fuel subsidy removal on the 13th of May 2010, which saw fuel prices kick up from 65 to 97 naira. This was after a terrible and unbearable strike embarked upon by fuel tanker drivers and petrol importers, during which fuel rose to \$500,000 per liter. The government of President Jonathan struggled for years to counter the Boko Haram insurgency, which was one of the destabilizing forces that dragged the regime to the mud. However, the regime militarily responded while the bloodthirsty group ran amok, killing, maiming, and displacing Nigerians in mostly northern states in its bid to form an Islamic caliphate within Nigeria. President Jonathan's inefficiency and maladministration were more visible in his handling of the insecurity caused by Boko Haram. Critics observed that Goodluck Jonathan didn't act decisively until the eleventh hour, when it became clear that his failure to put down the group was going to affect his chances at the polls. Despite international outcry and calls, particularly from "Bring Back Our Girls" campaigners, for the over 200 schoolgirls kidnapped by the extremist group from Chibok to be rescued, his government failed to do so (Ibekwe, 2015).

The cable news network News, of June 17, 2019, reported that, when President Muhammadu Buhari was campaigning for the 2015 general elections, he and his party, the All Progressives Congress (APC), made several promises to the electorate. The party's campaign was based on the catchphrase "change" and was implemented with a most spiteful, abrasive, and propagandistic forcefulness that crowded out every message of the then ruling Peoples Democratic Party (PDP) and its president, Goodluck Jonathan. Such promises included: a ban on government officials from going abroad for medical treatment; a public declaration of assets and liabilities; the creation of three million jobs per year; the revival of the Ajaokuta Steel Company; the creation of a social welfare program where a minimum of N5000 would be paid to 25 million of the poorest and most vulnerable citizens; the generation, transmission, and distribution of at least 20,000 MW of electricity within four years and increasing to 50,000 MW with a view to achieving 24/7 uninterrupted power supply within 10 years; the revival of the establishment of a free-tuition and scholarship scheme for students who have demonstrated exceptional aptitude in science subjects at O/Levels to study ICT-related courses; establishment of a National Conflict Resolution Commission to prevent, mitigate, and resolve civil conflicts within the polity; stabilization of the naira in the international market; allocating up to 20% of the national budget to education while also making significant investments in training quality the defeat of Boko Haram and the rehabilitation and reintegration of repentant insurgents, among others.

The failure to achieve the above campaign promises is revealing, considering the current realities on the ground as of the time of writing this paper. For instance, while he initially denied many patients the ability to pay for their treatments abroad, President Buhari, as of May 2018, had gone to the United Kingdom five times for the treatment of an undisclosed ailment. Apart from treating himself in the London hospital against the promise he made to end medical tourism by improving the quality of healthcare delivery in the country, his son, Yusuf, was flown in an air ambulance to the UK for treatment of injuries he sustained in a power bike crash in Abuja. After his treatment, the boy was flown back to the country in a chartered aircraft, a situation that triggered a public outcry. Also, he failed to

declare his asset when asked, even though he claimed to have one. Asked during his first media chat on December 30, 2015, the president said he had declared his assets four times but declined when pressed to release the document to Premium Times, which had earlier sent an FOI request to the Code of Conduct Bureau to make the report available to it (The Cable News, January 17, 2019).

In terms of corruption, Fasan (2022) stated unequivocally that the rhetoric is unmistakable: President Muhammadu Buhari's administration, we are told, is fighting corruption. Yet, incidents of chronic corruption remain prevalent. Transparency International has repeatedly stated, much to the chagrin and anger of the Buhari administration, that the perception of corruption has not improved since the administration took office in 2015. In fact, Nigeria's ratings are on a downward spiral! Earlier this year, in January of this year, Transparency International (TI) released its 2021 Corruption Perception Index. According to the Index, Nigeria scored 24 out of 100 points and ranked 154 out of 180 countries surveyed, thereby dropping five places from its 149th ranking in 2020. This also makes Nigeria the second-most corrupt country in West Africa.

Another area is the excessive use of money in politics in the current dispensation. This has truncated democracy and the leadership selection process in Nigeria. Eghaga (2022) argued that the initiators of democracy in 5th-century Greece never envisaged a situation in which only the wealthy or super-rich would become representatives of the people, whether in the legislative or executive arm of government. Its original meaning, "rule of the people," is quite instructive in this regard. Ali Mazrui warned that "it is suicidal in any democracy for a majority without economic power to hand over political power to a minority with economic power!" which is the current scenario in Nigeria. And the nation is paying for it. The last special conventions orchestrated by the All Peoples' Congress (APC) and Peoples' Democratic Party (PDP) in Abuja brought to the fore the power of money at the heart of politics and politicking in Nigeria. There was a time in our history when the political rulers in Nigeria managed to pretend about public morality, pretend to respect the naira, pretend about fighting corruption, pretend about setting the right standards, pretend about inclusive politics, and pretend about their image in the eyes of the people. But that era has gone with the wind of time. The odious display of money politics in Abuja during the conventions is a breaking point for us all. Sadly, it happened under the watch of the unsmiling general, who campaigned on an anti-corruption mantra. This signals the end of hope that mainstream politics can resolve the deep contradictions of the Nigerian state.

In the same vein, Are (2022) observed that, at a one-day colloquium on "emerging issues that will shape the 2023 general election," The event was organized by the Centre for Democracy and Development (CDD) in collaboration with the Open Society Initiative for West Africa (OSIWA) in Abuja. The INEC chairman, Yakubu, said there are three critical challenges ahead of the 2023 election, listing them as insecurity, fake news, and money politics. His third area of concern was the influence of money on politics, which is becoming more present, and the risk is that ours may soon become a plutocracy for the rich rather than a democracy for the people. NAN quoted him as saying, "The way money is exchanging hands is a source of concern. Yes, we have collaboration with the ICPC and the EFCC, and only recently we renewed our collaboration with the EFCC, saying that we are going to do something together." However, there are two dimensions to it. When you have willing connectors, it becomes a bit more difficult to contain the situation.

With this backdrop and the bleak democratic scenario in mind, the study delves into the extent to which money dominates Nigerian democracy, becoming the *ultima ratio* in leadership selection and the electoral process. Also, some salient technical issues like the *modus operandi* for selecting delegates, party formation, and party conventions would be considered while discussing the outcome of the presidential and governorship primary elections.

1.2 Objectives of the Study

The general objective of the study is to ascertain the implications of the delegate system in the Nigerian political landscape. The study delves deeper into the following key issues:

1. Some technical issues, such as the constitutional provision and electoral act, gave credence to the existence of delegates in the Nigerian electoral process
2. Technical issues such as Nigeria's Electoral Acts Provision on party formation and executive nomination
3. The monetization of the delegate system and how such an undemocratic act remains a flawed process for candidates and leadership selection

II. THEORETICAL FRAMEWORK

2.1 Investment theory of politics/ party competition

Thomas Ferguson (1995) proposed an alternative that he calls the investment theory of party competition. In this model, candidates for political office and political parties appeal not to voters but to investors, who are the fundamental constituency. According to Ferguson (1995), "parties can be more appropriately analyzed as blocs of major investors constituted to advance candidates representing their interests." The policy arena of political parties is skewed in favor of major investors, and minor investor-voters are virtually incapable of overturning such policy choices or acting in the negative sense of voting "no confidence." As the cost of political campaigns has skyrocketed in the era of our democracy, the logic of money-driven political systems has become more and more applicable. The investment theory expects that whole areas of policy will not be contested. This will occur as a matter of routine because major investors across parties may have virtually similar preferences on many policy issues. Because major investors will almost certainly come from the bourgeois classes, and the majority of voters will come from the ordinary masses, the theory predicts a clear bias in public policy towards the nouveau rich wherever class interests are at stake (The Policy Tencor.com, 2013). Temin (2017) opined that the Investment Theory of Politics is more accurate because it shifts emphasis from voters to rich businesses and people who exert influence on voters through political advertising. The momentum gathered by the money spent on elections determines outcomes more than the candidates' policy choices. The investment theory of politics has become more crucial since Citizens United and the increase of dark money in politics.

According to Davies (2018), this is a theory that has gained popularity on the socialist left, although it draws on arguments and a way of thinking commonly associated with the free market side of politics). Davies further reiterated that the investment theory of politics is a reaction to a puzzle that emerged soon after mass democratic politics became globally prevalent in the late 19th century. The early pioneers who advocated modern democracy had deduced that once everyone had the vote, political argument and debate and the actual policies that followed would only be a reflection of the best interests of the great majority rather than those of an elite, whether aristocratic, clerical, or commercial. Also, the theory, as pointed out by Davies, reveals how financially straining it is to engage in political activities. While some of this is monetary, the opportunity cost is the central issue. Quite simply, political trends such as attending meetings, being an active member of a campaigning organization or party, canvassing, knocking on doors, and much else besides all consume time that could have been expended on other endeavors. For most people, this is extremely exorbitant.

The input and relevance of the theory to the paper clearly reflect the typical Nigerian situation. The manner in which political candidates use all crooked and unholy means, most notably extraordinary cash, to entice voters is alarming. This demonstrates that money politics is being introduced into politics as a business card of investment, and Nigerian political parties lack ideology and a blueprint for nation-building and overall national development in which the citizen's welfare in terms of security, employment, social services such as health and education, infrastructure, and so on is prioritized. However, this is not the case in Nigeria, which has been the case since independence and continues to this day. The worst is the democratic dispensation that commenced on May 29, 1999. The hope that democracy will usher in an accommodating and favorable atmosphere has been lost. Democracy in Nigeria is understood as only the conduct of elections, which are often smacked with rigging, thuggery, kidnapping, assassination, bribery, and monetization of the process. As a result, one can hypothesize that Nigerian political office seekers who run for office do so solely to exchange power and change of administration or regime in order to gain access to the common wealth.

III. RESEARCH METHODOLOGY

The study, which adopted the qualitative research methodology, got its data solely from secondary sources: journal publications, news articles, magazines, textbooks, and internet materials. Such secondary data was analyzed using the content analysis method, whereby existing literature was reviewed as being related to the work.

IV. TECHNICAL ISSUES

4.1 Party Formation

Although there are many political parties on the Nigerian political scene, the All Progressive Congress (APC), which is now in power, and the People's Democratic Party (PDP), which is the current opposition, continue to be the most influential and well-liked parties.

Nigeria has more than 90 political parties up till 2020, as was sharply pointed out by Mutsoli Wangare in (2022). However, after the Independent National Electoral Commission (INEC) chose to deregister every party that did not adhere to the constitutional standards, this number was cut to less than 20. Political parties that did not adhere to predetermined standards were deregistered by the Independent National Electoral Commission (INEC), in accordance with its constitutional authority. Mahmood Yakubu, the head of INEC, declared during a news conference in Abuja that after reviewing all 92 political parties in Nigeria, the commission decided to re-register 74 of them (Asadu 2022). According to TheNigerianfinders.com, there are now 29 political parties registered in Nigeria, and each one has a distinctive emblem that may be used to identify them. This is crucial, especially during elections when the logo can serve as a way for voters who are illiterate to recognize the political parties. After the country's independence on October 1, 1960, and the start of democratic rule in 1999, there will be another election in Nigeria's democratic history in 2023.

4.2 Modus Operandi for Selecting Party Delegates in Nigeria

There are two types of delegates: ad hoc and statutory. The ad hoc delegates are chosen through ward congresses held across the country. The process involves party members choosing people who will vote on their behalf in the party's governorship or presidential primaries. In most cases, the National Executive Committees (NECs), the highest organ of political parties, determine the mode of these congresses. After selecting delegates, a convention is held to enable them to decide on who will fly the party's gubernatorial or presidential flag. In the statutory method, delegates have automatic members. These are party members who are currently serving as public office holders, ward councilors, local government chairmen and their vice chairs, and political party chairmen in all 774 LGAs. Others include current and former presidents, governors, deputy governors, and members of the National and State Legislatures. Only the five delegates elected from each ward for the state congresses will vote to elect governors, senators, House of Representatives, and state House of Assembly members for the APC. For the PDP, there will be three delegates elected from each ward (Iniobong, 2022).

As stipulated in the Electoral Act as amended, these delegates emerge from internal elections of the party conducted in each of the local governments, in which the members of the party participate. But after the presidential primaries, the Electoral College (delegates list) comprises ad hoc delegates elected across the wards in the state. That is based on the specified number in the party's constitution or guidelines multiplied by the number of local governments that exist in each state. However, the delegate system is shrouded in controversy. The 2022 Amended Electoral Act, signed into law by President Muhammadu Buhari, recently prevents statutory delegates from partaking in party primaries. According to Section 84(8) of the Electoral Amendment Acts, a political party that adopts direct primaries for the selection of its candidates shall clearly outline in its constitution and rules the procedure for the democratic election of delegates. The delegates, in addition to the statutory delegates already specified in the party's constitution, are to vote at the convention, Congress, or meeting, according to the act. Consequently, to change the situation in preparation of the primary elections, the National Assembly—the Senate and House of Representatives—had held an emergency session geared towards the amendment of Section 84(8) of the 2022 Electoral Act to allow statutory delegates to participate and vote in party conventions, congresses, and meetings (Iniobong, 2022).

Decrying the adverse effects of the delegate system as a system that breeds unjust electoral outcomes and an undemocratic and exclusive pattern of leadership selection, Eromosele (2022) argued that the expression "democratic election" means emergence by majority vote (be it simple or plural). It is not synonymous with appointment, anointment, or selection. A segregation of delegates at a party convention or congress for party primaries between ad hoc and special delegates where certain elected office holders get preferential rights to load delegates with their hirelings will violate Section 84(8). Regardless of whether the party chooses consensus, direct, or indirect primaries, the final stage of election for the nomination of party candidates involves congress or convention to elect, ratify, or confirm the nominated candidate: See sections 84 (3) and (11). Owonikoko (2022), further informed that, contrary to what the parties presently presume, only elected delegates can participate in party primaries either directly in indirect elections or to ratify or confirm successful candidates in primaries by consensus or direct primary elections. The latter is defined under the Act to mean "an election at which candidates for elective office are chosen by direct vote of political party members instead of by delegates at a convention or congress."

4.3 Party Convention: a prelude to 2023 election

The preparation for the 2023 elections began with party conventions in 2022. The All-Progress Congress (APC), which was earlier slated to hold on February 26, was shifted to March 26. Over 7,584 delegates from the 36 states of the Federation and the FCT were expected to attend. The delegates will elect the 22 members of the National Working Committee (NWC) from the 169 aspirants for various positions to take over the leadership of the nine-year-

old party from the caretaker/Extraordinary Convention Planning Committee (CEPC). The 12-member committee, led by Governor Mala Buni of Yobe State, was constituted on June 25, 2020, after the sack of Adams Oshiomole led the NWC to run the party and package a convention within six months. The convention saw the emergence of Senator Abdullahi Adamu as the APC National Chairman (Adenekan and Ayitogo 2022). The People's Democratic Party Congress to elect its National Executive was held on October 30, 2021, with about 3,600 delegates expected to attend the convention at Eagle Square, Abuja, to elect new leaders for Nigeria's main opposition party, the People's Democratic Party. About 21 positions in the National Working Committee (NWC) of the party were contested by at least 27 candidates at the convention (Majeed & Adenekan, 2021). Ajibola (2021) opined that the Peoples Democratic Party (PDP) elected a new set of members from various parts of the country into its National Working Committee (NWC) to take over the leadership of the party. Twenty-one people were elected at the party's national convention, which began on Saturday and lasted till Sunday at the Eagle Square in Abuja.

According to Eme (2022), the new Electoral Act signed by President Muhammadu Buhari on February 25, 2022, contains some changes and amendments, including: ("the new Act") repeals the Electoral Act No. 6, 2010 ("the former Act") and is intended to bring innovations to the regulation of federal, state, and area council elections in Nigeria. As Nigeria approaches its 2023 general elections, the enactment of this law has come at the right time. We must consider some significant changes brought about by the new Electoral Act, as well as the potential consequences of these changes for the upcoming elections. Encouragement of Early Party Primaries Under the new Act, political parties are mandated to submit the list of their sponsored candidates who have emerged from valid primaries conducted by the party not later than 180 days before the date appointed for a general election. This is in contrast to the former Act, which prescribed that this submission should be done not less than 60 days before the date of general elections. The change in the time frame to submit the names of party candidates from 60 days to 180 days makes it compulsory for political parties to conduct their primaries early enough to meet the deadline for submission of their list of candidates at least 180 days before the general elections. Also, the act stressed the exclusion of political appointees from acting as voting delegates or aspirants. Section 84(12) of the new Act stipulates that no political appointee at any level shall be a voting delegate or be voted for at the convention or congress of any political party for the purpose of the nomination of candidates for any election. This means that political appointees must relinquish their positions before they can be eligible to participate in the electoral process, either as candidates or as delegates.

The Tribune of March 25, 2022, reported that, as part of the build-up to the 2023 elections, political parties are engaged in the process of nominating candidates for elective positions in government. For some of the parties that have not filled party offices, the process must begin with the national convention to elect party officials who will in turn oversee the nomination process. Thus, across the various parties, individuals have been invited to express interest in contesting for party positions or indicating interest in being nominated as candidates for elective positions in government. One outstanding feature of the unfolding process is the exorbitant and prohibitive non-refundable fees being demanded from aspirants. In the All Progressives Congress (APC), those aspiring to the position of party chairman were asked to pay N20 million and those interested in the deputy national chairmanship positions N10 million, while the forms for the National Working Committee (NWC) positions cost N5 million and the National Executive Committee (NEC) positions N1 million. Forms for other positions at the zonal level, with the exception of the National Vice Chairman, who is also a member of the NWC, are up for N500,000. However, there is a reduced fee of 50 percent for various positions for women and people living with disabilities. The Peoples Democratic Party (PDP) has fixed N40 million as the cost of the forms expected to be purchased by its presidential aspirants. This sum consists of the Expression of Interest Form (N5 million) and the Nomination Form (N35 million).

V. FINDINGS/RESULTS

The Nigerian democratic Fourth Republic, with its attempts at ensuring a smooth, transparent, and hitch-free transition, has not yielded any good results. This is indubitable, as elections are always smacked with irregularities. The recent syndrome of delegate commercialization has exacerbated matters. The views of Eromosele eloquently buttressed the doldrums of delegates as corrupting vessels, thus: Philanthropist, motivational speaker, and The Nigerian Youth Ambassador to the United States, Raymond Edoh, Secretary General of the Nigerian Youth Congress, has claimed that the reason Nigerians keep recycling leaders who are not well equipped with leadership skills is due to selfish and greedy delegates in all political parties in Nigeria, emphasizing that delegates are the country's problem. He went further to state that the delegates have done Nigeria too much harm, and as a matter of fact, this time they should realize that the power to rewrite Nigeria's political and economic history lies in their hands. "Delegates, constitutionally, have been empowered to select flag bearers of their various political parties." "This is a very critical role, but it is unfortunate that these individuals fail to understand the peculiarity of this noble and sensitive opportunity,

which determines what is attainable for the entire nation for a complete tenure of four (4) years" (Eromosele, 2022). Jimoh and Omolaye (2022) quote former President Jonathan's admonishing of the delegate system, thus: "monetary inducement for delegates at the ongoing primaries of political parties to produce candidates for the 2023 elections is totally condemnable." Speaking at the launch of a book titled "Political Party Governance," authored by Dr. Mohammed Wakil, a former Minister of State for Power, Jonathan said it was a shame that delegates were being induced for votes to the extent that aspirants even requested refunds after failing to secure tickets.

In all of this, one interesting part of the 2022 primary election is a presidential candidate, Mr. Peter Obi, ex-governor of Anambra State, who is giving the political sphere a somewhat unique but interesting feature. A man who, in the minds of some sensible and enlightened youths and Nigerians, has the necessary prerequisites of a visionary leader based on his landmark achievement as a former governor. The political environment is ecstatic to see the general public glorifying his presidential ambitions. Though a former member of the People's Democratic Party, Peter Obi resigned to join the Labour Party. In his declaration, Peter Obi affirmed that "his presidential ambition is borne out of his interest in the younger generation of Nigerians and those yet unborn." This propelled him to present himself for the task of leading the country by ensuring the current economic situation of the country, which holds no future for its children and generations yet unborn, is salvaged. Obi stated these when he met with the delegates at the party's state secretariat in Umuahia, the Abia State capital, in September 2022. He advised the delegates to tread carefully when deciding whom they are to choose as the party's presidential candidate, as their decision would be for the future interests of our children and those that are unborn. The former governor said he became successful in life not by converting public funds but rather by making his fortune through genuine private enterprise and hard work. He said, "I want to make Nigeria productive and not a consuming country; that is the message behind my aspiration" (Ikoku, 2022).

As succinctly put by Ailemen, (2022), Obi's resignation from the People's Democratic Party was contained in a letter dated May 24, 2022, and addressed to the party's National Chairman, Iyorchia Ayu, titled "Resignation from the People's Democratic Party (PDP) and withdrawal from the Presidential Contest." Obi stated that "it has been a great honor to contribute to nation-building efforts through our party." Unfortunately, recent developments within our party make it practically impossible to continue participating and making such constructive contributions. Peter Obi's presidential support is overwhelming, as it captures all nooks and crannies domestically and in the diaspora. The Eagle Online Publication reported that Obi polled 97 votes out of the 98 total votes cast to emerge the winner of the presidential primary during the national convention of the LP held in Asaba, Delta State, on May 30. The Peter Obi Presidential Global Network congratulated Peter Obi for emerging as the presidential candidate of the Labour Party ahead of the 2023 presidential election. The statement quoted Dr. Michael Chukwujekwu, Global Coordinator of the group, from his base in the United Kingdom, as saying that Obi's emergence was the first step towards rescuing the country from its challenges. Financial support for Obi is overwhelming, as it comes from well-meaning Nigerians. For instance, BudgetIT CEO Seun Onigbinde has launched a campaign to crowdfund N10 billion for Peter Obi's presidential ambition. In a tweet, the tech guru noted that a GoFundMe account would serve the purpose of funding the presidential hopeful, whom Nigerian youths deemed competent to lead the nation out of its current economic woes. This came a day after a London-based publication, the Financial Times, pegged the cost of electing a president in Nigeria at \$2 billion, or about N1 trillion (Akintande, 2022). Ukpe (2022) opined that there was also explosive nationwide solidarity support tagged "one million march" for Peter Obi, such as that which occurred in Lagos on May 21, 2022, where youths moved from Lekki Phase 1. The coordinator of the one million-person march for Peter Obi, Marcel Ngogbehei, had earlier explained that the event would be anchored by the Coalition for Peter Obi (CPO), which is made up of more than 12 support groups for Obi. Ngogbehei said that the support groups included Peter Obi Support Network (POSN), Like Minds for Peter Obi (LMPO), Nigeria Needs Peter Obi (NNPO), TakeBackNaija (TBN), Women for Peter Obi (WPO), Associates of Peter Obi (APO), Peter Obi FC (POFC), Peter Obi Movement for President (POMP), Associates of Peter Obi (APO/POE), Peter Obi Candidacy Movement (POCM), Peter Obi Ambassadors (POA), and Team OHO, among others. The group said the event would simultaneously take place across the 36 states of the federation and the Federal Capital Territory (FCT) on Saturday, May 21.

Nigerians' attitudes have shifted dramatically since Peter Obi's arrival on the political scene. Many threw their weight and support behind Peter Obi to an extent unimaginable beyond the thinking of the "political bigwigs." There is, however, a nonviolent revolution in which the masses, who were previously unchallant in political and electioneering processes, are now venting their rage in order to change the narrative. The frustration in the country manifests in kidnapping, terrorism, poverty, an educational strike, and a high cost of living. Although most citizens' lackluster attitude toward electoral processes and elections was caused by the phenomenon that "votes don't count," whoever the predatory cabals anoint as a leader, beginning with the presidency, federal or state house, governors, ministers, commissioners, and so on, emerges as a leader. So with such an attitude of rigging in favor of the anointed

one, not minding his or her level of mediocrity, incompetency, criminal record, questionable academic credentials and character, etc., the bewildered masses feel reluctant to participate in elections as their votes never count.

As a result of delegates' poor choices in the 2022 primaries for the 2023 election, candidates with questionable credentials and personalities have emerged. Although the top presidential candidates include Atiku Abubakar of the Peoples Democratic Party (PDP), Bola Tinubu of the All Progressive Congress (APC), Peter Obi of the Labour Party (LP), Rabiu Kwankwaso of the New Nigeria Peoples Party (NNPP), and Yele Sowore of the Africa Action Congress (AAC), in Nigeria, three people dominate political debate: Peter Obi of the Labour Party, Atiku Abubakar of the People's Democratic Party, and Bola Tinubu of the All Progressive Congress.

Bola Tinubu, the APC presidential candidate, has refused to attend town hall meetings held for presidential candidates to discuss with Nigerians what they have and how to effect the desired changes that will transform the battered nation that is bleeding in all areas. One of such town hall meetings was organized by Arise TV in collaboration with the Center for Democracy and Development on November 6th and November 25th, 2022, and December 4th, 2022. All this avoidance and boycotting of town hall meetings on the part of Bola Tinubu speaks volumes about his inability to constructively engage Nigerians on salient national issues. On several occasions, Bola Tinubu has showcased his inability to say something reasonable that could make the masses give him some credit and have some hope in him. His health challenge is Parkinson's disease, which, according to the United Kingdom's National Health Service (NHS), is a condition in which parts of the brain become progressively damaged over many years. Symptoms of the sickness include involuntary shaking of particular parts of the body (tremor), slow movement, stiff and inflexible muscles, and knee surgery at the John Hopkins University Hospital in Maryland, US (Sahara Reporters, 4 September, 2021). The NHS notes that a person with Parkinson's disease can also experience a wide range of other physical and psychological symptoms, namely depression and anxiety, balance problems (this may increase the chances of a fall), loss of sense of smell (anosmia), having problems sleeping (insomnia), as well as memory problems. Multiple videos have shown how Tinubu's hands and legs shake intermittently, with his aides supporting him at public functions (Fatunmole, 2022). Several issues surrounding Tinubu's personality, including cases of drug peddling and falsification of credentials, surface on a daily basis. Such is not acceptable, and it is not worth the high risk of electing him to the office of President.

The PDP, on the other hand, is led by Atiku Abubakar. From 1999 to 2007, Atiku Abubakar served as Olusegun Obasanjo's vice president. He has contested the post of president five times: in 1993, 2007, 2011, 2015, and 2019 (Tolu Kolawole, 2022). Atiku Abubakar has in the past been accused of numerous corruption cases. For instance, on February 27, 2007, there was a panel investigation presented to the Senate that found Atiku diverted \$145 million from the country's coffer. He was also accused by the same Senate of stealing \$100 million (The Guardian News, 2007). In 2003, it was alleged that a company, GTCN, was used to transfer over USD 10 million via wire transfers through U.S. banks on behalf of the former vice president of Nigeria, Mr. Atiku Abubakar. Also The Financial Crimes Enforcement Network (FinCEN), an agency of the United States Department of Treasury, has placed Alhaji Atiku Abubakar, the Peoples Democratic Party (PDP) candidate in the 2019 presidential election, and his family members under close scrutiny for alleged financial fraud (The Vanguard, September 22, 2022). Taking a look at the personality of Abubakar and the issues of fraud surrounding him, there is no way such a person can be trusted with the nation's system and economy. The situation in the country is so bad that allowing the same politicians to man the number one seat remains a terrible miscalculation and an abaltros which will inevitably ruin the country.

VI. DISCUSSION

6.1 Primary Outcomes of 2022 Gubernatorial and Presidential Elections

6.1.1 Governorship Primaries Results 2022

Though other political parties vie for power in Nigeria's political market, the focus of this work is on the two most powerful parties, the All Progressives Congress (APC), the current leading party, and the People's Democratic Party (PDP), the opposition. For the PDP, Olatunji (2022) explicitly captured the PDP governorship winners in the following ways: Eleazer Ikonne of Abia State; Umaru finitri of Adamawa; Umo Basse of Akwa Ibom; Ibrahim Kashim Mohammed of Bauchi; Titus Uba of Benue; Mohammed Ali Jafari of Borno; Sheriff Oborewori of Delta; Peter Mbah of Enugu; Muhammad Jubril Barde of Gombe; Lamido of Jigawa; Isa Ashiru Kudan of Kaduna; Muhammad Abacha; Kebbi: Aminu Bande; Kwara: Abdullah Yahman; Lagos: Abdul-Azeez Olajide Adediran; Nassarawa: David Omibugadu; Ogun: Segun Sowunmi; Oyo: Seyi Makinde; Plateau: Caleb Mutfwang; Rivers: Siminilayi Fubara; Sokoto: Sa'adu Umar; Taraba: Kefas Agbu; Yobe: Sheriff Abdulahi; and Zamfara—Dauda Lawal; Cross River State—Sandy Onor; Katsina—Yakubu Lado; Niger—Liman Kantigi. While Akan Udofia won the APC governorship primary in Akwa Ibom, Ikechi Emenike won in Abia, Aishatu Dairu Binani won in Adamawa, Sadique

Abubakar won in Bauchi, Uba Sani won in Kaduna, Muhammadu Inuwa Yahaya won in Gombe, Ovie Omo-Agege won in Borno, Bassey Otu won in Cross River, Umar Muhammad Bello: Oyo—Teslim Folarin (NJPS.com 2022).

6.1.2 Presidential Primaries Results 2022

The People's Democratic Party (PDP) was the first to conduct the presidential primaries election. According to the Channels TV news of May 28, 2022, the results were as follows: Atiku Abubakar received the most votes (371), becoming the party's presidential candidate for the 2023 general election. Nyesom Wike (237), Bukola Saraki (70), Udom Emmanuel (38), Bola Ahmed (20), Anyim Pius (14), Mrs. Tari Diana Oliver (1), Sam Oluabunwa (1), and Aminu Tambulwal (1) stepped down for Atiku. Such late-night substitution and stepping down by Ahmed clearly violates the Nigerian electoral act of 2008 on the issue of candidate substitution, as occurred between Tambulwal and Atiku. According to Muraina (2008), the law is very clear about the procedure for political parties to substitute their candidates and replace them with those they believe could win elections and deliver on electoral promises. Section 34 of the Electoral Act, 2006, is to the effect that "cogent and verifiable reasons" must be furnished by a political party before it makes any substitution of its candidate. The law frowns at the indiscriminate substitution of candidates by the political parties, which almost threw the democratization process off balance just before the last hours of the 2007 election. In the same vein of ascertaining the legality of Tambulwal stepping down for Atiku, Okpor (2022) opined that Section 34 of the new Electoral Act allows political parties to hold primary elections to replace a candidate who dies after the polls have begun but before the final results are announced and a winner is declared. In the case of legislative elections, the election will be rerun, and a bereaved political party can have a new primary within 14 days to nominate a new candidate.

The Vanguard News of June 20, 2022 reported that the APC presidential aspirants who sought the votes of 2,260 delegate were: Bola Ahmed Tinubu, Vice President Yemi Osinbajo, Senate President Ahmad Lawan, Rotimi Amaechi, Ogbonnaya Onu, Rochas Okorochoa, Dave Umahi, Yahaya Bello, Tein Jack-Rich, Pastor Tunde Bakare, Emeka Nwajiuba, Ahmed San Mojeed and Adebawale (2022) observed that the APC cleared a total of 23 aspirants for the primary election. According to Premium Times, seven of them resigned for Mr Tinubu at the start of the primary, while only one resigned for Mr Osinbajo. According to NJPS.Com, the following candidates contested the APC primaries based on their votes: Abubakar, Badaru (0 votes); Akapabio; Godswil (0 votes); Amaechi, Chibuike Rotimi (306 votes); Amosun Ibikunle (0 votes); Ben Ayade (37 votes); Bello Yahaya (47 votes); Fayemi John Kayode (0 votes); Jack-Tich (Tein) (0 votes); Lawan The results were collated and counted live in Eagles Square, Abuja.

6.2 Monetization of Politics: Delegates as a Commercialized Political Tool and a Flawed process of Candidate/Leadership Selection Against 2023 Election

One of the pernicious issues in Nigerian politics, apart from rigging, assassination, thuggery, etc., is the monetization of politics. This has been a consistent undemocratic strategy used by criminalistic political office seekers to seize power in the polity. The level of poverty, unquestionable loyalty, illiteracy, hunger, party interest, etc., has unfortunately placed the young ones in a "beggar position." Thus, there is no denying that such impoverished masses gladly accept the crumbs that fall from the table of political cum economic rapists known as politicians, furthering the phenomenon of political monetization (from the purchase of nomination forms to campaigning, electioneering, crowd renting, vote buying, and so on). In Nigeria, this has become an accepted tenet of electoral processes. It has tainted the Nigerian democratic image, defaced governance, abolished the thinking on credibility, transparency, and accountability, etc.

The price for party formations against 2023 elections, according to This Day News (March 30th, 2022), clearly brings to the fore the facts that 2023 elections will go to the "new rich." The ruling APC and the opposition PDP both set the price of their respective forms at 100 million and 40 million. Despite the mountainous cost of forms, it never discouraged aspirants from purchasing them, as numerous aspirants flooded the offices of political parties to obtain them. At the end of the sale of forms, the two political parties, APC and PDP, made billions of naira. Such an increase in form price occurred during a period in the country's history when the economy was in a coma, the naira (the country's currency) was depreciating, and educational institutions (universities) were closed due to industrial actions. During the primaries, delegates who before now voted for aspirants with little money and recognition have suddenly become political "kingmakers." Delegates make themselves available to be bought by the highest political bidders or aspirants. The struggle for who will receive party tickets in the recently concluded national assembly and gubernatorial primaries saw the spraying of naira and dollars to delegates in many states. Delegates in the hottest contest reportedly got between 500,000 and 2 million votes, and in some cases even higher (this day's news of May 30, 2022). Evidence abounds to buttress the points further, as Adam Namadi, the son of former vice president Namadi Sambo, reportedly asked delegates to refund the money, 2 million naira, he gave to each delegate before the election.

This was after he failed, as he secured two votes at the People's Democratic Party (PDP) primaries in the Kaduna North federal constituency of the House of Representatives (Sadiq, 2022).

The Daily Post Reporters of Sunday, May 29, 2022, informed that party delegates are taking advantage of their party's primaries to milk money from aspirants, with some of them describing themselves and the electioneering season as "beautiful brides" and "opportunistic premises," respectively. This raised many eyebrows about the height of corruption in our political scene. Former President Jonathan said, "The issue that surrounded the primaries across the country in 2022 was a mess." This is not a standard practice. The process has failed. "We cannot use the process to elect the president, governors, senators, members of the House of Representatives, and others." Also, the apex body organizing elections in the country, the Independent National Electoral Commission (INEC), expressed fears over the manner in which politicians have commercialized the voting process in the country's electoral process, describing it as a dangerous trend. The chairman of the electoral commission, professor Mahmood Yakubu, and his predecessor, Attahiru Jega, faulted the practice during a one-day colloquium with the theme "emerging issues that will shape the 2023 general elections in Nigeria," organized by the Center for Democracy and Development and the Open Society Initiative for West Africa. The civil society, for its part, sees it as outright corruption. Speaking on the matter, the Executive Director of the Resource Centre for Human Rights and Civic Education (CHRICED), Dr. Ibrahim M. Zikirullahi, said what is going on is political corruption, which removes every sense of credibility from the process. He said those inducing delegates have replaced ideas with money, and they appear to be getting away with it. There are aspirants who lost after bribing delegates, and they are boldly coming out to request a refund. If the Elections Act makes vote buying illegal, we wonder why anti-corruption agencies are on the lookout for aspirants and delegates who openly buy and sell votes. According to Musowo (2022), in the just concluded APC primaries of June 7, 2022, Tinubu, who won the APC presidential primaries, was alleged to dole out dollars in the following formats: Ogun state delegate, \$25,000; Adamawa, \$10,000; while delegates rejected Osinbajo's \$500. Uwugiaren and Adebayo (2022) affirmed that a conservative estimate by THISDAY has shown that the All Progressive Congress (APC) may take in over N30 billion from the sale of nomination and expression of interest forms, giving the ruling party enormous firepower to face the 2023 general election. "With a massive war chest expected from form sales, the ruling party will have a commanding advantage in the field if the resources are properly deployed," a political analyst who preferred anonymity told THISDAY News. Omisore (2013) reiterated that politics cannot be effectively played or carried out without money. Even in those ancient days when politics started, some form of money was involved.

Olabode (2021) also observed that the phenomenon of money politics is neither new nor strange in Nigeria as a nation. A historical view of the electioneering process in Nigeria reveals that money has played a tremendous role in determining how the masses vote in elections. This goes along with the intimidation of voters. More worrisome is that, recently, it has now become a key deciding factor in who participates in the electoral process. Nelson and Saka-olakungbe (2019) argued in tandem, saying that in Nigeria, money politics, vote buying, and selling have continuously occupied the center stage of social issues and been a front-burner topic in political discourse. Even many writers and scholars, both within and outside the country, have continuously shown interest due to the adverse effects of these ugly tenets on the body politic. Babatunde, Iwu, and Osuji (2019) confirmed the influence of money politics in Nigeria's democratic dispensation; thus, the arrival of democracy in the country's political history was met with the greatest desire for a socio-political transformation that elevates citizen welfare, prioritizes nation building, and fosters development that places the country in admirable straits. Unfortunately, money-bag politicians, special-interest individuals, godfathers, and political machines have hijacked the electoral process to their advantage and the detriment of the citizenry. For the most part, this menace appears to be responsible for the emerging regime of insecurity threatening the stability of the country. Afolabi, Tanimola, and Ojomo (2022) are of the view that vote buying and selling, also known as commercial politics and money politics, is one phenomenon that is gradually taking center stage in Nigeria's electoral process. Orji (2014) queried the issue of money politics by taking a historical intellectualism approach, thus showing that in Nigeria, the issue of party funding has for long posed a grave concern to observers of our political scene. In the First and Second Republics, it was a contending issue that attracted intense debate in the state parliaments and the National Assembly. It was the fear of allowing the so-called "moneybags" to squeeze political parties into their pockets that led the regime of Ibrahim Babangida in the 1990s to make the government partly support their financing. Under current Nigerian conditions, however, most political parties are bereft of ideologies, are not issue-oriented, and are merely zero-issue alliances of notables who are fortunate to grab power and who have an interest in having preponderance of power over party structures, candidacies, and even the general electoral process.

Inibong (2022) affirmed that, as observers decried, the utilization of huge amounts by desperate politicians to arm-twist delegates and buy votes not only compromises electoral offices but also truncates and bastardizes the credibility of the nation's elections and adversely impacts governance. On the same wavelength, Adepegba (2022)

stated that foreign hard currencies (the dollar) flooded the PDP's primary election space in Abuja on May 28, 2022. The 14 candidates were ready for a deal. For the 764 delegates, the financial windfall was their bounty from the transactional primary disguised as participatory democracy, and they were not disappointed. Among the presidential aspirants were former vice presidents, state governors, ex-governors, a former senate president, businessmen, and a publisher. Atiku Abubakar gave each delegate the sum of \$20,000 as he emerged the winner of the PDP with 371 votes. Atiku's closest challenger, Governor Nyesom Wike of River State, came in second with 237 votes. Wike's camp was paid a package of \$10,000 for each delegate in a desperate bid to clinch the coveted party ticket. On failing to actualize his presidential primary candidacy for the PDP with his 25 buses decorated with his campaign banners, he quietly left the venue. The Economic and Financial Crimes Commission-EFCC had declared Rivers State Accountant General Fubara Siminayi wanted for N435 billion fraud, money laundering, misappropriation of public funds, and abuse of office a few weeks before the election. Surprisingly, the same accountant general wanted by the EFCC won the Rivers State PDP governorship election in 2023.

Akintade (2022), eloquently buttressed the issue of money politics further thus: there were already speculations and signs that the Peoples Democratic Party's (PDP) presidential primary election will carry the toga of huge financing as inducement, suggesting that the party's ticket goes to the biggest money bag with dollars. Instances abound from previous elections, such as the 2019 PDP convention in Port Harcourt, where most delegates smiled to their various homes with between \$8,000 and \$10,000 thousand dollars. It was based on such an occurrence that there were already speculations that the figures for the 2022 primary election and 2023 general election were bound to be higher, as tweeted by the former presidential aide to former President Goodluck Jonathan, Mr. Okupe. He also cited instances in his home state of Ogun, where two aspirants vying for the position of speaker of the Ogun State House of Assembly had already promised \$150,000 and \$200,000 to delegates in their wards. Already, one of the contestants in Ogun State had already offered the sum of 200,000 naira, while the other offered 150,000. According to Channels Television, while financial gifts poured into the hands of presidential delegates in the form of dollars, one of the recipients, Mr. Tanko Rossi of the PDP from Kaduna State, decided to use a portion of his share to empower his people through education. He used the sum of 6 million naira to purchase over 150 NECO (National Examination Council) and WAEC (West African Examination Council) forms for 150 indigene students in the community—Sanga Local Government Area, Kaduna State—in addition to other assistance he extended to the less privileged in the same community.

VII. CONCLUSIONS

Dovetailing from above are insightful analysis and a scholarly disposition on the recent electoral processes the country is undergoing. It becomes evident that our democratic experiments have been truncated and bastardized. It becomes more worrisome that the pseudo-tenets of political transition are that "democracy begins and ends with the conduct of elections," and that "nobody cares whether such elections are smacked with rigging and other forms of irregularities as long as there is a change of government." Even at this high level, the recent primary election is a shambles on democracy and good governance.

The monetization of elections, as blatantly displayed during such a perilous time of our national life, keeps one wondering how insensitive, criminalistic, and unpatriotic our leaders are. This is so as the country is cobwebbed in dangerous pit holes of debt as we keep borrowing, resulting in the closing of universities and higher education institutions due to the government's refusal to redeem its obligations and agreements with the universities and their lecturers. So many governors and senators vying for one office or another are underperforming in their respective states and constituencies. The level of criminalization of the state was so glaring in the just concluded primary elections, as aspirants doled out cash (in foreign and local currencies) with impunity. The Economic and Financial Crimes Commission (EFCC) stood by and watched such arrogant and uncivilized use of money go unpunished. One wonders what will befall Nigerians if such aspirants finally emerge as leaders in the future. Such a scenario depicts Nigerian politics as a market space for the mighty; hence, the youths and visionary Nigerians are unable to find a space in such a saturated political environment.

VIII. RECOMMENDATIONS

Establishing true democratic principles such as the rule of law and unwavering election results This is very pertinent, as elections remain critical in any transitioning program in Nigeria. As a result, issues of rigging and other unholy political practices have plagued electoral processes.

The abolishment of the delegate system Thus, it has been a terrible political miscalculation and suicide that feeble persons who are just after their cash and carry slogan are called "delegates" and are selected to select the leaders of millions of persons in a big country like Nigeria. The idea of delegating should be styled in such a manner that we take some lead from the American Electoral College. People of integrity and honesty are to be made delegates.

Political office should be made less lucrative. Thus, beginning with the presidency, the lowest portfolio should be a thing of intelligence, qualification, patriotism, national interest, selflessness, and visionary leadership straits. This should go along with laws that are stringently made to follow up on, monitor, and sanction attitudinal deviations.

Electoral nomination forms should be simplified so that the common man with the necessary intellectual, attitudinal, moral standard, and vision can run for office. This is necessary because the current Nigerian democratic practice and governance are for the nouveau rich, the elite, and the money bags, who turned the Nigerian political theater into a "market place saturated by political gladiators and economic vampires." These people have ended up sapping the country's resources insatiably and rapaciously, which is bringing doom in all sectors. This should be complemented by making politics less lucrative, while other sectors like nurses, the military/armed forces, paramilitary officers, security operatives, teachers and lecturers, and civil servants are made to enjoy good pay and incentives.

Office holders' performance should be evaluated. This can be achieved through competent and honest quality assurance. Also, federal and state lawmakers, governors, ministers, chairmen, councilors, and other appointees at all levels should be made to face performance appraisal panels, and a trusted, corrupt-free evaluation team should be sent to confirm performance.

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Effects of Editorial Policies on Demand for Comprehensive Research on News Coverage in Print and Social Media Channels in Kenya

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ABSTRACT

Media houses play pertinent roles in the social transformation of their consumers and ultimately their countries. By casting light on issues affecting the society, they spur and steer national dialogue on these issues from the grassroots of households in the community to the offices of leaders in power. For this to take place though, journalists should ideally work in an atmosphere devoid of unnecessary limitations. Regrettably, journalists have to contend with an ever decreasing operating sphere, due to limitations posed by editorial policies among other restrictions. The purpose of this study was to examine the effects of editorial policies on demand for comprehensive research on the coverage of news in the print and social media channels in Kenya. The study adopted the Gatekeeping Theory. The mixed method study was used. The target population was 60 journalists, 30 editors and 20 sub-editors all from the NMG. The sample size was 110 individuals drawn from the above. The study participants were purposively sampled. Questionnaires and interviews were used in data collection. The findings show that journalists are forced to work within a constrained framework by editorial norms in media organizations, particularly when it comes to obtaining, developing, and disseminating news information. This might result in some news stories being excluded, which would reduce the tendency of media outlets to support social change. Thus, the interaction between editorial policies and the spread of social media necessitates that we reconsider what gatekeeping is and how to modify the editorial policies. According to Pearson correlation, there was a statistically significant association between compressive research policy and media house news coverage ($r=0.527, p<0.05$). Demand for thorough research policies was thus refused, leading to the conclusion that they had no appreciable impact on Kenya's print and social media news coverage. Compressive research policies might statistically and significantly predict media house news coverage, according to an analysis of variance (ANOVA) ($F=18.036, p<0.05$). Compressive research policy ($t=19.955, p<0.05$) could statistically significantly predict media house news coverage, according to t-test results. The study makes the suggestion that editorial practices be revisited in order to improve their capacity to report on news that may have an impact on social transformation.

Key Words: Editorial Policies, Social Transformation, Media, News Coverage, Gatekeeping Theory

I. INTRODUCTION

Media houses play pertinent roles in the social transformation of their countries. However, the challenges faced by journalists in executing their duties cannot be denied. In media, news decisions and work autonomy are intertwined principles. This is because the amount of freedom a journalist has in the newsrooms influences the choices they make while writing for print or broadcast media. Autonomy is, in reality, a key feature of professional work (Brownlee & Beam, 2012). However, journalists face diverse restrictions while performing their duties, including those imposed by the government, media regulations, editorial policies, media owners, politicians, and advertisers. This study hypothesizes that editorial policies significantly affect media house news coverage by placing limitations on journalists.

Editorial policies condition journalists to carry out thorough research, often with financial and time constraints, before submission of the articles and going to press. They also condition their words, failure to which they risk their work being thrown out by editors or being fired over a story, as in the case of Shaffie Weru's dismissal by Radio Africa over remarks he made on his breakfast show on Homeboys radio (BBC, 2021). During a discussion of a court case in which a guy was accused of shoving a woman he had met on Facebook out of a 12th storey building window on their first date, the presenter was accused of victim blaming. Furthermore, a lot of journalist's news items have been thrown

out to make way for regional balanced reporting. As a result, journalists cannot always report as they wish. Weak editorial policies affect the quality of news coverage as is evidence among some scholars (Kibisu, 2017; Kabucua, Nyamboga, & Matu, 2020). This is confounded by problems such as editorial policy conflicts, prejudices, political sycophancy, and editorial policy control in most media houses (Obuya & Ong'ondo, 2019). The ability of journalists to have sustained coverage of some the areas of societal concern, is also thwarted by the hurdles placed by editorial policies.

However, the impact of editorial policies on media house news coverage and social transformation in Kenya has not received much scholar attention. This means that there is minimal empirical evidence on the impact of these policies on news coverage on issues of societal concern in the country. In this regard, it is untenable to understand how reporters respond to challenges emanating from editorial policies. It is also unfeasible to make empirically informed recommendations on the possible ways of bridging the policy gaps that limit news coverage in print and social media platforms. Without studies such as this current one, the capacity of media houses to systematically influence societal issues of national concern could remain inadequate. This should not be the case in a country that faces an array of political and socioeconomic challenges such as corruption, terrorism, insecurity, unemployment and pandemics such as COVID 19 among others that need constant attention. As a result, this paper uses the case study of Nation Media Group to analyse how editorial policies affect the selection of news content in print and social media platforms in Kenya.

1.1 Research Hypothesis

H₀: Demand for comprehensive research policies has no significant effect on the coverage of news in print and social media channels in Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Review

This study is based on the gatekeeping theory. The theory was originated by social psychologist Kurt Lewin in 1943. The theory explains the key roles that are played by news media. According to Shoemaker and Vos (2009, p.1), gatekeeping is the “process of culling and crafting countless bits of information into the limited number of messages that reach people each day.” In this regard, the environment in which reporter’s work entails decisions at all stages of production to find out whether the information passed is objective or not because journalists do not work in a vacuum but are guided by both the editorial and land laws in many jurisdictions. As a result, reporters have to work round the clock and sieve numerous pieces of news to ensure that the relevant information reaches the audience.

According to Barzilai-Nahon (in press), gatekeeping broadly refers to the process of regulating information as it passes through a gate or filter and is connected to the use of various forms of power. In terms of epistemologies, theories and models, vocabularies, heuristics, and research difficulties both within and beyond disciplines and fields, the literature on gatekeeping is dispersed. This occurs as a result of the relative isolation with which gatekeeping discourse is conducted inside each profession (Shoemaker, 1991).

The gatekeeping theory, therefore, is applicable to this study since reporters are supposed to play gatekeeping roles on issues of societal concern. They could thus contribute to social transformation by airing these issues as news. However, this role is challenged by the demand to adhere to editorial policy guidelines. Demands on extensive research (sometimes beyond ones geographical jurisdiction) before reporting, could affect their decision to include some news items while leaving out others. Choice of words as well as demands for geographically balanced news coverage could also affect their gatekeeping role in news coverage.

2.2 Literature Review

Brownlee and Beam (2012) points out that commercial restrictions, news organization policies, procedures, or customs and professional practices restrict journalistic independence. Thurman, Cornia, and Kunert (2016), in a survey to gather comparative data on journalists' perspectives and attitudes toward their work in the United Kingdom (UK) show that editorial policies at news organizations, as well as media law and regulation, are among the most powerful sources of influence on their work. The study reported that, 64% of journalists believe their organization's editorial policy is "very" or "highly" influential, while only 9% believe it has "little" or "no" impact. The influence of media law and regulation was viewed similarly by respondents with 63% believing the UK media's legal and regulatory system to be "very" or "highly" significant. This sentiment echoes the general concerns faced by journalists in Africa. Many journalists have voiced their concerns regarding editorial policies on limiting their working space, thus dictating on what should be covered in news reporting.

On the continental level, African countries have faced the rule of dictatorship from their leadership and journalists have been muzzled on issues that were reported that did not please the ruling government. For example, in Uganda, the Uganda Communications Commission (UCC) put down a stringent requirement on the registration of news websites and online broadcasters, necessitating all providers of media services to register by 5 October, 2020 (Muhindo, 2020). The target media services were blogs, online televisions, online radios, online newspapers, internet-based radios and TV stations, streaming radio and TV providers, and video on demand providers (Muhindo, 2020).

In Tanzania, the impact of organization policy and the government on the work of journalists is above average, although an outsider may site brain washing (Ramaprasad, 2001). Similar issues have been experienced in Kenya. On various occasions the government through the National Security Advisory Committee (NSAC) has tried to limit the coverage of news touching thorny issues. This has led to political polarisation and ultimately unbalanced news reporting by creating differing assemblies.

In South Africa the media law states that ‘the media must be a progressive force, supporting human rights and shaping ideas in an open society through informed and impartial reporting and analysis’ (Limpitlaw, 2013). In conclusion, both Uganda and South Africa were trying to put in place measures to streamline media policies on the regional level for news content sharing in Africa which might general reflect on many countries on the continent.

According to Awolowo (2009), editorial policy refers to the overall ethical standpoint or principles under which news media houses conduct their operations. It could be viewed as the media house's mission or vision statement. Awolowo goes on to say that a media house's editorial philosophy or culture has a big influence on the quality of their reporting. Media outlets, regardless of ownership, have editorial policies that outline the organization's mission and vision (Awolowo, 2009). The policies elucidate the operating theory of media companies and guide journalists on what they should report, how they should cover it, and how they should show it.

Every media house has a concept that is defined as a written or unwritten statement that guides the output of managers, editors, reporters, presenters, and programmers (Asemah, 2011). It specifies the appropriate performance standards that each station employee must adhere to in order to comply with the station's rules and codes. It includes the mission statement as a way of achieving the station's objective. It also includes the house style, which defines how the station's programming will be created. Instead of serving to create unity of purpose, these policies have truncated news items, leaving out the core of the issue and instead presenting a sanitized position in an area that may be overrun with labels, inequalities and violence.

In regard to the foregoing, the Nation Media Group (NMG) operates radio broadcasting, TV, and newspapers in Kenya, Uganda, Tanzania and Rwanda. It has an editorial policy which provides rules to be followed and the style of the organization, as well as obligations of its workers and associates in news reporting. It is pertinent therefore to note that as posited by (Butler, 2009), some of these laid down editorial policy by NMG may not augur well with journalists because of the conflicting values.

Additionally, editorial policy conflicts, prejudices, political sycophancy and editorial policy control continue to plague media houses such as the NMG (Obuya & Ong'ondo, 2019). In journalism, editorial policies are the guiding principles for investigative practices, challenge journalists with a plethora of ideals to follow; some of which are at odds with one another, putting journalists in a disconcerting state of serving two or more contradictory editorial standards.

III. METHODOLOGY

This study adopted the Transformative research world view (Creswell, 2014). In order to address social inequality at all of its levels, the transformative worldview, Creswell (2014) posits “that research inquiry needs to be linked with politics and a political change agenda” (p. 9). According to Mertens (2014), this paradigm enables focusing on the requirements and viewpoints of marginalized groups in order to incite some social change in local communities (Mertens, 2014). In understanding the role played by editorial policies on news coverage in social transformation, the transformative worldview suffices. It provides a platform for examining the role that editorial policies could play in mainstreaming issues that could contribute to transformative social change.

This study targeted journalists, editors and sub-Editors from NMG. All the 60 journalists, 30 editors and 20 sub-editors from the media house were targeted (NMG, 2021). This makes a total target population of 110 persons. NMG has 6,000 employees in its service across Kenya, Uganda, Tanzania and Rwanda. About a third of these employees, work in Kenya, traversing the forty-seven counties. They are distributed over seven main bureaus across the country and incorporate two major divisions which are print and broadcasting divisions. Majority of these employees are located in Nairobi which is the headquarters of the media house. The journalists at the headquarters, located at Nation Centre,



are targeted since they are responsible for news gathering as well as editing and determining what is covered or not. It is from this hub, that news is disseminated, not only in Kenya, but also in its key offices where its products are consumed.

Using purposive sampling technique, this study sampled at least 60% of the targeted study participants in the study. Data was collected by use of Questionnaires distributed to 56 journalists, editors and sub-editors physically and collected after three days. Focus group and interview guide was used to collect data from 10 journalists, 5 sub-editors and 5 editors. The Statistical Package for the Social Sciences (SPSS) version 24 was used for the analysis of quantitative data. The findings were presented in tables and figures. Selected descriptive statistics were used in data analysis. These included frequencies, percentages and means. At the same time, Pearson correlation and multiple regression analyses were used to test the relationships between the study variables as well as the level to which media house coverage of news can be predicted by the independent variables.

IV. RESULTS & DISCUSSION

4.1 Response Rate

The study's response rate was 82.1%. Given that a response rate of greater than 60% is regarded adequate for analysis, this was deemed sufficient (Fincham, 2008).

Table 1

Response Rate

Category	Sample	Responded Rate	Response
Total	56	49	82.1%

4.2. Editorial Policies on Demand for Comprehensive Research and News Coverage in Print and Social Media Channels in Kenya

The first objective of the study was to examine the effects of editorial policies on demand for comprehensive research on news coverage in print and social media channels in Kenya.

Table 2

Editorial Policies on Demand for Comprehensive Research and News Coverage in Print and Social Media Channels

Statement	Mean	Std. Dev.
The media house requires news items to be thoroughly researched according to policy before being published.	4	0.51
I personally know a news item I was forced to leave out due to challenges related to research and verification of its sources and authenticity.	4	0.51
Researching news items is often faced with time constraints and some worthwhile items are left out.	4	0.68
Some news items become redundant within the process of research and are overtaken by other irrelevant but appealing items.	5	0.50
Journalists are faced with financial constraints when researching news items and often opt to leave some leads.	5	0.50
There is lack of sufficient human resources to thoroughly research all news items and this affects the media house coverage.	5	0.47
There is lack of well-equipped and up-to-date repository of information to support research on all contemporary issues affecting the society.	5	0.50
Journalists have access to a lot of news but due to policy limitations, they cannot research all of them and this restricts news coverage.	4	0.51
Researching some issues of societal importance require approval from State agencies and this may delay or completely restrict research efforts due to government bureaucracy.	4	0.67
There are no clear policies on how a well-researched news item should look like and this creates ambiguities that limit coverage of important news to society.	5	0.50
N=49		

Table 1 shows a summary of responses to items on editorial policies scale in the form of mean and standard deviations. Of the sampled participants, majority of the respondents agreed (M=4) with the statement that the media house requires news items to be thoroughly researched according to policy before being. Therefore, editorial policies condition journalists to carry out thorough research, often with financial and time constraints, before submission of the

articles and going to press. They also condition the news items, failure to which they risk their work being thrown out by editors. The foregoing findings underline the importance of editorial policies in media houses. These findings concur with the findings by Shoemaker and Reese (2013) which states that every day; journalists make professional decisions based on a range of internal and external factors.

The respondents also agreed (M=4) that they personally know a news item they were forced to leave out due to challenges related to research and verification of its sources and authenticity. They noted that researching news items is often faced with time constraints and some worthwhile items are left out. In line with extant literature, it is worth noting that the importance placed on various items of societal importance may possibly contribute to institution measures aimed at checking their negative influences; affecting social transformation as a reporter is required to do extensive research before sharing a news item (Thurman et al., 2016; Asemah, 2011).

Sometimes journalists are faced with financial constraints when researching news items and often opt to leave some leads (M=5). As a result, editorial policies require a reporter to do extensive research before sharing a news item (Thurman et al., 2011). Research is an integral part of news coverage and needs money to be executed. Lack of sufficient resources means that reports cannot cover stories adequately; affecting abilities to present some news on time due to financial constraints. A number of news items that could affect social transformation are consequently omitted.

The respondents strongly agreed (M=5) that media houses are often constrained and cannot adequately deploy reporters to cover all stories. Literature shows that the manner in which journalists work has an effect on the news material that they produce. The effect of "patterned, repetitive procedures, forms, and rules that journalists use to do their jobs" is regarded at the routines (Shoemaker & Reese, 2013).

The respondents further agreed (M=4) that some news items become redundant within the process of research and are overtaken by other irrelevant but appealing items. These findings align with the study by Agu (2015) that shows that most news story headlines often have nominal or verbal ellipses. The study noted (M=4) that journalists have access to a lot of news but due to policy limitations, they cannot research all of them and this restricts news coverage. These findings align with the literature reviewed. For example, Brownlee and Beam (2002) found that 30% of reported cited commercial restrictions, 25% cited news organization policies, procedures, or customs, 20% blamed outside agents such as government agencies, and 10% believed professional practices restricted their journalistic independence (Brownlee & Beam, 2012).

Indeed, literature shows that journalist autonomy and space to work was limited (Brownlee & Beam, 2012). Journalists faced diverse restrictions while performing their duties, including those imposed by the government, media regulations, editorial policies, media owners, politicians, and advertisers. This push to lean on policy restrictions meant that pursuing some news items remained largely untenable for most journalists. As a result, these findings show that editorial policies affect demand for comprehensive research on news coverage in print and social media channels in Kenya companies. Journalists are greatly influenced by the confines of research demands (Shoemaker & Reese, 2013). Their ability to use stories to advance social transformation roles is consequently thwarted.

4.3 Word Cloud Produced by the Analysis

The word cloud produced by the analysis as tested against the first objective is displayed in Figure 1 below. First of all, it is obvious that "research," "policy," "journalists," "news," "media," and "findings" are the words that stand out the most in the highlighted text. This result does match the objective's goal. Both the keywords "information" and "constraints" emerge as major terms, again emphasizing the objective's purpose. According to the data, "government," "media houses," and "journalists" are their intended audiences. These findings are a pointer to the pertinence of demand for comprehensive research policies on news coverage in Africa.



They went on to agree to a great extent (M=5) that some reporters and editors have faced punitive actions due to lack of strict adherence to the requirement of editorial policies and this has affected their dedication to cover news.

When asked about the level of News Coverage in Print and Social Media Channels in Kenya, the journalists pointed out that social media has affect transformed the society. They noted that citizen journalism has resulted from the rise of social media, de-professionalizing journalism. To this end one of the respondents said:

The rivalry for news distribution is fierce due to the proliferation of various news organizations, each with their own websites, Twitter accounts, and Facebook pages etc. What is happening is that the internet is displacing newspapers in terms of market share and classified advertising (Respondent 5, August 2022).

Another respondent went on to say that:

Online firms are prospering because they are not viewed as an extension of traditional media outlets and because they open up new markets and revenue streams. This has made many individuals to cancel their newspaper subscriptions. As a result, layoffs, bankruptcies, and compensation reductions are increasingly becoming the standard in the majority of media houses (Respondent 6, August 2022).

When asked to share ways in which print and social media houses contribute to social transformation in Kenya, the respondents said that:

They cover news that brings to light an atrocity committed and help bring the culprits to book. For example if a girl has been molested by a teacher and the person is still teaching the same pupil (Respondent 5, August 2022).

5.5 Pearson Correlation

Pearson correlation was carried out to examine the relationship between the independent and dependent study variables. The findings show that there was statistically significant relationship between media house news coverage and compressive research policy ($r=0.527$, $p<0.05$). Based on these findings, the research hypothesis: **H₀**: Demand for comprehensive research policies has no significant effect on the coverage of news in print and social media channels in Kenya. **Decision: Reject**

Table 3

Pearson Correlation

Correlations		Media House News Coverage
Compressive Research Policy	Pearson Correlation	.527**
	Sig. (2-tailed)	.000
	N	49
**. Correlation is significant at the 0.01 level (2-tailed).		

4.8 Regression Analysis

The study sought to examine the level to which media house news coverage could be predicted by editorial policies. As presented in Table 4 on model summary, the findings show that compressive research policy could explain 22.7% of the variability in media house news coverage.

Table 4

Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.527 ^a	.277	.262	2.32780
a. Predictors: (Constant), Compressive Research Policy				

Analysis of variance (ANOVA) as depicted in Table 5 shows that all compressive research policy could statistically and significantly predict media house news coverage ($F=18.036$, $P<0.05$).



Table 5
Analysis of Variance

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	97.732	1	97.732	18.036	.000 ^b
	Residual	254.676	47	5.419		
	Total	352.408	48			
a. Dependent Variable: Media House News Coverage						
b. Predictors: (Constant), Compressive Research Policy						

The study went on to carry out t-test to examine the relationship between compressive research policy and media house news coverage. The findings show that compressive research policy ($t=19.955$, $p<0.05$) could statistically significantly predict media house news coverage. Based on these findings, the regression model which was fitted as follows:

$$\text{Media House News Coverage of News} = 74.831 + (0.175 * \text{Comprehensive Research Editorial Policy}) + 3.750$$

The findings were presented in Table 6.

Table 6
Regression Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	74.831	3.750		19.955	.000
	Compressive Research Policy	.175	.041	.527	4.247	.000

a. Dependent Variable: Media House News Coverage

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The findings show that journalists are forced to work within a constrained framework by editorial norms in media organizations, particularly when it comes to obtaining, developing, and disseminating news information. This might result in some news stories being excluded, which would reduce the tendency of media outlets to support social change. This study demonstrates how editorial policies severely restrict journalists. In the wake of social media where news can spread quickly and the constraints occasioned by the editorial polices, the editorial polices have to be modified to reflect the current scenario of a gatekeeper. Thus, the interaction between editorial policies and the spread of social media necessitates that we reconsider what gatekeeping is and how to modify the editorial policies. Thus this study suggest that the Gatekeeping theory be improved to reflect a relative concept in a context where news diffuses through networks of curating actors, where a user's likelihood of coming across specific content depends on both mass communication by news providers and the interest in this content from people in the user's social circle.

Furthermore, the study shows that editorial policies affect societal transformation in Kenya. Media has the ability to alter social capital and individuals, without a doubt. Deep public awareness is raised by it. However, the findings show that NMG's coverage of particular news items differs between print and social media platforms. This means that the contribution of new items to social transformation is affected by the coverage.

5.2 Recommendations

The editorial policies should be reviewed to enhance their ability to cover news that can have implications on social transformation. Print media house should ensure that policies on choice of words are expanded and explained well to remove vagueness in their interpretation which would go on create room for social transformation.

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Effects of Editorial Policies on Demand for Comprehensive Research on News Coverage in Print and Social Media Channels in Kenya

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ABSTRACT

Media houses play pertinent roles in the social transformation of their consumers and ultimately their countries. By casting light on issues affecting the society, they spur and steer national dialogue on these issues from the grassroots of households in the community, to the offices of leaders in power. For this to take place though, journalists should ideally work in an atmosphere devoid of unnecessary limitations. Regrettably, journalists have to contend with an ever decreasing operating sphere, due to limitations posed by editorial policies among other restrictions. The purpose of this study was to examine the effects of editorial policies on demand for comprehensive research on the coverage of news in the print and social media channels in Kenya. The study adopted the Gatekeeping Theory. The mixed method study was used. The target population was 60 journalists, 30 editors and 20 sub-editors all from the NMG. The sample size was 110 individuals drawn from the above. The study participants were purposively sampled. Questionnaires and interviews were used in data collection. The findings show that journalists are forced to work within a constrained framework by editorial norms in media organizations, particularly when it comes to obtaining, developing, and disseminating news information. This might result in some news stories being excluded, which would reduce the tendency of media outlets to support social change. Thus, the interaction between editorial policies and the spread of social media necessitates that we reconsider what gatekeeping is and how to modify the editorial policies. According to Pearson correlation, there was a statistically significant association between compressive research policy and media house news coverage ($r=0.527$, $p<0.05$). Demand for thorough research policies was thus refused, leading to the conclusion that they had no appreciable impact on Kenya's print and social media news coverage. Compressive research policies might statistically and significantly predict media house news coverage, according to an analysis of variance (ANOVA) ($F=18.036$, $p<0.05$). Compressive research policy ($t=19.955$, $p<0.05$) could statistically significantly predict media house news coverage, according to t-test results. The study makes the suggestion that editorial practices be revisited in order to improve their capacity to report on news that may have an impact on social transformation.

Key Words: Editorial Policies, Social Transformation, Media, News Coverage, Gatekeeping Theory

I. INTRODUCTION

Media houses play pertinent roles in the social transformation of their countries. However, the challenges faced by journalists in executing their duties cannot be denied. In media, news decisions and work autonomy are intertwined principles. This is because the amount of freedom a journalist has in the newsrooms influences the choices they make while writing for print or broadcast media. Autonomy is, in reality, a key feature of professional work (Brownlee & Beam, 2012). However, journalists face diverse restrictions while performing their duties, including those imposed by the government, media regulations, editorial policies, media owners, politicians, and advertisers. This study hypothesizes that editorial policies significantly affect media house news coverage by placing limitations on journalists.

Editorial policies condition journalists to carry out thorough research, often with financial and time constraints, before submission of the articles and going to press. They also condition their words, failure to which they risk their work being thrown out by editors or being fired over a story, as in the case of Shaffie Weru's dismissal by Radio Africa over remarks he made on his breakfast show on Homeboys radio (BBC, 2021). During a discussion of a court case in which a guy was accused of shoving a woman he had met on Facebook out of a 12th storey building window on their first date, the presenter was accused of victim blaming. Furthermore, a lot of journalist's news items

have been thrown out to make way for regional balanced reporting. As a result, journalists cannot always report as they wish. Weak editorial policies affect the quality of news coverage as is evidence among some scholars (Kibisu, 2017; Kabucua, Nyamboga, & Matu, 2020). This is confounded by problems such as editorial policy conflicts, prejudices, political sycophancy, and editorial policy control in most media houses (Obuya & Ong'ondo, 2019). The ability of journalists to have sustained coverage of some the areas of societal concern, is also thwarted by the hurdles placed by editorial policies.

However, the impact of editorial policies on media house news coverage and social transformation in Kenya has not received much scholar attention. This means that there is minimal empirical evidence on the impact of these policies on news coverage on issues of societal concern in the country. In this regard, it is untenable to understand how reporters respond to challenges emanating from editorial policies. It is also unfeasible to make empirically informed recommendations on the possible ways of bridging the policy gaps that limit news coverage in print and social media platforms. Without studies such as this current one, the capacity of media houses to systematically influence societal issues of national concern could remain inadequate. This should not be the case in a country that faces an array of political and socioeconomic challenges such as corruption, terrorism, insecurity, unemployment and pandemics such as COVID 19 among others that need constant attention. As a result, this paper uses the case study of Nation Media Group to analyse how editorial policies affect the selection of news content in print and social media platforms in Kenya.

1.1 Research Hypothesis

H₀: Demand for comprehensive research policies has no significant effect on the coverage of news in print and social media channels in Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Review

This study is based on the gatekeeping theory. The theory was originated by social psychologist Kurt Lewin in 1943. The theory explains the key roles that are played by news media. According to Shoemaker and Vos (2009, p.1), gatekeeping is the “process of culling and crafting countless bits of information into the limited number of messages that reach people each day.” In this regard, the environment in which reporter’s work entails decisions at all stages of production to find out whether the information passed is objective or not because journalists do not work in a vacuum but are guided by both the editorial and land laws in many jurisdictions. As a result, reporters have to work round the clock and sieve numerous pieces of news to ensure that the relevant information reaches the audience.

According to Barzilai-Nahon (in press), gatekeeping broadly refers to the process of regulating information as it passes through a gate or filter and is connected to the use of various forms of power. In terms of epistemologies, theories and models, vocabularies, heuristics, and research difficulties both within and beyond disciplines and fields, the literature on gatekeeping is dispersed. This occurs as a result of the relative isolation with which gatekeeping discourse is conducted inside each profession (Shoemaker, 1991).

The gatekeeping theory, therefore, is applicable to this study since reporters are supposed to play gatekeeping roles on issues of societal concern. They could thus contribute to social transformation by airing these issues as news. However, this role is challenged by the demand to adhere to editorial policy guidelines. Demands on extensive research (sometimes beyond ones geographical jurisdiction) before reporting, could affect their decision to include some news items while leaving out others. Choice of words as well as demands for geographically balanced news coverage could also affect their gatekeeping role in news coverage.

2.2 Literature Review

Brownlee and Beam (2012) points out that commercial restrictions, news organization policies, procedures, or customs and professional practices restrict journalistic independence. Thurman, Cornia, and Kunert (2016), in a survey to gather comparative data on journalists' perspectives and attitudes toward their work in the United Kingdom (UK) show that editorial policies at news organizations, as well as media law and regulation, are among the most powerful sources of influence on their work. The study reported that, 64% of journalists believe their organization's editorial policy is "very" or "highly" influential, while only 9% believe it has "little" or "no" impact. The influence of media law and regulation was viewed similarly by respondents with 63% believing the UK media's legal and regulatory system to be "very" or "highly" significant. This sentiment echoes the general concerns faced by journalists

in Africa. Many journalists have voiced their concerns regarding editorial policies on limiting their working space, thus dictating on what should be covered in news reporting.

On the continental level, African countries have faced the rule of dictatorship from their leadership and journalists have been muzzled on issues that were reported that did not please the ruling government. For example, in Uganda, the Uganda Communications Commission (UCC) put down a stringent requirement on the registration of news websites and online broadcasters, necessitating all providers of media services to register by 5 October, 2020 (Muhindo, 2020). The target media services were blogs, online televisions, online radios, online newspapers, internet-based radios and TV stations, streaming radio and TV providers, and video on demand providers (Muhindo, 2020).

In Tanzania, the impact of organization policy and the government on the work of journalists is above average, although an outsider may site brain washing (Ramaprasad, 2001). Similar issues have been experienced in Kenya. On various occasions the government through the National Security Advisory Committee (NSAC) has tried to limit the coverage of news touching thorny issues. This has led to political polarisation and ultimately unbalanced news reporting by creating differing assemblies.

In South Africa the media law states that ‘the media must be a progressive force, supporting human rights and shaping ideas in an open society through informed and impartial reporting and analysis’ (Limpitlaw, 2013). In conclusion, both Uganda and South Africa were trying to put in place measures to streamline media policies on the regional level for news content sharing in Africa which might general reflect on many countries on the continent.

According to Awolowo (2009), editorial policy refers to the overall ethical standpoint or principles under which news media houses conduct their operations. It could be viewed as the media house's mission or vision statement. Awolowo goes on to say that a media house's editorial philosophy or culture has a big influence on the quality of their reporting. Media outlets, regardless of ownership, have editorial policies that outline the organization's mission and vision (Awolowo, 2009). The policies elucidate the operating theory of media companies and guide journalists on what they should report, how they should cover it, and how they should show it.

Every media house has a concept that is defined as a written or unwritten statement that guides the output of managers, editors, reporters, presenters, and programmers (Asemah, 2011). It specifies the appropriate performance standards that each station employee must adhere to in order to comply with the station's rules and codes. It includes the mission statement as a way of achieving the station's objective. It also includes the house style, which defines how the station's programming will be created. Instead of serving to create unity of purpose, these policies have truncated news items, leaving out the core of the issue and instead presenting a sanitized position in an area that may be overrun with labels, inequalities and violence.

In regard to the foregoing, the Nation Media Group (NMG) operates radio broadcasting, TV, and newspapers in Kenya, Uganda, Tanzania and Rwanda. It has an editorial policy which provides rules to be followed and the style of the organization, as well as obligations of its workers and associates in news reporting. It is pertinent therefore to note that as posited by (Butler, 2009), some of these laid down editorial policy by NMG may not augur well with journalists because of the conflicting values.

Additionally, editorial policy conflicts, prejudices, political sycophancy and editorial policy control continue to plague media houses such as the NMG (Obuya & Ong’ondo, 2019). In journalism, editorial policies are the guiding principles for investigative practices, challenge journalists with a plethora of ideals to follow; some of which are at odds with one another, putting journalists in a disconcerting state of serving two or more contradictory editorial standards.

III. METHODOLOGY

This study adopted the Transformative research world view (Creswell, 2014). In order to address social inequality at all of its levels, the transformative worldview, Creswell (2014) posits “that research inquiry needs to be linked with politics and a political change agenda” (p. 9). According to Mertens (2014), this paradigm enables focusing on the requirements and viewpoints of marginalized groups in order to incite some social change in local communities (Mertens, 2014). In understanding the role played by editorial policies on news coverage in social transformation, the transformative worldview suffices. It provides a platform for examining the role that editorial policies could play in mainstreaming issues that could contribute to transformative social change.

This study targeted journalists, editors and sub-Editors from NMG. All the 60 journalists, 30 editors and 20 sub-editors from the media house were targeted (NMG, 2021). This makes a total target population of 110 persons. NMG has 6,000 employees in its service across Kenya, Uganda, Tanzania and Rwanda. About a third of these employees, work in Kenya, traversing the forty-seven counties. They are distributed over seven main bureaus across

the country and incorporate two major divisions which are print and broadcasting divisions. Majority of these employees are located in Nairobi which is the headquarters of the media house. The journalists at the headquarters, located at Nation Centre, are targeted since they are responsible for news gathering as well as editing and determining what is covered or not. It is from this hub, that news is disseminated, not only in Kenya, but also in its key offices where its products are consumed.

Using purposive sampling technique, this study sampled at least 60% of the targeted study participants in the study. Data was collected by use of Questionnaires distributed to 56 journalists, editors and sub-editors physically and collected after three days. Focus group and interview guide was used to collect data from 10 journalists, 5 sub-editors and 5 editors. The Statistical Package for the Social Sciences (SPSS) version 24 was used for the analysis of quantitative data. The findings were presented in tables and figures. Selected descriptive statistics were used in data analysis. These included frequencies, percentages and means. At the same time, Pearson correlation and multiple regression analyses were used to test the relationships between the study variables as well as the level to which media house coverage of news can be predicted by the independent variables.

IV. RESULTS & DISCUSSION

4.1 Response Rate

The study's response rate was 82.1%. Given that a response rate of greater than 60% is regarded adequate for analysis, this was deemed sufficient (Fincham, 2008).

Table 1

Response Rate

Category	Sample	Responded Rate	Response
Total	56	49	82.1%

4.2. Editorial Policies on Demand for Comprehensive Research and News Coverage in Print and Social Media Channels in Kenya

The first objective of the study was to examine the effects of editorial policies on demand for comprehensive research on news coverage in print and social media channels in Kenya.

Table 2

Editorial Policies on Demand for Comprehensive Research and News Coverage in Print and Social Media Channels

Statement	Mean	Std. Dev.
The media house requires news items to be thoroughly researched according to policy before being published.	4	0.51
I personally know a news item I was forced to leave out due to challenges related to research and verification of its sources and authenticity.	4	0.51
Researching news items is often faced with time constraints and some worthwhile items are left out.	4	0.68
Some news items become redundant within the process of research and are overtaken by other irrelevant but appealing items.	5	0.50
Journalists are faced with financial constraints when researching news items and often opt to leave some leads.	5	0.50
There is lack of sufficient human resources to thoroughly research all news items and this affects the media house coverage.	5	0.47
There is lack of well-equipped and up-to-date repository of information to support research on all contemporary issues affecting the society.	5	0.50
Journalists have access to a lot of news but due to policy limitations, they cannot research all of them and this restricts news coverage.	4	0.51
Researching some issues of societal importance require approval from State agencies and this may delay or completely restrict research efforts due to government bureaucracy.	4	0.67
There are no clear policies on how a well-researched news item should look like and this creates ambiguities that limit coverage of important news to society.	5	0.50
N=49		

Table 1 shows a summary of responses to items on editorial policies scale in the form of mean and standard deviations. Of the sampled participants, majority of the respondents agreed ($M=4$) with the statement that the media house requires news items to be thoroughly researched according to policy before being. Therefore, editorial policies condition journalists to carry out thorough research, often with financial and time constraints, before submission of the articles and going to press. They also condition the news items, failure to which they risk their work being thrown out by editors. The foregoing findings underline the importance of editorial policies in media houses. These findings concur with the findings by Shoemaker and Reese (2013) which states that every day; journalists make professional decisions based on a range of internal and external factors.

The respondents also agreed ($M=4$) that they personally know a news item they were forced to leave out due to challenges related to research and verification of its sources and authenticity. They noted that researching news items is often faced with time constraints and some worthwhile items are left out. In line with extant literature, it is worth noting that the importance placed on various items of societal importance may possibly contribute to institution measures aimed at checking their negative influences; affecting social transformation as a reporter is required to do extensive research before sharing a news item (Thurman et al., 2016; Asemah, 2011).

Sometimes journalists are faced with financial constraints when researching news items and often opt to leave some leads ($M=5$). As a result, editorial policies require a reporter to do extensive research before sharing a news item (Thurman et al., 2011). Research is an integral part of news coverage and needs money to be executed. Lack of sufficient resources means that reports cannot cover stories adequately; affecting abilities to present some news on time due to financial constraints. A number of news items that could affect social transformation are consequently omitted.

The respondents strongly agreed ($M=5$) that media houses are often constrained and cannot adequately deploy reporters to cover all stories. Literature shows that the manner in which journalists work has an effect on the news material that they produce. The effect of "patterned, repetitive procedures, forms, and rules that journalists use to do their jobs" is regarded at the routines (Shoemaker & Reese, 2013).

The respondents further agreed ($M=4$) that some news items become redundant within the process of research and are overtaken by other irrelevant but appealing items. These findings align with the study by Agu (2015) that shows that most news story headlines often have nominal or verbal ellipses. The study noted ($M=4$) that journalists have access to a lot of news but due to policy limitations, they cannot research all of them and this restricts news coverage. These findings align with the literature reviewed. For example, Brownlee and Beam (2002) found that 30% of reported cited commercial restrictions, 25% cited news organization policies, procedures, or customs, 20% blamed outside agents such as government agencies, and 10% believed professional practices restricted their journalistic independence (Brownlee & Beam, 2012).

Indeed, literature shows that journalist autonomy and space to work was limited (Brownlee & Beam, 2012). Journalists faced diverse restrictions while performing their duties, including those imposed by the government, media regulations, editorial policies, media owners, politicians, and advertisers. This push to lean on policy restrictions meant that pursuing some news items remained largely untenable for most journalists. As a result, these findings show that editorial policies affect demand for comprehensive research on news coverage in print and social media channels in Kenya companies. Journalists are greatly influenced by the confines of research demands (Shoemaker & Reese, 2013). Their ability to use stories to advance social transformation roles is consequently thwarted.

4.3 Word Cloud Produced by the Analysis

The word cloud produced by the analysis as tested against the first objective is displayed in Figure 1 below. First of all, it is obvious that "research," "policy," "journalists," "news," "media," and "findings" are the words that stand out the most in the highlighted text. This result does match the objective's goal. Both the keywords "information" and "constraints" emerge as major terms, again emphasizing the objective's purpose. According to the data, "government," "media houses," and "journalists" are their intended audiences. These findings are a pointer to the pertinence of demand for comprehensive research policies on news coverage in Africa.



Figure 1
Word cloud on effect of Editorial Policies on Demand for Comprehensive Research and News Coverage

4.4 News Coverage in Print and Social Media Channels in Kenya

The study wanted to determine the level of News Coverage in Print and Social Media Channels in Kenya. In this light, the study required the respondents to reply to a series of statements in order to determine the extent to news is coverage in print and social media channels in Kenya as shown in Table 3 below.

Table 3
News Coverage in Print and Social Media Channels in Kenya

Statement	Mean	Std. Dev.
Media houses do not thoroughly cover all issues of societal concern.	2	0.60
I have not been able to cover all the news items I intended throughout my career due to editorial policy limitations.	5	0.39
There are tangible limitations posed by editorial policies in the coverage of news items and media houses cannot cover news as they wish.	5	0.41
Editorial policies often contribute to sieving out some important societal news.	5	0.28
Editorial policies affect the quality of the news covered.	5	0.31
Editorial policies lead to differences in the coverage of particular news items in print and social media platforms.	5	0.49
Media houses have contributed to tangible social transformation by informing and educating citizens on pertinent societal concerns.	5	0.00
The morale of reporters and editors is often affected by editorial policies demands which impact their dedication to cover news.	5	0.00
Some reporters and editors have faced punitive actions due to lack of strict adherence to the requirement of editorial policies and this has affected their dedication to cover news.	5	0.47
N=49		

The respondents disagreed (M=2) that media houses do not thoroughly cover all issues of societal concern. However, the respondents agreed (M=5) that they have not been able to cover all the news items they intended throughout their career due to editorial policy limitations. The reporters went on to agree (M=5) that there are tangible limitations posed by editorial policies in the coverage of news items and media houses cannot cover news as they wish. The respondents also agreed (M=5) that editorial policies often contribute to sieving out some important societal news and that editorial policies affect the quality of the news covered (M=5). In addition, the respondents agreed (M=5) that editorial policies lead to differences in the coverage of particular news items in print and social media platforms. The respondents agreed to a high extent (M=5) that media houses have contributed to tangible social transformation by informing and educating citizens on pertinent societal concerns. Furthermore, the reporters agreed (M=5) that the morale of reporters and editors is often affected by editorial policies demands which impact their



dedication to cover news. They went on to agree to a great extent (M=5) that some reporters and editors have faced punitive actions due to lack of strict adherence to the requirement of editorial policies and this has affected their dedication to cover news.

When asked about the level of News Coverage in Print and Social Media Channels in Kenya, the journalists pointed out that social media has affect transformed the society. They noted that citizen journalism has resulted from the rise of social media, de-professionalizing journalism. To this end one of the respondents said:

The rivalry for news distribution is fierce due to the proliferation of various news organizations, each with their own websites, Twitter accounts, and Facebook pages etc. What is happening is that the internet is displacing newspapers in terms of market share and classified advertising (Respondent 5, August 2022).

Another respondent went on to say that:

Online firms are prospering because they are not viewed as an extension of traditional media outlets and because they open up new markets and revenue streams. This has made many individuals to cancel their newspaper subscriptions. As a result, layoffs, bankruptcies, and compensation reductions are increasingly becoming the standard in the majority of media houses (Respondent 6, August 2022).

When asked to share ways in which print and social media houses contribute to social transformation in Kenya, the respondents said that:

They cover news that brings to light an atrocity committed and help bring the culprits to book. For example if a girl has been molested by a teacher and the person is still teaching the same pupil (Respondent 5, August 2022).

5.5 Pearson Correlation

Pearson correlation was carried out to examine the relationship between the independent and dependent study variables. The findings show that there was statistically significant relationship between media house news coverage and compressive research policy ($r=0.527, p<0.05$). Based on these findings, the research hypothesis: **H₀**: Demand for comprehensive research policies has no significant effect on the coverage of news in print and social media channels in Kenya. **Decision: Reject**

Table 3

Pearson Correlation

Correlations		Media House News Coverage
Compressive Research Policy	Pearson Correlation	.527**
	Sig. (2-tailed)	.000
	N	49
**. Correlation is significant at the 0.01 level (2-tailed).		

4.8 Regression Analysis

The study sought to examine the level to which media house news coverage could be predicted by editorial policies. As presented in Table 4 on model summary, the findings show that compressive research policy could explain 22.7% of the variability in media house news coverage.

Table 4

Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.527 ^a	.277	.262	2.32780
a. Predictors: (Constant), Compressive Research Policy				

Analysis of variance (ANOVA) as depicted in Table 5 shows that all compressive research policy could statistically and significantly predict media house news coverage ($F=18.036, P<0.05$).

Table 5
Analysis of Variance

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	97.732	1	97.732	18.036	.000 ^b
	Residual	254.676	47	5.419		
	Total	352.408	48			
a. Dependent Variable: Media House News Coverage						
b. Predictors: (Constant), Compressive Research Policy						

The study went on to carry out t-test to examine the relationship between compressive research policy and media house news coverage. The findings show that compressive research policy ($t=19.955$, $p<0.05$) could statistically significantly predict media house news coverage. Based on these findings, the regression model which was fitted as follows:

$$\text{Media House News Coverage of News} = 74.831 + (0.175 * \text{Comprehensive Research Editorial Policy}) + 3.750$$

The findings were presented in Table 6.

Table 6
Regression Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	74.831	3.750		19.955	.000
	Compressive Research Policy	.175	.041	.527	4.247	.000
a. Dependent Variable: Media House News Coverage						

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The findings show that journalists are forced to work within a constrained framework by editorial norms in media organizations, particularly when it comes to obtaining, developing, and disseminating news information. This might result in some news stories being excluded, which would reduce the tendency of media outlets to support social change. This study demonstrates how editorial policies severely restrict journalists. In the wake of social media where news can spread quickly and the constraints occasioned by the editorial policies, the editorial policies have to be modified to reflect the current scenario of a gatekeeper. Thus, the interaction between editorial policies and the spread of social media necessitates that we reconsider what gatekeeping is and how to modify the editorial policies. Thus this study suggest that the Gatekeeping theory be improved to reflect a relative concept in a context where news diffuses through networks of curating actors, where a user's likelihood of coming across specific content depends on both mass communication by news providers and the interest in this content from people in the user's social circle.

Furthermore, the study shows that editorial policies affect societal transformation in Kenya. Media has the ability to alter social capital and individuals, without a doubt. Deep public awareness is raised by it. However, the findings show that NMG's coverage of particular news items differs between print and social media platforms. This means that the contribution of new items to social transformation is affected by the coverage.

5.2 Recommendations

The editorial policies should be reviewed to enhance their ability to cover news that can have implications on social transformation. Print media house should ensure that policies on choice of words are expanded and explained well to remove vagueness in their interpretation which would go on create room for social transformation.

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Influence of Governance Components on the Economic Growth in Tanzania

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ABSTRACT

The link between institutions and economic performance is well established, but there is no single infrastructure blueprint that works for all countries. As a result, identifying the most critical infrastructures required to stimulate economic growth is difficult. The purpose of this research is to identify the governance institutions or components that improve Tanzania's economic performance. Data from 1996 to 2021 were gathered from a variety of sources, including the Ministry of Finance, the Central Bank of Tanzania, and the World Bank. For data analysis, multiple regression models were used, and an error correction model based on modern economic growth theory was used. The variables were stationary in their first difference, according to the Augmented Dickey-Fuller (ADF) tests. The findings show that the rule of law and corruption control increases economic growth by 24.7% and 47.21% significantly unlike the political instabilities which had no significant impact on economic growth. Furthermore, the study finds that voice and accountability, as well as government effectiveness and regulatory quality, have a negative impact on Tanzanian economic growth by 26%, 14.7%, and 21.5% respectively. To sustain economic growth, policymakers should focus on strengthening rule of law institutions, ensuring an effective, efficient, and independent judiciary system, adequately controlling corruption and restructuring the political system to have a significant impact on economic growth.

Key words: Economic growth, Governance, government effectiveness, Accountability and Corruption

I. INTRODUCTION

According to the New Institutional Economics (NIC), country's economic development hinges on the quality of institutions (Ali, 2016; Ferrini, 2012). That, economies that have very similar natural conditions and labour force have presented differences in economic performance due to differences in efficiency and effectiveness of institutions (Assane, 2003). As such therefore, any policymaking process or national development agenda has to consider and examine the characteristics of the institutions when discussing and debating about development.

Tanzania has seen remarkable economic growth in recent years, with an average annual national GDP increase of nearly 7% since 2000, making it one of Africa's fastest-growing economies. Despite this expansion, poverty persists, with nearly half of the population living below the global extreme poverty line of \$1.90 per day. The majority of Tanzania's population (73%) lives in rural areas, limiting economic development. Low labor-intensive sector productivity, such as agriculture, which employs 77% of working-age adults, has hampered inclusive and broad-based growth. Over the last decade, the agriculture sector has grown at a rate of only 4% per year (Kitole et al., 2022c; Kitole, 2023; Yusuff, 2018; Okoi, 2015; Pere, 2015; Fumbwe et al., 2021), contributing to the country's continued poverty.

Private sector assignment is a significant element of the Tanzania economic development and the nation's efforts to grasp middle-income position by 2025. Tanzania's businesses are at the vanguard of growth over generating tax revenue, job creation, innovation, and fair competition. The private sector's massive financial resources and knowledge in market-based results have the latent for undertaking systemic societal tests (Dimoso & Andrew, 2021; Kitole et al., 2023). Presently employing around 70 percent of the youth in Tanzania, the private sector delivers a critical way to self-reliance (Clyde, 2020; Azimi, 2020)

On 7 September 2021, the IMF agreed USD 567.25 million in backup financial aid to support Tanzania's efforts in retorting to the Covid-19 pandemic by handling the pressing health, economic and humanitarian costs. The IMF forecasts a GDP growth for Tanzania between +4.0% and +5.1% in 2021 and 2022 respectively, and 6.0% in 2026. Nevertheless, the AfDB approximates that Tanzania's GDP will expand by 2.8% in 2021 and bulging a robust rebound with 4.9% and 6.3% for 2022 and 2023 economic growth respectively (Kitole & Sesabo, 2022; Kitole, 2023; International Monetary Fund (IMF), 2021).

According to the International Monetary Fund, Tanzania's economic growth will slow to 2.1% in 2020, down from 6.8% in 2019. (IMF, 2021). On the demand side, investments drove economic growth, while on the supply side, manufacturing and construction were key sectors. Monetary policy has been accommodative in order to support economic growth and credit, with the policy rate falling from 7% in August 2018 to 5% in May 2020. In 2020, inflation remained low at 3.3%, thanks in part to a steady decline in food prices. Exchange rates were stable, thanks in part to interventions in the foreign exchange market by the Bank of Tanzania. Although the government's fiscal consolidation efforts aided in reducing recurrent expenditures, the COVID-19 pandemic's negative impact on revenues increased the fiscal deficit from 2.0% of GDP in 2019 to 2.3% of GDP in 2020, which is still less than the government's target of 5%.

Domestic borrowing financed the majority of the deficit. Despite improved export performance, particularly in gold, the current account deficit increased slightly to 3.2% of GDP from 3.4% in 2019. The COVID-19 pandemic has weakened sectors with high employment potential, particularly agriculture and manufacturing, resulting in an increase in the number of people living in poverty. The pandemic is expected to push an additional 500,000 Tanzanians into poverty, and inequality is likely to have widened during this time (Clyde, 2020; OECD, 2021).

Tanzania has a lower-middle-income economy that is heavily reliant on agriculture. Tanzania's economy has been transitioning from a command economy to a market economy since 1985. Though total GDP has increased since these transformations began, GDP per capita fell sharply at first and only recently surpassed pre-transition levels. Governance is one of the sought-after characteristics in a country's economic performance, and this study is solely focused on it. The study aims to determine the state or characteristics (efficiency and effectiveness) of key components of governance in Tanzania's economic production function (such as rule of law, voice and accountability, corruption control, bureaucratic quality or political stability, government effectiveness). So far, no comprehensive study in Tanzania has established the contribution of governance institutions to economic growth, despite attempts to analyze Tanzania's evolving economic growth.

II. LITERATURE REVIEW

2.1 Governance and Economic Growth Defined

Governance is defined in this study as the formal and informal systems that govern how public decisions are made and public actions are carried out in accordance with a country's constitutional values. Good governance is viewed as a means of fostering the development of strong, open, equal, and free economic and political institutions, as well as of creating the conditions for ordered rule and collective action. The definition used in this study is based on the perspective of the United Nations (2007). On the other hand, economic growth is defined as a long-run process that occurs when the potential output of an economy increases (Dimoso & Andrew, 2021; Rittenberg & Tregarthen, 2011). Economic growth occurs when aggregate output rises and job opportunities are created and expanded, allowing income and mobility to rise (Coyle, 2014).

The improvement in economic growth as a result of high-quality institutions can be explained both directly and indirectly. In Tanzania, the rule of law and corruption control were found to have a significant impact on economic growth, while political institutions had little impact. Voice and accountability, as well as government effectiveness and regulatory quality, were discovered to be detrimental to economic growth. Sustaining economic growth requires strengthening rule of law institutions with an effective, efficient, and independent judiciary system, controlling corruption, and restructuring the political system to allow it to have a significant impact on economic growth. The Solow model suggests that better-quality institutions can increase the availability of technology and create a favorable environment for investors in the context of economic growth. Institutions are also important in promoting economic growth, according to the New Growth Theory and the Social Infrastructure viewpoint.

2.2 Theoretical Literature

This research is based on the work of neo-institutionalist economists on the relationship between economic growth and good governance, where two divergent theories of "state failure" in developing countries have emerged in the context of "market-enhancing" and "growth-enhancing" governance, as briefly summarized below (Khan, 2007). Market-enhancing governance examines the impact of governance on transaction costs and market efficiency. The goal is to construct efficient markets that attract profitable and growth-promoting technologies to a developing country. The primary governance goals are to establish stable property rights, uphold the rule of law, ensure effective contract enforcement, reduce the risk of expropriation and corruption, and ensure transparent and accountable provision of public goods in accordance with democratically expressed preferences.

Market-enhancing governance is concerned with governance's function in lowering transaction costs and increasing market efficiency. Maintaining stable property rights, efficiently enforcing contracts, eliminating corruption and rent-seeking, and providing transparent and accountable public goods are all key goals of market-enhancing governance. Corruption in government, rule of law, bureaucratic quality or Government Effectiveness, regulatory burden, voice and accountability, and political instability and violence are all important criteria used to assess states' performance in providing market-enhancing governance. These variables' indices range from 0 (the worst market efficiency conditions) to 50 (the best conditions).

Institutions are assessed in terms of their ability to enable the transfer of assets and resources to productive sectors and to promote the adoption of potentially high-productivity technologies in growth-enhancing governance. With a combination of incentives and rules, the goal is to allocate resources to growing areas and encourage technology adoption. Factors such as ease of doing business, access to finance, human capital development, research and

development, and innovation are used to assess an institution's performance. The goal is to foster a climate that encourages entrepreneurship, innovation, and investment in high-value activities that can drive economic growth.

In essence, growth-enhancing governance seeks to speed the transfer of assets and resources to more productive sectors, as well as the adoption of high-productivity technology. To accomplish this, states must establish incentives and opportunities, and governance capacities are essential to avoid moral hazard issues. The specific governance requirements vary based on the policy instruments employed to speed catching up, and success is dependent on institutional and political elements that permit successful implementation and enforcement of growth-enhancing initiatives.

2.3 Empirical Literature Review

Many studies have been conducted to investigate the impact of governance on economic growth and development. According to Al-Naser and Hamdan (2021), the rule of law and corruption control have a positive but statistically insignificant impact on economic growth in Gulf countries, whereas regulatory quality and government effectiveness have a positive and statistically significant impact. Nsiah and Fayissa (2013) discovered that variations in development among African countries are exacerbated by differences in governance.

Controlling corruption has a detrimental influence on economic growth (Kitole et al., 2022a; 2022b), according to Emara and Chiu (2016) found that increasing governance indices by one unit increases per capita GDP by around 2%. Beyene (2022) posit that governance has a positive and significant influence on Sub-Saharan African economic growth, whereas Yusuff et al. (2018) discovered that governance has a positive impact on Ghanaian and South African economic growth but a negative impact on Nigerian growth, with corruption control and political stability being positive factors for growth in Ghana and South Africa but voice and accountability having a negative impact on growth in Nigeria.

Afolabi (2019) explored the relationship between governance and sustainable development in West Africa from 2002 to 2016 using the GMM approach. According to the study, political stability, voice and accountability, rule of law, and government efficacy all have a favorable relationship with development. Among these elements, government efficacy had the greatest influence on development, whereas corruption control and regulatory quality had a short-term indirect association with development. In the long run, however, all governance variables were discovered to have a clear link to growth in West African countries, with regulatory quality and political stability having the greatest impact. From 2002 to 2013, Bayar (2016) investigated the impact of six public governance variables on economic growth in EU transitional economies. The study discovered that, with the exception of regulatory quality, all governance metrics had a statistically significant beneficial influence on economic growth. Shafiq and Azimi (2020) explored the association between governance variables and Afghan economic growth. Their empirical findings demonstrated a one-way relationship between the rule of law, government effectiveness, and economic growth.

Okoi et al. (2015) investigated the relationship between institutional quality, macroeconomic policy, and economic development in Nigeria using the OLS technique. According to the study, domestic institutions have a negligible impact on Nigeria's development indexes. Olagunla et al. (2014) investigated the relationship between institutions, as represented by economic freedom, and the resource curse in Nigeria, as represented by GDP and oil exports, in a similar study. The findings revealed a negative association between institutions and Nigeria's resource curse.

The literature on governance and development has grown significantly, demonstrating the subject's theoretical and practical importance. However, because many studies in this field are qualitative, quantitative research is needed to supplement and build on the existing literature. Furthermore, past studies have frequently lumped different countries together to investigate the impact of governance on economic growth, focusing on only a few components of governance. As a result, knowledge about the function of other governance components in economic growth is lacking. The current study seeks to fill this research gap by employing multiple regression analysis to provide additional information on the subject. This study aims to contribute to the existing literature on governance and development by studying a broader range of governance components.

III. METHODOLOGY

Based on the foundations of growth theory, the current study applies the statistical technique of the multiple regression model within the Error Correction Mechanism (ECM) process to assess the growth impact of various components of governance on economic growth using time series data. The model is based on a variant of the Solow (1956) model of economic growth, which has been utilized in prior research such as Sule (2020) and further explained in Solow (2010). Economic production, according to the Solow model, is a function of labor (L) and capital (K), assuming continuous returns to scale. To better understand the relationship between governance and economic growth, the current study will use this model and incorporate additional factors, such as diverse governance components. Within



the ECM process, the multiple regression model is a strong tool for estimating the impact of various factors on economic growth over time.

$$GDP = AK_i^\alpha L_i^{1-\alpha} \dots \dots \dots (1)$$

Where:

- GDP = Real GDP - Gross domestic product measuring economic growth
- A = Total factor productivity or technological progress
- K = Physical capital
- L = Labour
- A = elasticity of capital with respect to output

The model assumes that each productive unit uses the same level of capital and labor, with the aggregate production function as follows:

$$GDP = AK^\alpha L^\beta \dots \dots \dots (2)$$

According to Fumbwe et al., (2021), as cited by Uдах and Ndiyo (2014), institutions play a critical role in improving technical efficiency. This implies that the quality of institutions and governance structures influences technical efficiency and, ultimately, investment efficiency. As a result, equation (6) can be modified to include the effects of governance structures and institutions on total factor productivity (TFP) or technical efficiency. This study assumes that the quality of institutions and governance structures, such as corruption, government effectiveness, and the rule of law, have a direct impact on TFP. Such an assumption is coherent with the works of Sule (2020) and Uдах and Ndiyo (2014). Thus;

$$A = Y_t = \beta_0 + \beta_1 X_t + \varepsilon_t \dots \dots \dots (3)$$

Combining equation (2) and (3), the following equation is obtained

$$GDP = K_t^\alpha L_t^\beta X_t^d \dots \dots \dots (4)$$

Where

- $\alpha, \beta, d,$ and φ = elasticity coefficients
- X = a vector of explanatory variables - institutions

Institutions have a significant impact on a country's economic and social growth. Governance institutions, legal institutions, political institutions, normative and social institutions, and economic and regulatory institutions are all included. As a result, equation (4) can be refined and expanded in an estimating form to represent the impact of these diverse institutions on economic growth. This enlarged form incorporates the standard stochastic error term as well as the impact of several institutional components on economic growth over time. This study aims to provide a more thorough view of the relationship between institutions and economic growth by adding these additional components.

$$\ln GDP_t = \beta_0 + \beta_1 K + \beta_2 L + \beta_3 ROL + \beta_4 BUR + \beta_5 COR + \beta_6 REB + \beta_7 VOA + \beta_8 PIV + \varepsilon_t \dots \dots \dots (5)$$

Where:

GDP: Gross domestic product is a measure of economic growth; K: Gross fixed capital formation as assessed by physical capital; L: Labor or human capital as measured by government education spending; COR: Corruption in government, as measured by a composite corruption perception index; ROL: Rule of law, as assessed by an index of how much agents trust and follow society's laws, particularly the quality of contract enforcement, property rights, the police, and the courts; BUR: Bureaucratic quality or government effectiveness as assessed by an index of public service quality, civil service, government accountability, and policy implementation; REB: Regulatory burden, as assessed by an indicator of how much regulation and bureaucracy cost enterprises; VOA: Voice and accountability, as assessed by an index of people' ability to participate in government choosing, freedom of expression, and accountability of government personnel. PIV: Political instability and violence, as evaluated by a probability of political instability, terrorism, and violence index.

The expanded model can be written as $GDP = f(K, L, COR, ROL, BUR, REB, VOA, PIV, \varepsilon)$ where indicates the error (stochastic) term.

The priori expected parameter values are: $0 > b_1$ to b_8

Equation (5) above can as well be re-written as;

$$GDP = \beta_0 + \beta_i (K + L + ROL + BUR + COR + REB + VOA + PIV) + \varepsilon_t \dots \dots \dots (6)$$

Where:

- b_0 = the constant
- ε = error term to represent all other factors which affect GDP but not explained in the equation



β_i are the coefficients or parameters elasticities, ($i = 1, 2, 3 \dots 8$) measuring the size (magnitude) and direction of the relationship between the dependent variable and explanatory variables

By introducing lag operator ($t-j$) into equation (6) above, the following equation is obtained;

$$GDP_t = \beta_0 + \beta_1 (K_{t-j} + L_{t-j} + ROL_{t-j} + BUR_{t-j} + COR_{t-j} + REB_{t-j} + PIV_{t-j} + VOA_{t-j}) + \epsilon_t \dots \dots \dots (7)$$

Where:

t = current time and $j = 0, 1, 2, 3 \dots m$

Note that since our study is applying time series data, then all models that is applied by this study must be in natural logarithm form. Thus equation (7) above is re-written as;

$$\ln GDP_t = \beta_0 + \beta_1 (\ln K_{t-j} + \ln L_{t-j} + \ln ROL_{t-j} + \ln BUR_{t-j} + \ln COR_{t-j} + \ln REB_{t-j} + \ln PIV_{t-j} + \ln VOA_{t-j}) + \epsilon_t \dots \dots \dots (8)$$

Equation (8) is therefore be used to estimate the contribution of governance by category on economic growth (growth impact of governance).

As control variables in output determination, the model includes foreign direct investments (FDI), gross capital formation (GFC), government consumption (GC), and trade openness (TRO). The inclusion of these variables in the production function is justified by Tanzania's trade dependence, with exports accounting for a significant portion of aggregate demand. Therefore, the final estimation model is as follows:

$$d \ln GDP_t = \beta_0 + \beta_1 (\ln K_{t-j} + \ln L_{t-j} + \ln ROL_{t-j} + \ln BUR_{t-j} + \ln COR_{t-j} + \ln REB_{t-j} + \ln PIV_{t-j} + \ln VOA_{t-j}) + \epsilon_t \dots \dots (9)$$

It is critical to have access to credible data sources in order to conduct reliable economic research. Economic variables such as GDP, inflation, and unemployment are available from the Ministry of Finance and the Bank of Tanzania. Furthermore, World Bank statistics provide a wide range of economic data for various countries around the world, which can aid in drawing useful comparisons and providing context for the research. Sources such as the World Governance Index, Transparency International, and other global indicators such as the Worldwide Bureaucracy Indicators and the World Development Indicators can provide valuable insights into Tanzania's governance quality. These sources can assist in identifying areas of strong governance and areas where improvements can be made. Researchers can ensure that their findings are robust and not reliant on a single source of information by using data from multiple sources. Overall, conducting high-quality economic research that can lead to impactful policy recommendations requires a rigorous approach to data collection and analysis.

4.0 Results and Discussion

After running time series data through the unit root test, all variables except gross fixed capital are non-stationary in terms of levels but stationary in terms of difference, as shown in Table 1.

Table 1 Unit Root Test

Variable	H0: Non-stationary in variable levels		H0: Non-stationary of variables in first difference	
	ADF Statistics	PP Statistics	ADF Statistics	PP Statistics
Lngdp	-2.967	-2.967	-7.226***	-7.226***
Lngfc	-7.063***	-7.063***		
Lnfdi	-2.753	-2.753	-6.038***	-6.038***
POP	-0.853	-0.853	-4.254***	-4.254***
Lntrade	-1.520	-1.520	-3.044**	-3.044**
GEXPE	-1.681	-1.601	-5.703***	-5.703***
ROL	-1.404	-1.404	-6.135***	-6.135***
CC	-1.345	-1.345	-4.441***	-4.441***
PS	-2.470	-2.470	-6.070***	-6.070***
RQ	-1.604	-1.604	-4.694***	-4.694***
VA	-0.849	-0.849	-6.150***	-6.150***
GE	-1.114	-1.114	-3.681**	-3.681**

Note: The asterisks ***, ** and * denote significance level at 1%, 5%, and 10%, respectively for the ADF and PP test of unit root. The null hypothesis is that the series are non-stationary.

Key terms: *lngdp* stands for log of gross domestic product, *lngfc* stands for log of gross fixed capital, *lnfdi* stands for log of foreign direct investment, *POP* stands for population growth, *lntrade* stands for log of trade, *GEXPE* stands for government expenditure, *ROL* stands for rule of law, *CC* stands for corruption control, *PS* stands for political stability, *RQ* stands for regulatory quality, *VA* stands for voice and accountability, and *GE* stands for government effectiveness.

4.1 Impact of Governance on the Economy

The regression analysis results show that the OLS model used in the study was correctly specified, as the p-value of 0.8400 does not reject the null hypothesis. This means that the model has no misspecification issues. The VIF value of 2.26 indicates that multicollinearity is not a significant issue among the model's explanatory variables. This means that the model's independent variables are not highly correlated with one another, which can be problematic in regression analysis. The Breusch Pagan test for autocorrelation yielded a p-value of 0.035, indicating that serial correlation is not a problem in the OLS model. This means that the model's errors are not correlated with one another, which can be problematic in time series analysis.

Overall, the diagnostic tests on the regression model indicate that the model is correctly specified, that there is no issue of multicollinearity among the explanatory variables, and that there is no serial correlation in the model. These findings strengthen the credibility and reliability of the regression analysis results, which can be used to draw meaningful conclusions and make informed decisions. Moreover, these results have been reported based on the regression on equation 7, 8 and 8 as shown in Table 2 in Column 2 of OLS(1), Column 3 of OLS(2) and Column 4 of OLS(3).

Table 2 Impact of Governance on Economic Growth

MODELS	OLS (1)	OLS (2)	OLS (3)
VARIABLES	lngdp	lngdp	dlnqdp
ROL	0.201** (0.384)	0.247** (0.452)	
CC	0.464** (0.573)	0.4721** (0.580)	
PIV	0.743 (0.156)	0.861 (0.165)	
RQ	-0.187** (0.211)	-0.215** (0.304)	0.177** (0.660)
VA	0.364* (0.992)	-0.260* (1.017)	
GE	-0.185** (1.066)	-0.147** (3.929)	
Lngcf		0.260*** (4.385)	0.407*** (0.987)
POP		2.086** (5.828)	-0.919* (0.956)
Lnfdi		0.120 (0.045)	
GEXPE		-0.100 (0.0965)	
Lntrade		0.871 (0.713)	
d.ROL			0.592** (1.425)
d.CC			0.571** (0.965)
d.PIV			-2.427 (0.385)
d.VA			-7.500 (1.770)
d.GE			-9.058 (2.746)
Dlnfdi			-0.635 (0.188)
Dlntrade			-0.699 (0.247)
Constant	0.541 (0.706)	-6.785*** (19.502)	2.501** (4.266)

The findings reveal that the voice and accountability of the government and its people have a favorable and significant impact (at the 10% level) on Tanzania's economic growth (Teke, 2012; Afolabi, 2019; Adenuga, 2013). The positive coefficient suggests that, if all other variables remain unchanged, a one percent increase in voice and responsibility enhances Tanzania's economic development by 1.36. The findings support the study's prior hypothesis as well as other research that showed political stability, voice and accountability, rule of law, and government effectiveness to be positively associated with development (Teke, 2012; Afolabi, 2019; Adenuga, 2013).

Therefore, government efficacy has a favorable and considerable impact on Tanzania's economic growth (at a 5% level) (Al-Naser, 2021; Nsiah & Fayissa, 2013; Adzima, 2019; Afolabi, 2019; Azimi, 2020). The positive coefficient suggests that a one percent increase in government effectiveness enhances Tanzania's economic growth by 1.485 percent assuming all other parameters remain constant. The findings support the underlying hypothesis of the study as well as other studies that have indicated that government effectiveness is positively associated to development (Al-Naser, 2021; Nsiah & Fayissa, 2013; Adzima, 2019; Afolabi, 2019; Azimi, 2020).

The study's findings indicate that enhancing voice and responsibility, as well as government effectiveness, can be beneficial ways for encouraging Tanzanian economic growth. This has significant policy implications since it implies that efforts to strengthen governance and boost the efficacy of the public sector may result in improved economic success in the country (Teke, 2012; Afolabi, 2019; Adenuga, 2013; Al-Naser, 2021; Nsiah & Fayissa, 2013; Adzima, 2019; Azimi, 2020).

4.1 Model Tests

According to the results presented in Table 3, the model has undergone the Breusch and Godfrey LM test for autocorrelation, and the resulting p-value of 0.7241 suggests that the model is not affected by the problem of autocorrelation. This is an important finding as autocorrelation can bias the estimates of the model's coefficients and lead to incorrect inference. Therefore, the absence of autocorrelation indicates that the model's coefficients can be interpreted with greater confidence, and the estimates are less likely to be affected by spurious relationships between the variables.

Table 3 Results for Breusch-Godfrey LM test for Auto correlation

Lags (p)	Chi2	df	Prob > Chi2
1	0.035	1	0.7241

Ho: no serial correlation

The results of the White test for heteroscedasticity have been presented in Table 4. The test indicates that the model is statistically significant, with a p-value of 0.0305, which is lower than the 5% level of significance. This suggests that there is no evidence of heteroscedasticity in the model. Heteroscedasticity can lead to biased and inconsistent estimates of the model's coefficients, as the variance of the error term is not constant across the different values of the independent variables. Therefore, the absence of heteroscedasticity is an important finding that indicates the reliability of the model's coefficients and the robustness of the results.

Table 4 Outcomes for White's Test

Chi2 (9)	19.49
Prob > chi2	0.0305

Ho: Homoscedasticity; Ha: unrestricted heteroscedasticity

The Cameron and Trivedi decomposition test was used to further assess the presence of heteroscedasticity in the model. The results of this test are presented in Table 5, which shows that the p-value is 0.0502. This suggests that the model is not affected by heteroscedasticity. Heteroscedasticity can lead to biased and inconsistent estimates of the model's coefficients, as the variance of the error term is not constant across the different values of the independent variables. Therefore, the absence of heteroscedasticity is an important finding that indicates the reliability of the model's coefficients and the robustness of the results.

Table 5 Outcomes for Cameron and Trivedi's Decomposition of LM-Test

Source	Chi2	df	P
Heteroscedasticity	18.32	12	0.0141
Skewness	2.15	4	0.3420
Kurtosis	0.02	2	0.0563
Total	20.49	18	0.0502

It is essential to ensure the accuracy and reliability of results by ensuring model stability, using the correct functional form specification, and avoiding serial correlation and heteroscedasticity. The diagnostic tests conducted in this study demonstrate that there is no serial correlation or heteroscedasticity present in the model. Specifically, the Durbin Watson test, Breusch-Godfrey LM test, and Cameron and Trivedi's Decomposition of LM test all confirm the absence of serial correlation. These findings support the robustness of the results and the validity of the conclusions drawn from the analysis.

CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusion

According to the findings of a study conducted in Tanzania, rule of law and corruption control have a significant impact on the country's economic growth. This implies that strong legal frameworks and institutions, as well as effective anti-corruption measures, are critical for Tanzania's economic growth. Surprisingly, the study discovered that political institutions have little influence on economic growth in Tanzania. This implies that other factors, such as rule of law and corruption control, are more important for the country's economic growth. Furthermore, the research shows that voice and accountability, as well as government effectiveness, have a negative impact on Tanzania's economic growth and development. This implies that the government's effectiveness and the country's level of accountability may be impeding economic growth.

Based on these findings, the study concludes that, while a few institutions drive Tanzania's economic growth and development, many others do not. In particular, the institutions that drive economic growth in Tanzania are rule of law and corruption control, whereas political institutions, government effectiveness, voice, and accountability stymie the country's economic growth. As a result, addressing the weaknesses and ineffectiveness of these institutions is critical if Tanzania is to achieve sustained economic growth. To create a more conducive environment for economic growth and development, efforts should be made to strengthen the rule of law and combat corruption.

5.2 Recommendations

Several recommendations are made based on the study's findings to improve economic success. To begin, the study suggests that policymakers consider various aspects of governance as critical to achieving economic success. This means that when developing and implementing public policies, governments should consider factors such as transparency, accountability, and effectiveness. Second, according to the study, policy should fundamentally contribute to thorough public governance. Governments can improve the effectiveness of public policies that lead to economic prosperity and the well-being of their citizens by doing so. This means that public policies should be designed and implemented in such a way that they promote good governance.

Third, the study suggests a focus on learning, public accountability, and increased public sector effectiveness through better decision-making. This means that governments should prioritize learning and knowledge sharing, as well as ensure public accountability and transparency and improve public sector effectiveness through better decision-making.

In conclusion, the study suggests that good governance is critical to economic success and that policymakers should prioritize policies that promote transparency, accountability, and effectiveness. Governments can increase the effectiveness of public policies that lead to prosperity for their country and well-being for its citizens by doing so.

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Impact of Irrigation on Rice Cultivation Methods among Small Farmers in North Central, Nigeria

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ABSTRACT

Rice production and irrigation are inextricably linked, irrespective of the adopted cultivation system. The study was to examine the impact of irrigation on rice cultivation systems among rice farmers in north central Nigeria. The study involved the survey of 196 active rice farmers in the previous planting season using copies of well-structured questionnaires administered by trained enumerators, and selection of rice farmers was achieved through multistage sampling procedure. Specific objectives were to describe socioeconomic and input characteristics, profiling of irrigation water sources, identification of adopted source of irrigation water by rice farmers, assessment of cultivation system adoption and intensity of rice production and examining factors militating against access to seamless access to irrigation water. Various analytical tools were employed to achieve the objectives, such as descriptive statistics, multinomial logit (MLN), endogenous switching regression (EWR) and Likert Rating Scale (LRS). The result indicated that farm size, farming experience, and annual income were on average of 2.39ha, 23.6 years, and N 646,145.66k. Well water was the most used irrigation source by farmers, with the highest score of 85.2%. The multinomial logit result indicated that the use of boreholes was positively and significantly influenced by distance to water source and years of education, while the use of dams was influenced by gender and the number of cooperative trainings that rice farmers attended during the season. Switching regression results suggested that the correlation coefficient ρ_1 and ρ_2 were positively significant at $p < 0.01$ and $p < 0.05$, respectively, suggesting that an individual rice farmer who chose to adopt swamp cultivation system had lower rice output in the category than a random individual from the sample would have realized. Farmers were constrained by the shortage of water arising from keen competition for water between them and the herdsmen, while it was recommended that efforts be made to ensure that an early-maturing, drought-resistant, and short-duration rice variety be provided for optimal production that will keep pace with the food needs of an ever-increasing population.

Keywords: Cultivation, Farmers, Irrigation, Multinomial Logit, Rice Cultivation

I. INTRODUCTION

1.1 Background of the Study

Water plays paramount role as a veritable resource in the production of crop and livestock in the temperate and tropical areas globally. When it is a limiting factor, agricultural practices remain passive and productivity is unachievable even when fertile land is accessible and usable. The use of land and water for agriculture has not yet peaked, but all evidence points to slowing growth in agricultural productivity, rapid exhaustion of productive capacity and generation of environmental harm (State of the World's Land and Water Resources for Food and Agriculture (SOLAW), 2021; Food and Agriculture Organization (FAO) & UN-Water, 2021). The direct impact of weather events on cropping, grazing, forest systems and soil health is difficult to separate from the overall environmental outcome of land and water management practices (Turetsky, 2019; Tubiello et al., 2013). Reduced or erratic rainfall and more frequent and severe drought periods extend soil moisture deficits on some soils but extend periods of waterlogging on others. Heavier rains are likely to increase the risk of soil erosion on cultivated lands, on moderate to steep slopes where runoff rates are high, and where the land has inadequate vegetative cover (Food and Agricultural Organization, 2017; Li et al., 2004). Intensified and shorter rainfall events combined with higher evaporation and transpiration rates will lead to decreased erosion from water and raindrop impacts, and accelerated runoff and strong winds will reduce soil moisture available for plant growth.

Different sources of water exist; rainfall, underground water and these include well water, borehole and dam among others. Rain fed agriculture is the predominant agricultural production system worldwide most especially in the sub-Sahara Africa that is endowed with the opportunity of bimodal rainfall. In 2018, the world cultivated area was 1557 million ha, of which 1,221 million ha (78 percent) was rain-fed, producing about 60 percent of global crop output in a wide variety of production systems according to Food and Agriculture Organization Corporate Statistical Database (FAOSTAT, 2020). The most productive rain-fed cropping occurs in the temperate zones of Northern America and Europe, and in the sub-tropics and humid tropics. Rain-fed cropping in highland areas and the dry tropics tends to be relatively low yielding with low-input practices associated with subsistence farming. In sub-Saharan

Africa, 97 percent of staple production is rain-fed, the area of cereals has doubled since 1960 and also in Central America and the Caribbean, and rain-fed cultivation had expanded by 25 percent in the last 40 years. The production cycle could be extended and productive resources could further be mobilized and utilized optimally if alternative sources of water could be made available for agricultural purposes through irrigation (Temple, 2011; Dugue et al., 2015).

Irrigation is significant in securing food supplies and supporting economic development in many countries of various continents of the world ranging from desert to rainforest and its importance is likely to grow given the impacts of climate change (Hannah & Saleemul, 2005; Tambo & Abdoulaye, 2012). Agricultural production using irrigation shares approximately 40 percent of total agricultural output (FAO et al., 2018). Land set aside for irrigation can stabilize the production of high-value crops, particularly eliminating the risk of unreliable rainfall but more importantly, timely delivery of adequate soil moisture to the crop and maximization of yield response (Adegbola, 2007; Beke, 2012). Irrigation in combination with drainage offers an important adaptation strategy to combat drought and flooding risk as the climate changes (Alhumaid, 2020). Land area equipped for irrigation (including all full water control irrigation systems, equipped wetlands and spate irrigation) has almost doubled over the past 60 years, from 139 million ha in 1961 to over 328 million ha in 2018, with groundwater-sourced irrigation accounting for some 108 million ha which is 33 percent of the equipped area (Lowder, Sánchez & Bertini, 2019). Over the same period, land equipped for irrigation has increased from 10 percent of the total cultivated land to 21 percent. Since 2010, equipped areas have exhibited little or no growth in reported statistics, even as the global production of irrigated crops continues to increase. This, of course, may be due to changes in the pattern of production such as: increased cropping intensities and yields on existing continuously irrigated areas; infilling of gaps between equipped areas and actually irrigated areas (areas harvested) hence production from areas not registered in national statistics as “equipped for irrigation” (Siebert & Döll, 2007).

Cereals crops are widely consumed in the sub-Sahara Africa and Nigeria in particular. In Nigeria, maize, millet, sorghum and rice production are favourably supported by the available land and bimodal rainfall regime in the south which trickles down to modal in the northern region of the country, hence, intensive use of irrigation in the less advantaged parts (Awulachew & Ayana, 2011; Adela & Aurbacher, 2018;). Most consumed of cereals in Nigeria is rice and its desire to consume and patronage has created a wide gap between its demand and supply. In an effort to bridge the gap, therefore, local production is more encouraged by the current government through introduction of subsidies, training programmes and loans as means of encouragement (Central Bank of Nigeria (CBN), 2018). Nevertheless, local production seemed not to keep pace with population growth, based on this, importation by government and individuals through smuggling further narrowed the demand supply gap but the resultant effect further weakened the economy by reducing the foreign reserve and weakening of economic currency (CBN, 2018). Further effort to intensify rice production saw government support in terms of improving on irrigation infrastructures and provision of irrigation facilities to complement the past efforts of the River Basin Development Authority services which mostly concentrate in the Nigeria characterized with low rainfall (Idachaba, 2006; Akinyosoye, 2005).

Statistics further showed that global production of rice reaches 755,473,800 tonne per year, but Nigeria is yet to maximize its potential to meet local demand as well as for export (Guardian, 2022). Nigeria is the highest producer of rice in Africa and sixth at the global level with a total of 218,541, 291 tons per year. With the quantity produced annually, Nigeria still imports 2,000k MT of rice annually, meaning that the quantity produced locally cannot be sufficient to feed the consumption need of about 200million of its population (Ezedinma, 2008; Kebbeh et al., 2003). In order to bridge the demand-supply gap and keep the price of rice affordable at least, at the home-front, there is a need to embark on massive rice production. Raising the level of production, apart from consumption purpose will address official and smuggled of annual quantity imported which results in loss of foreign exchange earnings and ever-dwindling currency value (FAO, 2022).

A lot of studies had been carried out on rice production in relation to irrigation but few studies had been done on the cultivation of rice based on typical varieties of upland and swamp rice production. The overarching goal of this study is to generate information that helps decision makers to discern and understand impact of Irrigation on Rice Cultivation methods among Small Farmers in North Central, Nigeria. This disparity in this study and the previous works was the study area, middle belt Nigeria, where water is a critical and limiting factor in the production of the crop. The study will help the policy makers, immensely, in the area of decision making towards massive production of rice in the nearest future, hence the need to mobilize and harness optimal resources towards attaining the threshold of optimal productivity. This study seeks to answer the following research questions: what are the socioeconomic and input characteristics of rice farmers? What is the notable water sources used in irrigating rice farms? What are the determinants of the water source adopted for irrigation in the rice farm by farmers? What are the determinants of the choice of cultivation and the quantity of rice produced by farmers? The specific objectives are to describe the

socioeconomic and input characteristics of the rice farmers; profile the notable source of water used for irrigation of rice farms; identify determinants of water source adopted by rice farmers in the study area and examine factors affecting choice of rice variety cultivated and the intensity of production.

1.2 Hypothesis for the Study

H₀: Monthly water consumption does not significantly affect rice output of farmers

II. MATERIALS AND METHODS

2.1 Study Area

The study was carried out in the middle belt otherwise called north central which comprised Benue, Kogi, Kwara, Nasarawa, Niger, Plateau and Federal Capital Territory. The area is located at the core centre of the country as the name indicates. The entire area is located on latitude 10° 20' 00"N and longitude 7° 45' 00" E. The area is bounded in the North by Southwest Nigeria, in the West by Southwest and Benin Republic, in the East by North East Nigeria and bounded in the South by South East Nigeria. The entire middle-belt of Nigeria has a total population of 14,616,682 (National Population Commission, 2006. The mean annual temperature ranges from 24°C to 37°C and mean annual rainfall of between 100 and 200cm³ (Iloeje, 2007). The climate of North Central Nigeria is characterized by a rainy season which starts in December and lasts till March. North Central is blessed with lush vegetation and fertile soil which is good for cultivating various types of crops, notable among them are maize, sorghum, yam, cassava, millet, pepper, tomato and cowpea among others. Based on this abundant opportunity, the north central is referred to as "food basket of Nigeria". The only limiting factor to farming in the area is rainfall which is distinctly deficient in intensity, distribution and amount.

2.2 Source of Data

For the purpose of achieving the objectives stated in the study, data uses were obtained from primary source. Some data used include salient variable bordering on the socioeconomic characteristics, profitability, water use by farmers, inputs used in rice production and production constraints amongst others. Some of them are age, experience, marital status, fertilizer, herbicide, seed, farm size, revenue and extension contacts to mention but few.

2.3 Instruments Data Collection

Copies of well-structured questionnaire were used in the survey to collect data from the respondents. Also, camcorder was used in capturing the respondents and cell-phone was used in recording the interview granted by the respondents. Trained enumerators were employed to interview the respondents and use the equipment as appropriate for the intended purpose.

2.4 Sampling Technique

Multistage sampling procedure was used in the selection of respondents for the study. The first stage was the purposive selection of Niger state being one of the states in the north central with high concentration of active rice farmers. In the second stage, five local government areas with high number of rice farmers were purposively selected, while in the third stage, forty farmers were randomly selected from each of the local government areas early selected. A total of two hundred farmers (200) were reached but 196 responses from the survey were used for the final analysis while two responses were rejected due to biased responses and unreturned copy of questionnaire. Table 1 presents detailed sampling procedure and Figure 1 also presents the map of the study area

Table 1

Details of Sample Procedure of Rice Farmers

First Sampling Stage (Purposive)	Second Sampling Stage (Purposive)-LGA	Third Sampling Stage (Random) Proposed Respondents	Real Sampled Respondents
Niger	Lavun	40	39
	Edati	40	38
	Agaie	40	40
	Gbako	40	39
	Mashegu	40	40
		200	196

Source: Computer from Field Survey, 2021.

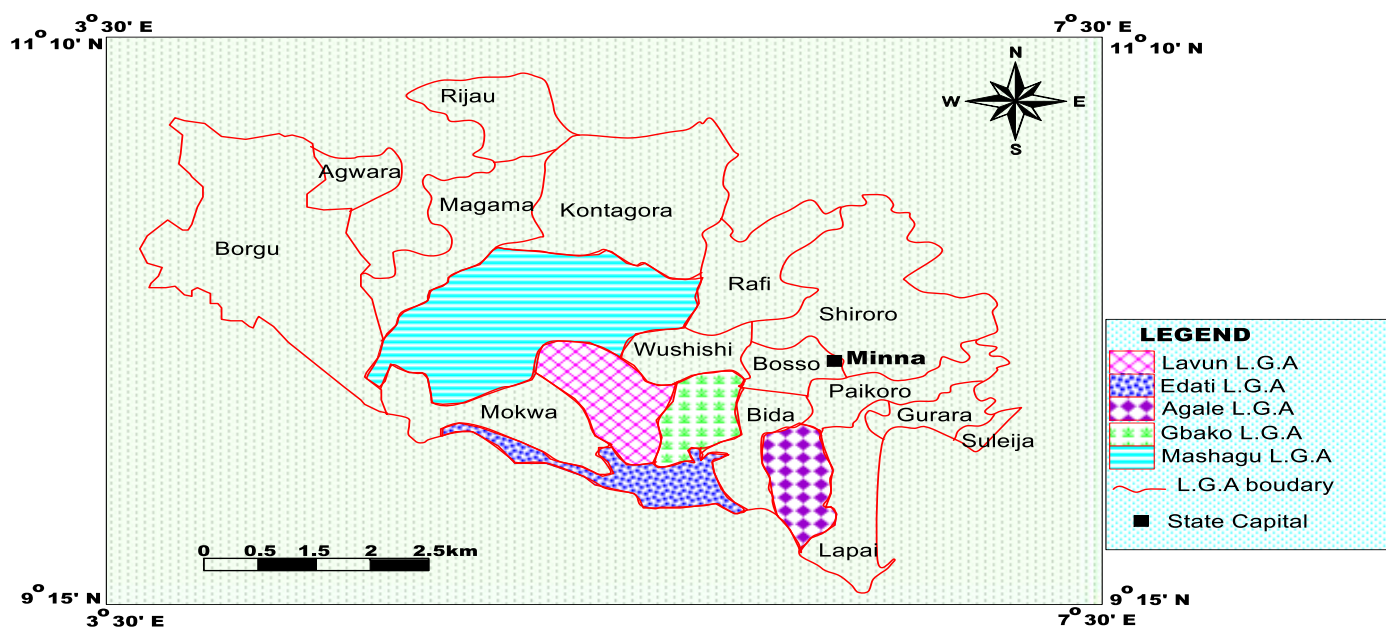


Figure 1
 Map of the Study Area Showing the Local Government Area of Massive Rice Production
 Source: Federal Ministry of Information and Culture, Niger State

2.5 Analytical Tools

2.5.1 Descriptive Statistics

Descriptive statistics was employed in describing the socioeconomic characteristics and various sources water available for rice farmers; this includes frequency counts, percentages and mean.

2.5.2 Multinomial Regression

MNL is used to analyse the determinants of household demand for water from available sources for irrigation on rice farms. The choice of the model follows Gujarati (2004). The model is given as:

$$\Pi_{jk} = \frac{\exp(\beta'_k X_j + \theta' Z_{jk})}{\sum_{i=1}^k \exp(\beta'_i X_j + \theta' Z_{ji})} \dots\dots\dots 1$$

Π_{jk} is the probability that individual j chooses alternative k . X_j represents the characteristics of individual j while Z_{jk} represents the characteristics of the k th alternative for individual j . $\beta_1 \dots \beta_m$ are m unknown regression parameters explaining the household characteristics while θ represent regression coefficient explaining different sources of water, such as well, borehole and dam which are coded 0, 1 and 2 as dependent variables respectively.

2.5.3 Switching Regression Model

The switching regression model (SRM) is used to correct for possible sample selection bias which may arise from other interventions that provide multiple services to farmers in addition to adopted rice cultivation method. Sample selection bias arises when factors unobserved by the researcher but known to the farmers affect both the choice of technology as well as other decision variables (Fuglie & Bosch, 1995). The SRM approach is divided into two stages. A probit model in the first stage will be applied to determine the relationship between a farms chosen cultivated rice variety condition and a number of socioeconomic and input variables, is employed as follows:

$$C^* = \gamma' Z_i + \varepsilon_i \dots\dots\dots 2$$

In equation (1), C^* is dichotomous (1,0), indicating whether observation I is upland or swamp rice or not; Z_i represents a vector of explaining variables such as farm size, farming experience, distance to water source and extension contact; γ is a vector of parameters; and ε_i is a random error term. Rice cultivation types are reflected in the responses used to define a criterion function which is an observable; dichotomous variable I where,

$$I = 1; \text{ if } \delta' Z_i + \varepsilon_i = 0 \dots\dots\dots 3$$

$I = 0$; otherwise

A probit maximum likelihood estimation is used to estimate the parameter δ in equation 3. It is assumed that $\text{var}(\varepsilon_i) = 1$ since δ is estimable only up to scale factor.



Rice output of the two groups of farmers is modelled by reduced for equations specified by:

$$P_{cc} = \beta_{1i}X_{1i} + \varepsilon_{1i}; \quad \text{if } I=1$$

$$P_{ncc} = \beta_{2i}X_{2i} + \varepsilon_{2i}; \quad \text{if } I=0 \dots\dots\dots 4$$

Where variables P_{cc} and P_{ncc} represent rice output for upland and lowland rice cultivation among farmers.

X_{1i} and X_{2i} are vectors of exogenous variable,

β_{1i} and β_{2i} are vectors of parameters, and

ε_{1i} and ε_{2i} are random disturbance terms

Maximizing the bivariate likelihood function for this model is feasible but time consuming (Maddala, 1994).

Therefore, following Lee (1978), a two-stage estimation method is used to estimate the system equation (3) and (4).

The conditional expected values of the error terms ε_{1i} and ε_{2i} e:

$$E(\varepsilon_{1i} / \delta'Z_i) = E(\sigma_1\varepsilon_i/\varepsilon_i = \delta'Z_i) = \sigma_1\varepsilon \frac{\phi(\delta'Z_i)}{\varphi(\delta'Z_i)}$$

$$E(\varepsilon_{2i} / \delta'Z_i) = E(\sigma_2\varepsilon_i/\varepsilon_i = \delta'Z_i) = \sigma_2\varepsilon \frac{\phi(\delta'Z_i)}{1-\varphi(\delta'Z_i)}$$

Where ϕ and φ are the probability density function and the cumulative distribution function of the standard normal distribution respectively. The ratio ϕ/φ evaluated at $\delta'Z_i$ for each 1 is the Inverse Mill Ratio (IMR). For convenience,

$$\lambda_{1i} = \phi(\delta'Z_i) / \varphi(\delta'Z_i) \quad (\text{for swamp rice cultivation})$$

and

$$\lambda_{2i} = \phi(\delta'Z_i) / [1 - \varphi(\delta'Z_i)] \quad (\text{for upland rice cultivation})\dots\dots\dots 5$$

These terms are included in the specification of equation (3)

$$P_{cc} = \beta_1X_{1i} + \sigma_{1u}\lambda_{1i} + \varepsilon_{1i}; \quad \text{if } I=1$$

$$P_{ncc} = \beta_2X_{2i} + \sigma_{1u}\lambda_{2i} + \varepsilon_{2i}; \quad \text{if } I=0 \dots\dots\dots 6$$

Specification of dependent variables in the switching regression is as given below:

Y= Swamp=1; Upland=0

X₁= Farm size (in hectares)

X₂= Farming experience (in years)

X₃= Extension contacts (in no.)

X₄= Gender (Male=1; Female=0)

X₅= Monthly irrigation water supply (in litres)

X₆= Total input value (in naira)

X₇= Education (in years)

X₈= Distance to source of water (in kilometers)

2.5.4 Likert Rating Scale

The five point likert type scale was used to identify constraints faced by rice farmers in having access to sufficient water for irrigation of rice farm in the study area. These are defined as: 5= Strongly Agreed 4= Agreed, 3 = Undecided, 2= Disagreed and 1= Strongly Disagreed. The scores were then calculated as follows:

$$\text{Weighed Score (WS)} = 5n + 4n + 3n + 2n + 1n = \text{Total Score for each constraint} \dots\dots\dots 7$$

Where n = Frequency of each constraint for each rating.

$$\text{Mean Score (MS)} = \frac{\text{Total Score of Each Constraint}}{\text{Total Number of Respondents}} \dots\dots\dots 8$$

Rank = Value of the MS was then used to rank the severity of the limitations faced by the respondents.

2.5.5 Test of Hypothesis

Student t-test was used to test the relationship between the quantity of water used for irrigation on farm by farmers and the quantity of rice output. The tool is amenable to handling continuous variables without bias or error of inconsistency. The formula is presented as follows:

$$t = \frac{X-\mu}{\frac{s}{n^{0.5}}} \dots\dots\dots 9$$

s= Standard deviation

μ =Theoretical mean of the population

X= Observed mean of the sample

n= Sample size

III. RESULTS & DISCUSSION

3.1 Socioeconomic and Input Characteristics of Rice Farmers

Socioeconomic and input characteristics of the rice farmers are presented in Table 2. Most of the rice farmers had an average of 2.39 hectares indicating that they operate on small scale. This result agrees with Adubi and Daramola (1996) expressed in their study that most of the farmers in Nigeria operate on small scale. Rice farmers used an average of 50.5kg of seeds per hectare and this is believed to be based on the planting method of drilling or broadcasting adopted. Broadcasting and drilling use more seed than placement in which seeds are planted using preplanned spacing. Hybrid seeds are in many cases result in better yield and also possess the quality of pest and disease resistance, rice farmers used more of hybrid seed than open pollinated seed to enhance better output. Fertilizer used by rice farmers is an input that a high premium is placed on in order to realize expected output, to achieve this more dose of fertilizer must be used as the land under cultivation is cropped all year round and average of 112.63kg was used across the study area. Based on this, shifting cultivation is not achievable and fallowing cannot be used as source of replenishing nutrients lost from farmland as a result of continuous cropping but only the use of fertilizer, which can be organic and inorganic in nature.

Labour used by farmers was an average of 75.5 man-days per season. Chemical method of weed control is used in the post planting period which were probably systemic has a high potency and highly efficacious and the effect last longer and reduce labour in weeding operation. Sex revealed that male rice farmers outnumber their female counterparts; this may be due to the arduous nature of rice operation from land clearing to annual termination of the entire production process. The maximum and minimum age among the rice producing farmers are 20 years and 75 years respectively and an average age of 48.14 years. It could be inferred from this result that rice producers are very young and are in their active phase of life. This agrees with the findings of Adeola et al. (2008) that rice producing farmers are in their active farming years and is likely to enhance their production.

Years of experience of farmers are 23.6years which indicates that they possess sound experience which can help them to surmount occupational odds and cope with risks. Mean value of about 7 members was recorded for household size, meaning that rice farmers had moderate household size. Extension contacts in the last season were an average of 9 contacts as against the recommended contacts of 24 annually. This indicates that farmer in the area are short of modern innovation and technique. Average seasonal income of farmers stood at N646,145.66 per annum which is equivalent to \$994.07 (@650/US1) in a year.

Table 2

Socioeconomic Characteristics of the Rice Farmers

Variable	Minimum	Maximum	Mean	Std Dev.
Farm size (in Hectare)	0.80	5.00	2.39	0.91
Quantity seed (in kg)	20.0	120.0	50.5	17.8
Seed Variety(Open Poll.=1; Hybrid=2)	1.00	2.00	2.05	0.55
Quantity of Fertilizer(in kg)	45.0	250	112.6	48.0
Quantity of Labour (in Man-days)	17.0	134.0	75.5	20.5
Quantity of Herbicide (in Litres)	5.0	16.0	9.65	2.25
Sex (Male=1; Female=2)	1.0	2.0	1.295	0.46
Age (in years)	20.0	75.0	48.14	12.1
Farming experience (in years)	2	67	23.6	12.7
Households size (in No.)	1	17	6.5	2.86
Extension Contact (no.)	2	24	9	6.7
Annual Income	54,000	1,584,000	646,145.66	285,942.17
Sample size (n) =196				

Source: Computer from Field Survey, 2022.

3.2 Source of Irrigation Water on Rice Farm

Sources of water for irrigating rice plantation on rice farms are contained in Table 3. Choice of well water was found to be highest with 85.2%. The use of the source may be due it high accessibility rate and cost effectiveness of putting it in place, however, it may not be a perennial source of water as the water table is very low making water unavailable at the peak of dry season. About 69% of rice farmers patronized borehole as source of water supply to the farm but it was confirmed that the source, though reliable in terms of all-time water supply for rice production but it is



very expensive to put in place. To ensure availability of borehole in the area, local and central government in the state provide for farmers as a direct assistance to support rice cultivation. Fifty two percent of the respondents harness water resource originated from dam. It is a source with wide surface and large quantity of water but dam does not make sufficient water available all-year round. This made it less reliable to depend on by rice farmers owing to the fact that they prefer the water source that is capable of giving expected quantity of water throughout the production season.

Table 3
Different Sources of Water for Rice Irrigation

Farm Water Source	Number of Farmers	Percentage
Well	167	85.2
Borehole	137	68.9
Dam	102	52.0

Source: Computer from Field Survey, 2022.

3.3 Multinomial Logit Estimate of Determinants of Choice of Irrigation Source among Rice Farmers

Table 4 presents results on determinants of chosen method of irrigation adopted by the rice farmers. LRchi2 (30.55) is significantly different from zero at 1% while the log likelihood ratio (193.355) suggest that the model was fit and appropriate. Distance to water and years of education positively influenced the use of borehole relative to adoption of well water. When more of the variables are used, there will be higher probability of using the irrigation source by farmers. Quantity of monthly water supply for irrigation in the rice plantations was found to be negatively significant, suggesting that it negatively influenced the probability of using borehole as a source of water among rice farmers. Adoption of dam as a source of irrigation for rice farmers shoes that years of experience and season of the year negatively and significantly influence the probability of using dam as source of water for rice farm irrigation. An attempt to increase the use of the variables supports the use of well source of water. Similarly, gender and attendance of cooperative training by rice farmers increased the probability of increasing the use of dam by farmers while they concurrently decreased the use of well source of irrigation.

Result of the marginal effect suggest that a unit increase in farm size, quantity of water supplied monthly and seasonal water availability increased the probability of using well water. Also, number of cooperative training attendance increases the probability of using well water among the rice farmers.

Table 4
Determinants of Chosen Irrigation Method and Intensity of Rice Output

Variable	Borehole		Dam		Marginal Effects	
	Coeff.	z-value	Coeff.	z-value	dy/dx	z
Number of Observations =196	LR chi2 = 30.55		Pseudo R ² = 0.0732			
Log likelihood =193.355	Prob>chi2 = 0.000					
Constant	3.6375***	3.85	-3.8711	-0.83	-	-
Farm size(in Ha)	-0.1666	-0.58	-0.2385	-0.75	0.0492***	3.78
Dist. to water source(in km)	0.6190***	3.01	0.2116	0.34	-0.1095	-0.86
Farming experience(in years)	0.5191	1.25	-0.2938**	-2.67	-0.0405	-0.47
Qty month water supply (ltrs)	-0.6921**	-2.70	-0.1651	-0.59	0.1147**	2.08
Number of extension contacts	0.2180	0.73	0.3174	0.97	-0.0649	-1.01
Season (Wet=1; Dry=0)	-0.5868	-1.53	-1.2601***	-3.14	0.2163**	2.87
Age(in years)	-1.0484	-1.19	0.7982	0.79	0.0596	0.31
Gender (Male=1; Female=0)	0.2321	0.59	0.8280**	1.81	-0.1183	-0.39
Years of education	0.7018*	1.71	0.3904	0.92	-0.1405	-1.64
Coop. training attendance (No)	0.0214	0.06	0.5331**	2.27	-0.0610**	-2.74

Base Outcome: Well=0; (*) dy/dx is for discrete change of dummy variable from 0 to 1

Y=Pr(Irrigation Method=0) (Predict) = 0.4617

Source: Computer from Field Survey, 2022.

3.4 Endogenous Switching Regression Estimate of Adopted Cultivated Rice Variety and Intensity of Output

Results of the cultivation selection equation are reported in the section of the output headed cultivation system. Results of the output regression in the swamp rice cultivation are reported in the riceoutput_1 section, and the output regression in the upland cultivation is reported in the rice output_0 section. The correlation coefficient rho_1



and rho_2 are positive with 0.1805 and 0.2735 respectively and are also found to be significantly different from zero in both cases, that is, cases of riceoutput_0 and upland cultivation. Rho_1 being positively and significantly different from zero, the model suggests that individuals choose to adopt swamp cultivation system had lower rice output in that category than a random individual from the sample would have realized. Similarly, those adopting upland cultivation system also have the same experience in the area of rice production.

The likelihood ratio test for joint independence of the three equations is reported in the last line of the output. The variable sigma, \Inst1, \Inst2, \r1 and \r2 are ancillary parameters used in the maximum likelihood procedure. Sigma_1 and Sigma_2 are the square root of the variances of the residuals of the regression part of the model, and insignificant is its log. \r1 and \r2 are the transformation of the correlation between the errors from the two equations. According to the result presented in Table 5, number of seasonal extension contacts, monthly quantity of water supplied, value of total input and distance to irrigation water source were found to be significant at different level and possessed signs of interest. All the significant variables mentioned increased seasonal rice output. Extension contacts stimulated an increase in rice production owing to technical advice and introduction of new technology which were adopted by farmers with resultant appreciable output. Water was found to be a critical contributor to rice output, and, the more the timely quantity of water supplied, with other basic resources mobilized, rice output will increase as expected. Also, total inputs that are germane to rice production when used appropriately in quality and quantity terms will bring forth proportional rice output. Distance of irrigation water source to the rice farm is an indicator to availability of water for farm irrigation at all points in time. With proximity to water, more water is expected to be available in irrigating rice that for the farms with ample distance to water source.

Choice of most-preferred method of rice production was positively influenced by farm size, farming experience, number of extension contacts and total inputs while age of farmers was negatively signed but also influenced farmers' decision. Farm size played a significant role in the choice of method used by rice farmers as with more farm size, a farmer must carefully and meticulously choose a method that will minimize the production threatening risks so he can realize quantity of harvest and income far above production cost. Farming experience was also a critical factor according to the result. With more years of experience, more suitable cultivation method was chosen by farmers which might not be achievable if the decision was wrong. Number of seasonal extension contacts was also found to influence choice of appropriate cultivation method that was capable of stimulating bumper production. Amount of total input used was also an indicator of the method of farm cultivation adopted by farmers. Conversely, age was found to influence decision of farmers in the choice of cultivation method negatively. With an advanced age, farmers' decision might be incapable of attaining efficient production performance and production peak.

Table 5
Determinants of Chosen Cultivation Method and Intensity of Rice Output

Number of Observation		=196
Wald chi2		= 11.02
Prob > chi2		= 0.0008
Log likelihood		= -259.33
Variable	Coefficient	z
<i>Rice Output_1</i>		
Constant	11.9872***	8.76
Farm size (in Ha)	0.0047	0.06
Farming Experience (in years)	-0.1111	-1.23
Extension Contact (No.)	0.0382***	3.54
Gender(Male=1; Female=0)	0.0680	0.64
Monthly irrigation water supplied (in litres)	0.0152*	1.75
Total input value(in naira)	0.2691**	2.25
Education(in years)	0.1182	1.33
Distance to water source (in km)	0.2782*	1.73
<i>Rice Output_0</i>		
Constant	14.2841***	8.17
Farm size (in Ha)	0.0779	0.85
Farming Experience (in years)	-0.0474***	-3.34
Extension Contact (No.)	0.0533	0.52
Gender(Male=1; Female=0)	-0.0311	-0.23

Monthly irrigation water supplied (in litres)	-0.1454*	-1.68
Total input value(in naira)	0.0661	0.40
Education(in years)	-0.2419**	-2.61
Distance to water source (in km)	-0.0350	-0.18
<i>Cultivated Rice(Swamp=1; Upland=0)</i>		
Constant	-4.3736	-1.49
Farm size (in Ha)	0.1104***	3.72
Gender(Male=1; Female=0)	0.2033	0.97
Monthly irrigation water supplied (in litres)	0.0429	0.32
Education(in years)	0.0091	0.04
Farming Experience (in years)	0.4327*	1.95
Extension Contact (No.)	0.0467**	2.30
Total input value(in naira)	0.4624**	2.10
Distance to water source (in km)	0.2746	0.88
Occupational training attended (No.)	-0.1099	-0.47
Cooperative training (No.)	0.3237	1.55
Age of farmers (in years)	-0.0374***	-3.88
/Ins1	-0.7698	-9.05
/Ins2	-0.6638	-5.48
/r1	0.1825	0.36
/r2	-0.2806	-0.51
Sigma_1	0.4630	
Sigma_2	0.5149	
Rho_1	0.1805	
Rho_2	-0.2735	
LR test of indep. Eqns. : chi2(1) = 0.23	Prob>chi2 =	0.6304

Source: Computer from Field Survey, 2022.

3.5 Factors Militating Against Irrigation of Rice Farm

Table 6 presents results on constraints militating against rice farm irrigation. Keen competition for water between herdsmen and rice farmers was voted most affecting among the constraints highlighted with highest mean score of 4.24. It is very clear that both livestock and crop enterprises require water to keep the business active. The area is characterized with modal rainfall of about four months in the year which is never sufficient for rice production during the dry season no matter the technology for conservation. The competition between herdsmen and rice farmers in many cases always results in quarrel which in many cases prevents timely cultivation of rice and hitch-free irrigation. Seasonal drought in the middle-belt Nigeria hampers availability of underground water which could be accessed, tapped and utilized for irrigation was rated second with mean score of 3.94. Also, the season makes water table very low in the dry season which makes water inaccessible when efforts were made to sink well. In this case, it is borehole that can proffer solution to the perennial irrigation problem among rice farmers owing to the fact that it is deeper and capable of reaching the water table, no matter the depth.

Lack of access to credit for implementation of localized irrigation farm was identified as third challenge. It was observed that rice farmers were willing to device a more localized and suitable irrigation plan but funds were an impediment that prevented them from achieving the goal. Dearth of labour was identified by rice farmers as fourth problem hindering irrigation of rice farm irrigation. Due to some experienced hindrances which made water unavailable on the farm, there was a need for intensive labour effort in channeling water efficiently to all the areas of the farm. Price of pumping machine was identified as not being affordable by individual farmer. Pumping machine, if affordable by farmers will improve the pumping rate and make enough water available on the individual farmer's rice farm, it was rated fifth. The high and unstable price of the machine might be due to the ruling unfavorable exchange rate. Insufficient help from government in terms of more sources of water such as drilling boreholes was rated sixth and scored 3.52. Rice farmers believed that government can make a vital contribution in the area of capital provision but this according to them was available but not sufficient enough to surmount the perennial water shortage.

Scarcity and high price of fuel hinder timely pumping of water was rated the seventh problem of irrigation in the right farm according to the responses provided. Diesel or petroleum is used in powering pumping machine but their regular availability is not guaranteed and this hampers seamless irrigation water supply to rice farm. Shortage of water due to insufficient pumping machine hence uneven distribution of water across farmlands was rated eighth

among the factors with the mean score of 3.10. It could be inferred from this response that it is either that the horsepower of the pumping machine is very low and it is incapable of pumping with high pressure to various destination or the area to be covered for irrigation is too large per unit machine.

Topography of the farmland creating hills and valleys that hampers flow of water to intended farm areas and Elite hijack of water most especially at the peak of dry season are rated ninth and tenth respectively. With undulating farmland area, irrigation machine must have higher horsepower in order for water to ascend and descent hills and valleys, thus, making water available to rice plantation. Elites among rice farmer were also identified as major hindrance to timely and even reticulation of water across farms. They prefer to be treated preferentially because of their large scale farm practice.

Table 6

Likert Scaling Index Result Examining Constraints Militating Against Rice Farm Irrigation

Variable	1(SD)	2(D)	3(U)	4(A)	5(SA)	WS	MS	Rank
-Seasonal drought hampers availability of underground water at the peak of dry season.	7(3.6)	16(8.0)	31(15.6)	70(35.2)	72(36.7)	772	3.94	2 nd
-Scarcity and high price of fuel hinders timely pumping of water.	10(5.0)	24(12.1)	39(19.6)	115(57.8)	8(4.0)	675	3.44	7 th
-Shortage of water due to insufficient pumping machine hence uneven distribution of water across farmlands	9(4.5)	32(16.1)	99(49.7)	42(21.1)	14(7.0)	608	3.10	8 th
-High price of pumping machine due to unfavourable exchange rate.	4(2.0)	15(7.5)	40(20.1)	110(55.3)	27(13.6)	729	3.72	5 th
-Keen competition for water between herdsman and rice farmers making sufficient water unavailable to farmers.	6(3.0)	12(6.0)	20(10.1)	48(24.1)	110(55.3)	832	4.24	1 st
-Topography of the farmland creating hills and valleys and this hampers flow of water to intended farm area.	18(9.2)	109(55.6)	36(18.4)	21(10.7)	12(6.1)	488	2.50	9 th
-Insufficient help from government in terms of more sources of water such as drilling boreholes.	9(4.6)	22(11.2)	42(21.1)	104(53.1)	19(9.7)	690	3.52	6 th
-Low labour availability to use in making water available across farm areas.	9(4.6)	22(12.2)	41(20.9)	57(29.1)	65(33.2)	733	3.74	4 th
-Lack of access to credit for implementation of localized irrigation plans.	10(5.0)	24(12.1)	32(16.1)	54(27.1)	76(38.2)	750	3.83	3 rd
-Elite hijack of water most especially at the peak of dry season.	76(39.2)	40(20.1)	37(18.6)	31(15.6)	10(5.0)	443	2.26	10 th

SA: Strongly Agreed; A: Agreed; U: Undecided; D: Disagreed; SD: Strongly Disagreed.

Source: Computer from Field Survey, 2022.

3.6 Test of Hypothesis

Result on the relationship between monthly quantity of water supplied to rice farm and the quantity of rice output among rice farms in the study area. Quantity of water (21.487; $p < 0.01$) and quantity of rice output (31.636; $p < 0.01$). The two variables were found to be significant at 1%, indicating that the null hypothesis will be rejected while the alternative hypothesis which says, there is a significant relationship between monthly quantity of water to rice farms and the quantity of rice output realized, would be accepted. It could be inferred that, with sufficient and timely supply of water to rice farms, all other things being equal, efficient production is inevitable.

Table 7

Test of Relationship between the Quantities of water supplied to Rice Farm and Output

Variable	t	df	Sig.($p < 0.01$)	Mean Difference
Quantity of Water	21.487	195	0.000	3752.464
Quantity of Rice Produced	31.636	195	0.000	646145.66

Source: Computer from Field Survey, 2022.

IV. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

It could be concluded from the results that farm size (0.0492; $p < 0.01$), quantity of monthly water supply (0.1147; $p < 0.05$) and season of production (0.2163; $p < 0.05$) positively influenced irrigation water supply to rice farm. Farm size (0.1104; $p < 0.01$), farming experience (0.4327; $p < 0.1$) and extension contact (0.0467; $p < 0.05$) were found to influence adoption of swamp rice cultivation in the study area.

5.2 Recommendations

Based on the findings in the foregoing was that:

- (i) High yielding, early maturing and drought resistant rice variety should be made available to rice farmers;
- (ii) Skill improving training should, from time to time organize for rice farmers;
- (iii) More sustainable water sources such as river and river basin should be made functional through intervention of government with the support of technocrats and non-governmental organizations for sustainable strategy blue print for perennial water provision;
- (iv) Rural farm households should be encouraged to live in their natural environment with enticement triggered by social, farm, institutional and physical amenities and;
- (v) Farm inputs should be made available to rice farmers and credit facilities be adequately provided.

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Influence of Participative Leadership Style on Public Health Service Delivery in County Governments in the Western Kenya Region

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ABSTRACT

Poor health service delivery has been linked to the devolution of health services, with some health workers walking off the job due to inadequate pay and unsafe working conditions. This research aimed at establishing the influence of participative leadership style on public health service delivery by county governments in the Western Kenya region. Taking a positivist approach, the study was anchored on participative leadership theory. Descriptive survey and causal-comparative research designs were adopted with a target population of 966 personnel consisting of the CECMs, Chief Officers, Directors, and County Nursing Officer for Health, Medical Superintendents, Hospital Administrator, Human Resource Officer, Head of Pharmacy, Head of Nursing, Health Records Information Officer, Head of Laboratory, Head of Clinical Services and number of patients admitted, treated and discharged drawn from all four counties of Bungoma, Busia, Kakamega, and Vihiga. Primary data was collected using both structured questionnaires and interview schedules. Qualitative data was analysed by content analysis while quantitative data was analysed using both descriptive and inferential statistics. The SPSS Software version 26 was used for statistical analysis which was both descriptive whereby frequencies, percentages, means, and standard deviation were clearly shown in the form of both tables, models and charts. The hypothesis tested for significance of the study at 5% significance level. From the results, the beta value for participative leadership from the regression model was 0.777 at $p < 0.05$. Participative leadership explains 60.4% ($R^2 = 0.604$) of the variance in public health service delivery. Therefore, the hypothesis was rejected. The study recommends establishing transparent and straightforward policies and procedures for managing human resources, which are essential for promoting productivity, equity, and workplace peace. In order to improve service delivery, the report suggests that county governments implement methods to promote collaborative decision-making. Consultation is a necessary part of the decision making process. In this regard, as many of the perspectives of workers who are directly affected by the decision as are feasible should be considered.

Keywords: Participative Leadership, Service Delivery, Health Care, Western Kenya

I. INTRODUCTION

The Sustainable Development Goals (SDGs) recognize universal health care as a significant and laudable objective. The goal of universal health coverage is to ease the way toward more prosperous and fair societies and economies by ensuring that all people, regardless of their ability to pay, have access to the healthcare they need. Without prioritizing health care quality, universal health coverage should not even be considered, much less implemented. Care must be efficient, risk-free, and tailored to the wants and requirements of the communities they are meant to benefit. In addition, care delivery should be timely, equitable across populations, coordinated across the care continuum and across the life course, and resource-efficient at all points (World Bank, 2018).

Lu, shih, Kittipittayakorn, and Lian (2013) state that the healthcare industry is one of the largest in the service sector, and that the provision of healthcare services is an integral aspect of service delivery for the economic and social well-being of any nation. The provision of health services is important to every health system and is widely recognized as a key factor in reaching the SDGs (World Health Organization, 2016). Costly service provision, speedy service delivery, easy access to health facilities, and healthcare providers that fulfill their service mission all contribute to health service delivery in the health business (Akachi & Kruk, 2017). The promotion of universal health coverage (UHC) is a core tenet of the healthcare sector's infrastructure for delivering healthcare services to everyone who need them (Zodpey et al., 2018).

According to Wang (2016), the main causes of inefficient service delivery in Chinese hospitals were a lack of coordination, insufficient staff, a lack of enthusiasm, and the absence of supportive legislation. In India, researchers Mohanan, Hay, and Mor (2016) showed that enhanced health service delivery may be achieved by strengthening

institutional capacity, increasing financial resource mobilization, enhancing governance, and implementing data-driven policies. Healthcare personnel in Switzerland are more productive when they have access to sufficient resources, positive working relationships, social amenities, and modern infrastructure, as pointed out by Gilles (2014).

Africa as a continent faces a significant difficulty in the delivery of healthcare services because the vast majority of its poor population does not have access to these services (Akokuwebe & Adekanbi, 2017). Although many African countries signed the Abuja declaration, which urged governments to devote at least 15% of their budgets to healthcare and guarantee universal health coverage, few have met even these modest goals (Ahenkan & Osei-Kojo, 2014).

Assefa (2017) conducted research in Ethiopia and found that the country's impressive progress in broadening health sector growth has been bolstered by comprehensive initiatives aimed at enhancing investments in healthcare. Health care access has been limited by a number of factors, including a failure to reach marginally-alienated communities, insufficient poverty reduction, and inadequate educational opportunities. According to research by Akokuwebe et al. (2017), service delivery in Nigerian hospitals is significantly impacted by corruption and inadequate distribution of medical supplies.

Kenya (2016) notes that customers are dissatisfied when their expectation of the health service surpasses their assessment of the health care got. Public hospitals in Nairobi County, he found, were hampered in their ability to provide health care due to issues with information system integration, drug supply, decision making, and responsibility delegation. This research aimed to determine if and how public health service delivery in health facilities in Western Kenya's Region was affected by the leadership style of its managers, the availability of its human resources, and the strength of its culture.

Kibicho (2015) argued that senior management buy-in, well-defined processes and systems, clear lines of communication, and strong leadership are all crucial to the success of a company's plan implementation. Riaz (2016) shown that senior management's backing is influenced by a number of different factors, including company culture, employee development, leadership style, and recognition and incentive programs. Consequently, the current research used variables for the major independent variable such as leadership style, human resource capacity, and organizational culture.

When leaders practice a style of leadership known as participative leadership, employees and subordinates are given a voice in decision-making rather than having that power vested solely in the hands of the boss (Amanchukwu, 2015). In particular, the term democratic leadership is commonly used to describe a leadership style that encourages participation from subordinates. Kahai (1997), states that where there is consultation among team members during decision making and procedures of problem solving, we have participative leadership. Moreover, Bass (1990) had earlier described participatory leadership as: the equalization of authority and sharing of problem-solving with followers by consulting them before making a decision. People are given more say in decision-making in a participatory leadership style (Vroom, 2019).

At its core, participative leadership is the emulation of a leader's ability to establish a collaborative, supportive, empowering, and democratic workplace. This method works well in any group where members are expected to contribute and share their thoughts and opinions. The term participative leadership, which is also known as shared leadership or democratic leadership, is a style of leadership in which team members are given more say in the group's or team's decision-making. Any group, from a little company to the federal government, can benefit from this style of leadership. According to Gipson (2017), a leadership style characterized by participation is welcoming, flexible, and effective. It's a method of leadership in which the boss models a consensus reached by the group as a whole. It's common practice to allow members of the group to voice their opinion.

The devolution of healthcare in Kenya began with the devolution of power between the national and county governments following the adoption of a new constitution in 2010. (Wahome, 2019). In Kenya, healthcare is one of the areas that has been given more authority to county governments under the Transition to Devolved Government Act (2012). (Waithaka & Barasa, 2018). It is proposed in the National Health Policy (2012) that County Health Departments be reformed, with one of its primary responsibilities being the establishment of an effective institutional framework to ensure the safe administration and distribution of healthcare services across the County (Gitonga & Keiyoro, 2017).

UHC ensures that everyone has access to the primary, secondary, tertiary, and quaternary care they need to live a healthy and productive life, including the services necessary to maintain and improve health without causing undue financial hardship (World Health Organization, 2016). Despite significant health investments, health outcomes remain unsatisfactorily low, especially in large parts of the developing globe. It is completely unacceptable that half of the world's population lacks access to basic healthcare (Achia et al 2015). Generally speaking, the best healthcare service delivery models can be found in more developed countries like the United Kingdom, Canada, Norway, and

Sweden. These models are supported by the implementation of universal health coverage, the nationalization of health services, and a robust health system (Papanicolas, Woskie, and Jha, 2018).

The Constitution of Kenya, adopted in 2010, ensures that all Kenyans have access to quality healthcare that is based on their individual rights. It means Kenyans have a right to the best possible health, which includes access to medical care and reproductive services (Article 43). Local governments are responsible for providing basic healthcare services, but the federal government continues to set health policy, provide technical help to counties, and manage national referral health centers. In order to better meet the specific health needs of their constituents, foster greater citizen engagement, and expedite the allocation of scarce resources, County Governments were given authority over this sector. Yet, the industry is currently plagued with enormous difficulties in virtually all Counties, such as capacity gaps, human resource shortages, a lack of crucial legal and institutional infrastructure, widespread corruption, and a contentious relationship with the central government (Kimathi, 2017). Healthcare as a whole has been unable to move forward, and some health indicator data suggests that it may have even gone backwards, as a result of these difficulties (Kimathi, 2017).

Andove and Nzulwa's (2018) research in Machakos County on the barriers to the strategic delivery of public health services found that ineffective management of the healthcare system inside the facility, issues with management, a failure to adopt a supply-driven approach to healthcare management, and a lack of resources that promote the efficiency of public health service management were all factors impeding service delivery. Whether or if the facility's bad management style hinders its employees' ability to adapt to a changing environment was not made clear. According to Ochola's (2016) research on the determinants of strategy implementation in public health facilities in Mombasa County, Kenya, he discovered that staff lacked enough training in the evaluation and monitoring of the strategy's progress.

On the other hand, despite the adoption of the Constitution's fourth schedule, Counties nevertheless face ongoing issues that have a negative effect on health service delivery (Achia & Mageto, 2015). Poor health services, a lack of contemporary equipment and facilities, and a lack of accessible health facilities are just a few of the many obstacles that make it difficult to gain access to healthcare in the Public Sector (Ministry of Health, 2014). These problems inspired us to investigate what influences strategy implementation and how counties in Western Kenya's region provide public health services.

1.1 Statement of the Research Problem

Reluctance to recognize existing problems is one of the greatest barriers to health care progress. Another challenge is identifying and implementing effective interventions competently. Leadership is a cliché in the field of health care quality improvement, but without it, there is no way to instill the notion that improvement is feasible in order to motivate collective action (Dixon-Woods, McNicol, & Martin, 2012). The legal framework established by the Constitution of 2010 ensures a comprehensive, rights-based approach to the provision of healthcare services to Kenyans. It indicates that Kenyans are entitled to the greatest achievable health standards, which includes the right to healthcare services and reproductive health care (Article 43). The principal human resource concerns are shortages, failure to develop enough numbers of healthcare professionals, maldistribution of current employees, and inadequate skills of many healthcare personnel (Holtz & Elsaywy, 2013), and these issues have undermined the government's capacity to deliver important healthcare projects, such as access to healthcare for all, at the levels it wishes to maintain (Ataguba et al., 2012). It is believed that the decentralized government will provide better public health services than the central government. With the devolution of the health services sector, incidences of health workers resigning due to bad working conditions and a lack of equipment, among other issues, have been observed, resulting in inadequate health service delivery.

The studies by Kariuki (2021); Andove and Nzulwa (2018); and Ochola (2016) had contextual gaps because they focused on Kasarani Sub County, Kenya, Machakos County, and Mombasa County, Kenya, whereas Western Kenya County Governments were the focus of the present research. In light of these gaps in understanding of the conceptual, methodological, and contextual factors influencing the delivery of public health services by County Governments in Western Kenya Region, the present study aimed to identify and quantify the elements that influence these outcomes. The studies by Kariuki (2021), Andove and Nzulwa (2018), Ochola (2016), Mwangi (2020), and Kiana (2016) were also conceptually incorrect and had a limited scope because they only addressed organizational cultures and styles, organizational communication, organizational structures, and the capability of the health facilities, as well as ineffective and inconsistent management of the healthcare system in the facility, management issues, and a driven style of providing healthcare services. None of these researches have focused on the leadership styles and public health service delivery in the County Governments of Western Kenya Region.

1.2 Purpose of the study

The study sought to establish the influence of participative leadership style on public health service delivery in County Governments in Western Kenya Region.

1.4 Research Hypothesis

H₀1: Participative Leadership style has no statistical significant influence on Public Health Service Delivery in County Governments in Western Kenya Region.

II. LITERATURE REVIEW

2.1 Theoretical Review

The study is anchored on Participative Leadership Theory. Kurt Lewin put forth this hypothesis during the 1930s and 1940s. And in 1973, Professor Victor Vroom and Phillip Yetton released *The Normative Model of Leadership Behavior*, where they explored the results of include subordinates in the decision-making process. The theories of participatory leadership that resulted from their studies are widely used today. The American academic Likert (1961) introduced the idea of participation leadership in his book *A New Model of Management* after conducting extensive experimental research on democratic leadership. Additionally, he singled out the three cornerstones of participative leadership theory: mutual support, group decision, and high standards.

It is characterized as participative leadership by Kahai et al. (1997). Those who work under this style of management have a voice in decision-making, are given more responsibility, and are actively encouraged to contribute to the conclusion. There are two more features of participatory leadership that are supported by the literature: first, employees are consulted before decision making so that they may work together to solve problems, and second, employees are provided with resources to aid them in the course of their work (Kahai et al., 1997; Lam et al., 2015; Li et al., 2018).

Huang et al. (2010), who conducted extensive research on participatory leadership, agree that this style of management necessitates a greater emphasis on employee engagement in decision-making and the free flow of information and ideas (Xiang and Long, 2013; Lam et al., 2015; Li et al., 2018). The essence of leadership is clearly carrying out various managerial tasks, such as consulting people before making choices, and the essence of participative leadership is obviously fostering employee participation in corporate decision-making (Benoliel & Somech, 2014). We have defined participative leadership as a set of leadership behaviors that encourages subordinates to participate in decision-making by providing them with sufficient autonomy, helpful knowledge and other resources, and positive reinforcement in order to consult them before making decisions to address work-related challenges, as evidenced by numerous studies and real-world experiences (Huang et al., 2010; Chan, 2019).

In this work, we apply the theory of participatory leadership to shed light on the factors—including inputs and recommendations, consultations, new ideas and innovation, decision making—crucial to the effective execution of policies for providing public health services. The study's overarching goal was to examine the theoretical connections between participatory leadership and a concrete indicator of county government performance in Western Kenya. The primary hypothesis of the investigation was inspired by this theory.

2.2 Empirical Review

Sfantou, Laliotis, Sifaki-Pistoll, Matalliotakis, and Patelarou (2017) investigated if a correlation exists between various leadership styles and healthcare quality indicators. Medline (through the PubMed interface of the National Library of Medicine) and EMBASE were combed through for relevant results between 2004 and 2015. This review was driven by the question, is there any association between leadership style in healthcare settings and quality of care? Our search yielded eighteen papers that partly or wholly addressed our scholarly inquiry. Quality of care and related metrics were found to be significantly correlated with a leadership style that encourages participation from staff. Both patients and healthcare providers viewed strong leadership as essential to the delivery of coordinated and integrated care. Given the desktop review nature of the study, it is difficult to generalize the findings because of a lack of methodological support.

Warri (2021) analyzed how different leadership styles affected the quality of care provided by medical professionals. Descriptive research methods were employed, and the sample size was determined at random among 150 CBCHS health personnel. Information was gathered via surveys with predetermined answers and processed with IBM SPSS Statistics 20. Good public relations and customer service are more likely to persist under a leader with a participatory style of management. Yet, the results were not statistically significant, therefore the link between

leadership styles and output quality cannot be substantiated. It is also impossible to assess external validity because the sample frame was not indicated in the study.

Kyalo, Otieno, and Tenambergen (2018) set out to identify the impact that managerial ethos has on the successful implementation of health management information systems (IHMS). The research strategy employed a combination of qualitative and quantitative techniques. Two hundred and eighty participants were randomly selected from a pool of eligible participants, and then further classified into three categories based on their healthcare status (tier 1, 2, and 3). Members of the sub-county and county health management teams, as well as those in charge of medical records and information, filled out the surveys. Success in any business depends in large part on the careful selection and use of different types of leadership. When leaders have complete access to relevant data, they are better able to put their vision into action. Yet, research shows that a leadership style characterized by participation has a negative and non-significant impact on the successful integration of HMIS. One aspect of service delivery that was examined in the study was the linking of health management information systems. There was also little indication that qualitative and quantitative data were triangulated.

Chepkonga and Nyaga (2019) looked into how a hospital's leadership style affected patient care. Two hundred seventy hospital workers and ten thousand patients in the Mbagathi region of Nairobi City County were the subjects of this research. The 398 workers and patients were selected using a simple random selection method, while the 8 management personnel were counted during a census. Both quantitative and qualitative primary data were employed in this investigation. A questionnaire was used to collect primary data from the relevant parties, and responses were recorded using a 5-point Likert scale. The administration of the district hospital was interviewed using an interview guide as well. The results showed that a more open and democratic style of leadership was associated with better service provision in Kenya's public hospitals. Staff members' familiarity with their tasks and responsibilities, as well as the management's and staff's ability to work together toward common goals, were found to have a positive impact on hospital service quality. The data does not appear to have been triangulated using quantitative and qualitative methods. The hospitals in the Mbagathi district of Nairobi City County were the only ones included in the study. No information on the method utilized to collect information from staff and patients was provided in the study.

Kanyua and Thiane (2017) conducted research in Embu County, Kenya, to determine the effect that different types of leadership have on the delivery of health services. The research strategy used here was a descriptive one. Stratified sampling was used in this analysis. There were 110 total participants in the survey. In order to describe the data, the researcher made use of descriptive statistics including frequency distribution tables and percentages. According to the research, County Government has a policy on leadership style, and employees are not allowed to make many decisions without first consulting with their superiors. The study selectively sampled a small number of participants without specifying its intended audience. There was also no inferential study showing how the leadership style of County officials affected the actual provision of services to the public.

Pahi, Ahmed, Sheikh, Dakhan, and Ramayah (2020) studies Pakistan's health care industry. They looked into the relationship between leadership style and service quality. Data from 315 medical officers in 43 public hospitals in Sindh, Pakistan, were gathered using a quantitative survey strategy. This study used cognitive dissonance and path-goal theories to examine how different types of leadership can affect service quality commitment while role clarity acts as a moderator. The data provides confirmation of the clear causal links between transformational and transactional leadership styles and a company's dedication to providing high-quality service. All of the hypothesized links except the one between laissez-faire leadership and dedication to service quality were found to have substantial support in the data. Two leadership styles, transformational and laissez-faire, were shown to have moderated connections with service quality commitment, but the relationship between transactional leadership and service quality commitment was unaffected by role clarity.

III. METHODOLOGY

3.1 Research Philosophy

This study utilized the positivist research philosophy, which is consistent with the notion that realism is stable.

3.2 Research Design

This study employed both causal-comparative and descriptive survey research designs. Causal-comparative research is a feasible research method that can be employed when other methods fail. The descriptive survey approach was chosen because it enables the researcher to collect information systematically using questionnaires, compile it, present it, analyze it using SPSS, and interpret it. Often, descriptive research requires the collection of information by

data analysis, surveys, interviews, or observation. The design also aids the researcher in providing accurate descriptions of goods.

3.3 Study Location

The research was carried out in the county governments of Former Western Province. Bungoma, Kakamega, Vihiga, and Busia are the counties.

3.4 Target Population

The total target population for this study consisted of nine hundred and sixty six staff from the four (4) County Referral Hospitals and 29 Sub-County Hospitals. These were four (4) CECMs - Health, four (4) Chief Officers-Health, four (4) Directors-Health, four (4) County Nursing Officers, 33 Medical Superintendents, 33 Hospital Administrators, 33 Human Resource Officers, 33 Head of Pharmacy, 33 Head of Nursing, 33 Head of Laboratory, 33 Head of Clinical Services, 33 Health Records and Information Officers and 686 patients who were admitted, treated and discharged between July-September, 2022). These patients were selected from the Health Records and Information Officers' records. The study focused only on the Referral and Sub County Hospitals since they were well equipped in terms of facilities and specialists and offer variety of serviced to the patients (See Table 1).

Table 1

Target Population

S/N	Categories of Respondents	Bungoma	Kakamega	Busia	Vihiga	Total
	Ministry of Health					
1	CECM – Health	1	1	1	1	4
2	Chief Officer – Health	1	1	1	1	4
3	County Director	1	1	1	1	4
4	County Nursing Officer	1	1	1	1	4
	Sub Total					16
	Referral Hospital					
1	Medical Superintendents	1	1	1	1	4
2	Hospital Administrators	1	1	1	1	4
3	Human Resource Officers	1	1	1	1	4
4	Head of pharmacy	1	1	1	1	4
5	Head of Nursing	1	1	1	1	4
6	Head of laboratory	1	1	1	1	4
7	Head of Clinical Services	1	1	1	1	4
8	Health Records and Information Officers	1	1	1	1	4
	Sub Total					32
	Sub–County Hospitals					
1	Medical Superintendents	9	10	6	4	29
2	Hospital Administrators	9	10	6	4	29
3	Human Resource Officers	9	10	6	4	29
4	Head of Pharmacy	9	10	6	4	29
5	Head of Nursing	9	10	6	4	29
6	Head of laboratory	9	10	6	4	29
7	Head of Clinical Services	9	10	6	4	29
8	Health Records and Information Officers	9	10	6	4	29
9	Number of Patients Admitted, Treated & Discharged (July-September, 2022)	175 (18)	215 (22)	153 (15)	143(14)	686(69)
	Sub Total					918
	TOTAL					966

Source: County Human Resource Departments (2022)

3.5 Sampling Techniques and Sample Size

The population of the four counties and the people who lived there were split up into several groups. Researchers employed stratified random sampling because it allows them to collect data from a subset of the population that is representative of the whole. The study adopted census method for the 264{32 + (29x8)} staff since the number was small and accessible and 10% of 686 (69) patients who were selected through simple random



sampling technique, thus giving a total sample size of 333 respondents who responded to the questionnaires. A total of 16 staff comprising CECMs, Chief Officers, County Directors and County Nursing Officers were interviewed and therefore did not respond to the questionnaires.

3.6 Data Collection Instruments

The study included primary and secondary sources. Primary data is information that the researcher collects himself through questionnaires and interviews. Secondary data means data collected by someone else earlier, for example data from the patients kept by the Health Records and Information Officers. The researcher used both structured and unstructured questionnaires and the use of interviews which elicited appropriate responses for the study. Primary and secondary sources were used to compile quantitative and qualitative data, respectively.

3.7 Validity and Reliability of Research Instruments

The data collecting instrument's content validity was established after being reviewed by a panel of experts who offered their thoughts on each question and indicated whether they found it to be pertinent or not. Construct and face validity were also employed in the research. Construct validity was achieved by investigating multiple facets of the construct of interest through a sequence of interconnected questions. The questionnaire was found to have high face validity because it only asked about topics that were actually of interest to the respondents.

Internal consistency reliability was calculated using the Cronbach alpha formula (Kim & Cha, 2002). This study followed Gupta's (2004) recommendation that a minimum alpha value of 0.7 be used for item loadings. The purpose of this was to make sure that the measurements obtained from the data gathering instruments were correct (valid) and reliable (consistent) throughout several uses. Using the SPSS statistical program, data generated during the pilot study was analyzed to determine the reliability of the instrument.

Table 2
Reliability Analysis Results

Reliability Statistics		
Variables	Cronbach's Alpha	No. of Items
Participative Leadership Style	0.762	08
Public Health Service Delivery	0.853	10

3.8 Descriptive Statistics

The researcher employed descriptive statistics such as the mean, standard deviation, and range of values to characterize the data.

3.9 Hypothesis Testing

As each hypothesis is predicated on a single response variable that linearly depends on a set of predictor variables, we tested them all by employing a multiple regression model. The starting point for any hypothesis test is the null hypothesis, or H₀ (Kaur, 2015). The T-test and the F-test were used to examine the hypotheses. Table 3 outlines the methodology used to examine the four hypotheses.

Table 3
Hypothesis Testing

Hypothesis Statement	Hypothesis Testing	Model
H ₀₁ : Participative Leadership style has no significant influence on the service delivery of County Governments in Western Kenya Region.	$H_{01}: \beta_1 = 0$ $H_{0A}: \beta_1 \neq 0$ Reject H_{01} if $\beta_1 \neq 0$ and $P \text{ value} \leq 0.05$ otherwise fail to reject H_{01} if $\beta_1 = 0$ and $P \text{ value} > \alpha$ $\alpha = 0.05$	$Y = \beta_0 + \beta_1 X_1 + \epsilon$

IV. FINDINGS

4.1 Response Rate

The study ascertained the response rate so that the researcher could assess whether or not it was adequate for interpreting and reporting the results. With a sample size of 333 people, a total of 333 questionnaires were sent out; 264 went to medical professionals, and 69 were given out to patients (via telephone). There was a response rate of 93.6% from healthcare providers and 68.1% from patients, for a total of 294 completed surveys. There were 39 non-responses, including 22 from patients and 17 from medical staff. Gibson (2017) argues that any response rate of 50 per cent or more is adequate for drawing conclusions from the study. Hence, the response rates of 247 (93.6%) health professionals and 47 (68.1%) patients were adequate to provide credible data.

4.2 Demographic Characteristics of the Sample

This section gives the conclusions regarding the respondents' demographic profiles. The study's data were assessed for gender disparities, age, educational backgrounds, length of public health care delivery experience, job roles of respondents in County Governments in the Western Kenya Region, and other factors. The demographic characteristics resulted in the following:

4.2.1 Gender Distribution in the Sample

The study sought to establish the respondents' gender. Table 4 depicts the study results.

Table 4 Gender of Respondents

Gender	Frequency	Percentage
Male	174	59.2
Female	120	40.8
Total	294	100.0

According to the data presented in Table 4, 174 (59.2%) of the respondents were male, while 120 (40.8%) were female. The data analysis revealed a significant gender gap between the responders, with the majority being male. That's why it's crucial for organizations like the Ministry of Health to strictly adhere to gender parity guidelines when hiring new staff. As a result, we can rest assured that no service delays will occur because we have sufficient numbers of women on staff to deal with the problems that arise because of gender. This is significant since scholars such as Eden and Ackermann (2013) have identified gender as one of the cultural factors influencing service delivery within organizations. Others agree that service delivery in community execution of strategic plans needs to include both sexes to be successful (Demirkaya, 2015)

4.2.2 Age Distribution in the Sample

According to findings, respondents were between the ages of 25 and 34, while 31% were in the 35-44 age bracket. A sizable percentage of the sample (39% to be exact) also fell between the age ranges of 45 to 54. Recruitment, training, deployment, succession planning, and overall strategic direction are all affected by the age of the respondents. These results corroborate the claims of (Mwendo, 2009) that the vast majority of people working for county governments are either nearing the end of their careers or are planning to retire in the coming decade because of their advanced age. Furthermore, 31% of respondents were between the ages of 35 and 44, suggesting that people in this age range are typically active, experienced, responsible, and knowledgeable (Kimani, 2015).

4.2.3 Educational level Distribution in the Sample

Respondents represented a diverse spectrum of academic pursuits and levels of completion. The respondents' degree of schooling was of particular interest to the researcher. Results of respondents' educational attainment. Findings from the question on respondents' highest level of education reveal that nearly half (43%) of respondents had completed at least one year of college. Twenty-four percent of respondents held a master's degree, 33 percent held a diploma/Higher National Diploma, and 3.6 percent held a PhD. The fact that most respondents have at least a bachelor's degree suggests that human capital development efforts by county governments in Western Kenya Region have been fruitful. The efficacy and efficiency with which services are provided are enhanced when competent workers are readily available.

4.2.4 Length of Service

The study sought to determine the respondents' period of service. Figure 4.3 shows the study results.

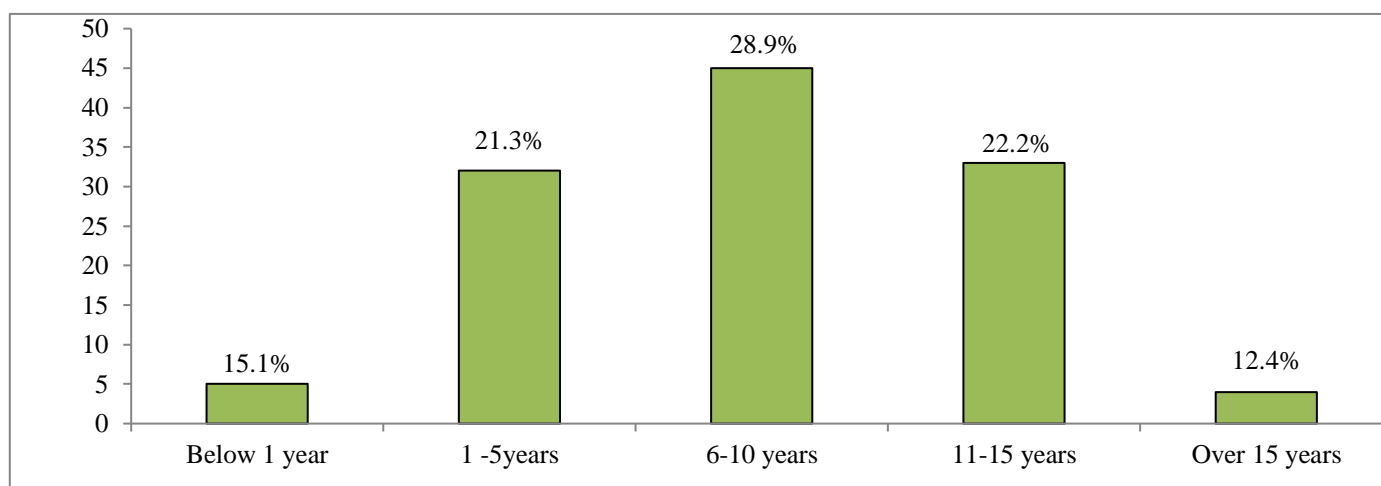


Figure 1
Length of Service Distribution in the Sample (n = 247)

Figure 1 shows that most respondents had served long enough to provide credible responses on the strategy implementation determinants and public health service delivery in the Public Health Facilities. This is because 28.9% of respondents had 6-10 years of experience and another batch of 22.2% had been in the service between 11-15 years. This, together with the fact that the vast majority of respondents have been with their current employer for more than 11 years, suggests that they have the requisite experience to comprehend workplace events, are more competent in their roles, and are highly valued by their clients. Just over a quarter (21.3%) of employees had been with the company for between 1 and 5 years, while nearly one-fifth (15.1%) had been with the company for less than a year. Employees with extended service translate into useful experience in the execution of service delivery, as noted by Ghafoor (2013), whose research is supported by the results shown in Figure 4.3. As seen in Figure 4.3, the respondents' average term of service is displayed as a bar graph.

4.2.5 Job Designation of the Respondents

The respondents were designated as shown in the Table 5. These are job positions for the various staff that took part during data collection exercise.

Table 5
Job Designation of the Respondents

Job Designation	Frequency	Percentage
Medical Superintendents	25	10.1
Hospital Administrators	35	14.2
Human Resource Officers	14	5.6
Head of Pharmacy	36	14.6
Head of Nursing	31	12.6
Head of Laboratory	38	15.4
Head of Clinical Services	33	13.3
Health Records Information Officers	35	14.2
Total	247	100.0

There were 25 medical superintendents (10.1%), 35 hospital administrators (14.2%), 14 human resource officers (5.6%), 36 heads of pharmacy, 31 heads of nursing, 38 heads of laboratory, 33 heads of clinical services, and 35 heads of health records information officers (14.2%). These officers were fairly portrayed, as they are the ones in charge of running the hospitals and are consequently familiar with their daily operations. Observations on the ground revealed that Human Resource Officer roles were unfilled in a number of institutions, with Hospital Administrators doing their duties in their absence. Given the hospital administrators' apparent lack of resources, HR departments often

fall short in areas such as talent management, pay and benefits, staff development, regulatory compliance, and workplace safety.

4.3 Descriptive Results

4.3.1 Participative Leadership Style

The extent to which respondents agreed with assertions about the impact of the Participative Leadership Style on county governments was surveyed. The researcher determined the mean and standard deviation of the Participative Leadership Style effect components to gauge the extent to which participants agreed with the research questions. Table 6 details the study's results.

Table 6

Participative Leadership Style on Public Health Service Delivery

Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean/SD
Leadership is flexible and open to change	3 1.0%	13 4.4%	28 9.5%	138 46.9%	112 38.1%	4.17 0.85
Leadership does consultation for new idea	11 3.7%	42 14.3%	27 9.2%	82 27.9%	132 44.9%	3.96 1.21
Leadership encourages & motivate new ideas	30 10.2%	15 5.1%	19 6.5%	92 31.3%	138 46.9%	4.00 1.29
Leadership style is enabling effective strategies implementation	4 1.4%	12 4.1%	24 8.2%	71 24.1%	183 62.2%	4.42 0.90
When workers are involved in decision making it increases their service delivery significantly	14 4.8%	35 11.9%	6 2.0%	60 20.4%	179 60.9%	4.21 1.22
Leadership approaches affect workers level of service delivery.	27 9.2%	29 9.9%	18 6.1%	52 17.7%	168 57.1%	4.03 1.36
Participation can be a contributing factor in increasing service delivery	14 4.8%	38 12.9%	11 3.7%	85 28.9%	146 49.7%	4.06 1.22
The ability to participate in decision making serves as a morale boost for the employees.	20 6.8%	33 11.2%	6 2.0%	66 22.4%	169 57.5%	4.13 1.28
Average of Organizational Performance	Mean= 4.12	%Mean 82.4	Std. Deviation (SD) = 1.17		Variance = 1.39	

The majority of respondents (85%) agreed that the leadership was adaptable and open to change, as measured by a mean of 4.17 and a standard deviation of 0.85; the results also indicated that respondents conduct consultations for new ideas, as measured by a mean of 3.96 and a standard deviation of 1.21, with 72.8% of respondents agreeing and 18% disapproving.

The mean response to the question of whether or not the leadership fosters and motivates new ideas was 4.00, with a standard deviation of 1.29; 31.3% agreed, 46.9% strongly agreed, and 15.3% disagreed. The mean score on the question of whether or not a participative leadership style allows for successful plan execution was 4.42, with a standard deviation of 0.90. Of those polled, 24.1% gave their assent, 62.2% gave their strong assent, and 5.5% voiced their disagreement. When asked if employee participation in decision-making increases service delivery, respondents gave a mean score of 4.21 (standard deviation of 1.22) and a range of responses from 20.4% agreement to 60.9% strong agreement and 16.7% disagreement; respondents also gave a mean score of 4.04 (standard deviation of 1.36) and a range of responses from 0% agreement to 100% agreement on the impact of leadership styles on service levels. There were 168 people who strongly agreed (57.1%), 52 people who agreed (17.7%), and 56 people who disagreed (19.1%). With a mean score of 4.06 and a standard deviation of 1.22, respondents agreed that involvement might be a contributing factor in improving service delivery 85 (28.9%) of the time, strongly agreed 146 (49.7%) of the time, and disagreed 52 (17.7%) of the time. Lastly, on this study's construct, 235 respondents (78.6%) agreed that giving workers a voice in important decisions improves workplace morale (mean score: 4.13, standard deviation: 1.283). Overall, respondents agreed on the questions asked about participative leadership in relation to public health service delivery in County Governments in the Western Kenya Region, giving those questions an average mean score of 4.12 (average mean % of 82.4), standard deviation of 1.17, and variance of 1.39.

The County Executive Committee Member (CECM) Health, County Chief Officers, County Directors, and

County Nursing Officers all contributed qualitative information. In response to a question about the relationship between participative management and the provision of public health services:

The respondents were candid that indeed the leadership was flexible and open to change to some good extent, though there were cases where some leaders were rigid. The respondents gave their opinions that they do consult for new ideas, encourage and motivate new ideas but there were challenges associated with implementation of the new ideas which don't see the light of the day. The leadership was categorical that they encourage staff to participate in decision making and this has boosted the morale of the employees and ultimately contributing to enhanced public health service delivery to some good extent. The respondents also noted that staff absence, delay in reporting to work, politics and non- commitment have negatively affected public health service delivery.

According to the results, respondents are in agreement with the idea that participative leadership is positively correlated with service delivery in Kenya's public hospitals, as suggested by Sfantou, Laliotis, Sifaki-Pistolla, Matalliotakis, and Patelarou (2017), who found a correlation between leadership styles and healthcare quality indicators. Chepkonga and Nyaga's (2019) research into the impact of leadership style on service quality in public hospitals echoed same sentiments. In this study, we found that a more participative leadership style was associated with better service provision in Kenya's public hospitals.

4.3.2 Public Health Service Delivery

The purpose of this study was to use a Likert-type scale to compile descriptive statistics on the quality of public health services provided by County Governments in the Western Kenya Region. The responses were rated as shown in Table 7.

Table 7

Public Health Service Delivery

Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean/ SD
Health services are well managed resulting in higher customer satisfaction	39	12	22	90	131	3.89
	13.3%	4.1%	7.5%	30.6%	44.6%	1.37
Discharge of services by staff is satisfactory	6	15	24	98	151	4.26
	2%	5.1%	8.2%	33.3%	51.3%	0.96
Health services are delivered in a timely manner to the patients	34	48	27	84	101	3.58
	11.6%	16.3%	9.2%	28.6%	34.4%	1.40
Services are direct and accessible with no undue barriers of cost, language, culture, or geography	11	22	22	92	147	4.16
	3.7%	7.5%	7.5%	31.3%	50%	1.10
Quality of medical care received is good	6	52	35	96	105	3.82
	2%	17.7%	11.9%	32.7%	35.7%	1.16
Services may be provided in the home, the community, the workplace, or health facilities as appropriate	7	53	39	107	88	3.73
	2.4%	19%	13.3%	36.4%	29.9%	1.14
There is transparency and good communication between care provider (doctors/nurses/attendants) and patient(s)	20	46	23	102	103	3.76
	6.8%	15.6%	7.8%	34.7%	35%	1.27
The program targets and deadlines are executed within the stipulated timeframes	5	51	51	104	83	3.71
	1.7%	17.3%	17.3%	35.4%	28.2%	1.11
There is good accessibility to doctors and other medical professionals	00	00	149	122	23	3.57
	0.0%	0.0%	50.7%	41.5%	7.8%	0.64
Services offered are affordable	00	18	129	129	18	3.50
	0.0%	6.1%	43.9%	43.9%	6.1%	0.71
Average of Public Health Service Delivery	Mean= 3.80	%Mean 76%	Std. Deviation (SD) = 1.09		Variance = 1.07	

With a mean score of 3.89 and standard deviation of 1.37, 221 (75.2%) of respondents agreed that well-managed health services lead to increased customer satisfaction, whereas 39 (13.3%) strongly disagreed and 12 (4.1%) disagreed. With a mean of 4.26 and a standard deviation of 0.96, most respondents (151, or 51.3%) agreed that staff performance was satisfactory, while 98, or 33.3%, agreed and 6(or 2%), or 5.1%, severely disagreed. The average rating for how promptly patients receive health care services was 3.58, with a standard deviation of 1.40. Sixty-three percent (63%) of those surveyed had a favourable opinion, while 82 (27.1%) did not.

The mean score was 4.16 with a standard deviation of 1.10. This indicates that services are straightforward

and easily accessible, with no unnecessary obstacles of price, language, culture, or location. Almost eighty-three percent (239) of respondents gave their assent, while only eleven percent (33) voiced their disagreement. With a mean of 3.81 and a standard deviation of 1.16, 201 (68.4%) of respondents agreed that the quality of medical treatment received is good, while 58 (19.7%) held negative opinions.

A total of 205 (69.7%) of respondents agreed with the statement that there is openness and good communication between the care provider (doctors/nurses/attendants) and the patient(s), with 46 (15.6%) strongly disagreeing and 20 (6.8%) disagreeing. The mean score for this item was 3.76, and the standard deviation was 1.27. The average score on the question of whether or not the program's goals and deadlines are met within the allotted period was 3.71, with a standard deviation of 1.11. One hundred eighty-seven (187) people (or 63.6% of respondents) had positive opinions, whereas 56 people (19%) had negative opinions. With a mean of 3.57 and a standard deviation of 0.64, 145 respondents (49.3%) agreed that access to doctors and other medical professionals is excellent. As a final metric, the mean value for the provision of reasonably priced services was 3.50, with a standard deviation of 0.71. 147 (50%) of respondents felt that the prices were fair, while 18 (6%) disagreed. The average value for this variable was 3.80, which is around 76% of the time, and the average standard deviation was 1.09.

The County Executive Committee Member (CECM) health, Chief Officers, County Director and County Nursing Officer for health when interviewed on the related to public health service delivery, the following were their responses:

The respondents said that the health services in Hospitals were well managed with a minimum wastage of resources to some good extent. The respondents gave their views that Hospital Managers were allocated the necessary authority and are held accountable for overall performance and results. They further said that some of the officers who have been found culpable usually take responsibility of their actions, some have even been suspended. The Hospital Managers are doing their best to ensure public health services are delivered timely to the patients. The public health services to some good extent are accessible to the patients though some remote areas are negatively affected since they don't have adequate resources and therefore deliveries of health services are hampered.

Given these findings, it was clear that public health care delivery was being provided to a certain degree, albeit not completely. Millennium Development Goals (MDGs, 2015) found that in low and middle-income countries, overall, child mortality fell by 53%, maternal mortality fell by 42%, and new HIV infections declined by more than 38%, so these findings are also consistent with the views on the extent of providing public health service delivery. Uneven improvement was also a problem. Preventable mortality rates remained high in low-income, rural, and inaccessible groups. Quality-adjusted (effective) coverage was significantly lower than crude service coverage in a study of eight countries in sub-Saharan Africa, with averages of 28% for prenatal care, 26% for family planning, and 21% for sick child care (Leslie, Ndiaye, & Kruk, 2017). In five countries in sub-Saharan Africa, primary care facilities saw over 40 percent of all facility-based births despite severe shortages in both resources and technical skill (Kruk et al., 2016). These reports show that the County Governments in the Western Kenya Region still have insufficient resources to provide adequate public health services.

4.4 Hypotheses Testing

The purpose of this study was to determine the relationship between participatory leadership and the provision of public health services by County Governments in Western Kenya. *H₀₁ was the hypothesized outcome. There is no correlation between participatory leadership and the delivery of public health services in County Governments in the Western Kenya Region.* In order to examine the Hypothesis, the model $Y = \beta_0 + \beta_1 X_1 + \varepsilon$ was fitted. Where Y is the dependent variable (delivery of public health services), β_0 is the coefficient of regression, and ε is an error term. The model summary for the regression study between participatory leadership and public health care delivery is shown in Table 8. Changes in participative leadership explain 60.4% of public health care delivery, as measured by an R-squared value of 0.604%. This implied that characteristics excluded from the model accounted for 39.6% of public health service delivery.



Table 8

Model Summary for Participative Leadership

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.777 ^a	.604	.602	.35398	.604	445.042	1	292	.000

a. Predictors: (Constant), participative leadership

a. Predictors: (Constant), participative leadership

b. Dependent Variable: public health service delivery

Table 9 below shows analysis on variance (ANOVA) showing the regression model between participative leadership and public health service delivery.

Table 9

ANOVA between Participative Leadership and Public health Service Delivery

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.764	1	55.764	445.042	.000 ^b
	Residual	36.587	292	.125		
	Total	92.351	293			

a. Dependent Variable: Public health service delivery

b. Predictors: (Constant), Participative leadership

The F test yielded a result of $F=445.042$, $p<0.05$, indicating that the model adequately explains the variation in the dependent variable. This also indicates that participative leadership is a useful predictor of the delivery of public health services.

The regression coefficients for the model between participatory leadership and public health service delivery are displayed in Table 10. The statistically favorable and significant results ($\beta=0.479$, $\beta=0.777$, and $t=21.096$, $p=0.000$) indicate that participative leadership positively impacts public health service delivery.

Table 10

Regression Coefficients between Participative Leadership and Public Health Service Delivery

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	Beta		
1	(Constant)	1.746	.096		18.235	.000
	Participative leadership	.479	.023	.777	21.096	.000

a. Dependent Variable: service delivery of public health

a. Dependent Variable: service delivery of public health

The regression model's results indicated that it might be used to foretell the extent to which participative leadership affects the provision of public health services. There was a significant correlation between participative leadership and the provision of public health services, and the regression model appeared as follows: $Y = \beta_0 + \beta_1 X_1 + \epsilon$

Based on the findings obtained, the model equation was: $Y = 1.746 + 0.479X_1$

Since β_1 is statistically different from zero, the null hypothesis was rejected, and it was determined that participative leadership had a significant impact on the delivery of public health services. When there is more participation from leaders, public health services improve by 0.479 units. Similar conclusions were reached by Sfantou et al. (2017), Warri (2021), and Chepkonga and Nyaga (2019): that staff members' familiarity with their tasks and responsibilities, as well as the quality of the working relationship between management and staff, affected the quality of care provided by hospitals. Quality of care and related metrics were found to be significantly correlated with

a leadership style that encourages participation from staff. Chepkonga and Nyaga (2019) looked into how management techniques affected the standard of care provided in public hospitals. The results showed a favorable and statistically significant correlation between a more participative style of leadership and better patient care in Kenya's public hospitals. All of the hypothesized associations between leadership style and service quality in Pakistan's health care industry were supported except for the direct link between laissez-faire leadership and commitment to service quality, and role clarity was found to moderate the relationships between transformational leadership and laissez-faire leadership and commitment to service quality.

Sfantou et al. (2017) investigated the connection between management styles and various measures of healthcare quality. Quality of care and related metrics were found to be significantly correlated with a leadership style that encourages participation from staff. Both patients and healthcare providers viewed strong leadership as essential to the delivery of coordinated and integrated care. Warri (2021) analyzed how different leadership styles affected the quality of care provided by medical professionals. Maintaining positive public and customer relations was found to be more difficult with more authoritarian leadership styles than with a more participative one.

It was the goal of the study by Kyalo, Otieno, and Tenambergen (2018) to determine how management styles affect the success of health information system implementations (IHMS). Yet, research indicates that a leadership style characterized by participative decision making has a negative and non-significant impact on the integration of HMIS. However, no efforts were made to verify the reliability of the results using a combination of qualitative and quantitative data.

4.5 Summary

The study sought to establish the respondents' opinion on the participative leadership in relation to public health service delivery in County Governments in Western Kenya Region. Results from the eight (8) questions had an average mean of 4.12. The respondents were almost unanimous on the question asked on the participative leadership in relation to public health service delivery in County Governments in Western Kenya Region. An R-squared of 0.604 indicates that 60.4% of public health service delivery is explained by changes in participative leadership. This implied that other factors which are left out in the model explained 39.6% of public health service delivery. The F test gave a value of $F=445.042$, $p<0.05$, which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that participative leadership is a useful predictor of public health service delivery. Results were statistically positive and significant ($\beta=0.479$, $\beta=0.777$ and $t=21.096$, $p=0.000$) hence participative leadership positively and significantly affects public health service delivery. For every 1 unit increase in participative leadership, public health service delivery increases by 0.479 units.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusion

The findings indicated that participative leadership had greatest influence on public health service delivery in County Governments in Western Kenya Region. Further findings indicated that participative leadership style enabled effective strategy implementation and when workers were involved in decision making it increased their service delivery significantly.

5.2 Recommendations

The study guides policy makers such as the National Government and County Government Executive on areas to streamline in the strategy implementation in public sector with robust participative leadership practices. Particular focus should not only be on participative leadership that was found to have a significant predictive ability to determine strategy implementation but also organizational factors which also played key role in strategy implementation. Although the study focused on County government, the government of Kenya can borrow a leaf from the study findings for policy purposes to enhance strategy implementation for the attainment of its vision 2030 goals.

The study advises that county governments adopt a participative leadership style and that ministerial leadership expand shared responsibility in their procedures in order to improve service delivery. This is only tenable if the leadership ensures the existence of clear work norms and organizational structures that facilitate delegating and allow all employees to perform their best without interference or favoritism from senior authorities.

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An Analysis of Non-Governmental Organisations' Approach to Post-Conflict Peacebuilding in Northern Ghana

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ABSTRACT

Non-governmental organisations in northern Ghana have been key actors in rural development and peacebuilding in conflict-affected communities. This study employed qualitative methods to critically examine how NGOs contributed to maintaining relative peace for the successful resolution of the crisis in Yendi after regicide in 2002. Forty-nine respondents were selected using purposive sampling criterion. Thematic descriptive approach was used for the analysis of the data. The research reveals that peacebuilding NGOs, in partnership with the state agencies and international community, play significant stabilisation role in post-conflict societies due to their neutrality and general acceptability to conflict parties. Based on the perspectives of interview respondents, we argue for the state to focus on creating a conducive atmosphere while NGOs and other non-state actors synergize to effectively manage conflicts in affected societies until lasting solution can be achieved. Some of the recommendation are: Donors must be expanded in order to solicit sufficient funds for successful completion of peace initiatives. NGOs must expand their scope of operations, devise a comprehensive approach for addressing adverse activities and turning them into 'builders' in post-conflict settings.

Keywords: Yendi, Peacebuilding, Non-Governmental Organisations, Conflict Prevention, Post-Conflict Societies

I. INTRODUCTION

The Republic of Ghana remains one of the countries in Sub-Saharan Africa that have avoided large-scale conflict of interstate or civil war nature (Issifu, 2016; Annan, 2013). Ghana's ability to maintain national peace and stability has won admiration around the world. Ibrahim (2018) and Annan (2013) have noted that international community and civil society often regard the country as a politically stable nation in the ECOWAS sub region noted for decades of protracted armed conflicts. Such conceptions are based largely on the successful political transitions through multiparty democratic elections since 1992 rather than cordial relations across the country. Indeed, peaceful transfers of political power between the National Democratic Congress (NDC) and the New Patriotic Party (NPP) in 2001, 2009 (Arthur, 2010), 2017 and 2021 make Ghana relatively a "beacon of democracy" in Africa.

The genesis of this success remains difficult to fully comprehend and explain because Ghana was also one of the first post-colonial states in African to suffer military coup d'état in 1966, less than a decade after gaining independence in 1957. Although it has maintained peace at the national level, the internal experience is different as it struggles to resolve several group conflicts linked to disputes over chieftaincy succession, land ownership and resources (Suaka & Longi, 2022 ; Issifu and Bukari, 2022; Ibrahim, 2018; Kendi & Boakye, 2014). Hoefler' (2019) assessment of post-conflict stabilization indicates that affected communities are often faced with difficulty in regaining stable peace after loss of human lives, properties and other legacies of violence. While the state is primarily responsible for maintaining social order, conflict parties do not trust the government to rebuild peace in a just manner.

Against this background, NGOs have stepped forward to fill the gap as the most widely accepted and effective stakeholders in rebuilding conflict-ravaged communities due to their neutrality and impartiality (Ateng & Abazaami, 2016). Most intergroup conflicts over the last few decades, including the Konkomba-Nanumba, Kusasi-Mamprusi, Alavanyo-Nkonya, Bimoba-Konkomba and Konkomba-Chokosi, were based on identity and land ownership. The



intragroup disturbances, on the other hand, were caused mainly by chieftaincy succession disputes involving rival royal lineage families competing to occupy a skin (Ibrahim, 2018; Ateng & Abazaami, 2016). Ibrahim (2018) has identified these conflicts, including the Jamong-Jafuag affair in Bunkpurugu and the Abudu-Andani crisis in Yendi. Although the latter has been recently resolved paving way for the enskinment of the new Ya-Na, Abukari Mahama II, demands for justice remains unmet and sustaining the achieved peace cannot be guaranteed. This is because the importance of post-conflict justice in building sustainable peace cannot be overemphasised (Issifu, 2015; Hyden, 2015; Annan, 2013).

Similar conflicts are prevalent in Northern Ghana where efforts by actors such as NGOs to rebuild stable peace have achieved limited successes and face complex challenges. Although the state has the central role among the multitude of actors within the peacebuilding arena, it mainly enforces peace by deploying uniformed peacekeepers to prevent physical violence (Issifu, 2017; Annan, 2013). According to Galtung (1967), while peace-making aims to minimize tensions and precipitators of violence, peacebuilding focus on establishing just structures and institutions to sustainably address the underlying issues towards positive peace. In this complex multi-actor network, NGOs often partner with state agencies, donors and private sector to prevent conflict, build peace and promote development. Despite the important role NGOs play in these interwoven relationships, Abiew & Keating (2004) criticize them for failing to consult their target beneficiaries which lead to limited impact on the society.

Against this background, an analysis of NGOs' approaches to peacebuilding becomes a matter of necessity in order to deepen understanding of how they prevent relapse into violence and promote sustainable peace. A lot of scholarly literature tends to focus on the broader civil society organisations (CSOs) and their role in conflict resolution, prevention and peacebuilding (Ateng & Abazaami, 2016; Issifu, 2017; Suaka & Longi, 2022; Braithwaite & Licht, 2020). This paper was driven by the desire to further analyse the specific measures, actions and strategies NGOs deploy to maintain relative peace in Northern Ghana. The study assesses NGOs' role in preventing conflict recurrence and the efficacies of their strategies for building stable peace in Yendi as a case. In addition, it examines the challenges NGOs face in peacebuilding and how they maintained relative stability for the peaceful resolution of the conflict.

II. CONCEPTUAL CLARIFICATIONS

2.1 Peacebuilding and Conflict Prevention

The complex challenge of peacebuilding in post-conflict societies, both in theory and practice, has been widely acknowledged (Hoeffler, 2019; 2016). This has resulted in a range of varying conceptual definitions and terminologies relating to peacebuilding. Hancock (2017) posits that peacebuilding as a concept was evolved by Johan Galtung in the mid-1970s to mean measures used to address the "root causes" of conflict in order to create sustainable peace. However, the International Peace Institute (IPI, 2009) traces the modern concept of peacebuilding to the "*An Agenda for Peace*" by Boutros Boutros-Ghali (1992) that focuses on 'preventive diplomacy' described as actions taken to prevent or contain conflict. To Paris (1997), the term covers humanitarian and economic assistance as well as physical reconstruction of affected societies. The conventional UN usage of peacebuilding implies post-conflict activities following peacekeeping operations aimed at reducing the negative factors that could precipitate resurgence. In this context, the OECD (2005) associates peacebuilding to a broad range of approaches and practices aimed at changing the structural formation for peaceful relations and good governance. As the major process for preventing the outbreak, continuation or recurrence of violent conflict, it encompasses long-term political, developmental and human rights programmes and mechanisms.

The practice of peacebuilding, thus, employs such methods and strategies to prevent the re-emergence of risk factors and triggers in post-conflict context (Joshi, 2014). It is key to avoiding human and economic losses. A concept that appears closely related to peacebuilding is conflict prevention. The latter has been conceptualized in Franche et al (2004) as a range of interventions, mechanisms and procedures for addressing structural defects and tensions to avoid the outbreak or recurrence of violent conflict. However, other conceptualisations seek to detach prevention from conflict and place it at the core of peace and security discourse (Coleman & Williams, 2021; Connolly, 2015). The long-term focus of structural prevention approach aims at addressing the underlying causes together with their potential triggering factors. The strategies involved in structural action against potential conflict are often intended to tackle economic development challenges, poverty and illiteracy, inequality and political participation among others. This structural approach involves long-term mechanisms that may overlap with post-conflict peacebuilding interventions aimed at forestalling resurgence (Joshi, 2014). In contrast, operational prevention relies on short-term specific actions, such as mediation, negotiation or armed deployment to eliminate the immediate threats to peace in post-conflict societies.



2.2 Post-Conflict Societies

Post-conflict societies refer to communities or states that have recently been affected by violent upheavals which often cause human losses, damage to infrastructure and displacement of people. Such societies are vulnerable to relapse into violence due to animosities, vengeful actions and other legacies of conflict. They are often characterized by low economic prospects, high unemployment, polarisation, crimes, mistrust and proliferation of small arms. These conditions result from capital flight, lack of expertise and investments needed to create economic opportunities for the youth in such societies. The unfavourable conditions created by the previous conflict tend to fuel the outbreak of future conflicts in a cyclical manner that Collier et al. (2003) refer to as “Conflict trap”. In response, non-governmental organisations (NGOs) often intervene with varieties of peacebuilding initiatives to rebuild stable peace, protect human lives and facilitate a conducive atmosphere for social and economic development.

2.3 Non-Governmental Organisations

It is nearly impossible to provide a precise definition for an NGO as well as to analyse its phenomenon. Lewis (2009) describes NGOs as diverse set of organisations which range from structurally small informal to large formal entities with varying mandates and nature thereby evading generalisation. Lewis observed a further complicated situation of NGOs being classified based on what they are not rather than what they are, making them more complex and difficult to pin down for analysis. These analytical complexities generate divergent perspectives about what NGOs are or are not, and about how best to analyse their roles (Lewis, 2009). Some receive government funding or are government-organised organisations (GONGOs) while others generate revenues for their operations and defy the needed status of independence. Based on origins, there are “Northern NGOs” (NNGOs) and “Southern NGOs” (SNGOs), and on the basis of membership, there are CBOs, and “grassroots organisations” (GROs). There are those that front for government and others formed by individuals for pure personal benefit. Yet there are both professionalised and volunteer-dependent NGOs, and secular and faith-based organisations. While some of these NGOs seek immediate solution to people’s needs, others focus on long-term approaches to problem solving all of which compound the difficulty in defining the term with precision. NGOs receive government funding while others generate revenues for their operations against the required status of independence and non-profit. Further complications exist in the “classification that emphasise what they are not rather than what they are”, making NGOs more complex and difficult to pin down analytically. These analytical constraints have led to the generation of different thoughts and perspectives about what is and what is not an NGO, and about the most acceptable approaches for the analysis of their roles (Lewis, 2009). By virtue of their advantageous position, they continue to play essential roles in development delivery and conflict prevention at both the policy and operational levels (Union of International Associations, 2005; DESA, 2004). For instance, coalitions of non-governmental actors have now been acknowledged as significant role players in transnational advocacy efforts such as in human rights, environmental protection and violence against women (Keck & Sikkink, 1998).

These according to Walter (1997) are essential prerequisite for development. Peace builders therefore adopted some already existing state and traditional mechanisms including local government and chieftaincy institutions as well as developing context-specific ones for implementing peace programmes. For example, WANEP, FOSDA, CRS, UNDP, AAG and UN-HSP operated through the Department of Community Development, Gender Desk Office, and traditional authority, YPC, NCCE, FOMWAG and BIRDS. As implementation of the roadmap to peace is being guided by the Committee of Eminent Chiefs, NGOs and their partners rely on the peacekeeping operations of the Military and Police to perform their functions.

III. METHODOLOGY

3.1 Study Area

This study was conducted in Yendi Municipality, one of the 261 metropolis, municipals and districts (MMDs) units nationwide and 16 in the Northern Region of Ghana (Ministry of Local Government, Decentralisation and Rural Development, 2023). The Municipality is located at the centre of the eastern corridor, sharing boundaries with Saboba, Zabzugu and Tatale/Sanguli districts to the east; Nanumba North to the south, Mion to the west, and Gushegu to the north. Yendi plays the role of a dual host as the Municipal capital on one hand and the traditional capital and seat of Ya-Na, King of Dagbon. According to the Ghana Statistical Service (GSS), 2021 population and housing census report, the municipality has a population of 154,421 comprising 49.3% male and 50.7% female (Ghana Statistical Service) (GSS), (2021). This constitutes 6.7% share of the region’s population which stands at 2,310,939 and represents 7.5% of Ghana’s total population of 30,832,019 people (GSS, 2021). The Yendi Municipal Assembly (2013) has indicated that, besides

the Dagomba majority, there are many minorities' ethnic groups in the area, including Konkomba, Basare, Chokosi, Hausa, Moshie, Bimoba, Ewe and Akan among others. The predominant religion is Islam which has more than two-thirds of the population as followers (GSS, 2014). The area map of the municipality has been provided in figure 1 below.

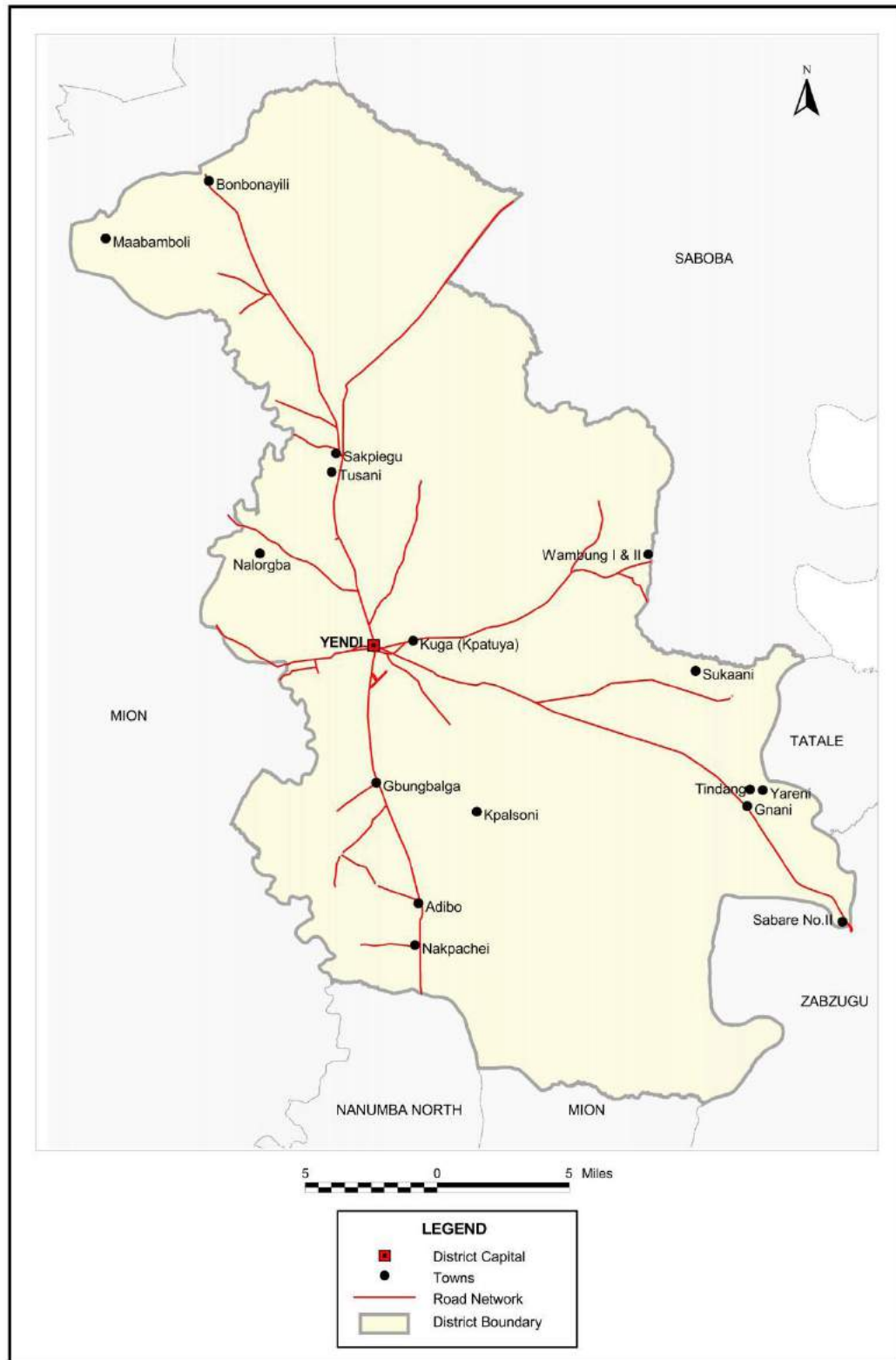


Figure 1
Map of Yendi Municipal
 Source: Ghana Statistical Service, 2021



The study employed qualitative methods for the collection and analysis of data taking into consideration the propositions of other authors (Mohajan, 2018; Gopalda, 2016; Strauss & Corbin, 2008). A case study design was used as the most suitable approach to the phenomenon under investigation and the categories of respondents needed to address the research topic. This is because, qualitative case study design creates room for broader and less restrictive exploration especially where the researcher’s intent is to understand people’s belief system, perspectives and experiences (Levitt et al., 2017; Gustafsson, 2017; Rahman, 2017; Patton & Cochran, 2002). The study involved three categories of respondents, namely, state security and civil agencies, NGOs engaged in peacebuilding, and beneficiaries of the peace process. Purposive sampling criterion was used to recruit respondents from the organisations. Thematic descriptive approach was used for the analysis of the data. The data was coded in order to come out with the main theme for discussion. This was aimed at selecting knowledgeable interviewees with holistic and relevant insights about the topic as noted in Kelly, Dowling and Miller (2018). For the beneficiary’s category, each of the two royal gates voluntarily constituted a focus group of 8-12 individuals for discussion in addition to a separate interview session with the family elder. A third focus group was made up of some elected members of the Yendi Municipal Assembly. A total of forty-nine (49) respondents were sampled from the three categories as indicated in table 1 below.

Table 1
Categorization of Respondents Sampled for the Study

Category	No. of Organisations	No. of Respondents	Share of Respondents (%)
NGOs	6	8	16.3
State agencies	8	19	38.8
Beneficiaries	2	22	44.9
Total	16	49	100.00

Source: Field Work, August, 2014

3.2 Background of Respondents

The interview respondents were classified into three main categories based on their role in the peacebuilding process, namely, the protagonists, NGOs and state actors. The major NGOs were WANEP represented by its 40-year-old Programmes Manager, CPJ represented by its 69-year-old Head and Catholic Bishop of Yendi Diocese, and YPC represented by its secretary. BIRDS was represented by its Executive Director, and FOMWAG by its President. The state actors were mainly state security agencies, including the BNI (now NIB) represented by the Station Officer and his Deputy. The Divisional and Municipal Commanders and Crime Officer Spoke for the GPS while a 34-year-old Army Captain and Detachment Commander answered on behalf of the GAF. The Municipal Chief Executive (MCE) stood in for MUSEC as the Chairman. The security agencies played peacekeeping role to provide the atmosphere conducive for peacebuilding. The experience of NCCE was shared by its Municipal Director, YMA by the Municipal Coordinating Director, and the Departments of Community Development and Gender Desk by their respective heads. The protagonist’s category composed of the *Abudu Yili* (Abudu family) and *Andani Yili* (Andani family) were direct parties to the conflict and indispensable part of rebuilding peace in Yendi. They were represented by their elders aged 67 and 58 years old respectively. In addition, 11 Abudus aged 28-51; 9 Andanis aged 32-58 and 8 YMA members aged 25-55 years, participated in FGDs conducted to capture broader views. For each group, 12 participants were requested but the actual numbers recorded were within the range of 8-12 persons required for FGDs. Incidentally, all the FGD participants were Dagombas from both royal and non-royal families.

A total of 49 respondents were interviewed in 21 interview sessions that stretched over a period of 11 days (19th-29th August, 2014). The cumulative period of time spent with all the interviewees was 22 hours, 45 minutes at an average of approximately 1 hour, 4 minutes per session. The shortest session lasted 32 minutes whereas the longest one took 1 hour, 36 minutes. Respondents comprised of 5 females and 44 males representing 10.2% and 89.8% of the study population respectively. This imbalance raises issues of gender equity and fairness in Dagbon where sensitive matters of chieftaincy nature are considered men’s affair. The average age of respondents was 45, ranging between the youngest (25) and the oldest (69). Their level of education ranged from Middle School Leaver’s Certificate (minimum) to a Ph.D. All respondents were gainfully employed with overwhelming majority being native Dagombas and twelve persons being of other ethnic origins including Nanumba, Mossi, Akan, Dagaaba and Frafra. The study population consisted of sixteen organisations. These were purposively selected based on their relevance and are listed in table 2 below.



Table 2

List of organisations involved in the study

No	Name of Institution	Type of Institution
1	West African Network for Peacebuilding	NGO
2	Bangumanga Integrated Rural Development Society	CBO
3	Fed. of Muslim Women’s Association of Ghana	Faith-based NGO
4	Catholic Peace and Justice Commission	Faith-based organisation
5	Yendi peace council	NGO
6	Women in peacebuilding	CBO
7	National intelligence bureau	State intelligence agency
8	Ghana Police Service	Security agency
9	Ghana Armed Forces	State military organisation
10	Municipal Security Council	Security body
11	National Commission for Civic Education	Constitutional body
12	Department of Gender	Local government dept.
13	Department of Community development	Local government dept.
14	Municipal Assembly	Local government structure
15	Abudu Royal family	Beneficiary faction
16	Andani Royal family	Beneficiary faction

Source: Field Work, August, 2014

Data for the study were obtained from both the primary and secondary sources. Primary sources of data included in-depth interviews, focus groups, key informants, and field notes. The secondary data sources comprised previous research reports and other available documents. The combination of primary and secondary data in qualitative research enhances data credibility and dependability (Mohajan, 2018; Yin, 2003; Patton, 1990). The data collection methods used included face-to-face in-depth interviews and focus group discussions with probing for insights on peacebuilding and NGOs’ operations. Interviews were conducted at the times and locations chosen by respondents. Each interview lasted about thirty minutes. There were three focus group discussions involving eleven (11) Abudu, nine (9) Andani and eight (8) elected Assembly members.

Two sets of data collection instruments were used, namely, in-depth interview guide and focus group discussion guide. Questions for the NGOs were framed slightly differently from that for other respondents for relevant views and perspectives to be obtained. The beneficiaries answered in-depth interview questions bothering on their involvement and perceptions of NGO performance. The focus group discussion guide was administered to groups of Assembly, Abudu and Andani family members. The views of respondents were tape-recorded and the thematic descriptive and narrative approaches were used to analyse the data transcribed. The information gathered was examined thoroughly and summarized under the themes developed. This method is reliable for exploring meanings and insights in social science research (Brikci & Green 2007; Strauss & Corbin, 2008; Levitt et al., 2017). The themes were interpreted to reveal meanings and highlight the information analysed based on consensus, reflections and past research.

IV. RESULTS & DISCUSSIONS

4.1 Contribution of NGOs to peacebuilding in Yendi

The study found that NGOs activities promoted an atmosphere of consensus and cooperation in Yendi. This was achieved by creating avenues for dialogue, mediation and negotiation, capacity building, advocacy and early warning (DESA, 2004). These are outlined and discussed in turn. In the words of the Catholic Bishop of Yendi Diocese:

“Almost all the job of managing the conflict and reconciliation were done by NGOs, who else could? They initiated the peace projects because they were cordially accepted by both the Abudus and Andanis for supporting neither ‘party A’ nor ‘party B’. Most of the ground activities were championed by WANEP, CPJ and YPC which are committed to restoring peace and security in Yendi.”

4.2.1 Funding of Peace Programmes

Lewis (2009) opined that it was clear that NGOs sourced funding from the donor community for peace programmes as narrated by the MCD and the Bishop respectively:



“They are major sources of funding for peace building activities in Yendi. Funds for peace education and sensitization, capacity building, training and economic programmes were all provided by the NGOs who donors view as community workers.”

“Majority of the grassroots peace projects run on NGO funds and end abruptly when funds stop flowing. Some of the programmes like community peace advocacy campaigns have terminated because NGOs have ran out of funds.”

4.2.2 Disputes resolution capacity building

From Joshi, 2014, the NGOs had trained several indigenes to resolve disagreements without violence. Selected leaders of communities, women, youth, security agencies and key individuals could apply alternative disputes resolution (ADR) skills to mediate conflicts. A 54-year-old Secretary of YPC, the MCD and the Director of NCCE agreed on how the training drastically reduced the risk of relapse:

“The support of CRS, AAG and WANEP enabled us to organize 105 workshops to train over 2,600 persons in handling individual and group differences. Our trained agents, women and youth groups, community and opinion leaders are encouraging only peaceful means of dispute settlement in the communities”.

“The capacity building programmes have benefited all parties involved in the peacebuilding work. The Municipal Assembly, youth, women, Pastors, Imams, Police Officers, Abudus and Andanis have all gained. I participated in one of the workshops held in Damongo where we learned about tolerance and mediation of conflict”.

“They have been able to turn some trouble makers and sponsors of violence into peacemakers by training and engaging them in Peace Committees.”

The disputants engaged in resolving their grievances peacefully in line with the conflict settlement school’s (Licklider, 2005) prescription for protracted conflicts.

4.2.3 Dialogue promotion and mediation

Respondents endorsed the way NGOs promoted dialogue and mediation processes to forestall reprisals. The Bishop, Abudu focus group and FOMWAG President respectively remarked that:

“Before dialogue was initiated, the adversaries were not talking to each other. Silence and suspicion brewed more hatred and enmity until they were brought to the negotiating table to dialogue. Once the disputants agreed to dialogue, platform was provided.”

“We the Abudus and also the other side have full trust and confidence in CPJ. If dialogue sessions were not organized by this centre, we would not be sitting here thinking about peace.”

“Their proactive settlement initiatives have been instrumental in lowering tensions, building confidence and trust among disputants. They have successfully mediated the conflict because they are non-political, non-discriminatory and fair in dealing with both factions.”

This resonates with Babbitt and Hampson’s (2011) relationship-based approach to trust and confidence building.

4.2.4 Peace education and advocacy campaigns

Licklider, 2005 assert that Peace builders also created awareness about living together peacefully despite differences. Sensitization and advocacy campaigns were integral part of NGOs’ strategies which respondents claimed has changed people’s behaviour about using violence as a solution. The importance of this strategy was underscored by the MCE and Andani elder in their comments below:

“Education has been useful in changing mindsets of the youth and those who see violence as a means of pursuing their aims. The relationships among members of the Abudu and Andani factions are lubricated by sustained awareness education and sensitization programmes.”

“Educational campaigns were the magic behind this relative peace and stability in Yendi. The people have become aware of the dangers of war and benefits of peace. Our youth were bent on taking revenge against the Abudu gate for killing the Ya-Na but they have changed their stance. They now understand that vengeance is not the solution, it won’t bring back the Ya-Na.”

Indeed, transforming relationships between adversaries helps to avoid reprisals in post-conflict peacebuilding (Boutros-Ghali, 1992). These narratives reflect conflict transformation process (Kriesberg, 1997) of changing fundamental perceptions, attitudes and behaviours to promote tolerance and trust.

4.2.5 Creation of early warning systems

The study found that WANEP had set up intelligence mechanisms in communities which detected early signs of imminent violence for prevention. The representative of WANEP explained that:

“We have formed ‘early warning teams’ in all communities of Yendi, comprising of youth, women and some men. They monitor happenings in the communities particularly of hardliners and report suspicious movements to WANEP or the Bishop. For example, some youth had mobilised to attack a chief and his elders for indiscriminately selling lands to outsiders. We were hinted of an impending clash and when we confirmed it, the security agencies were alerted. It was averted by quick deployment followed by a negotiated settlement”.

Clearly, these efforts prevented major breaches to peace agreements in Yendi until the final resolution.

4.2.6 Cooperation and partnership

The NGOs partnered other actors in managing the Dagbon State crisis as narrated by WANEP’s official, Police and Military Commanders:

“Many stakeholders have contributed to peacebuilding activities either through networking or direct engagement. We provided technical expertise in building capacities of others to participate more effectively in building peace. Those we train are positioned to perform critical roles based on whether they were ‘spoilers’ or ‘builders’ of peace.”

“The Police regularly attended NGO peacebuilding strategy meetings and also provided safety and security for participants and organisers of peace activities. The CID normally conducts background checks for advising the NGOs on anticipated problems and measures being taken to forestall disorder.”

“The NGOs enhanced fostering of friendly relations and cooperation between the Military and the youth by sometimes offering us the platform to interact with them during peace campaigns.”

These narratives corroborate Walter’s (1997) argument that security is essential for peacebuilding and demonstrate how NGOs employed diverse strategies to prevent peace collapse in Yendi. A summary of some of these strategies are discussed in the following section.

4.3 Strategies for Preventing Conflict and Building Peace

The NGOs adopted an integrated multi-sectorial approach to peacebuilding, targeting leaders of groups, families and communities. Interventions deployed included sensitization, job creation, financial aid, trades training, socio-cultural events and alternative livelihood programmes. The various strategies and activities have been categorized based on their intended impact on the peace process and have been summarised in this section.

4.3.1 Attitudinal change education

This strategy intended to overcome ignorance and alter the worldviews of factions. For example, peace education had addressed quick resort to violence. Members of the Abudu and Andani families who received conflict resolution skills training became advocates for tolerance as explained by their elders respectively:

“Since our training by the YPC and WANEP, we have served as the links between NGOs and the communities”.

“We do not only mobilise community members for conflict prevention awareness campaigns, we also educate people during weddings, funerals and naming ceremonies.”

It achieved a shift from adversarial to cooperative positions a 40-year-old WANEP Official and group of Assembly members narrated:

“The change of attitude was achieved through deliveries of peace messages at advocacy meetings, community durbars and forums, socio-cultural events, religious services in Mosques and Churches, conferences, and open broadcast to communities.”

“The educative programmes were crucial in changing mindset of the youth in particular about chieftaincy rivalry as a competition and not a war between them. The youth of Yendi are no longer eager to take up guns against their brothers as they were previously.”

This was in line with the conflict transformation scholarship (Babbitt & d’Estree, 1996; Chigas, McClintock & Kamp, 1996) about fostering change.

4.3.2 Economic Assistance Programmes

The study found that NGOs in partnership with UNDP tackled poor socio-economic conditions of the affected population by providing cash grants and agriculture inputs to induce poverty. The UN-HSP and FOSDA also used an alternative livelihoods initiative to discourage local blacksmiths from manufacturing arms (Walter, 1997). The Community Development Officer and the Chairman of MUSEC had more to say about these:

“The economic model involved job creation, small grants, and farm inputs (fertilizer, seed, small ruminants, pesticides), aimed to engage beneficiaries in profitable economic activities. The facilities provided for women serve as sources of incomes for them.”

“The alternative livelihoods programme aimed at the reformation of artisans from manufacturing and trading in small arms. In its implementation, some blacksmiths were identified, given more training and supported with cash and tools to switch to coal pots, trunks, ploughs, hoes and other farm implements instead.”

4.3.3 Early warning monitoring

The early warning systems by WANEP tracked information about small arms, illegal military training and suspicious meetings. This enabled pre-emptive action to avert possible violence. WANEP’s official and the WIP Secretary explained how this worked:

“Early warning monitoring teams in local communities detect signs of danger and alert us for the appropriate response. Our mediation and dialogue committees are also on the ground to facilitate non-violent settlement of disagreements by mediating inter-personal, communal and inter-group disputes peacefully.”

“The Queen Mothers and Overlord Queen Mothers (daughters of Kings) Associations were formed to facilitate access to royal families for early warning information gathering.”

The Andani focus group did not appear pleased about this early warning system:

“Now anytime we hold a family meeting, people from the community especially the women inform the Bishop or Police about it. Then the CID Officers would come asking us what is happening and what our meeting was about. Some people are hypocrites and they are always watching what others are doing.”

4.3.4 Development of indigenous capacities

According to Licklider (2005), the respondents claimed that leaders of grassroots organisations had been empowered to handle disputes peacefully. In MCE’s words:

“The people have become more self-reliant in resolving disputes and avoiding violence as means of addressing grievances. The unemployed youth have also been trained and resourced to pursue gainful economic objectives thereby reducing poverty levels and risk of violence. Even members of MUSEC participated in essential skills training programmes to complement peacekeeping and peace enforcement.”

4.4 Challenges of NGOs in peacebuilding

The foregoing remarkable achievements of NGOs in Yendi were not without obstacles. Implementation challenges included inadequate logistics and funding; weak institutional mechanisms; political interference; proliferation of small arms; and perceived injustices (Lewis, 2009).

4.4.1 Logistical and funding challenges

Lewis (2009) stated that Lack of sufficient funds forced NGOs to end peace initiative abruptly as the Bishop and WIP leader narrated:

“They (NGOs) often experience shortage of funds for peace programmes and tend to demand receipts for every item purchased with their money. Such a situation normally posed problems to implementers in Yendi.”

“NGOs’ extreme cautiousness in attempt to avoid being maligned and quick dissipation of funds usually lead to slow pace of implementation progress and too quick termination of peace initiatives.”

The President of FOMWAG and the Army Captain added that:

“After building our capacities, mobility issues and lack of funds have limited our sensitisation and awareness creation drive in certain communities. This has compelled us to seek political party platforms for delivering peace messages which has its own implications”.

“Sometimes request for protection of peace activities are not adequately met due to faulty equipment that sometimes take days to fix. This does not auger well for our operations here in Yendi because arms and ammunitions have become their household goods.”

Clearly, peacebuilders varied in their priorities and modes of operation due to differences in conceptualizations of the conflict and resources allocations.

4.4.2 Mistrust among key peace actors

They are often characterized by low economic prospects, high unemployment, polarisation, crimes, mistrust and proliferation of small arms. The unfavourable conditions created by the previous conflict tend to fuel the outbreak of future conflicts in a cyclical manner (Collier et al., 2003). Obviously suspicion and mistrust caused uncooperative behaviours of some actors. WANEP’s Official offered an explanation of how unpredictable the Protagonists were.

“The disputants backslide at peace implementation stages and refuse to cooperate with settlement efforts. Their entrenched positions and lack of full cooperation greatly impede peacebuilding process”.

The trust issue was general as the MCE and the Andani elder also remarked:

“The NGOs face difficulties in maintaining neutrality amidst increasing pressure from both gates for sympathies. A decline to such requests increases suspicions of disputants about their genuineness and credibility”.

“As opinion leaders of Andani Gate, our participation in peacebuilding processes is considered hypocritical by our brothers because they do not share our view. Those who preach tolerance and civility are viewed as pogues and traitors, conniving with NGOs for monetary gains”.

WANEP’s representative also explained their challenges as follows:

“Other organisations perceive our effort as a competition with them which negatively affect cooperation among us. Also, the policy shift to human security from state security and the creation of early warning system encountered severe resistance from security agencies. This is because they associated it with intelligence gathering which is deemed a sole preserve of state security apparatus.”

Mutual suspicion among various actors affected cooperation and compliance with peace agreements. This requires enforcement mechanisms and security guarantees that reduce costs of negotiation and increase sanctions for non-compliance (Crocker, 1992; Zartman, 1989; Zartman & Touval, 1985).

4.4.3 Political infiltrations of Dagbon Kingship affair

Generally, people were worried about interference and lack of political will in implementing agreements. Hoeffler’ (2019) assessment of post-conflict stabilization indicates that affected communities are often faced with difficulty in regaining stable peace after loss of human lives, properties and other legacies of violence. While the state is primarily responsible for maintaining social order, conflict parties do not trust the government to rebuild peace in a just manner (Hoeffler’2019).

The MCD and Abudu elder (aka ‘Show Boy’) stated explicitly that:

“The dominant political parties notably the ruling National Democratic Congress (NDC) and the opposition New Patriotic Party (NPP) are suspected of deriving political capital by unduly delaying and manipulating peace process.”

“The political elites are behind the so-called ‘concerned groups’ who without any consultation organise press conferences to propagate grievances that stir tensions and agitations in Yendi.”

4.4.4 Injustice and impunity

Some people demanded justice for the slain Ya-Na, however, NGOs do not facilitate criminal accountability as the WANEP official and Bishop noted:

“The Andani faction keeps demanding that the killers of Ya-Na must be brought to book as a pre-requisite for lasting peace without which the likelihood of retaliation in the future is predictable. They have also demanded an apology from the Abudu side for killing the sitting king and destroying Gbewaa Palace but none is forthcoming”.



“The inability of state actors to deliver justice to the victims and their families has made lasting peace almost impossible. Without justice, no society can maintain peace forever.”

Scholars of peace and conflict studies argue that ‘responsibility for harm, justice seeking process, and empathy’ are essential in peacebuilding (Dwyer, 1999; Rouhana, 2000; Kelman, 2008). Yet, these components were missing in the Dagbon solution as the Abudu faction was unwilling to either accept wrongdoing or apologise for the King’s death.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

This paper analyses post-conflict peacebuilding in relation to the role non-governmental organisations play within the complex network of actors in Yendi. According to Lewis (2007) however, NGOs undertake three main sets of activities that explicitly define their roles: implementers, catalysts and partners in development. As implementers, they mobilise resources for use to provide goods and services for the populations who need them. They catalyse their beneficiaries by inspiring, facilitating and contributing to improved thinking and actions that ultimately promote change. NGOs have also been working in partnership and cooperation with other relevant stakeholders such as governments, donors and the private sector in efforts to improve conditions for the general wellbeing and peaceful co-existence of diverse groups. Generally, their peacebuilding functions include protection, monitoring, advocacy, socialisation, social facilitation, social cohesion and service delivery.

5.2 Recommendations

The findings of the study point to certain measures and steps needed for ensuring stable peace and security in Dagbon and possibly other traditional states in similar crisis. Such measures are intended to enhance the collective effort of stakeholders at achieving the goals of sustainable peace in emerging societies like Yendi. The recommendations provided in this study are based on the findings of the study. It is hoped that NGOs involvement in peacebuilding would be improved and lead to more peaceful societies conducive for socio-economic development and wellbeing of people.

NGOs rely on international donor funding shortage of which causes peace interventions to terminate abruptly. Their continual relevance as peace builders depends on relationships with these donors and the ability to secure funds for prevention activities. This means healthy inter-linkages between NGOs, donors and protagonists, though difficult to maintain, are necessary for achieving the ultimate goal of peace. Therefore, they must expand the donor community in order to solicit sufficient funds for successful completion of peace initiatives.

‘Spoilers’ including political parties, concerned groups aligned to factions, hardliners and Diasporas create tension and threaten peace agreement implementation. These segments and their activities, as stressed by Newman and Richmond (2006), obstruct or undermine the conflict settlement and peacebuilding processes. NGOs must expand their scope of operations; devise a comprehensive approach for addressing adverse activities and turning them into ‘builders’ in post-conflict settings.

There were significant rates of illiteracy, poverty and youth unemployment in the municipality. People reeling under ignorance and poor economic conditions are usually more vulnerable to recruitment into perpetuation of violence against perceived foes. Peace builders including NGOs should focus more on intensifying education and awareness creation to overcome ignorance and promote civility and coexistence. Also priority may be given to job creation and employability skills training to help engage the active population in gainful activities and make them unavailable for recruitment.

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Contribution of Logistics Cooperation to Effective Disaster Relief Operations in Addressing Pandemics in Tanzania

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ABSTRACT

The research aimed to identify the crucial aspects of humanitarian organizations that can improve the effectiveness of disaster relief operations. The study involved 150 participants from Tanzanian humanitarian organizations and used a combination of quantitative and qualitative methods, including questionnaires and interviews. The researchers employed multiple regressions to examine the relationship between independent and dependent variables. The findings indicated that coordination among stakeholders and vertical logistics cooperation can enhance the effectiveness of disaster relief operations. The study concluded that the efficiency of humanitarian logistics is crucial for disaster relief operations and recommended that the government prioritize public-private partnerships, develop reliable infrastructure, and empower logistics service providers and humanitarian organizations. The study could guide policymakers in developing frameworks to improve cooperation among stakeholders and logistics systems in disaster relief operations. Additionally, it adds to the existing knowledge on stakeholder theory and strengthening the humanitarian logistics systems.

Keywords: Logistics Cooperation and Humanitarian Organizations, Disaster Relief Operations, Pandemics, Humanitarian Logistics

I. INTRODUCTION

The occurrence of both natural and man-made pandemics has disrupted logistics operations worldwide. As a result, humanitarian logistics is necessary to facilitate the transportation of goods and people to affected areas and provide essential supplies such as food, medical equipment, and medicine (United Nations Coordinated Appeal, 2020). Logistics activities in major cities in China have been severely impacted; prompting the government to implement measures to facilitate the movement of goods. However, due to a lack of preparedness, there were no strategies in place to address the logistical challenges in a disaster environment (Wuhan Statistics Bureau, 2019). The spreading of corona virus into the United States, Asia and European countries have affected almost 70% percentage of the supply chain, which is more pronounced as in the movement of people, raw materials, finished goods and merchandisable materials (Zoumpourlis et al., 2020).

According to the Financial Report on Disaster Response in Russia from 2015, the country faces challenges in establishing a suitable environment, including logistics, to facilitate efficient disaster operations. The issues raised in the report include the logistical difficulties in transportation of relief items, distribution of non-food relief items and hygiene supplies that constrained by ineffective coordination of the stakeholders, not recognizing the important aspect for improving performance of Humanitarian logistics and involvement of logistic service providers. The report illustrate that it is crucial to have systems that ensure effective coordination and distribution of supplies to the effected population during pandemic or during a disaster, as this will pave ways to also proper rescue and control to the disaster in question.

Karanja, Muirura, and Ombui (2015) reported that in Kenya, the effectiveness of disaster relief operations during pandemics or other disasters depends on the efficient functioning of humanitarian logistics. They highlighted several areas that require improvement in practice, including humanitarian logistics coordination, which is a challenge for Kenyan humanitarian organizations and stakeholders. Mweiga (2013) also emphasized the importance of involving logistics service providers. The 2009 Kenya National Disaster Response Plan, formulated jointly by the Office of the President Ministry of State for Special Programmes (MSSP) and the Ministry of Provincial Administration and Internal Security-National Disaster Operation Centre (NDOC), highlighted that poor coordination is a significant obstacle during natural disasters, leading to inefficiencies in providing relief assistance. According to Kassem (2020), African governments face challenges in providing adequate resources to support populations affected by disasters due to limited national resources. For instance, in the Democratic Republic of Congo (DRC), committees were formed to manage COVID-19 and Ebola outbreaks in the hope of coordinating resources with other stakeholders, but this was



not successful (Nachege et al., 2020). This problem is also evident in Tanzania, where there is a lack of facilities and mechanisms for managing and responding to disasters (Stephano, 2018). To address these issues and ensure that countries have effective disaster management systems, humanitarian relief organizations need to recognize the importance of humanitarian logistics during pandemics and related disasters (Saleh & Karia, 2020).

Most of the companies for example, have coordinated efforts with health-care organizations, the trading partners, and hospitals and with governments to ensure proper flows of materials. The companies have so far played crucial roles to address the logistical challenges (Besiou, Stapleton, & Wassenhove, 2011). This played crucial role in provision of supplies but faces challenges also due to boundary restrictions and lockdowns. Instituting better strategies to the implementation of humanitarian logistics philosophies and logistical operations for epidemic control (Dasaklis, Costas & Nikolaos, 2012) would alleviate these situations. This will ensure better flows and storage of supplies and the attached data, from the point of supply or manufacturing to the point of ultimate use for the purpose of alleviating the suffering.

The recent COVID 19 pandemic demonstrates that problem is not only limited to resources facing developing countries; it calls for knowledge to humanitarian logistics in enhancing collaboration of key player (Babatunde, Oloruntoba & Agho, 2020). Understanding the unique features and characteristics and issues relating to import and export procedures which could play crucial roles in enhancing the performance of humanitarian logistics (Heaslip, Haavisto & Kovács, 2018). As a number of national organization and the international organizations are interested to take part in global crisis, their coordination as on the matter pose major obstacles and constraints which may have a serious impact to those areas in need in disaster or in pandemic crisis (Nandi, 2022). The difficulties are more pronounced as inadequate logistics infrastructure and inappropriate means towards coordination and cooperation (Schulz and Blecken, 2010). All these calls for proper mechanisms in sourcing, procurement, deliveries, storage and physical distribution of the items required on these situations as medical product, foods supplies and the sort for Africa and most of the developed countries humanitarian emergencies (Heaslip et al., 2018).

1.1 Statement of the Problem

The global outbreak of pandemics has underscored the significance of humanitarian logistics in ensuring the continuous supply of resources to affected communities (Save the Children, 2015; Wolicki et al., 2016). In the event of traditional logistics being inadequate to absorb shocks and maintain the flow of goods and services, humanitarian logistics plays a critical role in disaster relief efforts (Eriksson & Karlsson, 2017). Nevertheless, developing nations like Tanzania face challenges in effectively managing humanitarian logistics due to limited knowledge on logistics partnerships and cooperation (Schiffling et al., 2020).

Efforts have been made to enhance humanitarian logistics practices, but more needs to be done to guarantee the effectiveness of disaster relief efforts. For instance, hiring specialized personnel for specific disasters and implementing proper coordination and proactive measures are crucial for successful disaster relief operations, as noted by Mpanju (2015). Despite numerous studies emphasizing the importance of humanitarian logistics in disaster relief efforts, few have specifically focused on pandemics (Vaillancourt, 2015). Moreover, research on logistics cooperation and partnerships in disaster relief efforts is limited in Tanzania. Existing literature highlights the difficulties in humanitarian logistics and underscores the need for stakeholders' involvement to transform challenges into key performance indicators, including coordination and cooperation between stakeholders (Kovacs & Spens, 2009; Kassema, 2020; Saleh & Noorliza, 2020; Kessa, Sadiq, & Yeo, 2021). Horizontal and vertical cooperation are critical components of effective humanitarian logistics.

This study aimed to address the research question, which seeks to establish the necessary logistical coordination required to achieve effective disaster relief operations during pandemics in Tanzania. It aims to determine whether logistics cooperation has a positive impact on the effectiveness of disaster relief operations in addressing pandemics in Tanzania.

II. LITERATURE REVIEW

2.1 Theoretical Review

The paper was founded on the grounding stakeholder theory. According to Ademola and Adebayo (2014), stakeholders refer to individuals or groups who have an interest in an organization or business and who can impact or be impacted by the organization's activities. The stakeholder theory posits that disasters can affect all stakeholders and their daily operations, resulting in supply shortages and price fluctuations (Freeman, 2010; Gunasekaran et al., 2018). Companies providing supplies to disaster-affected areas rely on downstream logistics and supply chains, while disaster



victims depend on relief organizations and agencies (Carter, 2015; Pfeffer & Salancik, 1978, 2003). The coordination and behavior of stakeholders are crucial for the success of relief operations.

To address these challenges, it is crucial to establish partnerships between stakeholders involved in disaster relief operations and humanitarian logistics. Such partnerships would enable a coordinated effort and pooling of resources for rescue operations. Private and public stakeholders can participate in disaster and humanitarian operations in different ways, and communication and joint planning are essential for effective relief efforts.

Corporate sector stakeholders need to be aware of the impact of disasters on their operations and supply chains and can indirectly contribute to disaster and humanitarian relief efforts through contractual engagements. Organizations can also support economic development in conflict or post-disaster zones and contribute to the employment of impacted populations with the aid of the international aid network and local government (Bray & Crockett, 2012). Making products and services available to the general public can facilitate long-term disaster and humanitarian response and recovery (Nkamnebe & Idemobi, 2011; Yates & Paquette, 2011).

2.2 Empirical Review

Logistic operations encompass several functions, including procurement, demand management, customer service, and customer relations, to meet customer needs effectively (Casado-Vara et al., 2018; Douglas & Lambert, 2000). In the domain of humanitarian logistics, research has been conducted to assess its performance. According to Beamon & Balcik (2008) and Roh et al. (2018), the location of the warehouse plays a critical role in the successful implementation of humanitarian logistics. The supply chain for humanitarian logistics supports the primary warehouse's supply chain, usually located near an airport or port. The goods are stored in a permanent warehouse located closer to the city, where storage, sorting, and shipping activities are carried out before the next step. This permanent warehouse serves as a hub for humanitarian logistics, from where inventories are dispatched to smaller tertiary warehouses before reaching their intended recipients. Unlike the distribution of products for commercial purposes, which has a short supply chain, the supply chain process in humanitarian logistics is longer, resulting in lower customer service levels. The occurrence of both natural and human-made disasters has had a significant impact on logistics operations globally, necessitating the need for humanitarian logistics to facilitate the movement of goods and people, providing essential supplies such as food, medical equipment, and medicines to affected areas and populations (United Nations Coordinated Appeal, 2020). In China, major business cities have experienced significant disruptions in their logistics activities, prompting the government to implement measures to facilitate the movement of goods. However, due to a lack of preparedness, there was a lack of strategies to address logistics operations in the disaster environment (Wuhan Statistics Bureau, 2019). The spreading of corona virus into the United States, Asia and European countries have affected almost 70% percentage of the supply chain, which is more pronounced as in the movement of people, raw materials, finished goods and merchandisable materials (Seric et al., 2020). This has also caused the hindrance in the movement of pandemic control items and caused a scarcity of consumer goods, these problems efficiency in preparing supply chains against the stated disturbances (Kumar & Sharma, 2021).

According to Disaster Response Financial Report of Russia (2015), the country also struggles to create good environment or the logistical environment to ensure the effectiveness in disaster operations. The issues raised in the report include the logistical difficulties in transportation of relief items, distribution of non-food relief items and hygiene supplies that constrained by ineffective coordination of the stakeholders, not recognizing the important aspect for improving performance of Humanitarian logistics and involvement of logistic service providers.

According to a study by Karanja, Muirura, and Ombui (2015), in Kenya, effective disaster relief operations rely on well-functioning humanitarian logistics. However, there are several issues that need to be addressed to improve practice, including humanitarian logistics coordination and involvement of logistics service providers. The lack of coordination during natural disasters was also identified as a problem in the Kenya National Disaster Response Plan published by the Office of the President Ministry of State for Special Programmes (MSSP) and Ministry of Provincial Administration and Internal Security -National Disaster Operation Centre (NDOC) in 2009. African governments have limited resources to aid populations during disasters, which poses a challenge to their ability to cope (Kassem, 2020). For instance, in the Democratic Republic of Congo (DRC), committees were formed to manage the Covid-19 and Ebola outbreaks but coordination with other stakeholders was unsuccessful (Nachega et al., 2020). Similarly, the Kenya National Disaster Response Plan and the disaster management mechanisms in Tanzania have also faced challenges (Stephano, 2018). To address these issues and improve disaster management, there is a need for humanitarian relief organizations to recognize the importance of humanitarian logistics in pandemic situations and related disasters (Saleh & Karia, 2020).

Cognizant of man-made and natural disasters occurring more frequently, the humanitarian aids organization strives to save the lives of disaster affected people throughout the world (Fritz Institute, 2005; EM-DAT, 2008). In this

regard, humanitarian logistics plays a crucial role in the distribution processes among the field officers, the local institutions, and affected people. Logistics activities are also a vital component in humanitarian assistance and humanitarian operations, to the extent that almost 80% of disaster relief operations are accounted for by logistics efforts (Overstreet *et al.*, 2011).

Companies in most countries have joined forces and some should think of this a strategy to improve the humanitarian logistics (European Union, 2019). Considering the logistical issues to ensuring the proper flow of the goods in disaster situations and ensuring that there is preparedness the companies need to recognize the importance of coordination (Moeiny & Mokhlesi, 2011). Most of the companies for example, have coordinated efforts with health-care organizations, the trading partners, and hospitals and with governments to ensure proper flows of materials. The companies have for far played crucial roles to address the logistical challenges (Besiou, Stapleton and Wassenhove, 2011). This played crucial role in provision of supplies but faces challenges also due to boundary restrictions and lockdowns. Instituting better strategies to the implementation of humanitarian logistics philosophies and logistical operations for epidemic control (Dasaklis, Costas and Nikolaos, 2012) would alleviate these situations. This will ensure better flows and storage of supplies and the attached data, from the point of supply or manufacturing to the point of ultimate use for the purpose of alleviating the suffering.

III. METHODOLOGY

3.1 Research Design

The study utilized a sequential explanatory research design to create concepts from the collected data, interpret the data, and explain how cooperation in humanitarian logistics can enhance disaster relief operations during pandemics in Tanzania.

3.2 Population and Sample Size

The target population consisted of stakeholders involved in the success of humanitarian logistics and disaster relief operations, including humanitarian organizations. The study observed five organizations, and the respondents were individuals who participated in humanitarian logistics and disaster relief operations. The sample size comprised 150 respondents, which was determined using Cochran's Sample Size Formula. Stratified random sampling was employed to select random samples from groups with comparable characteristics within the population.

Formula for calculating sample of unknown population (Cochran's Sample Size Formula) was applied:

$$n = \frac{Z^2}{4d^2}$$

n= sample size, z= the value on the z table at 95% confidence level = 1.96, d=sampling error at 8%

3.3 Research Instruments

The study employed is survey questionnaire and guided interviews tools of data collection tools, this were employed to enable the researcher to have adequate quantitative data for triangulation of information. The study involved data collection process through questionnaire to all respondents, interview schedule conducted with few selected humanitarian logistics and disaster relief experts.

3.4 Validity and Reliability

3.4.1 Validity

Validity refers to the degree to which a test or research instrument accurately measures what it is intended to measure. It is concerned with the accuracy and meaningfulness of the inferences made from the data collected (Blumberg, Cooper, & Schindler, 2005), and the ability of the research instrument to measure what it purports to measure (Babbie, 2010). The content validity of the data collection instrument used in this study was established by consulting with research experts at the university, who provided valuable feedback, corrections, and suggestions that assisted in validating the research instrument.

To ensure validity, a pilot test study was conducted on a sample of 10 randomly selected respondents to check the accuracy of the questionnaire and interview guide before administering them for full data collection. Additionally, the researcher sought the opinions of various experts in the field of humanitarian logistics and disaster relief operations. These experts reviewed the tools and provided feedback on the questions and themes contained within them. The inputs from the experts were incorporated into the tools to ensure that the researcher collected relevant and adequate data to achieve the study objectives.



3.4.2 Reliability

To ensure that the research instrument can measure accurately with consistent results, reliability is necessary. The researcher conducted a pilot study to test different sections of the questionnaire and measured reliability using the Cronbach's alpha coefficient, which is commonly used to estimate internal consistency by determining the relationship between all items on a test and the total test. In this study, all five variables had a Cronbach's alpha coefficient above 0.7, which is the acceptable limit for acceptance, according to Burns *et al* (2012). Therefore, the questionnaires were reliable, as indicated by Cronbach (1951) and Saunders et al. (2012).

Table 1

Data reliability: Cronbach's Alpha

Construct/variable	Construct items	(α)
Contribution	C1, EC2, C3, C4, C5,C6,C7	0.908

These findings indicate that the test is of good quality based on Cronbach's Alpha, as it falls within the acceptable range of $0.8 > \alpha \geq 0.7$, is considered good when $0.9 > \alpha \geq 0.8$, and excellent when $\alpha \geq 0.9$, in terms of internal consistency.

3.3 Data Analysis

The data were analyzed using multiple linear regression analysis and descriptive analysis with the aid of Statistical Package for the Social Sciences (SPSS). These involved examining data and information in numerical and non-numerical methods. Mean and standard deviation were used in descriptive analysis and R and R² and t-tests and coefficients were used in regression.

Table 2

Measurement of variables

Variable	Definition	Measurement	Instrument
Logistics cooperation	-Vertical cooperation (effective communication, logistical costs sharing, joint operations, resource mobilization, sharing of information and resources) -Horizontal cooperation (effective communication, logistical costs sharing, joint operations, resource mobilization, sharing of information and resources)	5-point Likert scale	Questionnaires and interview guide

Source: Researcher's own construction (2021).

3.4 The Test of Model Assumptions

3.4.1 Test of Multicollinearity

In order to examine presence of multicollinearity, this research study employed Variance Inflation Factor (VIF), which identifies level of correlation between predictor variables (Gunst et al., 2019). Multicollinearity is not a concern if the VIF score is between 1 and 10 (Mertler & Reihnhart, 2016). However, if the VIF score is less than 1 or greater than 10, multicollinearity is present (Mertler & Reihnhart, 2016). Based on the findings presented in Table 3, this study is devoid of multicollinearity issues, as the VIF scores range between 1 and 2.

Table 3

Multicollinearity Statistics

Variables	Tolerance	VIF
Logistics cooperation	0.7463	1.340

3.4.2 Heteroscedasticity

The ordinary least squares (OLS) linear regression assumes that the residuals' variance from the model is constant and independent of the independent variables (homoscedasticity) (Mertler & Reinhart, 2016). If this assumption is not met, it results in heteroscedasticity, which reduces the accuracy of the coefficient estimates and



increases the chances of imprecise representation of the population. To test for heteroscedasticity, Levene's Test was used. The test determines homoscedasticity when the p-value is greater than 0.05 ($p > 0.05$) (Mertler & Reinhart, 2016). In this study, the variables exhibited homogeneity with a p-value of 0.767, indicating $p > 0.05$, and thus homoscedasticity.

Table 4
Heteroscedasticity test

Levene's Statistic	df1	df2	Sig.
0.089	0	150	0.767

3.4.3 Normality

This study employed two statistical tests, Kolmogorov and Shapiro-Wilk, to assess the normality of the collected data. The results of the tests are presented in Table 5. The outcomes indicate that the p-values for both tests are greater than 0.05, indicating that the collected data were normally distributed.

Table 5
Normality Test Results of Kolmogorov and Shapiro-Wilk Test

Variables	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Logistics cooperation	0.129	150	0.016	0.989	150	0.158

IV. FINDINGS & DISCUSSION

4.1 Working experience of the Respondents

The aim of the study was to gain insight into the work experience of the participants as a means of understanding their background information. This information was helpful in establishing that the participants were familiar with relief operation procedures and the workings of humanitarian organizations, as well as their experiences related to logistics and how it connects to humanitarian operations. To categorize the duration of work experience, the study divided it into three groups: those with less than one year of experience, those with 6 to 10 years of experience, and those with over 10 years of experience. The findings of the study are presented in Table 6.

Table 6
Working experience of the Respondents

Categories of working experience	Frequency	Percentage
Less than 5 years	31	20.6
Between 6 to 10 years	55	36.7
Above 10 years	64	42.7
Total	150	100

The results presented in Table 6 indicate that a majority of the respondents, accounting for 64 individuals (42.7%), possess substantial experience of over 10 years in humanitarian and disaster relief operations. This suggests that the respondents have adequate knowledge about their operations. These findings indicate that the respondents have a strong background in working with humanitarian organizations, and possess experience in supply chain and disaster relief operations. Additionally, the respondents appear to be well-versed in the standard procedures and workings of disaster relief operations. These findings are consistent with those of Abebe (2012), who similarly found that roughly 73% of the respondents possessed more than 10 years of working experience, and were therefore capable of providing accurate and reliable information regarding practices.

4.2 The Contribution of Logistics Cooperation to effective Disaster Relief Operations in Addressing Pandemics in Tanzania

The Likert scale was used to collect data from respondents, who were asked to indicate their level of agreement or disagreement with various statements on a scale of 1 to 5. The scale ranged from '1' for strongly disagree

to '5' for strongly agree, with '2' and '3' representing disagree and neutrality, respectively. The study assigned a mean score of 1.0 to 2.5 for the responses 'strongly disagree' and 'disagree', which indicated disagreement, and a mean score of 3.5 to 5.0 for the responses 'agree' and 'strongly agree', which indicated agreement. The response 'neutral' was assigned a mean score of 2.6 to 3.4 to indicate neutrality.

Table 7

The contribution of Logistics Cooperation to effective Disaster Relief Operations in Addressing Pandemics in Tanzania

Statement	Mean	Std. Dev.
Cooperation between government and private health institutions may improve disaster relief operations	4.50	0.988
Cooperation between government and private health institutions may improve disaster relief operations	4.41	0.824
Cooperation between government and international relief organization may improve disaster relief operations	4.37	0.987
Cooperation between hospitals and manufacturer of medical equipment may improve disaster relief operations	4.86	1.456
Cooperation between transport service provider and manufacturer of medical equipment may improve disaster relief operations	4.33	0.863
Cooperation between transport service provider and private health institutions may improve disaster relief operations	4.30	0.827
Cooperation between government and transport service providers	4.33	0.863
Average	4.44	0.973

According to Table 8, the mean values are above 3.00, which indicate that the majority of the respondents agreed with the given statements regarding the contribution of logistics cooperation to effective disaster relief operations in addressing pandemics. This implies that they do not have a neutral opinion on the matter. Moreover, the standard deviations are less than one, which suggests that there is very little variability in the data set. Overall, the narrow range of values and the mean above 3.00 indicate agreement with the statement.

The range between the mean of 4.33 and 4.86, given the standard deviation, indicates that there is room for improvement in Logistics Cooperation for Disaster Relief Operations in Addressing Pandemics in Tanzania. One of the ways to improve this is by promoting cooperation and collaboration between transport service providers, government and private health institutions, government and international relief organizations, hospitals and manufacturers of medical equipment, transport service providers and manufacturers of medical equipment, service providers and private health institutions, as well as government and transport service providers. This finding suggests that disaster relief operations can be enhanced by encouraging stakeholders to work together and share resources to effectively control pandemics from a humanitarian logistics and disaster relief operations perspective.

This portrays that Cooperation between government and private health institutions may improve disaster relief operations, Cooperation between government and international relief organization may improve disaster relief operations, Cooperation between transport service provider and manufacturer of medical equipment may improve disaster relief operations and Cooperation between government and transport service providers, that have mean more than 4 and standard deviation less than 1.00, contribute more to the effectiveness of disaster relief operations.

These sorts of cooperation could be pronounced in terms of the resources that are crucial in disaster relief operations, like the experts in humanitarian logistics and relief operations (the human resources), the funds that need to be used in the relief operations (capital for facilities and working capital in the operations) and the machinery and equipment that need to be used by the people in operations. The cooperation may also mean sharing of information and plans that are crucial in relief operations that may help in prediction and forecasting and preparation of the tools that are necessary in the process.

This findings are in line with that of Muktadir, Rahman, and Ali, (2017), they determined that critical factors to humanitarian logistics includes; Highly equipped infrastructure and transportation system, Coordination and collaboration with relief agencies, Proper risk assessment and planning, Enough qualified manpower and Continuous improvement in the alertness, preparedness, and high responsiveness, just to mention the few in their findings. This



also corresponds to the study by Sabri et al. (2019) indicated a lack of coordination among the agencies involved in the relief activities as the fundamental challenge in SHSCM. This challenge results in a lack of communication, poor technological infrastructure, lack of administrative personnel, lack of clear policies, ineffective distributing relief material, and stagnation of relief activities (Vega, 2018). Another critical challenge hampering the efficiency of SHSCM is a difficulty in fundraising (Turrini et al., 2020). This is to say collaboration, as in horizontal and vertical is recognized as the strategy to effective systems in disaster relief operations and this may improve operations and effectiveness in contribution and management of resources.

These results also corresponds to that of Maghsoudi and Moshtari (2021), engagement of humanitarian actors nationally and internationally determines the performance of humanitarian logistics and have crucial role in harmonizing pandemic situations and combining resources and experts helps in effective disaster relief operations. This is also supported by Besiou and Wassenhove (2019), that it is crucial to create engagement of different actors with vested interest in disaster relief operations nationally and internationally.

During interview, the respondents were asked about the issues of collaboration and coordination, the respondents narrated that cooperation is very important since it makes the organizations to join forces and resources and also in help in improving the systems and processes in disaster relief operations. I quoted one of the respondents saying that,

“ if we want to really help the population during disasters and pandemic situations, we need to collaborate, collaboration will help to connect health facilities, logistics service providers, international agencies and the government which is good to ensure effectiveness in rescues and controlling the spread effect of diseases and negative effects of pandemic...” (Field data interview, Kigoma, 17 July, 2021).

This means that horizontal and vertical cooperation is necessary in creating a favorable disaster relief environment. From the findings it clearly show that cooperation between the named stakeholders makes the system that enhance organizations to participate fully in rescues and controlling the spread effect of diseases and negative effects of pandemic. This is also supported by Eltantawy et al. (2015) that cooperation between stakeholders in disaster relief operation is crucial and it may take many forms, may mean cooperation between health institutions, government agencies, international agencies, humanitarian organizations and other government institutions.

4.2.1 Model analysis on The Contribution of Logistics Cooperation to effective Disaster Relief Operations

The study employed multiple linear regression analysis to examine if logistics cooperation had a considerable effect on the effectiveness of disaster relief operations. The research used three independent variables, which were vertical cooperation, horizontal cooperation, and another variable that was not specified. As the data collected for the study was based on the Likert scale, the study grouped the Likert-type items of the dependent variable together to produce a composite score/variable during the data analysis stage, providing a numerical measurement of a characteristic or trait.

The preliminary summary of the results from the multiple linear regression models indicates that the R-squared value was 0.981, while the adjusted R-squared value was 0.981. The coefficient of determination ($R^2 = 0.981$) suggests that the three predictor variables examined in this objective can only explain 98% of the influence of logistics cooperation on the effectiveness of disaster relief operations, and there may be other variables that also affect the dependent variable but were not considered in this study.

Table 8

Coefficients

COEFFICIENTS					
Variables	Unstd. Coefficients		Stand. Coefficients		Sig.
	B	S.E	B	T	
(Constants)	1.060	0.312		3.477	0.001
Vertical coordination	0.214	0.034	0.088	6.294	0.029
Horizontal coordination	0.189	0.026	0.049	7.269	0.010

$R^2 = 0.571$ $R = 0.756$, overall fit of the model $F = 45.459$ at $P = 0.000$

To measure the impact of logistics cooperation on the effectiveness of disaster relief operations, the study utilized a multiple linear regression model. Initial findings revealed that the model had an R-square value of 0.571, an adjusted R-square value of 0.552, and a standard error of estimate of 0.244, as presented in the table. The coefficient of determination (R-square = 0.571) suggests that the two independent variables examined in this objective account

for only 57% of the influence on the effectiveness of disaster relief operations, while the remaining percentage is attributed to other logistics factors that were not investigated in this research.

Based on the model summary, the study concluded that logistics cooperation had a significant impact on the effectiveness of disaster relief operations. The fitness of the model was evaluated through analysis of variance (ANOVA) and the statistically significant value ($p = 0.000$) indicated that the model was adequate for predicting the effects of logistics cooperation on the effectiveness of disaster relief operations. Additionally, the results of the analysis of variance indicated that the two predictor variables, horizontal cooperation and vertical cooperation, were significant ($p < 0.05$) in relation to the effectiveness of disaster relief operations, as also illustrated by Chen and Yu (2022) and Moktadir et al. (2017) and Saleh et al. (2020).

The study indicates that when considering other factors in the model, horizontal and vertical cooperation were the most influential variables in relation to the dependent variable. Nonetheless, the study recognizes that there might be other factors affecting humanitarian logistics that were not addressed in this research, which could contribute to the remaining 2% of the effects on disaster relief operations' effectiveness. This cooperation could be explained in many forms, as covered from the study, mean the cooperation between the government (local and central) and the service providers in humanitarian operation (vertical cooperation) and between the suppliers and health organization (horizontal coordination). This may also mean engagement of the international agencies and organization to the fulfillment of a complete system of disaster relief operation with the country because we also depend on this partnership and cooperation (Song et al., 2021; Karanja et al. 2015; Wuhan Statistics Bureau, 2019; United Nations Coordinated Appeal, 2020).

The findings portrays that logistics cooperation contributes to ensuring effective disaster relief operations in addressing pandemic. The kinds of cooperation on this aspect may include; Cooperation between government and private health institutions, Cooperation between government and international relief organization, Cooperation between government and international relief organization, Cooperation between hospitals and manufacturer of medical equipment, Cooperation between transport service provider and private health institutions, and Cooperation between government and transport service providers (Chen & Yu 2022; Moktadir et al., 2017; Saleh et al. 2020).

CONCLUSIONS & RECOMMENDATIONS

6.1 Conclusion

It may be concluded that cooperation between the stakeholders is very crucial to having and ensuring effectiveness in disaster relief operations in addressing pandemic. Cooperation between the stakeholder in more connected in resources and facility cooperation, this means the stakeholder can cooperate in improving their facilities and collaboration and joining forces in terms of the resources that are needed disaster relief operations.

Basing on the findings relating to contribution of logistics cooperation to disaster relief operations, the study recommends the government to improve private-public partnerships regulations. The improvement of private-public partnerships that is specific deals with issues relating to pandemic disasters and crises. This study may also recommend the policy makers and the government toward having a legal framework and regulations that captures these aspects and necessitating the humanitarian organizations to form alliances in disaster relief operations. This will enable the key participants to be more informed about the government efforts on relief operations and also aids in the resources collaborations.

6.2 Implications on Policy

The study's results have significant implications for the Tanzanian government at both local and central levels. It highlights the importance of effective humanitarian logistics practices to ensure optimal disaster relief operations. Policymakers need to consider this as a strategic move to prepare for future disasters. The study recommends improving private-public partnerships to ensure effective cooperation and collaboration among stakeholders within and outside the nation's boundaries.

Stakeholders and policymakers can use the study's findings to enhance the effectiveness of disaster relief operations and the functioning of humanitarian organizations in humanitarian logistics. The study's results can be utilized to develop a framework that ensures sustainability in partnering and creating a risk management framework specifically designed for pandemics and relief logistical operations.

Moreover, the study's results suggest that involving logistics service providers significantly contributes to the effectiveness of disaster relief operations, reducing transportation and movement complications in relief operations. Therefore, decision-makers need to focus on improving laws and regulations concerning this specific set and help logistics service providers with infrastructural development while treating them as important stakeholders.

This study can be a useful tool for policymakers to establish frameworks that guide nations in implementing procedures to facilitate the movement of people and materials to affected areas and structuring standards to improve logistics during pandemic periods without violating normal operating procedures. Similarly, this study can provide resourceful information to humanitarian organizations to initiate and build relationships and cooperation with other international disaster relief organizations and other humanitarian organizations to strengthen logistics during pandemics' outbreak.

6.3 Recommendations

The study's findings suggest that effective disaster relief operations can be attained by implementing humanitarian logistics properly. This requires using appropriate indicators to assess the performance of humanitarian logistics, recognizing the significance of logistics cooperation and the role of logistics service providers in addressing pandemics. Humanitarian organizations must acknowledge the value of establishing collaborative systems and working with other stakeholders in disaster relief operations. Given that humanitarian logistics is crucial in disaster relief operations, it is essential that all stakeholders work together to ensure maximum participation and establish effective partnerships. Consequently, the success of disaster relief operations depends on having well-organized arrangements in place for humanitarian logistics.

The findings portrays that logistics cooperation contributes to ensuring effective disaster relief operations in addressing pandemic. The kinds of cooperation on this aspect may include; Cooperation between government and private health institutions, Cooperation between government and international relief organization, Cooperation between government and international relief organization, Cooperation between hospitals and manufacturer of medical equipment, Cooperation between transport service provider and private health institutions, and Cooperation between government and transport service providers.

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Strategic Procurement Planning and Service Delivery of County Governments in Western Kenya Region

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ABSTRACT

Ensuring the provision of public services in Kenya necessitates public expenditure through the procurement of goods, works, and services; therefore, the integrity of the entire process from procurement to delivery of goods, works, and services and their use portrays the strength of proper management of public resources and fidelity to the Kenyan constitution. Yet, because there is misuse of public monies in the majority of the Counties and an alleged 50% of it is tied to the public procurement processes used, corruption has been identified as a significant barrier to socio-economic growth in Kenya. The study's primary goal was to ascertain how County Governments in the Western Kenya Region's service delivery were affected by strategic procurement planning. The McKinsey 7s framework model was used as the study's framework and positivist research methodology was used throughout. The study was carried out in the counties of Kakamega, Busia, Vihiga, and Bungoma in western Kenya. The 228 officials that made up the study's target population were divided into chief officers, directors, finance officers, and procurement officers. 174 respondents were chosen from a sample using stratified random selection in the study. Via a questionnaire and interview schedules, primary data was acquired. A pilot study was conducted to evaluate the reliability and validity of the research instruments. The study utilized both descriptive and inferential statistics. The findings of the study established that Strategic Procurement Planning significantly accounted for 40.5% of the variance in Service Delivery of County Governments in Western Kenya ($R^2=0.405$, $P<0.05$). Specifically, when strategic procurement planning increases by one unit, service delivery changes by 0.636 units ($\beta_1=0.636$, $P<0.05$). As a result, the F test resulted in a value of $(1, 161) = 108.908$, $P<0.05$, supporting the model's ability to explain variance in the dependent variable. Among county governments in the western Kenya region, there is a large and favorable correlation between strategic procurement planning and service delivery. The analysis suggests that county governments ensure that strategic sourcing strategies are fully implemented and that they are produced in a reasonable timeframe because they are essential for initiating service delivery.

Keywords: Strategic Procurement Planning, Public Procurement Practices, Service Delivery, Public Resources

I. INTRODUCTION

The creation of county governments began in March 2013 as a variety of achievements in the devolution process overall were realized. This encompasses enacting pertinent laws, delegating duties, operationalizing County Government institutions, and allocating resources. Notwithstanding these achievements, there have been a number of resources, institutional, and intergovernmental relationship issues which have surfaced; therefore strategic procurement planning encompasses the management on placing orders, materials receipt, evaluation, and approval for goods from vendors (Frazelle, 2012).

Strategic Procurement Planning, in accordance with Basheka (2008), supports upcoming procurement procedures. He claims that strategic procurement planning includes identifying requirements that must be met, starting with needs analysis, how such an institution's requirements may be satisfied, the amounts of the needed goods, works, or services, the distribution network strategies implemented, deciding the timelines, and the accountability of the overall process (Ezeh, 2012). Ahmed et al. (2019) asserts that the telecommunications sector lacked effective sourcing strategy at various procurement echelons. He stated that the company was not being guided by good procurement forecasting to get a competitive edge. As per the study, the organizational performance of the telecommunications

sector in Hargeisa Somaliland was positively and significantly correlated with procurement planning, ethics in procurement practice, and measurement of procurement performance.

According to Sahara, Yussuf, and Mwencha (2018), obstacles to the delivery of quality services in Wajir County, Kenya, include: inadequate planning, employees incompetence, an undesirable work environment that encourages passivity, ethically questionable behavior in the workplace, absence of action plan on the part of employees, deterioration of communication networks, an absence of stationery and equipment, protracted government bureaucracy processes, a delay in the National Government's disbursement of funds. According to Onyoni and Kavale (2018), Nairobi's poor service delivery can be attributed to the failure to implement important factors, which leads to incompetence and poor management.

1.1 Problem statement

The Procurement and disposal Laws and its execution must be followed in order to be compliant with procurement laws (Metobo, 2016). Kagume and Wamalwa (2018), claim that Kenya's judicious use of taxpayer money is determined by how the procurement bodies use public funds to buy products, services, and projects. Nonetheless, misuse of taxpayer funds has indeed been documented in the majority of the Counties, and it is estimated that 50% of it is attributable towards the public procurement strategies used (Owago, Ngacho, & Wafula, 2021).

For the previous eight years, the Auditor General's audits have repeatedly revealed abnormalities in the use of public money, as well as considerable fraud in the public sector and large allegations on misspending that have been connected to violations of procurement laws (Kagume & Wamalwa, 2018). The Auditor General reported on county expenditures for the previous eight fiscal years, revealing widespread financial mishandling that was connected to weak financial control mechanisms and called into question the fiscal oversight procedures of the Counties Assembly. Similar irregularities to breaking the Public Finance Act or the procurement legislation, the papers cite discrepancies between the amounts collected and those taken to banks, as well as County Directors' and Assemblies' abuse of their positions (Kagume & Wamalwa, 2018). Service delivery in County Governments has remained poor despite there still being restrictions on public procurement like the PPDA (2015) and the Regulations 2020, necessitating a gap that should be investigated.

1.2 Objective of this Study

The objective of the study was to investigate the effects of strategic procurement planning on service delivery of county governments in western Kenya region.

1.3 Hypothesis of the study

H01: Strategic procurement planning has no statistical significant effect on the service delivery of county governments in western Kenya region.

II. LITERATURE REVIEW

2.1 Theoretical review

2.2.1 McKinsey's 7s Framework Model

McKinsey's 7S paradigm, that Robert and Tom (1980) established, is primarily a management approach that was developed as a strategic vision for organizations, to include enterprises, businesses, and teams. According to the paradigm, needs should indeed be repositioned to enhance the effectiveness of the strategy and implementation strategy, or to keep it in place if an organization is Adapting to changes (Robert and Tom, 1980). Maru (2015) investigated this concept to connect strategy execution at the Revenue Authority of Kenya and found that needs congruence at the Revenue Authority of Kenya was the reason why strategic alignment was successful. Although this model's detractors have pointed up drawbacks that make it less effective. The absence of parameters which can resolve difficulties with the outside environments and performance-related concerns is one of this taxonomy's shortcomings. The McKinsey 7S Model's inception, which originated from practice rather than theory, is the primary cause of its absence of "comprehensiveness." So, the McKinsey's 7s Model is an example of an effort to ex post facto introduce the McKinsey's beliefs on the operation of both manufacturing and service enterprises (Burke & Litwin, 1992).

2.2.2 Strategic Procurement planning

Chepkensis and Keitany (2018) discovered that since planning is a time-saving problem-solving technique, it increases quality, provides economic value, promotes appropriate resource use, speeds up the process of making

decisions, and fosters innovation. By preventing or controlling excess expenditures and guaranteeing that purchasing operations are not conducted outside without appropriate resources, a procurement approach may assist with the implementation of a budget and resource allocation plan (Ogwel, Iravo, & Lagat, 2016). The Public Procurement and Asset Disposal Act's restrictions should be adhered to, and procurement should be based on careful planning. The basis for procurement should be a process that guarantees citizens have access to the best services and prevents it from being used to plunder public funds. In so far as the participation of vendors in the business operations of the business is concerned, the purchasing approach, through periodic appraisal of the supplier's capabilities, influenced the strategic relationship. The predictor variable employed was the strategic planning process (Tarigan & Siagian, 2021).

Independent variable

Dependent variable



Figure 1

Conceptual framework

Source: Authors (2023)

III. METHODOLOGY

3.1 Research Design

Explanatory research methodology, which examines cause-and-effect correlations, was used in the study. The methodical collecting of data in a standardized way from a given population or representative comes before the design of the explanatory research (Mugenda & Mugenda, 2008). The County Governments in the Western Kenya Region, including Bungoma, Busia, Kakamega, and Vihiga, made up the study's population. The 228 officials who made up the target population were Chief Officers, Directors, Finance Officers, and Procurement Managers. 174 participants who work in these Counties were chosen at random from a stratified sample of these respondents.

While interviews were used to gather qualitative information, self-administered questionnaires were used to get quantitative information required for the research.

In order to clarify each of the study's objectives, quantitative data analysis techniques were used, including both inferential and descriptive statistical techniques (frequency, percentages, means, and standard deviations). The following was the format of the regression model used to illustrate the connection amongst strategic procurement strategy and delivery of services:

$$P = \beta_0 + \beta_1 X_1 + \epsilon$$

P stands for "Service Delivery," while " β_0 " stands for the intercept (a constant), " β_1 " is the slope related to the independent variable " X_1 ," and " ϵ " is the error term that is believed to represent an independent, identically random normally distributed variable with a mean of zero and homogeneity of variance.

IV. RESEARCH FINDINGS AND DISCUSSION

4.1 Descriptive statistics for Strategic Procurement Planning

One of the factors affecting how County Governments in the Western Kenya Region offer services is strategic procurement planning. There were a set of eight relevant questions to gauge Strategic Procurement Planning. The degree in which the respondents were in agreement or disagreement with the assertions was requested of them. The relevant findings are shown in Table 1 below:

Table 1*Descriptive statistics for Strategic Procurement Planning*

Strategic procurement planning	Response					Skewness		Kurtosis	
	N	Min	Max	Mean	Std. Dev.	Statistic	Std. Error	Statistic	Std. Error
Need identification is done on all procured goods and services in the County	161	1	5	4.35	.593	-1.008	.191	4.824	.379
Need assessment is carried out before undertaking Procurement activities in the County	161	1	5	4.35	.662	-1.038	.191	2.815	.379
Top management supports the implementation of strategic Procurement plans	161	2	5	4.31	.709	-.750	.191	.126	.379
Procurement plans are prepared on time to inform budgeting process	161	1	5	4.52	.680	-1.688	.191	4.338	.379
Organization's top management supports the implementation of strategic procurement plan	161	1	5	4.44	.678	-1.431	.191	3.718	.379
The needs of the people are aligned to government policy	161	1	5	4.10	.793	-.568	.191	.193	.379
Goods, works and services procured are within the estimated budget	161	2	5	4.45	.697	-1.106	.191	.785	.379
Goods, works and services procured adhere to the quality standards required	161	1	5	4.33	.772	-1.393	.191	3.108	.379
AVERAGE	161	1.375	5	4.357	.443	-1.123	.191	12.003	.379

Source: Field Data (2023)

The mean scores and standard deviation of the Likert scale responses to the Strategic Procurement Planning statements were also calculated and are displayed in Table 1 above. The participants concurred that all purchased goods and services in the County are subject to need identification ($M= 4.35$, $SD=0.593$). The negligible variation suggested that not every county conducts need identification on all purchased products and services. Also, the respondents concurred that need assessments are conducted in the County prior to procurement operations ($M=4.35$; $SD=0.662$). The negligible variation suggested that not all counties perform need assessments on all purchased products and services in the County. This is consistent with the findings of Harvey's study from (2008) which claimed that needs assessments are helpful in determining effective responses through the clear identification of the issue to guarantee that limited resources (Prior to actually Budget allocations) are prioritized toward the creation and implementation of a workable and pertinent solution for projects and also ensure that funds are used appropriately.

The participants moreover concurred that senior management supports the execution of strategic procurement initiatives ($M=4.31$, $SD=0.709$). The negligible variance suggested that not all county senior management supports the execution of strategic procurement programs. This is consistent with the research by Salim and Kitheka (2019), which found that top management engagement in companies is essential for highlighting the value of following protocols and understanding precise requirements for the departments. Furthermore, the respondents ($M=4.52$, $SD=0.680$) overwhelmingly concurred that senior management ensures prompt formulation of a strategic procurement plan to guide budgets. The negligible variance suggested that not every county's upper executives guarantee that Strategic Procurement Plans are prepared on time to support budgeting.

These results are consistent with the research by Salim and Kitheka (2019), which found that top leadership involvement is essential for highlighting the significance of following protocols and capable of understanding clear specifications for relevant department in organizational procurement processes by providing adequate training and seminars on the relevance and importance of having clear specifications that should be in line with the public procurement. The responders ($M=4.44$, $SD=0.678$) likewise concurred that procurement plans are created on schedule to inform the budgeting process. The negligible variation suggested that not every counties timely create procurement plans to guide budgets. This is in line with the PPADA (2015), which states that procuring organizations should plan their purchases and that doing so will enable them to get the most bang for their buck and minimize costs. According



to the findings, the respondents concurred that societal needs and governmental policies are compatible (M=4.10, SD=0.793).

The negligible variance suggested that not every county made purchases of products, services, and works within the projected budget. The respondents also concurred that the goods, projects, and services acquired meet the necessary quality criteria (M=4.33, SD=0.772). The negligible deviation suggested that not all counties obtained commodities, works, and services that met the necessary quality criteria. Results to the question of how Strategic Procurement Planning practice affects County Governments' ability to deliver services in Western Kenya ranged from 4.10 to 4.52 at a standard deviation of .443, with a mean response of 4.357.

In terms of Skewness and Kurtosis values, both of these values are less than 1.0, indicating that the distribution is within the normal limits and can thus be regarded as normal. When the Values of kurtosis are larger than +1.0, the distribution is leptokurtic, as seen in the result above. If the measure for Skewness has values smaller than -1.0, the distribution is left skewed.

4.2 Correlation between Strategic Procurement Planning and Service delivery

Pearson Correlation was conducted to establish the relationship between strategic procurement planning and service delivery of County Governments in Western Kenya Region. In examining the effect of strategic procurement planning on service delivery the study found out a correlation coefficient (r) of 0.636** (p<0.05) at 95 % confidence level. This postulates that there is a moderate and positive relationship between Strategic Procurement Planning and service delivery of County Governments in Western Kenya Region. This implies that an increase in strategic procurement planning will lead to increase in service delivery of County Governments in Western Kenya Region. The results are shown in Table 2.

Table 2
Correlation between Strategic Procurement Planning and Service delivery

		SPP	SERV Del
SPP	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	162	
SERV Del	Pearson Correlation	.636**	1
	Sig. (2-tailed)	.000	
	N	162	162

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

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

4.3 Regression results of Strategic Procurement Planning and Service Delivery

To determine the degree of the dependent variable (service delivery) that can be attributed to the independent variable (Strategic Procurement Planning) a regression analysis was performed. The analysis of the findings is shown in Table 3.

Table 3
Model summary for Strategic Procurement Planning and Service Delivery

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 ^a	.405	.401	.40066

a. Dependent Variable: SERV Del

b. Predictors: (Constant), SPP

Strategic Procurement Planning accounts for 40.5% of the variation in County Governments' service delivery in the western Kenya Region, according to the regression model's R², which was calculated as 0.405. The remaining variance is accounted by the error term.

Table 4*ANOVA for Strategic Procurement Planning and Service Delivery*

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.483	1	17.483	108.908	.000 ^b
	Residual	25.685	160	.161		
	Total	43.168	161			

a. Dependent Variable: SERV Del

b. Predictors: (Constant), SPP

The F test result of (1,161) = 108.908, $P < 0.05$, supports the model's ability to adequately account for variance in the dependent variable. This implies that Strategic Procurement Planning is a valuable tool for predicting service delivery.

Table 5*Coefficients for Strategic Procurement Planning and Service Delivery*

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.487	.236		6.306	.000
	SPP	.617	.059	.636	10.436	.000

a. Dependent Variable: SERV Del

The regression model obtained from the output was:

$$\text{Service Delivery} = 1.487 + 0.636 \text{ Strategic Procurement Planning} + \text{error}$$

The standardized regression coefficient for Strategic Procurement Planning was 0.636. This indicated that a unit increase in Strategic Procurement Planning would result in 63.6% increase in service delivery of County Governments in Western Kenya Region. At the 5% significance level, the t-statistic for the regression coefficient for Strategic Procurement Planning was significant ($t=10.436$, $p < 0.05$), suggesting rejection of the null hypothesis. The research findings suggest that there exists a substantial positive association between Strategic Procurement Planning and service delivery of County Governments in Western Kenya Region on the basis of these figures. The null hypothesis which indicated no existence of a significant statistical effect of Strategic Procurement Planning practice on Service Delivery of County Governments in Western Kenya was therefore rejected and the alternative hypothesis which indicated existence of a statistically significant effect of Strategic Procurement Planning practice on Service Delivery of County Governments in Western Kenya was instead accepted. This conclusion is confirmed by that of Kariuki and Wabala (2021), who found that procurement planning significantly, contributes to the performance of the organizations in the public sector by enabling efficiency and effectiveness. Strategic Procurement Planning, which is a time-saving approach to problem-solving, has been shown by Ogwel, Iravo, and Lagat (2016) to increase quality, value for money, proper resource consumption, speed of decision-making, and inventiveness.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The results of the preceding chapter make it clear that County Governments have successfully implemented their Strategic Procurement Strategy in a number of countywide procurement transactions. To accomplish the goals outlined in the Counties Procurement Strategy, the National Government, however, faces a hurdle in timely disbursing the monies. Service delivery in County Governments in Western Kenya has a substantial association with strategic procurement planning. This suggests that county governments in Western Kenya would supply services at significantly higher levels if strategic procurement planning were increased. As a result, the study came to the conclusion that County Governments in the Western Kenya Region's service delivery is significantly impacted by Strategic Procurement Planning.



5.2 Recommendation

According to the study, County governments ought to make sure that its strategic procurement strategies are fully developed and implemented in such a timely basis because they are essential for starting delivery of services. Therefore, it is necessary for procurement departments to carry out needs assessments effectively. Information gathered should be communicated with relevant department to help them prepare procurement plans based on current market prices. The creation of a procurement plan is a time-consuming and complex process; therefore management must educate users and the purchasing staff about its creation and execution in order to improve service delivery for County operations and, consequently, the efficient use of funds.

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Influence of Organizational Culture on Public Health Service Delivery in County Governments in Western Kenya Region

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ABSTRACT

Poor health service delivery has been linked to the devolution of health services, with some health workers walking off the job due to inadequate pay and unsafe working conditions. This research aimed at establishing the influence of organizational culture on public health service delivery in County Governments in Western Kenya Region. Taking a positivist approach, the study was anchored on Organizational Culture Theory. Descriptive survey and causal-comparative research designs were adopted with a target population of 966 personnel consisting of the CECMs, Chief Officers, Directors and County Nursing Officer for Health, Medical Superintendents, Hospital Administrator, Human Resource Officer, Head of Pharmacy, Head of Nursing, Health Records Information Officer, Head of Laboratory, Head of Clinical Services and number of patients admitted, treated and discharged drawn from all the four Counties of Bungoma, Busia, Kakamega and Vihiga. Primary data was collected using both structured questionnaires and interview schedules. Qualitative data was analysed by content analysis while quantitative data was analysed using both descriptive and inferential statistics. The SPSS Software version 26 was used for statistical analysis which was both descriptive whereby frequencies, percentages, means and standard deviation were clearly shown in the form of both tables, models and charts. The hypothesis tested for significance of the study at 5% significance level. From the regression model, the R^2 value was 0.761. This shows that organizational culture could explain 76.1 % of variance in public health service delivery. Under regression coefficients, organizational culture could statistically significantly predict public health service delivery in County Governments in Western Kenya Region ($t=30.529$, $p<0.05$). Therefore, the hypothesis was rejected. This shows that for one-unit increase in organizational culture, public health service delivery increased by 0.873 units. With regard to organizational culture, it is suggested that policymakers develop policies that encourage a culture wherein all employees and stakeholders are actively engaged in the strategic implementation process. Management of the strategy's implementation should not be the sole purview of change specialists and upper management. The people leading the shift were also responsible for making conditions more amenable to the desired transformation.

Keywords: Organisational Culture, Public Health Service Delivery, Western Kenya

I. INTRODUCTION

The Sustainable Development Goals (SDGs) recognize universal health care as a significant and laudable objective. The goal of universal health coverage is to ease the way toward more prosperous and fair societies and economies by ensuring that all people, regardless of their ability to pay, have access to the healthcare they need. Without prioritizing health care quality, universal health coverage should not even be considered, much less implemented. Care must be efficient, risk-free, and tailored to the wants and requirements of the communities they are meant to benefit. In addition, care delivery should be timely, equitable across populations, coordinated across the care continuum and across the life course, and resource-efficient at all points (World Bank, 2018).

Lu et al. (2013) state that the healthcare industry is one of the largest in the service sector, and that the provision of healthcare services is an integral aspect of service delivery for the economic and social well-being of any nation. The provision of health services is important to every health system and is widely recognized as a key factor in reaching the SDGs (World Health Organization, 2016). Costly service provision, speedy service delivery, easy access to health facilities, and healthcare providers that fulfill their service mission all contribute to health service delivery in the health business (Akachi & Kruk, 2017). The promotion of universal health coverage (UHC) is a core tenet of the healthcare sector's infrastructure for delivering healthcare services to everyone who need them (Zodpey et al., 2018).

According to Wang (2016), the main causes of inefficient service delivery in Chinese hospitals were a lack of coordination, insufficient staff, a lack of enthusiasm, and the absence of supportive legislation. In India, researchers Mohanan et al. (2016) showed that enhanced health service delivery may be achieved by strengthening institutional



capacity, increasing financial resource mobilization, enhancing governance, and implementing data-driven policies. Healthcare personnel in Switzerland are more productive when they have access to sufficient resources, positive working relationships, social amenities, and modern infrastructure, as pointed out by Gilles et al. (2014).

Africa as a continent faces a significant difficulty in the delivery of healthcare services because the vast majority of its poor population does not have access to these services (Akokuwebe & Adekanbi, 2017). Although many African countries signed the Abuja declaration, which urged governments to devote at least 15% of their budgets to healthcare and guarantee universal health coverage, few have met even these modest goals (Ahenkan & Osei-Kojo, 2014). Assefa (2017) conducted research in Ethiopia and found that the country's impressive progress in broadening health sector growth has been bolstered by comprehensive initiatives aimed at enhancing investments in healthcare. Health care access has been limited by a number of factors, including a failure to reach marginally-alienated communities, insufficient poverty reduction, and inadequate educational opportunities. According to research by Akokuwebe et al. (2017), service delivery in Nigerian hospitals is significantly impacted by corruption and inadequate distribution of medical supplies.

Kenya (2016) notes that customers are dissatisfied when their expectation of the health service surpasses their assessment of the health care got. Public hospitals in Nairobi County, he found, were hampered in their ability to provide health care due to issues with information system integration, drug supply, decision making, and responsibility delegation. This research aimed to determine if and how public health service delivery in health facilities in Western Kenya's Region was affected by the leadership style of its managers, the availability of its human resources, and the strength of its culture.

In contrast to the principles and customs of other groups, an organization's culture is what makes it stand out (Ortega-Parra & Sastre-Castillo, 2013). According to King (2012), a company's culture is the unstated set of principles that quietly affects employee behavior. In the business environment, organizational culture and corporate culture are often used interchangeably to mean the same thing (Childress, 2013). Magee (2002) defines organizational culture as the common values and standards held by the members of an organization. The assumptions rely heavily on one's beliefs and ideals. Values are based on ideals that are desirable and worth aiming for, whereas beliefs focus on the reality and which comes from experience.

The norms that employees observe and characterize as present in their own workplaces are all part of an organization's culture (Schneider, 2013). Members' actions and level of flexibility in achieving organizational goals are shaped by such standards. Members' interactions with one another and the organization's external stakeholders are key components of its culture (Simoneaux & Stroud, 2014). According to Robbins (2012), the culture of an organization is one of the most striking differences between businesses.

Govindarajan (2016) argues that in order to successfully fulfill a task, it must first be fully described and then integrated into the service delivery process. When a service is clearly defined, the people who will be using it can learn about its benefits and drawbacks, whether they are eligible to get it, how much it will cost them, what restrictions it has, how to access it, and how to obtain help if they need it (Buong & Ayugi, 2017). Good internal procedures that can back up service provision are essential for success.

The devolution of healthcare in Kenya began with the devolution of power between the national and county governments following the adoption of a new constitution in 2010 (Wahome, 2019). In Kenya, healthcare is one of the areas that have been given more authority to county governments under the Transition to Devolved Government (Waithaka & Barasa, 2018). It is proposed in the National Health Policy (2012) that County Health Departments be reformed, with one of its primary responsibilities being the establishment of an effective institutional framework to ensure the safe administration and distribution of healthcare services across the County (Gitonga & Keiyoro, 2017).

UHC ensures that everyone has access to the primary, secondary, tertiary, and quaternary care they need to live a healthy and productive life, including the services necessary to maintain and improve health without causing undue financial hardship (World Health Organization, 2016). Despite significant health investments, health outcomes remain unsatisfactorily low, especially in large parts of the developing globe. It is completely unacceptable that half of the world's population lacks access to basic healthcare (Achia et al., 2015). Generally speaking, the best healthcare service delivery models can be found in more developed countries like the United Kingdom, Canada, Norway, and Sweden. These models are supported by the implementation of universal health coverage, the nationalization of health services, and a robust health system (Papanicolas et al., 2018).

The Constitution of Kenya, adopted in 2010, ensures that all Kenyans have access to quality healthcare that is based on their individual rights. It means Kenyans have a right to the best possible health, which includes access to medical care and reproductive services (Article 43). Local governments are responsible for providing basic healthcare services, but the federal government continues to set health policy, provide technical help to counties, and manage national referral health centers. In order to better meet the specific health needs of their constituents, foster greater citizen engagement, and expedite the allocation of scarce resources, County Governments were given authority over



this sector. Yet, the industry is currently plagued with enormous difficulties in virtually all Counties, such as capacity gaps, human resource shortages, a lack of crucial legal and institutional infrastructure, widespread corruption, and a contentious relationship with the central government (Kimathi, 2017). Healthcare as a whole has been unable to move forward, and some health indicator data suggests that it may have even gone backwards, as a result of these difficulties (Kimathi, 2017).

Andove and Nzulwa's (2018) research in Machakos County on the barriers to the strategic delivery of public health services found that ineffective management of the healthcare system inside the facility, issues with management, a failure to adopt a supply-driven approach to healthcare management, and a lack of resources that promote the efficiency of public health service management were all factors impeding service delivery. Whether or if the facility's bad management style hinders its employees' ability to adapt to a changing environment was not made clear. According to Ochola's (2016) research on the determinants of strategy implementation in public health facilities in Mombasa County, Kenya, he discovered that staff lacked enough training in the evaluation and monitoring of the strategy's progress.

On the other hand, despite the adoption of the Constitution's fourth schedule, Counties nevertheless face ongoing issues that have a negative effect on health service delivery (Achia & Mageto, 2015). Poor health services, a lack of contemporary equipment and facilities, and a lack of accessible health facilities are just a few of the many obstacles that make it difficult to gain access to healthcare in the Public Sector (Ministry of Health, 2014). These problems inspired us to investigate what influences strategy implementation and how counties in Western Kenya's region provide public health services.

1.1 Statement of the Research Problem

Reluctance to recognize existing problems is one of the greatest barriers to health care progress. Another challenge is identifying and implementing effective interventions competently. Leadership is a cliché in the field of health care quality improvement, but without it, there is no way to instill the notion that improvement is feasible in order to motivate collective action (Dixon-Woods et al., 2012). The legal framework established by the Constitution of 2010 ensures a comprehensive, rights-based approach to the provision of healthcare services to Kenyans. It indicates that Kenyans are entitled to the greatest achievable health standards, which includes the right to healthcare services and reproductive health care (Article 43). The principal human resource concerns are shortages, failure to develop enough numbers of healthcare professionals, maldistribution of current employees, and inadequate skills of many healthcare personnel (Holtz & Elsayw, 2013), and these issues have undermined the government's capacity to deliver important healthcare projects, such as access to healthcare for all, at the levels it wishes to maintain (Ataguba et al., 2012). It is believed that the decentralized government will provide better public health services than the central government. With the devolution of the health services sector, incidences of health workers resigning due to bad working conditions and a lack of equipment, among other issues, have been observed, resulting in inadequate health service delivery.

The research by Kariuki (2021); Andove and Nzulwa, (2018); and Ochola (2016) had contextual gaps because they focused on Kasarani Sub County, Kenya, Machakos County, and Mombasa County, Kenya, whereas Western Kenya County Governments were the focus of the present research. In light of these gaps in understanding of the conceptual, methodological, and contextual factors influencing the delivery of public health services by County Governments in Western Kenya Region, the present study aimed to identify and quantify the elements that influence these outcomes. The studies by Kariuki (2021), Andove and Nzulwa (2018), Ochola (2016), Thuku (2020), and Kiana, (2016) were also conceptually incorrect and had a limited scope because they only addressed organizational cultures and styles, organizational communication, organizational structures, and the capability of the health facilities, as well as ineffective and inconsistent management of the healthcare system in the facility, management issues, and a driven style of providing healthcare services. None of these researches have focused on the leadership styles and public health service delivery in the County Governments of Western Kenya Region.

1.2 Purpose of the study

The study sought to establish the influence of organizational culture on public health service delivery in County Governments in Western Kenya Region.

1.3 Research Hypothesis

H₀1: Organizational culture has no statistical significant influence on Public Health Service Delivery in County Governments in Western Kenya Region.



II. LITERATURE REVIEW

2.1 Theoretical Review

The Organizational Culture Theory was also applied to the research. Dr. Elliott Jaques, in his work "The Changing Culture of a Factory," is credited with coining the term organizational culture or culture in the context of an organization (Jaques, 1951). Organizational culture refers to the shared values and practices that have been developed and refined by a team as they've faced and adapted to both internal and external pressures (Schein, 2005). Some believe that an organization's culture is the most important factor in determining its success or failure (Lynch, 2012; Schneider & Barbera, 2014; Andrews, 2017). Corporate culture refers to cultures that are established by management in order to achieve certain strategic goals, whereas organizational culture refers to the fundamental beliefs regularly held, shared, and learned by a group that govern individuals' perceptions, emotions, thoughts, and behaviors (Hill & Jones, 2013; Prenestini & Lega, 2013).

Employees will have a clear idea of what is expected of them in terms of their actions and behaviors as they implement the plan if the organization's culture is consistent and helpful in this regard (Carlopio & Harvey, 2012; Acar & Acar, 2014). Successful managerial leadership requires harmonizing an organization's culture with strategy to maximize the effectiveness of the strategy (Lynch, 2012; Hussein et al., 2016).

The theory of organizational culture stands to benefit from this study. Organizational culture was analyzed in terms of its beliefs and values, routes of communication, policies, and attitudes. This study set out to answer the question, "To what extent do employees in the health sector of county governments have a culture that depicts team effort and commitment to public health service delivery in the county governments?" by examining whether or not county government health sector employees have a strong desire to work together to complete a certain assignment or task in order to better support the implementation of county government strategies. The quality of public health services provided by County Governments in Western Kenya was the focus of this study's analysis. This is connected to the study's central hypothesis and the third independent variable.

2.2 Empirical Review

Bruno (2021) investigated the impact of private hospitals' cultures on patient care in Nairobi County, Kenya. The research in this article was grounded in two theories: the Service quality model and the theory developed by Deal and Kennedy. There are 55 private hospitals in Nairobi City County, which served as the primary audience. It was shown that staff recognition and leadership are highly valued at private hospitals in Nairobi, whereas diversity and open dialogue are moderately fostered. It was shown that there is a favorable association between company culture and service quality. According to the results, workers need to be involved in the implementation process for a plan to be successful. This study also suggests a set of product quality characteristics known to entice repeat purchases. Whereas the previous research was conducted in a public hospital, the current investigation took place in Western Kenya. Since it is unclear from the study who was asked to participate, any conclusions can only be made on a case-by-case basis.

Al-Otaibi and Common (2018) evaluated the role of organizational culture in Saudi Arabia's health care system. This research applies the CVF to Saudi Arabian healthcare workers to better comprehend the local culture and effect good change. Given the breadth of this use of the CVF beyond its Western origins, an examination of Saudi culture is warranted. According to a close reading of Hofstede's framework, this culture displayed characteristics of great power distance, collectivism, femininity, and risk aversion. Many facets of society are reflected in the healthcare system and hospital cultures. With the help of the CVF, it became clear that both the actual and ideal state of Saudi Arabia's healthcare system included elements of each of the four organizational culture types. The results also revealed that in the current context, a hierarchical culture was somewhat more prevalent than other types, however in the ideal context; a clan culture was slightly more prevalent. To improve health care delivery in Saudi Arabia, all four forms of culture (clan, adhocracy, market, and hierarchy) must be developed. Study was conducted among Arabs, whose business culture is vastly apart from that of Kenya. Generalizing the findings was difficult due to the inadequacy of the study's population and design methods.

Chi and Chia (2018) investigated the relationship between hospital organizational culture and organizational commitment among Taiwanese hospital nursing executives. Researchers in this study chose 106 nurse administrators from 24 different hospitals in Taiwan using a stratified random sample technique. Descriptive statistics, Pearson's Correlation coefficients, and a hierarchical regression analysis are used to examine the data. This study reports a beneficial connection between hospital organizational culture and employee loyalty. The total score on the hospital's cultural dimensions is also a strong predictor of loyalty to the organization, as shown by regression analysis. Only the normative and emotional dimensions of organizational commitment were found to be statistically significant. The present research was concerned with the provision of high-quality services, while the previous one measured



organizational commitment. Hospital culture was not operationalized in this study.

Carney (2018) aimed to determine if there was a shift in the relationship between cultural factors and healthcare quality, and whether this shift might be reflected in certain components of corporate culture. Fifty professional clinicians and non-clinician managers in the capacity of head of department in Irish acute care hospitals were interviewed for this study. A total of 850 managers were used in the original survey, and from that pool, this sample was drawn. The complexity of an organization's culture has been underestimated up until now. Many cultural factors were identified as important cultural determinants of quality care delivery, including ethical values, engagement, professionalism, value for money, cost of care, commitment to quality, and strategic thinking. Managers in the healthcare industry recognize that balancing the competing priorities of reducing costs and providing high-quality treatment presents a significant challenge, but believe that doing so is essential to their success. Due to its lack of a positivist philosophical underpinning, this qualitative study may not be as reliable as one that takes a more scientific approach. The research did explain how 50 participants were culled from an initial pool of 850.

Chepkonga and Nyaga (2019) examined the impact of leadership culture on the quality of service delivery in public hospitals. Two hundred seventy hospital workers and ten thousand patients in the Mbagathi region of Nairobi City County were the subjects of this research. The 398 workers and patients were selected using a simple random selection method, while the 8 management personnel were counted during a census. Both quantitative and qualitative primary data were employed in this investigation. A questionnaire was used to collect primary data from the relevant parties, and responses were recorded using a 5-point Likert scale. Because Likert scales allow for easy quantitative data analysis in packages like Statistical Package for the Social Sciences, they were the chosen method of survey design (SPSS). The administration of the district hospital was interviewed using an interview guide as well. Drop and pick up later was the method of choice for the self-administered questionnaires. A small percentage (5%) of the total population was used in a pilot research. The results showed a favorable and statistically significant correlation between leadership culture and service provision in Kenya's public hospitals. The researchers ignored all other forms of company culture in favor of studying the culture at the top.

III. METHODOLOGY

3.1 Research Philosophy

This study utilized the positivist research philosophy, which is consistent with the notion that realism is stable.

3.2 Research Design

This study employed both causal-comparative and descriptive survey research designs. Causal-comparative research is a feasible research method that can be employed when other methods fail. The descriptive survey approach was chosen because it enables the researcher to collect information systematically using questionnaires, compile it, present it, analyze it using SPSS, and interpret it. Often, descriptive research requires the collection of information by data analysis, surveys, interviews, or observation. The design also aids the researcher in providing accurate descriptions of goods.

3.3 Study Location

The research was carried out in the county governments of Former Western Province. Bungoma, Kakamega, Vihiga, and Busia are the counties.

3.4 Target Population

The total target population for this study consisted of nine hundred and sixty six staff from the four (4) County Referral Hospitals and 29 Sub-County Hospitals. These were four (4) CECMs - Health, four (4) Chief Officers-Health, four (4) Directors-Health, four (4) County Nursing Officers, 33 Medical Superintendents, 33 Hospital Administrators, 33 Human Resource Officers, 33 Head of Pharmacy, 33 Head of Nursing, 33 Head of Laboratory, 33 Head of Clinical Services, 33 Health Records and Information Officers and 686 patients who were admitted, treated and discharged between July-September, 2022). These patients were selected from the Health Records and Information Officers' records. The study focused only on the Referral and Sub County Hospitals since they were well equipped in terms of facilities and specialists and offer variety of serviced to the patients (See Table 1).



Table 1
Sampling Frame

S/N	Categories of Respondents	Bungoma	Kakamega	Busia	Vihiga	Total
	Ministry of Health					
1	CECM – Health	1	1	1	1	4
2	Chief Officer – Health	1	1	1	1	4
3	County Director	1	1	1	1	4
4	County Nursing Officer	1	1	1	1	4
	Sub Total					16
	Referral Hospital					
1	Medical Superintendents	1	1	1	1	4
2	Hospital Administrators	1	1	1	1	4
3	Human Resource Officers	1	1	1	1	4
4	Head of pharmacy	1	1	1	1	4
5	Head of Nursing	1	1	1	1	4
6	Head of laboratory	1	1	1	1	4
7	Head of Clinical Services	1	1	1	1	4
8	Health Records and Information Officers	1	1	1	1	4
	Sub Total					32
	Sub-County Hospitals					
1	Medical Superintendents	9	10	6	4	29
2	Hospital Administrators	9	10	6	4	29
3	Human Resource Officers	9	10	6	4	29
4	Head of Pharmacy	9	10	6	4	29
5	Head of Nursing	9	10	6	4	29
6	Head of laboratory	9	10	6	4	29
7	Head of Clinical Services	9	10	6	4	29
8	Health Records and Information Officers	9	10	6	4	29
9	Number of Patients Admitted, Treated & Discharged (July-September, 2022)	175 (18)	215 (22)	153 (15)	143(14)	686(69)
	Sub Total					918
	TOTAL					966

Source: County Human Resource Departments (2022)

3.5 Sampling Techniques and Sample Size

The population of the four counties and the people who lived there were split up into several groups. Researchers employed stratified random sampling because it allows them to collect data from a subset of the population that is representative of the whole. The study adopted census method for the 264{32 + (29x8)} staff since the number was small and accessible and 10% of 686 (69) patients who were selected through simple random sampling technique, thus giving a total sample size of 333 respondents who responded to the questionnaires. A total of 16 staff comprising CECMs, Chief Officers, County Directors and County Nursing Officers were interviewed and therefore did not respond to the questionnaires.

3.6 Data Collection Instruments

The study included primary and secondary sources. Primary data is information that the researcher collects himself through questionnaires and interviews. Secondary data means data collected by someone else earlier, for example data from the patients kept by the Health Records and Information Officers. The researcher used both structured and unstructured questionnaires and the use of interviews which elicited appropriate responses for the study. Primary and secondary sources were used to compile quantitative and qualitative data, respectively.

3.7 Validity and Reliability of Research Instruments

The data collecting instrument's content validity was established after being reviewed by a panel of experts who offered their thoughts on each question and indicated whether they found it to be pertinent or not. Construct and



face validity were also employed in the research. Construct validity was achieved by investigating multiple facets of the construct of interest through a sequence of interconnected questions. The questionnaire was found to have high face validity because it only asked about topics that were actually of interest to the respondents.

Internal consistency reliability was calculated using the Cronbach alpha formula (Kim & Cha, 2002). This study followed Gupta's (2004) recommendation that a minimum alpha value of 0.7 be used for item loadings. The purpose of this was to make sure that the measurements obtained from the data gathering instruments were correct (valid) and reliable (consistent) throughout several uses. Using the SPSS statistical program, data generated during the pilot study was analyzed to determine the reliability of the instrument.

Table 1

Reliability Analysis Results

Reliability Statistics		
Variables	Cronbach's Alpha	No. of Items
Organizational Culture	0.880	05
Public Health Service Delivery	0.853	10

3.8 Descriptive Statistics

The researcher employed descriptive statistics such as the mean, standard deviation, and range of values to characterize the data.

3.9 Hypothesis Testing

As each hypothesis is predicated on a single response variable that linearly depends on a set of predictor variables, we tested them all by employing a multiple regression model. The starting point for any hypothesis test is the null hypothesis, or H_0 (Kaur, 2015). The T-test and the F-test were used to examine the hypotheses. Table 3 outlines the methodology used to examine the four hypotheses.

Table 3

Hypothesis Testing

	Hypothesis Statement	Hypothesis Testing	Model
i	H_{01} : Organizational culture has no significant influence on the service delivery of County Governments in Western Kenya Region	$H_{01}: \beta_1 = 0$ $H_{0A}: \beta_1 \neq 0$ Reject H_{01} if $\beta_1 \neq 0$ and P value ≤ 0.05 otherwise fail to reject H_{01} if $\beta_1 = 0$ and P value $> \alpha$ $\alpha = 0.05$	$Y = \beta_0 + \beta_1 X_1 + \epsilon$

Source: Author Computation (2023)

IV. RESULTS AND DISCUSSION

4.1 Response Rate

The study ascertained the response rate so that the researcher could assess whether or not it was adequate for interpreting and reporting the results. With a sample size of 333 people, a total of 333 questionnaires were sent out; 264 went to medical professionals, and 69 were given out to patients (via telephone). There was a response rate of 93.6% from healthcare providers and 68.1% from patients, for a total of 294 completed surveys. There were 39 non-responses, including 22 from patients and 17 from medical staff. Gibson (2017) argues that any response rate of 50 per cent or more is adequate for drawing conclusions from the study. Hence, the response rates of 247 (93.6%) for health professionals and 47 (68.1%) for patients were adequate to provide credible data.

4.2 Demographic Characteristics of the Sample

This section gives the conclusions regarding the respondents' demographic profiles. The study's data were assessed for gender disparities, age, educational backgrounds, length of public health care delivery experience, job roles of respondents in County Governments in the Western Kenya Region, and other factors. The demographic characteristics resulted in the following:



4.2.1 Gender Distribution in the Sample

The study sought to establish the respondents' gender. Table 4 depicts the study results.

Table 4

Gender of Respondents

Indicate your Gender		
Gender	Frequency	Percentage
Male	174	59.2
Female	120	40.8
Total	294	100.0

According to the data presented in Table 4, 174 (59.2%) of the respondents were male, while 120 (40.8%) were female. The data analysis revealed a significant gender gap between the responders, with the majority being male. That's why it's crucial for organizations like the Ministry of Health to strictly adhere to gender parity guidelines when hiring new staff. As a result, we can rest assured that no service delays will occur because we have sufficient numbers of women on staff to deal with the problems that arise because of gender. This is significant since scholars such as Eden and Ackermann (2013) have identified gender as one of the cultural factors influencing service delivery within organizations. Others agree that service delivery in community execution of strategic plans needs to include both sexes to be successful (Demirkaya, 2015)

4.2.2 Age Distribution in the Sample

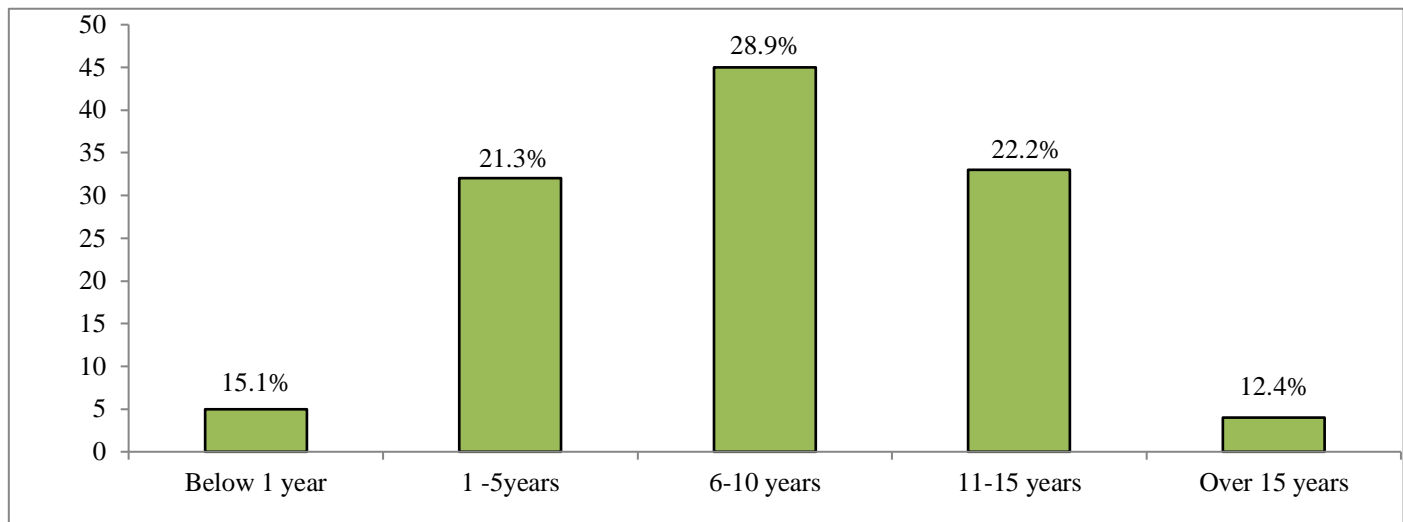
According to findings, respondents were between the ages of 25 and 34, while 31% were in the 35-44 age brackets. A sizable percentage of the sample (39% to be exact) also fell between the age ranges of 45 to 54. Recruitment, training, deployment, succession planning, and overall strategic direction are all affected by the age of the respondents. These results corroborate the claims of (Mwendo, 2009) that the vast majority of people working for county governments are either nearing the end of their careers or are planning to retire in the coming decade because of their advanced age. Furthermore, 31% of respondents were between the ages of 35 and 44, suggesting that people in this age range are typically active, experienced, responsible, and knowledgeable (Kimani, 2015).

4.2.3. Educational level Distribution in the Sample

Respondents represented a diverse spectrum of academic pursuits and levels of completion. The respondents' degree of schooling was of particular interest to the researcher. Findings from the question on respondents' highest level of education reveal that nearly half (43%) of respondents had completed at least one year of college. Twenty-four percent of respondents held a master's degree, 33 percent held a diploma/Higher National Diploma, and 3.6 percent held a PhD. The fact that most respondents have at least a bachelor's degree suggests that human capital development efforts by county governments in Western Kenya Region have been fruitful. The efficacy and efficiency with which services are provided are enhanced when competent workers are readily available.

4.2.4 Length of Service

The study sought to determine the respondents' period of service. Figure 1 shows that most respondents had served long enough to provide credible responses on the strategy implementation determinants and public health service delivery in the Public Health Facilities. This is because 28.9% of respondents had 6-10 years of experience and another batch of 22.2% had been in the service between 11-15 years. This, together with the fact that the vast majority of respondents have been with their current employer for more than 11 years, suggests that they have the requisite experience to comprehend workplace events, are more competent in their roles, and are highly valued by their clients. Just over a quarter (21.3%) of employees had been with the company for between 1 and 5 years, while nearly one-fifth (15.1%) had been with the company for less than a year. Employees with extended service translate into useful experience in the execution of service delivery, as noted by Ghafoor (2013), whose research is supported by the results shown in Figure 1.

**Figure 1**

Length of Service Distribution in the Sample; N = 247

4.2.5 Job Designation of the Respondents

The respondents were designated as shown in the Table 5. These are job positions for the various staff that took part during data collection exercise.

Table 5

Job Designation of the Respondents

What is your current designation?		
Job Designation	Frequency	Percentage
Medical Superintendents	25	10.1
Hospital Administrators	35	14.2
Human Resource Officers	14	5.6
Head of Pharmacy	36	14.6
Head of Nursing	31	12.6
Head of Laboratory	38	15.4
Head of Clinical Services	33	13.3
Health Records Information Officers	35	14.2
Total	247	100.0

There were 25 medical superintendents (10.1%), 35 hospital administrators (14.2%), 14 human resource officers (5.6%), 36 heads of pharmacy, 31 heads of nursing, 38 heads of laboratory, 33 heads of clinical services, and 35 heads of health records information officers (14.2%). These officers were fairly portrayed, as they are the ones in charge of running the hospitals and are consequently familiar with their daily operations. Observations on the ground revealed that Human Resource Officer roles were unfilled in a number of institutions, with Hospital Administrators doing their duties in their absence. Given the hospital administrators' apparent lack of resources, HR departments often fall short in areas such as talent management, pay and benefits, staff development, regulatory compliance, and workplace safety.

4.3 Descriptive Results

4.3.1 Organisational Culture

Researcher set out to examine the impact of company culture on providing public health services to comply with the third goal. This was accomplished by first computing some descriptive statistics about the culture of the organization, and the findings are displayed in Table 6.

**Table 6***Organizational Culture on Public Health Service Delivery*

Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean/SD
The hospital has instilled shared beliefs and values among all departments	15	42	25	95	117	3.87
	5.1%	14.3%	8.5%	32.3%	39.8%	1.23
The hospital has clear channels of communication between staff and management	24	36	17	84	133	3.90
	8.2%	12.2%	5.8%	28.6%	45.2%	1.32
The hospital has created clear policies to ensure that all personnel follow prescribed ethos and behaviors	14	41	25	125	89	3.80
	4.8%	13.9%	8.5%	42.5%	30.3%	1.16
The hospital staff undertake their duties and responsibilities with a positive attitude	20	39	25	116	94	3.77
	6.8%	13.3%	8.5%	39.5%	32%	1.22
Punctuality and commitment is observed by all staff	16	55	50	69	104	3.65
	5.4%	18.7%	17%	23.5%	35.4%	1.28
Average of Organizational Culture	Mean = 3.80	%Mean = 76%	Std. Deviation (SD) = 1.22		Variance = 1.54	

The variable on organizational culture had five (5) items. The means and standard deviations of the respondents' responses were computed from the five point Likert Scale of Strongly Agreed (SA = 5), Agree (A = 4), Neutral (N = 3), Disagree (D = 2), strongly disagree (SD = 1). At the hospital, 95 (32.2%) of respondents agreed, 117 (39.5%) of respondents strongly agreed, and 57 (19.4%) had various opinions on whether or not the hospital has established shared beliefs and values among all departments (mean: 3.87, standard deviation: 1.23) in the workplace. There was a mean score of 3.90 and a standard deviation of 1.32 on the question of whether or not the hospital provides open lines of communication between employees and upper management. As a whole, 84 people (28.6%) agreed, 133 people (45.2%) strongly agreed, and 60 people (20.4%) disagreed. With a mean of 3.80 and a standard deviation of 1.156, 125 (42.5%) of respondents agreed, 89 (30.3%) of respondents strongly agreed, and 55 (18.7%) had dissimilar views on whether or not the hospital had established clear policies to ensure that all workers followed specified ethos and behaviors. The mean response to the question of whether or not hospital staff members approach their work with a can-do attitude was 3.77, with the standard deviation being 1.22%. One hundred and sixteen (116) people, or 39.5%, agreed, while 94 people, or 32.5%, strongly agreed, and 59 people, or 20.1% disagreed. Finally, on the statement 'all staff members are punctual and committed,' the mean was 3.65 (SD = 1.282), 69 (23.5%) of respondents agreed, 104 (35.4%) of respondents strongly agreed, and 71 (24.1%) had different opinions. The mean score for all five questions was 3.80, which equates to 76%, and the standard deviation was 1.24, while the variance was 1.54.

When asked to weigh in on matters of human resource capacity and public health service delivery, members of the County Health Staff shared similar perspectives. This includes the County Executive Committee Member (CECM) for health, as well as the County Director and County Nursing Officer:

The respondents were positive that the hospital instills shared beliefs and values among all departmental staff and that they have clear communication channels between staff and management which at times are violated by the staff. Respondents indicated that the hospitals have created clear policies to ensure that all personnel follow prescribed ethos and behaviors to some good extent. They held views that some of the policies are never implemented as are supposed to be and therefore negatively affect the operations of the hospitals (public health service delivery).

These findings indicated that there was little to no variation between respondents' perspectives on questions concerning organizational culture as it relates to the provision of public health services by County Governments in Western Kenya Region. So, it was possible to infer that County Governments in Western Kenya's cultural norms affected the quality of their citizens' access to public health care. Organizational culture in Saudi Arabia's health care system was evaluated by Al-Otaibi and Common (2018). A hierarchy culture was found to be somewhat more prevalent than other types in the current scenario, while a clan culture was shown to be slightly more prevalent in the ideal environment. Strengthening all four types of culture (clan, adhocracy, market, and hierarchy) uniformly was necessary to improve Saudi Arabia's health care system. In 2018, Chi and Chia looked into how the culture of hospitals affected the dedication of its top nursing executives in Taiwan. This study found a positive correlation



between hospital organizational culture and employee loyalty. In a similar vein, Chepkonga and Nyaga (2019) looked into how organizational culture affected the standard of care provided by public hospitals. The results showed a favorable and statistically significant correlation between leadership culture and service provision in Kenya's public hospitals.

4.3.2 Public Health Service Delivery

The purpose of this study was to use a Likert-type scale to compile descriptive statistics on the quality of public health services provided by County Governments in the Western Kenya Region. The responses were rated as shown in Table 7.

Table 7

Public Health Service Delivery

Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean/ SD
Health services are well managed resulting in higher customer satisfaction	39	12	22	90	131	3.89
	13.3%	4.1%	7.5%	30.6%	44.6%	1.37
Discharge of services by staff is satisfactory	6	15	24	98	151	4.26
	2%	5.1%	8.2%	33.3%	51.3%	0.96
Health services are delivered in a timely manner to the patients	34	48	27	84	101	3.58
	11.6%	16.3%	9.2%	28.6%	34.4%	1.40
Services are direct and accessible with no undue barriers of cost, language, culture, or geography	11	22	22	92	147	4.16
	3.7%	7.5%	7.5%	31.3%	50%	1.10
Quality of medical care received is good	6	52	35	96	105	3.82
	2%	17.7%	11.9%	32.7%	35.7%	1.16
Services may be provided in the home, the community, the workplace, or health facilities as appropriate	7	53	39	107	88	3.73
	2.4%	19%	13.3%	36.4%	29.9%	1.14
There is transparency and good communication between care provider (doctors/nurses/attendants) and patient(s)	20	46	23	102	103	3.76
	6.8%	15.6%	7.8%	34.7%	35%	1.27
The program targets and deadlines are executed within the stipulated timeframes	5	51	51	104	83	3.71
	1.7%	17.3%	17.3%	35.4%	28.2%	1.11
There is good accessibility to doctors and other medical professionals	00	00	149	122	23	3.57
	0.0%	0.0%	50.7%	41.5%	7.8%	0.64
Services offered are affordable	00	18	129	129	18	3.50
	0.0%	6.1%	43.9%	43.9%	6.1%	0.71
Average of Public Health Service Delivery	Mean= 3.80	%Mean 76%	Std. Deviation (SD) = 1.09		Variance = 1.07	

With a mean score of 3.89 and standard deviation of 1.37, 221 (75.2%) of respondents agreed that well-managed health services lead to increased customer satisfaction, whereas 39 (13.3%) strongly disagreed and 12 (4.1%) disagreed. With a mean of 4.26 and a standard deviation of 0.96, most respondents (151, or 51.3%) agreed that staff performance was satisfactory, while 98, or 33.3%, agreed and 6 (or 2%), or 5.1%, severely disagreed. The average rating for how promptly patients receive health care services was 3.58, with a standard deviation of 1.40. Sixty-three percent (63%) of those surveyed had a favourable opinion, while 82 (27.1%) did not.

The mean score was 4.16 with a standard deviation of 1.10. This indicates that services are straightforward and easily accessible, with no unnecessary obstacles of price, language, culture, or location. Almost eighty-three percent (239) of respondents gave their assent, while only eleven percent (33) voiced their disagreement. With a mean of 3.81 and a standard deviation of 1.16, 201 (68.4%) of respondents agreed that the quality of medical treatment received is good, while 58 (19.7%) held negative opinions.

A total of 205 (69.7%) of respondents agreed with the statement that there is openness and good communication between the care provider (doctors/nurses/attendants) and the patient(s), with 46 (15.6%) strongly disagreeing and 20 (6.8%) disagreeing. The mean score for this item was 3.76, and the standard deviation was 1.27.



The average score on the question of whether or not the program's goals and deadlines are met within the allotted period was 3.71, with a standard deviation of 1.11. One hundred eighty-seven (187) people (or 63.6% of respondents) had positive opinions, whereas 56 people (19%) had negative opinions. With a mean of 3.57 and a standard deviation of 0.64, 145 respondents (49.3%) agreed that access to doctors and other medical professionals is excellent. As a final metric, the mean value for the provision of reasonably priced services was 3.50, with a standard deviation of 0.71. 147 (50%) of respondents felt that the prices were fair, while 18 (6%) disagreed. The average value for this variable was 3.80, which is around 76% of the time, and the average standard deviation was 1.09.

The County Executive Committee Member (CECM) health, Chief Officers, County Director and County Nursing Officer for health when interviewed on the related to public health service delivery, the following were their responses:

The respondents said that the health services in Hospitals were well managed with a minimum wastage of resources to some good extent. The respondents gave their views that Hospital Managers were allocated the necessary authority and are held accountable for overall performance and results. They further said that some of the officers who have been found culpable usually take responsibility of their actions, some have even been suspended. The Hospital Managers are doing their best to ensure public health services are delivered timely to the patients. The public health services to some good extent are accessible to the patients though some remote areas are negatively affected since they don't have adequate resources and therefore deliveries of health services are hampered.

Given these findings, it was clear that public health care delivery was being provided to a certain degree, albeit not completely. Millennium Development Goals (MDGs, 2015) found that in low and middle-income countries, overall, child mortality fell by 53%; maternal mortality fell by 42%, and new HIV infections declined by more than 38%, so these findings are also consistent with the views on the extent of providing public health service delivery. Uneven improvement was also a problem. Preventable mortality rates remained high in low-income, rural, and inaccessible groups. Quality-adjusted (effective) coverage was significantly lower than crude service coverage in a study of eight countries in sub-Saharan Africa, with averages of 28% for prenatal care, 26% for family planning, and 21% for sick child care (Leslie et al., 2017). In five countries in sub-Saharan Africa, primary care facilities saw over 40 percent of all facility-based births despite severe shortages in both resources and technical skill (Kruk et al., 2016). These reports show that the County Governments in the Western Kenya Region still have insufficient resources to provide adequate public health services.

4.4 Hypotheses Testing

The study sought to determine the relationship between organizational culture and public health service delivery in County Governments in Western Kenya Region. It was hypothesized that: H_0 *There is no significant influence between organizational culture and public health service delivery in County Governments in Western Kenya Region.*

Table 8

Model Summary for Organizational culture on Public Health Service Delivery

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.873 ^a	.761	.761	.27468	.761	932.011	1	292	.000

a. Predictors: (Constant), organizational culture

a. Dependent Variable: public health service delivery

b. Predictors: (Constant), Organizational culture

To test the Hypothesis, the study fitted the model $Y = \beta_0 + \beta_1 X_1 + \varepsilon$. Table 8 illustrates the model summary for the regression analysis between organizational culture and public health service delivery. An R-squared of 0.761 indicates that 76.1% of public health service delivery was explained by changes in organizational culture. This implies that other factors which are left out in the model explained 23.9% of public health service delivery.

**Table 9***ANOVA between Organizational Culture and Public Health Service Delivery*

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	70.320	1	70.320	932.011	.000 ^b
Residual	22.031	292	.075		
Total	92.351	293			

a. Dependent Variable: public health service delivery

b. Predictors: (Constant), organizational culture

Table 9: shows ANOVA results between organizational culture and public health service delivery. The F test gave a value of $F(1, 292) = 932.011$, $p < 0.05$, which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that organizational culture is a useful predictor of public health service delivery in the County Governments in Western Kenya Region.

Table 10*Regression coefficients between Organizational Culture and Public Health Service Delivery*

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	2.001	.059		34.194	.000
Organizational culture	.452	.015	.873	30.529	.000

a. Dependent Variable: Public health service delivery

Table 10 shows that the regression coefficients between organizational culture and public health service delivery. The results illustrated a statistically significant link between organizational culture and public health service delivery: ($\beta = 0.452$, $\beta = 0.873$ and $t = 30.529$, $p < 0.05$); hence, concluded that organizational culture significantly influences Public health service delivery. The results from the regression model showed that the model could be used to predict the level at which organizational culture influences public health service delivery. The regression model between organizational culture and public health service delivery was: $Y = 2.001 + 0.452X_1 + 0.059$.

Since β_1 is significantly different from zero, the null (H_0) was rejected and it was concluded that there was a significant influence of organizational culture on public health service delivery. Increasing organizational culture by one unit resulted in a 0.873 unit rise in the quality of public health services provided. Similar results were found by Bruno (2021), Chi and Chia (2018), Carney (2018), Al-Otaibi and Common (2018), and Chepkonga and Nyaga (2019), all of whom found that organizational culture positively impacted the provision of public health services by county governments in Kenya's Western Region.

Bruno (2021) investigated the effect of company culture on service provision in Nairobi City County Kenya's private hospitals. Service quality was observed to increase when an organization prioritized its culture. Organizational culture in Saudi Arabia's health care system was evaluated by Al-Otaibi and Common (2018). The results also showed that in the current condition, a hierarchy culture was somewhat more prevalent than other types, whereas in the ideal environment, a clan culture was slightly more prevalent. Strengthening all four types of culture (clan, adhocracy, market, and hierarchy) in Saudi Arabia is necessary to improve the country's health care system as a whole. Similarly, Chi and Chia (2018) investigated how hospital culture affected the dedication of hospital executives in Taiwan. They found a favorable correlation between hospital culture and dedication to the institution. Public hospital service quality was studied by Chepkonga and Nyaga (2019), who looked into the effect of leadership culture. The results showed a positive and statistically significant connection between leadership culture and service provision in Kenya's public hospitals.

4.5 Summary

The researcher sought to determine the influence of organizational culture on public health service delivery. To achieve this, first descriptive statistics of organizational culture were computed. Results from the five (5) questions had an average mean of 3.88, though the respondents gave varied views on the question asked on the organizational culture in relation to public health service delivery in County Governments in Western Kenya Region. An R-squared of 0.761 indicates that 76.1% of public health service delivery was explained by changes in organizational culture.



This implies that other factors which are left out in the model explained 23.9% of public health service delivery. The F test gave a value of $F(1,292) = 932.011$, $p < 0.05$, which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that organizational culture is useful forecasters of public health service delivery in County Governments in Western Kenya Region. The results illustrated a statistically significant link between organizational culture and public health service delivery: ($\beta = 0.452$, $\beta = 0.873$ and $t = 30.529$, $p < 0.05$); hence, concluded that organizational culture significantly influences public health service delivery. For one-unit increase in organizational culture, public health service delivery increased by 0.873 units.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The findings of the study indicated that organizational culture was a significant factor in relation to public health service delivery. Subsequently, the null hypothesis that there is no significant influence of organizational culture on public health service delivery was rejected in favor of the alternative hypothesis that is, there was a significant influence of organizational culture on public health service delivery. It was therefore concluded that instilling shared beliefs and values among all departments and having clear channels of communication between staff and management would improve public health service delivery in the County Governments in Western Kenya Region.

5.2 Recommendations

With regard to organizational culture, the study suggests that County Governments develop training and communication strategies, as they are the key to overcoming strategic implementation obstacles. Also, the organization must seek out better consultants, preferably those that have handled this type of installation previously or have greater experience.

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Contribution of Climate-Smart Agricultural Activities to Household Livelihoods in Masii Ward, Machakos County, Kenya

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ABSTRACT

Climate-Smart Agriculture (CSA) is an approach that seeks to achieve three outcomes, which include increasing productivity, enhancing resilience, and reducing GHG emissions. It is pivotal in the context of Climate change-induced vulnerabilities. To ensure food security amidst climatic change-induced vulnerabilities, it is essential to incorporate CSA activities that will increase food production, enhance resilience to unpredictable weather patterns, and mitigate greenhouse gas emissions. The study sought to assess the contribution of CSA activities to household livelihoods in the Masii ward of Machakos County, Kenya. Two theories guided the study: the theory of change by Anderson (2005) and the hierarchy of needs theory by Abraham Maslow (1943). The research design for the study was a descriptive research design, and the study was conducted in Masii ward, Machakos County. The target population for the study was household heads practicing CSA. The extension officer of the ward and KCSAP officials made up the key informants for the study. Cluster random sampling was used to get the study sample. A sample size of 281 household heads was used as a representative sample from a total of 939 households in the ward that have already been funded by the CSA project. The farmers were already in groups consisting of between 20 and 35 members. Since they didn't contain an equal number of people, proportional allocation was used to select the study sample. Purposive sampling was used to select key informants who took part in the study. Interview schedules were used to collect data from the household heads and the extension officer, whereas focus group discussions were held with the KSCAP officials. Qualitative data was coded for ease of analysis, whereas quantitative data was run through the SPSS program to generate the required data, such as summary statistics such as means and percentages. The findings show that CSA has truly had a positive impact on household livelihood in terms of enabling the farmers to cater to their essential needs, maintain nutritional uptake, and get surplus income to cater to their other needs. Households are able to afford a balanced diet due to increased plant and animal productivity and the availability of surplus income. If CSA is embraced by more people, it will for sure help in alleviating hunger, especially in these times when climate change is a main issue due to its unpredictability. In the long run, the whole community will have benefited from the improved agricultural practices. Besides, if the CSA activities are consistent, it will achieve its three pillars, which are adaptation, resilience, and mitigation of greenhouse gases. Based on the study's findings, the study recommends that sensitization on CSA continue so as to create more awareness about it and enable more farmers to embrace it. Youth should be encouraged by the government to venture more into agriculture since the agricultural benefits accrued can be a source of livelihood for the unemployed. Additionally, the success stories of the youth already reaping from agriculture can be shared to serve as motivation for others that indeed it is possible to make a living from agriculture.

Keywords: Climate-Smart Agriculture; Climate Change; Household Livelihoods; Masii Ward; Machakos County

I. INTRODUCTION

Food security around the world has declined in the recent past due to various challenges such as poverty, community conflicts, socio-economic conditions, and climate change. The COVID-19 pandemic has further deteriorated the socio-economic progress of vulnerable communities, making the 2030 vision of achieving zero hunger far-fetched. Agriculture is an essential factor in promoting food security, as it contributes significantly to the Gross Domestic Product (GDP) of most African countries and has several benefits such as job creation, productivity increases, income generation, and poverty reduction. Climate change has resulted in the vulnerability of agriculture, as it is dependent on weather conditions to thrive. Innes et al. (2015) states that the unfavorable effects of climate change have resulted in low crop and livestock productivity, especially in developing countries. This study reveals that high temperatures due to climate variations have impacted crop production, leading to food insecurity. The IPCC report states that climate change is causing a variety of changes in various regions, all of which will worsen as temperatures rise further. The greenhouse effect is the main driving force behind climate change, as gases in the air heat the atmosphere and the earth's troposphere (the lowest layer of the atmosphere). Carbon dioxide is the largest contributor to the greenhouse effect, as it lowers protein and mineral concentrations in plants. Studies by Pearson et al. (2017) indicate that human activities have resulted in a rise in greenhouse gases, which has resulted in global warming.

Other studies show how climate change has affected crop yield all over the world, such as through low rainfall and high heat, and that increasing sea levels pose a new threat to food security in Bangladesh and Vietnam. Nguyen et al. (2018) report that a flood in this area might significantly contribute to food insecurity, as a one-meter rise in sea level would submerge large areas of rice paddies. A study by Serdeczny et al. (2017) reports that most areas in the Horn of Africa are arid and semi-arid and are characterized by cycles of droughts and flooding, leading to food insecurity. Southeastern Ethiopia, northern and coastal Kenya, and almost all of Sudan were the most affected by the 2017 drought. Kenya is a country in East Africa situated along the equator with varying climate conditions, with the central and western highlands being the most productive due to their temperate climate with medium-to-high rainfall.

Droughts experienced in most parts of the country affect food security and the economy of the country. People living in the arid north areas of Kenya are the most affected by food insecurity due to the droughts that are prevalent in the region, and cases of malnutrition among children are high in these regions due to inadequate food and water supplies. A study by Ochieng et al. (2016) also states that the poor, especially small-scale farmers, are most affected because they lack means of diversifying their income sources. Climate-Smart Agriculture (CSA) is a method that seeks to increase productivity, enhance resilience, and reduce GHG emissions. It is unique in that it considers the link between productivity, adaptation, and mitigation in a systematic manner and seizes new funding openings in order to close the investment gap.

CSA methods are primarily targeted at maintaining both sustainability and agricultural intensification, which are both important for increasing production and providing food security. Risk insurance and the use of climate data in farming are examples of CSA techniques, as are agroforestry, better fodder production, tree nurseries, manure management, and composting. Other strategies include agroforestry and carbon trading, water harvesting and water management practices, using improved seeds and fertilizers, using drought-resistant crops, crop rotation, crop diversification, adopting improved technologies, and economic diversification into non-farm activities (Wekesa et al., 2018). The most important details in this text are that non-forestry activities such as using renewable sources of energy, seeking off-farm employment, changing the planting days, and having a mixed livestock herd are examples of CSA in action. There are still policy, knowledge, and capability gaps and financial setbacks to promote their adoption, and Africa is still behind in implementing the UN's Sustainable Development Goal (SDG) 2 (Atukunda et al., 2021). To achieve food security, farmers must be aware of the climatic changes so as to identify the best adaptation strategies and put them into practice for effective adaptation and mitigation. There is a need to embrace CSA based on the expected effects of climatic fluctuations on agriculture to tackle food security issues while also addressing climate variability.

The pertinence of CSA in Kenya cannot be taken for granted. The country has been dealing with food insecurity in recent years. According to the "Integrated Food Security Phase Classification (IPC) acute food insecurity and acute malnutrition analysis, July 2021 to January approximately 2.1 million people in the country living in arid and semi-arid lands are food insecure (Reliefweb, 2021). One important area to take into account while tackling the challenge of food insecurity is the agricultural industry. As USAID reveals, this is because it constitutes 33% of Kenya's GDP and a large percentage of people living in the rural areas depend on agriculture as a source of livelihood (USAID, 2021). Since agriculture is mainly rain-fed, the ongoing drought and short rains are worsening the food insecurity issue, hence the need to invest in agricultural-related initiatives.

Extant literature shows that arid and semi-arid lands in the world, including Kenya, are usually prone to food insecurity (WFP, 2023). This is mainly caused by various factors such as drought, pests, and unfavorable climatic conditions (USAID, 2021). This has resulted in low agricultural yields and food insecurity. Additionally, studies have shown that advancement in technology and innovation in agriculture across the world can enhance food production and security. In Kenya, climate smart agriculture (CSA) is a strategy whose goal is attaining food security through improved agricultural productivity. Having been implemented in Kenya since 2017 in various counties, there is a need to evaluate its role with regard to food security. Thus, the need for this study, which focuses on assessing the contribution of climate-smart agricultural activities to household livelihoods in Masii ward, Machakos County, Kenya,

1.1 Objectives of the study

To assess the contribution of CSA activities to household livelihoods in Masii ward, Machakos County

II. LITERATURE REVIEW

2.1 Empirical Review

A report by the Food and Agriculture Organization (FAO) states that climate-smart agriculture came to light in 2010 at a FAO meeting at the Hague Conference on Food Security and Climate Change (FAO, 2010). It further

states that CSA aims to promote food security while at the same time ensuring the environment is not at risk. Therefore, there exists a relationship among all three CSA pillars. The report adds that through CSA activities, adaptation becomes effective (FAO, 2010). A study by Nyasimi et al. (2017) sheds light on how practicing various CSA activities, such as field management and accessing climate information services, puts one a step closer to achieving CSA goals. Likewise, a study by Rosenstock et al. (2019) adds that other CSA activities include crop diversification, using resilient, stress-tolerant seeds, water and waste management, and cross-breeding of livestock. Of importance to note is that diversification of cropping systems not only protects smallholders from food insecurity but also adds to dietary diversification and elevates farm income, as revealed by Wainaina et al. (2017).

Another study by Kallio (2013) shows that trees planted alongside crops have several uses. For instance, they can be used as medicine, fruits, to make poles to build with, or as a source of fuel. Other authors report that these items can either be consumed at home or sold for profit (Karwani et al., 2016). The extra money can be used to buy a wider range of foods that aren't grown on farms, expanding the variety of food available to households. Additionally, other literature reports that the availability of various sources of fuel, such as wood and biogas, enables households to cook a range of foods (Dawson et al., 2014).

Wainaina et al. (2017) likewise state that under climate variability, climate-smart agriculture can improve food security by increasing agricultural income through higher yields or by freeing up labor for alternate economic pursuits. On the other hand, studies have shown that agriculture largely contributes to GHG emissions through agricultural activities and alterations in land use (Ronaghi et al., 2018). These studies, in addition, state that GHGs are emitted through fertilizers, excretions from animals, methane production from rice cultivation, and nitrous oxide gases from soils (Ronaghi et al., 2018). Therefore, in order to curb this, carbon IV oxide emissions need to be reduced by 45% by 2030 (IPCC, 2018). Additionally, proper mitigation efforts such as photosynthesis, proper land use through planting perennial crops, minimal tillage, and carbon sequestration are essential (Garcia-Marco et al. 2016).

A report by the IPCC states that planting perennial crops rather than annual crops has resulted in a 50 percent to 100 percent increase in soil carbon; since soil is the world's third largest carbon reservoir; it is paramount to maintain it for mitigation purposes (IPCC, 2018). This is due to the fact that perennial crops have deeper roots and require less tillage, thus improving the quality of the soil and sequestering carbon at the same time. A study by Lawrence et al. (2018) defines carbon sequestration as a situation whereby plants absorb carbon dioxide, thereby reducing global warming. This is attained through photosynthesis. This study also states that reducing carbon emissions among livestock is directly proportional to increasing their productivity. Lawrence et al. (2018) On the other hand, a study by Chanthakhoun et al. (2011) reports that one way of reducing the emissions is by feeding legumes to animals; legumes have less fiber and hence emit less methane as compared to other feeds. Other literature reveals that deworming livestock eradicates infestation by internal parasites, thereby increasing their productivity and, as a result, reducing their emissions (Kumar et al., 2013).

A study by Chitongo et al. (2019) sheds light on how the cyclone Idai in March 2019 in Mozambique negatively impacted farmers. The study reports that farmers who had diversified the type of rice they planted were adaptive and resilient to climate change and, hence, did not suffer from food insecurity issues compared to their counterparts who didn't take any CSA measures. In addition, the farmers who had used fertilizers at the required time and amount suffered less compared to their counterparts who didn't take any CSA measures.

FAOSTAT (2017) reveals that in Africa, maize is the staple food for most people, but its yield has gone down in recent years. To counter this, another report by FAO reveals that the use of drought-tolerant maize varieties and hybrids has resulted in an increase in yield of approximately 35%. FAO and ICRISAT (2019a) report that in north-east Nigeria, FAO has trained a number of people on CSA methods and launched a program called Safe Approach to Fuel Energy (SAFE). This report reveals that this program attempts to decrease greenhouse gas emissions by reducing the amount of firewood used. The report further sheds light on the Pro-Resilience-Action (PROACT) project in Nigeria, which started in 2016, as an example of how CSA expertise has helped farmers become more resilient. This project was brought to life as a result of the collaboration of the European Union and Oxfam Nigeria. It provides farmers with training in rural investment and the establishment of organizations to enable them to access banking services, as well as farm inputs such as fertilizers and water pumps. It is currently being implemented in Adamawa State (Mubi South, Song, Fufore, and Guyuk). The report also states that training was not only done to farmers but also extension officers in Adamawa and Kebbi States to make them aware of agricultural practices that boost production (FAO and ICRISAT 2019a). As a result of these measures, the report reveals that farmers have seen an improvement in rice production. It further adds that to abate desertification, the project intends to encourage farmers to plant 500,000 trees. In addition, terracing is being practiced in the rocky region of Bono State, a CSA practice that has reduced soil erosion as reported by FAO and ICRISAT (2019a).

A study by Abdullahi (2023) in Kenya revealed that the Kenya Climate Smart Agriculture Project (KCSAP), with funding of 300 million shillings from the European Union (EU), has implemented CSA in the country. Its goal is to fund 40 smallholder farming groups in various counties practicing CSA projects, for example, farming, livestock keeping, and fishing (Abdullahi, 2023). Climate smart villages are a concept introduced and implemented in various countries in Africa, Kenya being one of them, as indicated by Ojango et al. (2016). Its aim is to increase productivity and resilience to climate risks (Ojango et al., 2016). Various CSA approaches differ depending on the ecological zones; therefore, researchers and community representatives get to decide which approach best suits them. This study by Ojango et al. (2016) reveals that climate smart villages use a participatory approach and incorporate women and vulnerable communities to take part in the process. The same study reports that the CSV project has seen farmers in Nyando incorporate new ways of farming by practicing crop diversification. The establishment of a seed bank in the region ensures farmers have access to a variety of sorghum, millet, and bean seeds that have been tested for resilience by the Kenya Agricultural and Livestock Research Organization (KALRO) and Bioversity International, as reported by CGIAR (2019). The CGIAR (2019) report also states that farmers have also undergone training workshops where they are taught financial management and marketing strategies, which are fundamental for the accomplishment of their seedbank project. The report additionally states that through this, the farmers have supplemented their income (CGIAR, 2019). This guarantees that if climate change risks occur, they will not incur total losses.

Another study by Grossi et al. (2019) states that to ensure continuity of productivity even during dry seasons, farmers have adopted the use of hay, which is dried grass. In so doing, livestock still get to eat efficient and nutritious feeds, and their overall productivity is maintained. On the other hand, Ojango et al. (2016) reveal that utilizing animal excrements and planting nitrogen-fixing crops decreases nitrous oxide outflows; thus, utilizing natural manures expands the carbon and nitrogen parts of the soil, making it more fruitful.

Manure management using alternate sources of fuel, such as biogas instead of firewood, ensures trees are protected, as indicated by a study by Ojango et al. (2016). Moreover, rotational grazing, too, is CSA in action in that it ensures regeneration of land (Ojango et al., 2016). In addition, to ensure soil fertility is retained for better productivity, the farmers are also practicing agroforestry, as stated in a report by the Government of Kenya (GoK, 2018). A study by Kristjanson et al. (2017) reveals that community-based organizations (CBOs) in the region have given the farmers a platform to get the money they need to buy farm inputs at reasonable costs. Accessibility of water ensures plants and livestock get enough water needed for maximum productivity. Ojango et al. (2016) report that the CSA also guarantees water accessibility through harvesting rainwater and the use of efficient irrigation systems.

Despite CSA efforts, Wiederkehr et al. (2018) disclose that there are limitations to evaluating adaptation and mitigation with regard to small-scale farming since studies tend to dwell on arid and semiarid areas. Studies also show that GHG estimators are lacking since the same GHG calculators are used in Africa, Asia, and Latin America, yet the regions differ in terms of soil topology and climate (Richards et al. 2016). In conclusion, Fraval et al. (2019) state that increasing production alone does not guarantee food security. For example, encouraging the production of one type of crop and failing to diversify the crops means the ingested food is not a balanced diet, which may cause malnutrition and hence food insecurity (Fraval et al., 2019). This implies that for the CSA to be effective, it ought to broaden its dimensions of food security beyond production (Campbell et al. 2016).

2.2 Theoretical Framework

The study will be guided by two theories: the Theory of Change by Anderson (2005) and the Hierarchy of Needs Theory by Abraham Maslow (1943). According to Stein and Valters (2012, p. 5), the theory of change is practical in that it outlines steps needed to be implemented for the attainment of a set objective, be it long-term or short-term. Hence, it is essential for our topic under study. Our aim is to ensure household sustainability amidst climate changes that are unpredictable and therefore beyond our control. Therefore, for example, to attain food security, we have to incorporate strategies that we can manipulate. This is where climate-smart agricultural activities come in. Although some of the strategies to be implemented are beyond the scope of agriculture, like water management and insurance services, forming synergies with such sectors is one way of working towards the set objective, which is household sustainability. One thing to bear in mind during this process is to articulate assumptions. This refers to the necessary conditions for success to be accomplished. For instance, for our topic of evaluating the influence of the CSA project in influencing household livelihoods in Masii ward, a practical assumption is that climate change will continue to bring floods, droughts, and unpredictability of rains. Because of this assumption, there is a need to modify farming practices in order to be food secure even in the midst of adverse climate changes. This will further help shed light on why some farmers may or may not adopt CSA activities, and through this, help come up with strategies that are specific to farmers in a certain region.

This study is also pegged to the hierarchy of needs theory. Maslow argues that what people do to increase productivity is guided by what motivates them (Jonas, 2016). That the needs of people vary in terms of importance and are divided into self-actualization, self-esteem, sense of belonging, safety, and physiological needs (Jonas, 2016). Assuming the hierarchy of needs theory, then a farmer's choice of strategy is directly proportional to the benefits it generates. This theory is applicable to this study since it illustrates how the adoption of CSA is a result of wanting to fulfill the household livelihood security need, which is being threatened by climate change. Using Maslow's theory, studies argue that for the fulfillment of people's needs, they need sources of income. With regard to this study, for the attainment of food security, farmers need income sources, and income availability is determined by factors like education level, household size, and off-farm activities to be able to purchase farm inputs and diversify their income sources. Where income is limited due to household size, a priority is made on which needs are to be satisfied first (Damij et al., 2015).

III. METHODOLOGY

3.1 Research Design

The descriptive research design guided the study since; through it the variables under study were just observed and measured without being manipulated. This design was appropriate for this research since, according to Creswell and Creswell (2017), it aims to obtain data that characterizes current events by asking questions about people's perspectives. The descriptive design, according to Lewis (2015), is focused on determining the link between variables. Thus, it will enable the researcher to establish the link between food security and climate-smart agriculture.

3.2 Location of the Study

The study location was Masii ward, which is in Mwala Sub County, a semi-arid region as shown in Figure 1.

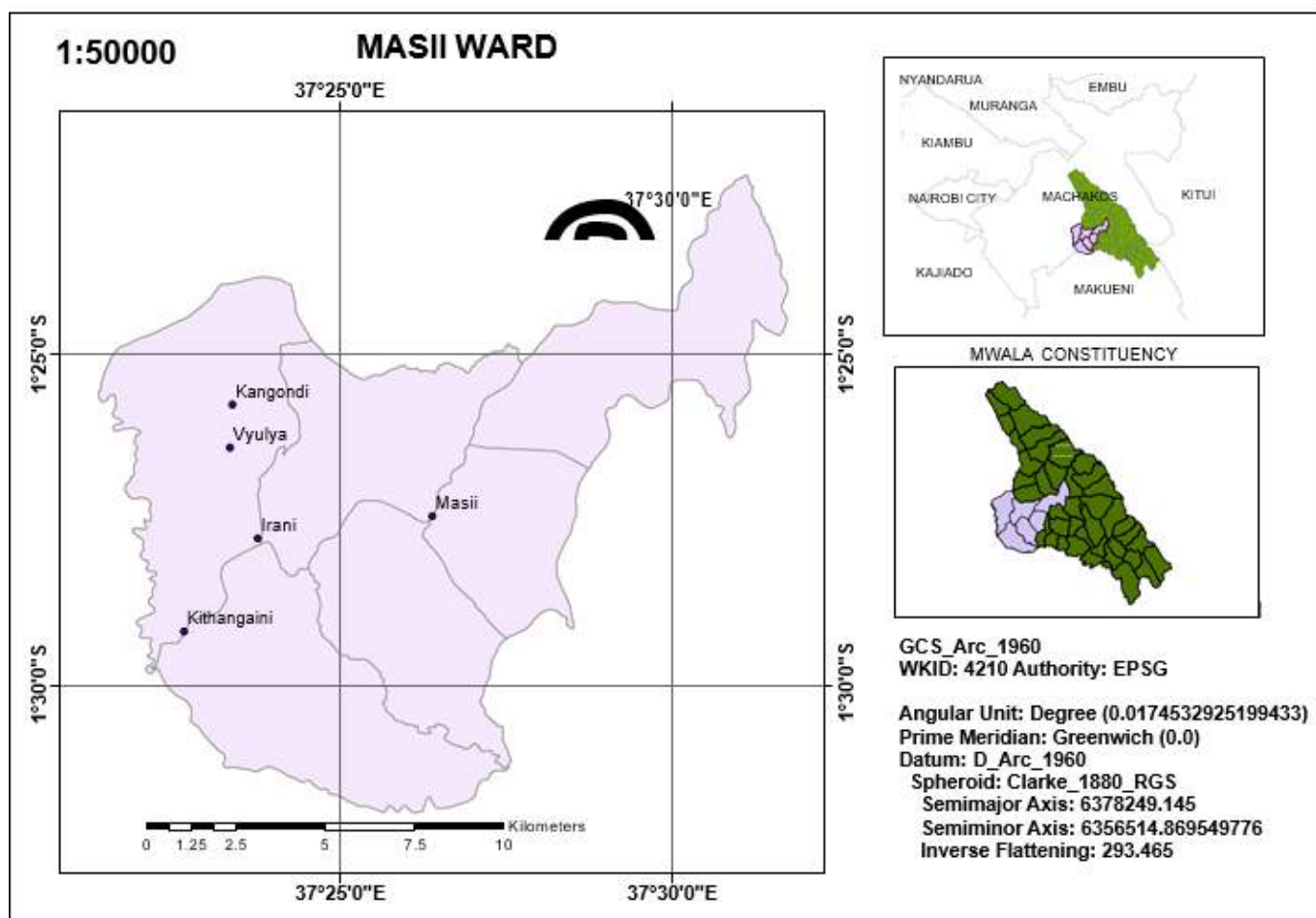


Figure 1
Map of Masii Ward

The study area (Figure 1) has a population of approximately 32,367 and an area of approximately 160.80 square kilometers. The ward comprises Muusini, Uuni, Mithini, Mbaani, Utiithini, embui, Kavumbu, Kithangani, and Mithanga sub locations. According to the Kenya National Bureau of Statistics (KNBS, 2013), people in the Mwala sub-county majorly depend on agriculture for survival, and the main crops planted are maize, beans, cow peas, pigeon peas, and mangoes. Livestock reared includes chickens, cattle, goats, donkeys, and pigs. Temperature ranges in the region are from 18 to 29 °C (Machakos County, 2015). The main agro-ecological zones (AEZ) fall under the lower midland zones LM2 and LM3, and agriculture is mostly small-scale. Mwala sub-county was chosen as area of study because Machakos County is among the 24 counties in Kenya where a climate-smart agriculture project with funding from the Food and Agriculture Organization has been implemented.

3.3 Target Population

The study targeted farmers in Masii ward, Mwala Sub County. Statistics reports from the Kenya Population and Housing Census (KPHC) 2019 by the Kenya National Bureau of Statistics (KNBS) indicate that the number of households in Mwala sub county is 45,840, with an average household size of 3.3 (KNBS, 2019). In Masii ward, 100 farmer groups are registered. These groups are the ones being used for the KCSAP project in the ward. As at the time of data collection, 32 groups out of 100 had already benefited from CSA. Hence, they constituted the population under study. These groups contained a total of 939 people, with each group having a total of between 20 and 35 people. In addition, key informants were part of the study, and they included the extension officer of Masii ward, the county director of agriculture, as well as KCSAP officials in the county.

3.4 Sampling Procedures and Techniques

The study used multistage sampling techniques. First and foremost, the purposive sampling technique was used to sample Mwala Sub-County. This is because it is one of the sub counties where climate-smart agriculture activities are being practiced and documented by the agricultural officers in the region. Due to the high number of farmers and limited time frame, Masii ward was selected as a representative of the county since it is one of the wards where CSA has been documented. The existing farmer groups were used as clusters. Proportional allocation was used to calculate the study sample because the groups did not contain an equal number of people. Additionally, purposive sampling was used to select the key informants: the extension officer in the ward, the county director of agriculture, and KCSAP officials.

3.5 Study Sample

Household heads were the main respondents of the study. Key informants comprising of extension officer, the Count Director of Agriculture and KCSAP officials were part of the study. The Yamane (1973) formula was used to generate the sample size where N is population size, n indicates sample size; P represents the degree of variability (0.5) and e the sampling error (5%).

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

Therefore, the sample size used for the study was;

$$n = \frac{939}{1 + 939(0.05)(0.05)} = 281.$$

Simple random sampling was finally be used to select the respondents from each cluster. A set of random numbers, which identified the sample size to be sampled, was drawn. Sampling was done without replacement and each element is sampled only once.

3.6 Proportional Allocation

Since the number of farmers in each group was not equal, proportional allocation was used to select the sample from each group. The formula for proportional allocation is as shown below;

$$\frac{N_i}{N} * n = n_i$$

Where n_i is the sample in the i^{th} cluster,

N is the total population,

N_i is the size and

n is the sample size.

Table 1 illustrates the proportion allocation of the 32 groups. The table 2 below summarizes the sample size used in the study.

Table 1
Sample Size

Respondents	Target population	Sample size
Farmers	939	281
Extension officers	1	1
Key informants	4	4
Total	944	286

3.6 Construction of Research Instruments

The study used structured interview schedules to collect data. This was so as to ensure that the data collected took into account the objectives of the study. With the help of a research assistant, household heads were asked a set of questions. This method was most appropriate since it considered the farmers who were illiterate. In such instances, an interpreter was sought. Through interview schedules, farmers got to seek clarity from the enumerator in instances whereby they had not understood the questions asked. This made the data collection process more accurate. Interview schedules were also used to collect data from the extension officer in the ward. For the other key informants; KSCAP officials, focus group discussions were used guided by structured questions. The aim of conducting focus group discussions with key informants was to not only gather in-depth knowledge of the need to embrace CSA amidst the adverse climate changes but also provide insight to policies and institutional strategies set in place at the county and national level to deal with climate change in a bid to ensure food security. The discussion also shed light on the institutional capability of dealing with adverse climate change effects.

3.7 Testing for Validity and Reliability

Validity and reliability are crucial factors to consider when choosing a survey instrument.

3.7.1 Validity

Expert advice from the supervisor was sought to ensure that the questions in the interview schedule address the given objectives. Content validity was used to determine whether the data collection instruments are structured in such a way that the questions asked are linked with the objectives under study. To measure the content validity index, Lawshe (1975) proposed a formula to quantify content validity ratio.

$$\text{Content Validity Ratio} = (n_e - N/2) / (N/2)$$

where:

- n_e : The number of subject matter experts indicating “essential”
- N : The total number of panelists who are experts of the subject matter.

If the content validity index is closer to 1, then the higher the validity of the test that is an overall content validity index of 0.8 and above shows that the test is valid.

3.7.2 Reliability

Reliability on the other hand involves consistency in measurement. This was done through a piloting study in Kajiado County, Kajiado North Sub-County since it has similar climatic condition as Machakos. The aim of the pilot study was to determine whether the data collection instruments would be effective during the actual data collection exercise. According to Orodho (2003), a pre-test takes into account 10% of the study sample size thus 29 respondents took part in the pilot study. The reliability of the test was determined by the Cronbach alpha (the reliability coefficient) using the SPSS program. An average Cronbach alpha value of between 0.7 and 1 is considered reliable. All the recommendations from the pre-testing exercise were taken into consideration and changes made appropriately.

3.8 Data Collection Methods and Procedures

Data collection commenced by conducting interviews with household heads. Afterwards an interview schedule was used collect data from the extension officer in Masii ward. Photos and audio recordings were taken via phones. In addition, focus group discussions were used to collect data from the County Director of Agriculture and officials of the KCSAP project in Machakos County.

3.9 Data Analysis Techniques and Procedures

The data collected from interview schedules and focus group discussions was both qualitative and quantitative in nature. Qualitative data was coded to ease the analysis exercise using descriptive statistics. Data entry was done in excel then exported to Statistical Package for Social Scientists (SPSS) version 21 for analysis. The descriptive statistics that give fundamental details about variables in given datasets is displayed in tables and figures.

IV. FINDINGS AND ANALYSIS

4.1 Background Information

This study focused on background information which involved; distribution by gender, climate change information sources and CSA awareness. The study involved both men and women. It showed that the responses were distributed diversely among gender. The percentage distribution of gender was that 60.5% were women while 39.5% were men. As **table 2** below, majority of the respondents were females at 60.5% while 39.5% were males. This shows that women were actively involved in agriculture in Masii ward as compared to men. This study is in line with previous studies which found that women are crucial in small scale farming in Africa because they comprise of a total of between 60-80% farmers (Collier, 2021). Other studies also found that if women are given equal access to amenities as men agriculture production can go up by 4% resulting in a reduction of world hunger to 17% (Collier, 2021).

Table 2

Gender of Respondents

Gender	Frequency	Percent
Female	170	60.5
Male	111	39.5
Total	281	100.0

Respondents were asked about their sources of information when it comes to climate change. Their responses showed that they got their climate change information from either farmer groups, extension officers, or the media. Their responses are shown in **table 3** below. Majority of the farmers (49.5%) got climate change information from extension officer, 47.7% from farmer groups, and 2.8% from the media that is radio/television. From the findings, the respondents disclosed that climate change information was crucial since it helped them to plan ahead in terms of when to plant since the planting season has to happen around the rainy period. Previous studies on climate change information have highlighted the crucial role climate change information plays to farmers as it ensures they make informed decisions on when to plant and harvest (Mullins et al., 2021).

Table 3

Climate Change Information Sources

Sources of climate change information	Responses	
	N	Percent
Farmer groups	134	47.7%
Extension officers	139	49.5%
Media	8	2.8%
Total	281	100.0%

4.1.1 CSA Awareness

The study found out that CSA in the country started as a five-year plan that was to end in 2020. However, when corona hit in 2020, it delayed the implementation of the project leading to its extension to the year 2023. However, before the CSA project came forth, extension officers were still working closely with the farmer groups among them being men, women, youth and people living with disabilities. These groups had benefitted the farmers greatly. It is through these farmer groups that the farmers practice table banking. Due to pooling of funds, the farmers got loans from SACCOs which they used to further themselves economically.

The study sought to find out how the respondents first got to hear about CSA. The responses disclosed that the first got to hear about CSA either via farmer groups, extension officers, friends or the media. Their responses were as

follows; most of the respondents (89.3%) first heard about CSA from extension officers while the least (0.4 %) first heard about CSA from the media.

As shown in **table 4** below, majority of the respondents (89.3%) first heard about CSA (CSA) from the extension officer of their region. The responses from the respondents as well as the extension officer of Masii ward showed that the farmers consulted the officer and farm visits were also made. This was the reason for majority of them getting CSA updates from the extension officer. The study in addition found out that people in the region were sensitized about CSA through local barazas and also through the media such as radio. Through the barazas, the experts in CSA such as extension officer and KCSAP officials got to create awareness on CSA. Since it was practically impossible to teach every farmer the CSA methods, the lead farmer approach was used. Lead farmers would undergo training which took about three to four days. This training took place on their farms so that they get to practice what they are being taught in theory. These lead farmers being the group leaders of the groups. The lead farmers would then teach their members what they have been taught during their weekly meetings. The respondents reported that those meetings were participatory in nature and through that they got to learn a lot as pertaining to the agricultural practices to embrace for best results.

Studies in the past reveal that participatory approach is advantageous in that it puts into consideration the needs of the community in question (Koningstein & Azadegan, 2018). This was the case for the sensitization of CSA since the KCSAP officials actively engaged the locals. It was through the barazas that they aired their views and asked any questions they had with regard to CSA. Additionally, study by Braimoh et al. (2017) points out that through farmer groups, farmers and extension officers have a platform whereby they exchange ideas that will help them increase crop and livestock production. The KCSAP officials however sighted dishonesty from the respondents as one challenge they faced in the implementation of CSA. The officials further pointed out that some farmers in the region had not yet embraced CSA because they were ignorant in matters pertaining to CSA.

Table 4

CSA Awareness

		Responses	
		N	Percent
How did you first hear about CSA	Media	1	0.4%
	Friends	2	0.7%
	Extension officers	251	89.3%
	Farmer groups	27	9.6%
Total		281	100.0%

4.2 Climate Smart Agriculture Activities Implemented in Masii Ward

The study sought to identify the CSA activities implemented in Masii ward. **Table 5** below outlines the CSA activities implemented in the ward.

Table 5

CSA Activities

CSA activities	N	Percent of cases
Crop rotation	4	1.4%
Mulching	65	23.1%
Diversification of crop and livestock breed	281	100.0%
Fertilizer use	281	100.0%
Improved crop varieties	281	100.0%
Use of terraces	276	98.2%
Irrigation	4	1.4%
Reduced tillage	57	20.3%
Improved livestock breed	280	99.6%
Others	33	11.7%

As shown in Table 5, the respondents indicated that they had incorporated various climate smart agricultural activities on their farms. These activities included; the use of quality seeds, use of fertilizers, diversification of crops

and livestock, terracing, conservation agriculture such as reduced tillage, improved livestock breed, irrigation and tree planting. The study found that out of a total population of 281 farmers, all farmers (100%) practiced diversification of crops and livestock, used fertilizers, and used improved crop varieties while 1.4% practiced irrigation and crop rotation. The study findings for each activity are discussed below.

4.2.1 Crop Rotation

The study found that 1.4% of the respondents practiced crop rotation as shown in **table 5**. The respondents added that crop rotation helped in controlling pests and weeds. This was confirmed by the extension officer who said that before the implementation of crop rotation, most farmers had complained about pests but after practicing crop rotation, the infestation of their crops by pests had reduced. The findings concur with other authors reporting that CSA strategies such as crop rotation play a role in increasing agricultural productivity (Shahzad et al., 2021). This is due to the fact that crops from the same family frequently have similar disease and insect problems. Hence practicing crop rotation using crops from several families reduces the accumulation of insects and diseases affecting that crop by disrupting the life cycle of these pests

4.2.2 Diversification of Crop and Livestock Breed

The study found that all respondents (100%) practiced diversification of crop and livestock breed as shown in **table 5** above. The respondents stated that they had been encouraged by the extension officer to diversify crop and livestock breed so as to increase productivity which in turn would increase their income source. The CSA project incorporated four value chains; pigeon peas, green grams, indigenous chicken and dairy as reported by the extension officer and the KCSAP officials. During the focus group discussion held on 18th November 2022, the key informants reported that when farmers practiced diversification of crop and livestock breed, they were able to accrue a variety of benefits as opposed to planting one type of crop or one type of livestock. These advantages included increased productivity whereby they sold the surplus thereby getting additional income. They further added that in cases whereby one type of crop did not do well, they were still able to harvest from the other crops planted. This study supports other studies by Wainaina (et al., 2017) which report that crop diversification has several benefits among them dietary diversification and income increase.

4.2.3 Fertilizer Use

As **table 5** above shows, 100% of the respondents used fertilizers on their farms. Data collected from focus group discussions administered to the key informants on 18/11/2022 indicated that fertilizers are essential to plant growth because they provide both macro and micro nutrients necessary for plant growth. The key informants further stated that the respondents used both organic and inorganic fertilizers in their shambas. They stated that in instances whereby the respondents were unable to buy the organic fertilizers due to financial constraints, they used the inorganic fertilizers instead. These inorganic fertilizers comprised of manure from animal droppings. In addition, respondents reported that to collect manure drop animal droppings, they set up compost pits whereby manure from livestock was stored. Other respondents for instance the dairy farmers revealed that they took their milk to Masii dairy whereby they bought fertilizers at wholesale price which is cheaper as compared to the retail price. According to literature from previous studies, collaborations between cooperatives and farmer groups are beneficial in that they enable farmers to have access to commodities like fertilizers and other farm inputs through the reduced prices (Braimoh et al., 2017).

4.2.4 Use of Improved Crop Varieties

The study reported that 100% of the respondents used improved crop varieties as indicated in **table 5** above. Study findings were that the plant-based value chains of the project that is pigeon peas and green grams were of improved varieties. The study findings as reported by the extension officer and the KCSAP officials were that the respondents planted mbaazi (II) type of pigeon peas which were drought resistant an adaptation crucial in Masii which is an arid and semi-arid region. Also, the variety of green grams used was of improved variety. The study findings from the focus group discussion with the KCSAP officials reported that the use of these improved crop variety resulted in better quality, more consistent production, and substantially higher yields. They further reported that KALRO; through carrying out research, was able to contribute to the agricultural sector by coming up with improved quality seeds and livestock genes. These study findings are in line with literature from other studies that indicate that one strategy CSA encourages is the use of improved crop varieties with the aim of increasing resilience by adapting to climate change thereby increasing agricultural productivity (Nyasimi et al., 2017).

4.2.5 Use of Terraces and Mulching

Table 5 above indicates that 98.2% of the respondents used terraces in their farms whereas 23.1% practised mulching. Key informants revealed that mulching and building terraces were examples of CSA strategies for water management. The key informants reported that mulch is material such as leaves or compost that is spread over the existing soil. They added that by covering the soil with a layer of mulch, it blocks sunlight from reaching the weeds hence preventing their growth. Other benefits of mulching pointed out by the key informants was conserving soil moisture and improving soil fertility. They also reported that terraces on the other hand helped in reducing soil erosion and enhance its water holding capacity. Study by Rosenstock (et al., 2019) outlines terraces and mulching as examples of practices essential for water management in the agricultural sector.

4.2.6 Irrigation

The study found out that 1.4% of the respondents practiced irrigation as illustrated in **table 5** above. The respondents that lived near the dams and those that practiced green-house farming reported that they used the irrigation system to water their crops. They stated that through irrigation their plants were able to get enough water necessary for growth. In addition, they reported that the proximity to the dam enabled them to fetch water for their animals with ease as compared to those that lived far away from the dams. Studies by Shahzad et al. (2021) state that irrigation is one of the CSA strategies that if implemented intensifies agricultural productivity by ensuring plants get enough water needed for proper growth.

4.2.7 Reduced Tillage

As **table 5** above shows, 20.3% of the respondents practiced reduced tillage. The respondents revealed that reduced tillage minimized disturbance to the soil through allowing crop residue to remain on the ground rather than being dumped or incorporated into the soil. The extension officer reported that the benefits experienced as a result of reduced tillage were minimizing the damage to the soil, reducing soil erosion by winds and reducing evapotranspiration of soil water thereby improving soil health. The extension officer also reported that before practicing reduced tillage, those farmers had reported that winds would blow away the top soil of their farms. However, after practicing reduced tillage, the crop residue on the farms would prevent soil erosion. This study is in line with other studies that discuss the importance of reduced tillage (D'Haene et al., 2009).

4.2.8 Improved Livestock Breed

The study findings were that 99.6% of the respondents had improved livestock breed as shown in **table 5** above. The extension officer and the KCSAP officials reported that the respondents were given weaners; an improved breed adapted to the arid region. Additionally, they reported that the improved livestock breed had increased productivity as compared to the local ones. For instance, for the farmers who had been given chicks, they laid eggs which they used for domestic use and sold the surplus eggs thereby getting additional income. The respondents reported that the productivity of the improved breed given was more compared to the local ones. Studies by Rosenstock (et al., 2019) illustrate how having improved livestock breed enables farmers increase livestock productivity since the improved breed has better traits as compared to the local breed.

4.2.9 Others (Tree planting)

As **table 5** above indicates, the respondents who practised tree planting were 11.7%. The respondents sighted providence of shade and reduction of soil erosion as the benefits they got from this practise. Other respondents added that they had planted fruit-bearing trees and once matured they would provide fruits for the family and also be a source of firewood to them. In addition, they reported that other trees would in the long run be a source of income since they would sell them as firewood or poles for building houses once they matured. According to literature, trees have a number of benefits including reducing soil erosion since the trees act as wind breakers thereby leading to retention of the top soil (Ghosh et al., 2016). Other studies outline the importance of tree planting as providing fruits and timber (Kallio, 2013). The findings of this study are in support of this literature.

The theory of change by Anderson (2005) outlines how the steps implemented by a project lead to the attainment of set objectives. Climate smart agriculture came about as a strategy of adaptation to the unpredictable climate changes which are being witnessed worldwide which would in turn lead to increase in agricultural produce. For the respondents, embracing CSA served as a way of enabling them to attain household security despite the harsh climate conditions. Literature evidence points to climate-smart agriculture as a promising strategy to feed the expanding global population in the face of climate change (Totin et al., 2018). To attain this, CSA focuses on three objectives namely; to increase agricultural productivity and farmers' incomes, to increase resilience by adapting to

climate change and lastly to reduce green-house gas emissions. It is crucial to note that strategies set for an arid area may not necessarily be the same as the ones for a highland region. Therefore, it is important for the stakeholders involved to come up with strategies that will best work for a region. That is why the World Bank in collaboration with the Ministry of Agriculture, Livestock and Fisheries laid out an action plan for each county before its implementation. That is why for Machakos County as a whole, the project centered on the four value chains so as to boost agriculture.

4.3 The Role of CSA Activities on Household Livelihood in Masii Ward

The study sought to assess the role of CSA activities on households' livelihood in Masii ward. The respondents were asked whether by embracing CSA they had witnessed any changes in their agricultural produce. They stated that embracing CSA had positively impacted their households' livelihood in a variety of ways. The benefits the respondents stated were; surplus income and produce, reduction in soil erosion through tree planting, availability of food, employment, improved animal and plant productivity and increased awareness on agricultural practices. These benefits are illustrated in **table 6** below.

Table 6

The Role of CSA Activities on Household Livelihood

Benefits of CSA	N	Percent of cases
Surplus produce and income	280	99.6%
Reduction in soil erosion through tree planting	6	2.1%
Availability of food	280	99.6%
Employment	122	43.4%
Improved animal and plant productivity	278	98.9%
Increased awareness on agricultural practises	281	100.0%

As illustrated in **table 6** above, CSA had brought various advantages to the farmers. To 99.6%, to 99.6% availability of food even amidst the adverse climatic conditions, 43.4% got employment opportunities. In addition, through CSA, 98.9% saw improved animal and plant productivity. Finally, 100% stated that CSA increased their awareness on agricultural practices. These advantages are further discussed below.

4.3.1 Surplus Produce and Income

The study findings were that 99.6% of the respondents reported a surplus of produce and income due to embracing CSA as shown in **table 6** above. The respondents reported that due to diversifying their crop and livestock produce, they were able to increase their harvest as compared to previous years. Some further stated that from their last harvest of pigeon peas, they had been able to harvest a surplus of between 2-3 bags; an achievement they had not attained before. They also revealed that the additional produce was sold resulting in additional income. The respondents reported that they used the additional income generated to cater for other necessities such as paying school fees for their children, buying the foods they didn't have and boosting their businesses. This enabled them afford to provide a variety of foods to their families. Consequently, making them food secure in the midst of the adverse climate conditions they were facing. However, they stated that rainfall had not been favorable to them for three seasons, hence they did not harvest as much as they had expected they would. These study findings are in line with study by (Wainaina et al., 2017) which state that climate-smart agriculture improves food security by increasing agricultural income through more yields or by freeing up labor for alternate economic pursuits.

4.3.2 Reduction in Soil Erosion through Tree Planting

As **table 6** above shows, 2.1% of the respondents planted trees. The respondents stated provision of shade and reduction of soil erosion, source of firewood and fruits as some of the benefits they got from tree planting. The study likewise revealed that Masii being an arid and semi-arid region, shade from trees enabled the respondents to bask under the trees and experience the gentle breeze brought about by the blowing winds; bringing about a relaxing effect. According to other literature, planting trees around the compound reduces soil erosion since the trees act as wind breakers thereby leading to retention of the top soil (Ghosh et al., 2016). The findings of this study corroborate this literature.

4.3.3 Availability of Food

Food availability was one of the benefits of CSA adoption as reported by the study at 99.6% as shown in **table 6** above. The respondents reported that due to planting a variety of foods and diversifying their livestock, they got an increase in both animal and livestock yield making food more available to them. The extension officer reported that various farmers had reported an increase in produce as a result of embracing CSA as compared to before when they would harvest close to nothing because of drought. Some respondents reported that they had granaries whereby they stored dried surplus harvest of pigeon peas and green grams. Literature points out that CSA methods are targeted at maintaining both sustainability and agricultural intensification, which are both important for increasing production (Karlsson et al., 2018).

4.3.4 Employment

As **table 6** above indicates, 43.4% of the respondents reported that CSA had brought about employment opportunities to them. The KCSAP officials reported that the lead farmers were trained by KCSAP officials and then later passed down the information learnt to other farmers. These lead farmers were paid for training they gave to the other farmers hence CSA enabled them to get additional income which they had not planned for. It is also through these interactions that the farmers broadened their networks and some even got other contract jobs with other non-governmental organizations in their regions. This study concurs with an article by the Consultative Group on International Agricultural Research (CGIAR) reports on how farmer trainings have helped farmers supplement their income and at the same time increased their awareness on various agricultural practices (CGIAR, 2019).

4.3.5 Increased Awareness on Agricultural Practices and Improved Animal and Plant Productivity

The study findings on benefits of CSA were that 100% of the respondents reported increased awareness on agricultural practices while 98.9% reported improved animal and plant productivity as illustrated in **table 6** above. The respondents reported that the extension officer through the lead farmers educated them on the best farming practices. They further added that implementing these practices led to an increase animal and plant yield both in quality and quantity. The respondents also revealed that CSA had empowered them in that they are aware on what and how to plant for best results. From the trainings they had undergone, they were able to identify the mistakes they had been doing and the measures they had to implement for optimum results. The respondents demonstrated their expertise by showing the researcher their farms and explaining the importance of various farming measures they had implemented such as spacing between crops and crop diversification. Moreover, the respondents stated that due to the benefits they had got from practicing CSA, they were more encouraged to keep embracing CSA since for some of them; agriculture was their major source of livelihood. The achievements of CSA in Masii region will add to the success stories of CSA across the world. Some of the success stories of CSA are found in reports given by the Food and Agriculture Organization (FAO, 2010). In addition, from the discussions, the researcher learnt through CSA, five dams had already been constructed in Machakos County saving some people time and effort used walking long distances in search of water.

The theory of change by Anderson (2005) outlines that, for the attainment of a certain goal, an action plan is necessary. For our case study, the aim evaluating status of CSA on household livelihood. From the discussions above about the benefits experienced as a result of CSA adoption, it suffices that the goal of attaining household sustainability despite harsh climate conditions was obtained. The respondents were able to harvest enough produce for domestic use and sold surplus for additional income.

4.4 Response on CSA impact on Household Livelihood

On being asked on whether CSA had a positive impact on their household livelihood, 84% of the respondents strongly agreed that it had, 13.9% agreed that it had a positive impact on their livelihood and finally 2.1% neither agreed nor disagreed on the effect of CSA on household livelihood. The study found that the 2.1 % that neither agreed nor disagreed based their answer on the unfavorable weather conditions experienced during that period making their plant and animal productivity not to be higher as they had hoped. The results are outlined in **table 7** below.

Table 7
CSA's Impact on Household Livelihood

Response	Frequency	Percent
Strongly agree	236	84.0
Agree	39	13.9
Neither agree or disagree	6	2.1
Disagree	0	0.0
Total	281	100.0

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

Farmers have indeed adopted CSA strategies, as evidenced by the CSA activities implemented in the region discussed in the first objective. Climate-smart agriculture has truly had a positive impact on household livelihood in terms of enabling the farmers to provide for their essential needs, maintain nutritional uptake, and get surplus income to provide for their other needs. Households are able to afford a balanced diet due to increased plant and animal productivity and the availability of surplus income. This surplus income caters for other needs such as proper health care, proper housing, and practicing off-farm activities. If climate-smart agriculture is embraced by more people, it will for sure help in alleviating hunger, especially in these times where climate change is a main issue due to its unpredictability. In the long run, the whole community will have benefited from the improved agricultural practices. Besides, if the CSA project is consistent, it will achieve its three pillars, which are adaptation, resilience, and mitigation of greenhouse gases.

5.2 Recommendation for practice

Sensitization on climate-smart agriculture should continue so as to create more awareness about it and enable more farmers to embrace it. This can be done through village barazas and also local radio stations so as to reach more people. Youth should be encouraged by the government to venture more into agriculture since the agricultural benefits accrued can be a source of livelihood for the unemployed. This can be made possible by agricultural experts creating awareness about agriculture through holding talks and seminars, which can be shared via social media platforms that the youth frequently visit. Additionally, the success stories of the youth already reaping from agriculture can be shared to serve as motivation for others that indeed it is possible to make a living from agriculture.

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Interactive Communication and Marketing Performance of Micro and Small Enterprises within Nyanza Region, Kenya

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ABSTRACT

To address the ever-changing needs of the clients, MSEs have to potentiate their one-to-one interaction with their customers as a cornerstone for their marketing performance. This is because interactive marketing courtesy of interactive communication makes a real effort to reach customers and understand their needs and preferences leading to high levels of marketing performance. However, the use of collaborative technologies for interactive communication amongst MSEs in Kenya remains a challenge. Therefore, the purpose of this study was to establish the influence of interactive communication on the marketing performance of micro and small enterprises within Nyanza region, Kenya. Theory of relational market behaviour and a cross-sectional survey research design was adopted with a target population of 3,211 registered MSE owners in the Nyanza out of which sample size of 356 was selected using Yamane's (1967) formula. Data was collected using questionnaires and analyzed using descriptive statistics and inferential statistics using SPSS version 25.0. From findings interactive communication explained 30.7 percent variation on marketing performance. A coefficient of .319 indicated that a unit change in interactive communication leads to .319 units of positive change in marketing performance. In conclusion interactive communication significantly predicts marketing performance at $t = 12.510, p < 0.05$ thus the rejection of the null hypothesis. There is need for MSEs to strengthen their interactive communication platforms for consumers to voice their requirements, perspectives, or opinions and support information exchange. They should also develop methods for collecting input from customers. The report also suggests that when dealing with consumers, MSEs should use positive language, be concise and clear, and personalize their interactions. Thus, it mandates the MSEs to scan the marketing environment for opportunities and align their capabilities of interactive marketing communications with the changes in the customer preferences for maximal output. The finding of this study can help major stakeholders in the MSE sector to strengthen interactive marketing communications for marketing performance.

Key words: Interactive Communications, Marketing Performance, MSEs, Kenya

I. INTRODUCTION

It is crucial for Micro and Small Enterprises (MSEs) to use marketing strategies that are up to date and responsive to the constantly changing needs of their customers because a business' success or failure depends on how well its marketing initiatives reflect the needs of its customers and the advantages that they stand to gain from using their products or services (Brenes, Mena & Molina, 2007). Therefore, to address the ever-changing needs of the clients MSEs have to potentiate their one-to-one interaction with their customers as a cornerstone for their marketing performance. This is because interactive marketing courtesy of interactive communication makes a genuine attempt to connect with customers and comprehend their wants and preferences, resulting in excellent marketing performance (Shivani, 2022). However, MSEs suffer from poor integration or use of interactive marketing communication tools (Tsikirayi, Muchenje, & Katsidzira, 2013). In this regard, MSEs frequently rely on the adoption of traditional marketing methods to smaller businesses, which affects their marketing performance. It therefore implies that MSEs should not embrace market communications strategies for short-term tasks but to support any defined strategic marketing objectives, or to build distinctive and sustainable competitive positions in their markets.

To take advantage of market possibilities and/or address environmental threats that are disclosed by interactive marketing communication, specific strategic measures are implemented based on the strengths and limitations of the business. A two-way method of marketing and advertising known as interactive marketing communication enables customers to interact with businesses directly. (Abin & Sujianto, 2022). In contrast to

conventional types of marketing, interactive marketing communication incorporates marketing initiatives based on customer behavior. This discussion often takes place on social media, email, surveys, and other digital marketing platforms. Interactive marketing communication, a development of direct marketing, is a media technology that permits two-way contact between a customer and a seller. The majority of interactive marketing communication approaches contain a response mechanism that enables customers to react to communications directly and maybe make purchases (Mulhern, 2010).

Therefore, the interactive content should be ingrained with value addition for attraction of customers and catalyzing more user engagement to engender maximal market performance. This is underpinned by the fact that the use of interactive marketing communications increased customer acquisition rate over time leading to marketing performance (Majid, 2020). Stone and Woodcock (2014) noted that interactive communication strategies have affected marketing performance through their role on the different areas of the marketing mix as branding, personal selling, product, advertising and promotion. However, the use collaborative technology for interactive communication amongst MSEs in Kenya remains a challenge. Wanjala, (2016) adds that performance of MSEs that use Information Communication Technology (ICT) is still unconvincing; the production levels anticipated from such MSEs' ICT investments are not correlated with improved products and services, a larger market, or lower costs. In addition, the MSEs in the region continue to have performance issues, with a failure rate of 65%, despite the trainings provided and the marketing plans in place (Menya, 2020). Therefore, for MSEs to increase their positive relationships with their customers locally and internationally, they need to understand the role of interactive communication in re-shaping marketing performance. However limited research has been conducted in the sphere of marketing communication and marketing performance in MSEs.

1.1 Objective

The specific objective of the study was to establish the influence of interactive communication on the marketing performance of micro and small enterprises within Nyanza region, Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Framework

In accordance with the research's aims, the study was premised on the theory of relational market behavior. The major goal of ongoing communication with consumers is to establish a friendly rapport that fosters client confidence. A component of SET called relational market behavior shows how effective customer connections may be built from the standpoint of retaining customers (Parvatiyar & Sheth, 2001). Building ties with customers is a business strategy whose origins date back to the early industrial era (Sheth & Parvatiyar, 1995).

The authors assert that manufacturers and customers interacted directly while artisans concentrated on creating things that were uniquely their own. Strong relationships were formed between the producers and the customers as a result of this. Nevertheless, the advent of intermediaries during the mass production era in the 1930s made it harder for producers and consumers to communicate directly, which resulted in the development of transaction-oriented marketing. Producers used to manage marketing, but intermediaries took over now that they were more interested in making money than in building relationships with the clients they served (Sheth & Parvatiyar, 1995). Yet as customers became more conscious of the products they wanted and the amount of satisfaction the products might provide, the relationship marketing approach quickly developed and evolved by the 1980s.

This theory thus offers an explanation for how effective business to customer relationships may be formed through appropriate interactions to guarantee customer retention and new client acquisition. The theory gave this study the rationale it needed to interview the owners or operators of MSEs in order to analyze the nature of the connection between the service they offer and their interactions with consumers. With respect to readiness to participate in interactive marketing and the degree of reciprocal dependency and cooperation, the researcher was able to measure perceptions of the exchange interaction connection using the responses that were received.

2.2 Empirical Review

Samson et al. (2014) looked at the “effect of online digital communication on consumer purchasing decision” to assess how well it works as a marketing medium for the passenger vehicle segment of the automotive industry. By using stratified random selection to choose 100 respondents from a sample group of different demographic backgrounds. The findings showed that, despite the fact that most people utilize and trust online digital communication sources, the best methods for luring potential buyers to the showroom were television advertising and

word of mouth. This suggests that while being a potent instrument for informing clients, online digital communication is still not the most popular and impactful media.

By examining the communication process and the communication mix that cellular service providers use to communicate with their consumers, Poovalingam et al. (2007) researched the “effect of communication on customer relationship marketing among cellular service providers”. According to the survey, the majority of mobile phone users were happy with their service provider's communication efforts and that relationship marketing was effectively promoted by the service providers' communication tools. Nabi et al., (2017) looked at the “role and effects of business communication on employee productivity and work satisfaction in a case study on Karmasangsthan Bank Limited in Bangladesh”. A questionnaire was used to guide the study in the form of a descriptive survey. Using several expository statistical analysis techniques, the data were examined. The findings clearly imply that efficient business communication has a clear and undeniable impact on employees' general performance and happiness.

In a quantitative case study on the Shoe Stop Oy Company in Pietarsaari, Finland, conducted by Bista, (2018) the author looked at how effectively visual merchandising may be used to communicate with customers in the physical retail sector. Significant evidence was discovered to support this claim. The study found that both shop owners and patrons understood the importance of visual merchandising tools distinguished between effective and ineffective stimuli. The business employed a lot of visual merchandising components to communicate with its audience, and curiously, these messages were well received. Thus, it came to the conclusion that more efficient and effective use of these technologies may provide solutions to most, if not all, of the issues now encountered by retailers.

Jerman and Završnik (2014) study on the “efficacy of marketing communications in the Slovenian market” discovered a significant link between the creation of a marketing communication plan and improved marketing communications inside the company. The study used a questionnaire that was addressed to the corporate marketing directors of 850 Slovenian businesses so as to explicitly examine the effect of marketing communications strategy on marketing communications effectiveness. A stratified sample of Slovenian enterprises was also employed in the study. Nimusima et al. (2022) studied the “effect of interactive marketing practices on market performance of soft drink enterprises in Kigali City.” The research found a favorable and strong correlation between interactive marketing techniques and market success. Customer satisfaction is improved via interactive marketing among Jaffna Peninsula mobile communication service providers (Sir, 2012). As measured by customer loyalty and happiness, Bader et al. (2022) discovered how e-marketing impacts marketing success in Jordan. According to the findings, e-marketing significantly improved both consumer loyalty and satisfaction. Relatedly, according to Lafley and Martin (2014), adopting a marketing communications strategy that is not only ignorant of the true market's purchasing patterns but also unaware of the dynamics of the competition is associated with failure to meet market sales and profitability objectives.

Samson, et al. (2014) examined the influence of online communication on customer purchasing decisions. The two studies were mostly limited to online interactions, with the first research using a customer's purchasing decision as a dependent variable. In view of the above therefore, most studies on interactive communication suggested its effectiveness especially in online marketing, they mainly focused on telecommunication sector like Automobile industry, cellular service providers and visual merchandising. There was therefore need to empirically investigate other sectors too since such results could not be generalized given the structure and organization of businesses within other sectors. By examining the influence of interactive communication on the marketing performance of MSEs in the Nyanza area of Kenya, this study sought to bridge this gap. Furthermore, the bulk of communication studies had been carried out in industrialized nations like Slovenia, Bangladesh, and Finland, with the majority being case studies within certain businesses.

III. RESEARCH METHODOLOGY

This study employed positivist research methodology since it gave the researcher the chance to formulate hypotheses based on the specified objective and statistically evaluate it in order to draw findings that could be compared to theories already in existence. The researcher used a cross-sectional survey research methodology. Cooper, et al, (2006) posits that a cross sectional survey design gives the researcher the chance to get information from many organizations at a certain period. In addition, it gives the researcher the chance to collect quantitative or qualitative data from the intended audience. A questionnaire was used to gather primary data. The target population was 3,211 registered MSE owners in the Nyanza area by Kenya National Chamber of Commerce and Industry (KNCCI). Yamanes (1967) formula was to determine the sample size of 356.



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

Where:

n= preferred sample size

N= Population

e = margin of error at 5% (standard value of 0.05) for 95% confidence level.

The sample size will be determined as follows given the population of 3,211.

$$n = \frac{3,211}{1+3,211(0.05^2)} = 355.69 \approx 356$$

Following the collection of the data, descriptive and inferential statistics were used to analyze it. The hypotheses were assessed using simple regression analysis at the .05 significant level.

The general regression model expressed will be as follows:

$$MP = \beta_0 + \beta_1 IC_n + \epsilon \dots \dots \dots 3.1$$

Where: MP = Marketing performance

β_0 = is the intercept

IC_n =Interactive Communication

ϵ = error term

IV. FINDINGS AND DISCUSSIONS

4.1 Descriptive analysis

The statements on interactive communication and marketing performance were presented on a five-point Likert scale with 1 = Very low extent, 2 =low extent, 3 = moderate extent, 4 = great extent, and 5 being of extremely high extent. The responses were presented in terms of means and standard deviations.

4.1.1 Interactive communication of Micro and Small Enterprises

The responses on items of interactive communication were displayed on Table 1 in terms of means and standard deviations.

Table 1

Interactive communication of Micro and Small Enterprises

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Timely information offered to customers	356	3.22	.063	1.194
Regularly share accurate information	356	2.90	.077	1.454
Customers involved in product service delivery	356	2.58	.072	1.353
Interactive meeting held regularly	356	2.23	.070	1.325
Customers show awareness of our brands	356	2.93	.079	1.490
Aggregate mean		2.77	.072	1.363

The highest mean score of 3.22 and Se of .063 in Table 1 demonstrate how highly respondents regarded providing consumers with timely information. Sharing of accurate information, involvement in service delivery, regular holding of interactive meetings and customer show of awareness to brands had a mean of 2.90, 2.58, 2.23 and 2.93 respectively. This indicates that the respondents had just a minimal amount of interactive communication with their clients. Interactive communication had an overall mean score of 2.77 and a standard deviation of 1.36.

This implies that interactive communication has been moderately embraced by the Micro and Small Enterprises in Nyanza Region. The findings corroborate with Nabi et al. (2017) in their study on the “role and impact of business communication on employee performances and job satisfactions” which found a significant relationship between communication and performance. This is also echoed by Bista (2018) in his case study on shoe stop of company in pietarsaari, Finland. Shonubi and Akintaro (2016) concur that there is a synergic relationship between communication approach and efficient organizational performance. Lafley and Martin (2014) note that; adopting inappropriate marketing communications strategies is associated with failure to meet market sales and profitability objectives. Jerman and Završnik (2014) later contend to this fact when he found in his study a strong correlation

between communication and performance. Therefore, MSEs in Nyanza region Kenya should strongly embrace interactive communication for maximal outcome in terms of maximal performance. This is because of the low extent of their use of interactive communication. This calls for strengthening their interactive communication platforms and support information exchange with their clients for effective engagement of customers.

4.1.2 Marketing Performance of Micro and Small Enterprises

Marketing performance was evaluated using seven items as presented in Table 2 displays the findings.

Table 2

Marketing performance of Micro and Small Enterprises

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Customers have positive attitude for us	356	3.82	.052	.982
Feedback handled and delivered efficiently	356	3.76	.053	1.007
We realize increased sales and customer visits	356	3.55	.051	.963
We meet customer demands and expectations	356	3.87	.048	.885
Customers uniquely identify our products	356	3.45	.056	1.045
Customers proud to be associated with us	356	4.11	.039	.736
Customers value our products and services	356	4.25	.043	.809
Aggregate mean		3.83	0.048	0.918

According to Table 2, the majority of MSEs believed that their consumers appreciated and expressed pleasure with their goods and services, as shown by the highest mean score of 4.25. Also, as evidenced by a mean score of 4.11 (Sd = 0.736), the customers' pride in their business was also valued as the finest deed performed. This suggests that the respondents valued their customers' sense of pride in their relationship with them. However, meeting of customers' demands and expectation, positive attitude, handling of feedback, increased sales and unique product identification registered the lowest mean scores of 3.87, 3.82, 3.76, 3.55 and 3.45 respectively. Therefore, the firms' level of marketing performance was rated moderately. The overall mean score for marketing performance was 3.83, with a 0.918 standard deviation.

The overall mean score for marketing performance was 3.83, with a 0.918 standard deviation. As a result, the majority of fairly engaged in a significant way on actions that improve marketing success. This is in line with Lafley and Martin (2014) who linked adoption of a marketing communications strategy that is unaware of both the dynamics of the competitive market as well as genuine market purchasing behaviors with failure to meet market sales and profitability objectives. Thus, it mandates the MSEs to scan the marketing environment for opportunities and align their capabilities of interactive marketing communications with the changes in the customer preferences for maximal output. This is explained by the fact that, courtesy of the theory of relational marketing behavior, interactive marketing communication should provide the clients with unique experience that makes communication more interactive thus encouraging potential customers to make a purchase which in turn leads to improved marketing performance. Interactive communication creates valuable experience to consumers as an added value to engender heightened purchases translating to an increase in market share and sales volume as aspects of marketing performance.

4.2 Inferential Analysis

Regression analysis was used to investigate the influence of interactive communication on the marketing performance of Micro and Small Enterprises in order to test the following hypothesis:

H₀₂: Interactive communication has no significant influence on the marketing performance of micro and small enterprises within Nyanza region.

Test results are presented in Table 3.

Table 3*Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.554 ^a	.307	.305	.51433	1.700

a. predictors: (constant), interactive communication

b. dependent variable: marketing performance

The marketing performance of MSEs was found to vary by 30.7%, according to the coefficient of determination (R^2) value of 0.307 as explained by interactive communication, 69.3% of the variance in marketing performance is explained by other factors that weren't accounted for in the empirical model of the study. The strength of the relationship between interactive communication and marketing performance among MSEs in the Kenyan Nyanza area was also analyzed and presented in table 4.

Table 4*Analysis of Variance*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.401	1	41.401	156.508	.000 ^b
	Residual	93.645	354	.265		
	Total	135.056	355			

a. Dependent Variable: Marketing Performance

b. Predictors: (Constant), Interactive Communication

From the results in Table 4, a value of $F(1,354) = 156.505$, $p < 0.05$ was obtained. This implies that interactive communication could statistically significantly predict marketing performance among MSEs in Nyanza region, Kenya. Thus the rejection of the null hypothesis, the independent variable's contribution to the dependent variable was shown in the regression coefficients Table 5.

Table 5*Regression Coefficient*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.842	.084		33.997	.000
	Interactive Communication	.319	.026	.554	12.510	.000

Dependent Variable: Marketing Performance

From the data in Table 5, the study established regression equation was $Y = 2.842 + .319X_1$. Therefore, marketing performance among MSEs = $2.842 + .319$ Interactive Communication. If interactive communication were held constant at zero, MSEs' marketing performance would be 2.842. Moreover, one unit increase of interactive communication results in a 0.319 rise in marketing performance. Thus, interactive communication is statistically significant at $\beta = 0.319$; $t = 12.510$; and $p = 0.000$. Interactive communication hence has a favorable impact on MSEs' marketing performance at a 95% level of confidence. The study's findings in this instance indicate a connection between MSEs' marketing performance in Nyanza Region, Kenya and interactive communication. The findings are corroborated by Bader, et al (2022), Nimusima, et al., (2022) Samson, et al., (2014) who found a positive and significant relationship between interactive marketing communication and marketing performance.

CONCLUSIONS & RECOMMENDATIONS**5.1 Conclusion**

The results of the study showed that interactive communication predicts MSE marketing performance in the Nyanza area of Kenya. The study came to the conclusion that MSEs in the Nyanza area of Kenya perform better in

their marketing when they engage in interactive communication. Hence, regular and engaged customer communication is likely to lead to enhanced marketing performance. It is also evidenced by study findings that interactive communication is overly in dispensable in capitalizing on marketing performance. Therefore, a policy framework is unquestionably essential to support interactive communication in this context as a strategic recipe that embeds the characteristics of marketing communication among MSEs. Interactive communication helps the MSEs in increasing their sales and customer visits courtesy of meeting and exceeding customer demands and expectations. It has been argued that interactive communication has a substantial impact on marketing performance based on the study's findings. Due to this, it is still essential for MSEs to assess and improve the ways in which they use interactive marketing communication, since doing so will improve the effectiveness of their marketing efforts.

5.2 Recommendations

The research advises MSEs to strengthen their interactive communication platforms and support information exchange with their clients. A platform for consumers to voice their requirements, perspectives, or opinions concerning MSEs' activities and performances should be provided by MSEs, who should also develop methods for collecting input from customers. The report also suggests that when dealing with consumers, MSEs should use positive language, be concise and clear, and personalize their interactions. The MSEs should strengthen their interactive communication by enhancing their digital marketing capabilities (DMCs) for high marketing performance by remaining competitive.

5.3 Future Research Directions and Limitations

The study is constrained by the problem of generalizability. Due to the unique characteristics of each sector, it may not be possible to generalize the study's findings to all sectors. Therefore, it is advised that future research be done in other areas and that a more thorough comparison study between sectors be done. The study focused only on MSE owners thus if the study was conducted on the corporate organizations including the marketing department, there may be variations in the strength and direction of the association between the studied variables. Future studies should thus examine the marketing division of the public sector or conduct a study like to this across diverse businesses to better understand the connection between interactive communication and marketing performance. The scope of the study was restricted to marketing performance and interactive communication. Additional study might improve the literature by taking into account moderator like years of experience on in the relationship between interactive communication and marketing performance.

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Supply Chain Resilience and Service Delivery of Public Health Care Facilities in Western Region Kenya

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ABSTRACT

Supply chain management is a crucial activity that entails overseeing the movement of materials from the source, throughput, to the end consumer. However, in this endeavour, there are increased instances of uncertainties, i.e., speeds of delivery, flexibility, and environmental factors that affect the services rendered to the end consumer. This drives the concept of supply chain resilience as the ability of an organization to cope with stress from any factors in its environment and manage to maintain functionality in spite of unexpected or disruptive events. The healthcare sector has undergone significant changes over the past decades. Amidst these changes, attaining efficient and effective healthcare service delivery remains a distant prospect for many nations. This study therefore sought to find out the effect of supply chain resilience on service delivery in the public health care sector in the Western Region of Kenya. The hypothesis for the study was that supply chain resilience has no significant influence on service delivery in the public health care sector in the Western Region of Kenya. The study was anchored on two theories: the theory of human service delivery and strategic choice theory. The study adopted a positivist research philosophy and a descriptive survey research design, and the target population was 284 respondents from the four level 5 county hospitals in the western region. Questionnaires were used for data collection and analyzed using descriptive and inferential statistics. Data was presented using tables, scree plots, and scatter plots. The study is of value to researchers and academicians, county government authorities, and residents of the four counties. 258 respondents participated in the study, and preliminary data checking, screening, and cleaning were done. Validity and reliability statistics were done, and they indicated that the research instruments were adequate for their purpose. Diagnostic tests were also conducted, and none of the variables violated normality, linearity, homoscedasticity and multicollinearity assumptions. Regression analysis shows that there is a statistically significant relationship between resilience and service delivery ($t = 6.115, p < 0.05$). The null hypothesis was thus rejected. The study recommended that hospitals maintain communication and information sharing with suppliers to enhance collaboration, resilience, and responsiveness in their supply chains. Hospitals should engage in frequent forecasting of demand to ensure that their services are aligned with seasonal changes in demand.

Key words: Supply Chain Resilience, Service Delivery, Public Health Care Facilities, Western Region, Kenya

I. INTRODUCTION

Supply chain management is a crucial sector that facilitates smooth industry operations. Essentially, supply chain management entails the processes involved in the transformation of raw materials into finished goods that are of value to the customer. Initially, it was regarded as a mere clerical function within the broader organization. However, the function holds strategic importance as the business environment features an increasing number of competitors, both locally and internationally, forcing organizations to design ways of improving their internal processes to remain ahead of their competitors. Today, the supply chain function's relevance is not only restricted to industries and manufacturers of goods but also to the service sector, which also relies more on its supply chains as a source of competitiveness.

The health-care sector is one such industry whereby researchers and professionals have begun to pay attention to the supply chain as a strategic area for cost efficiencies and quality improvements (Kwon, Kim, & Martin, 2016). The healthcare sector has undergone significant changes in the past decade. Most recently, the COVID-19 pandemic

has accelerated healthcare industry change, causing increased shortages and lowered speeds of delivery of medical supplies and equipment as organizations and governments struggle to curb the spread of the virus (World Health Organization, 2017). In Busia and Bungoma counties, lack of resources to train the hospital management committees on effective supply chain strategies and shortages of drugs, staff, and limited bed capacities, respectively, are some of the reported challenges (Okedi & Adungo, 2021; Matheshe & Inimah, 2017).

Masaba et al. (2020) are in agreement with these studies, citing a lack of sufficient human, physical, and financial resources in the country's health care sector, hampering effective supply chain agility. The pandemic has placed new pressures on healthcare delivery systems, most of them attributed to supply chain disruptions, inadequate healthcare staff and infrastructure, and other related global inequities (Deloitte, 2021).

The healthcare supply chain entails the manufacturing of health resources such as equipment and drugs and distributing them to healthcare providers and patients in a timely manner. The availability of medical equipment and drugs is correlated with effective healthcare service delivery (Zamzam et al., 2021). In general, healthcare organizations face the unavailability of medical equipment due to delays in delivery, supply chain risks, unaffordability due to financial constraints, poor information systems, and a lack of resilience and responsiveness. Besides availability, adequate equipment and drugs also enhance timely and cost-effective healthcare service delivery (Ogundele & Olafimihan, 2009).

Supply chain resilience has become an issue of concern in the health care sector nationally. According to the Kenya National Commission for Human Rights (KNCHR, 2017), resilient supply chains in hospitals provide the ability to cope with stress from any factors in their environments and manage to maintain functionality in spite of unexpected or disruptive events. County governments have a right to ensure that their population has access to fast, efficient, and affordable health care. However, in pursuit of this agenda, there have been concerns about poor service delivery among county hospitals, as occasioned by a lack of medical supplies and a shortage of human resources (KNCHR, 2017). The Global Fund (2021) reports that 28% of orders in public hospitals face delays of more than 30 days, thereby creating poor service delivery in the public health care sector.

Despite significant effort from the county governments to improve the state of public health in Kenya, the health sector of the country is still marred by key challenges such as a lack of sufficient human, physical, and financial resources, which hamper effective supply chain agility (Masaba et al., 2020). The devolution of the health sector in Kenya has brought unique challenges. One of the common challenges within hospitals is delayed deliveries of medical equipment that inhibit effective service delivery in the population (The Global Fund, 2021). According to a social audit by Transparency International (2020), Vihiga County Hospital is underfunded, which results in instances of low medical supplies and undermines the facility's infrastructure and services.

Studies have been done on the supply chain resilience and service delivery of organizations in the United States of America, France, Nigeria, South Africa, Pakistan, etc. The findings of these studies cannot be generalized to the Kenyan context owing to the different governance systems and different external environmental forces. This study therefore sought to fill this gap by examining the effect of supply chain resilience on service delivery in the public health care sector in the county governments of the Western Region, Kenya.

1.1 Research objectives

To ascertain the influence of Supply Chain Resilience on Service Delivery of the Public Health care sector in the County Governments of Western Region, Kenya

1.2 Research Hypothesis

Ho₁ Supply Chain Resilience has no significant influence on Service Delivery of the Public Health care sector in the County Governments of Western Region, Kenya

II. LITERATURE REVIEW

2.1 Theoretical Literature Review

The study was supported by strategic choice theory, dynamics capability perspectives, health network metrics, institutional theory and theory of human service delivery.

2.1.1 Strategic Choice Theory

John Child first proposed the theory of strategic choice in 1972. The theory states that the leaders or top management within an organization have a significant influence on the choices made by the organization. Initially, scholars placed emphasis on theories that focused on the role of the environment in organizational decisions, such as

resource dependence and contingency theories (Rohof, 2013). However, the strategic choice theory sought to emphasize the power of organizational agency, whereby the top leaders make decisions that determine the actions and subsequent performance of organizations. As time progressed, more scholars developed the strategic choice theory to apply to various industries. Kochan et al. (1984) focused on industrial relations and built upon systems theory to include strategic choice as a way of understanding industrial relations. In their view, alongside the environment, the decisions made by top employers, labor organizations, and the government influence industrial relations, and their effects are experienced across all levels of organizations, even those that were not involved in the decision-making process.

The theory of strategic choice provides a suitable basis for understanding supply chain resilience. The theory attempts to provide answers to some aspects of supply chain resilience, for instance, the impact of top managers' decisions about supply chain resilience on organizational performance. Essentially, strategic choice theory can be used to understand supply chain resilience approaches as a mode of attaining best value rather than traditional supply chains. The leaders within organizations could make strategic decisions with supply chain resilience as their primary driver, thus veering away from generic strategies such as low-cost leadership (Miles & Snow, 1978). However, a weakness of strategic choice theory is that it overlooks the roles played by the processes of strategy execution within an organization and places all the emphasis on the environment and strategic decision-making.

2.1.2 Theory of Human Service Delivery

In 1990, Peter Senge first proposed the theory of human service delivery. It theorizes that human beings are a resource within systems for service delivery. In a study that was conducted in the insurance context, Senge (1978) argued that it was difficult to develop metrics that could be used to measure intangible aspects of the industry, such as the quality and delivery of services. In later years, more scholars began to apply the model to other service-based industries. Theorists have begun to work to develop a system that can be used to build a system that ensures optimized service delivery for customers. The theorists suggested that every organization should develop internal metrics that they use to measure the quality of human services (Pue, 1996). They should also be able to have aspirational guidelines that direct the human resources within the organization on how to meet their shared vision and goals.

The health sector is primarily a service-centered industry. Even though hospitals also provide goods such as medicine and equipment, their core business is made up of people: medical professionals who work within the healthcare system to deliver services to patients. This research focuses on the public health sector, where the key indicator for measuring performance is service delivery. The theory of human service delivery can be used to inform this research by shedding light on the challenges that hospitals face in measuring the quality of their services and suggesting indicators that they can use to objectively draw conclusions about the quality of their service delivery.

2.2 Conceptual Review of Variables

2.2.1 Supply Chain Resilience

Scholars conceptualize supply chain resilience as the ability of an organization to cope with stress from any factors in its environments and manage to maintain functionality, in spite of the unexpected or disruptive events (Alfarsi et al., 2019). Organizations manage to stay resilient because of capabilities that they develop over time. In supply chain, resilience is majorly reactive. Reactive resilience, on the other hand, entails reacting after a disruptive event occurs. Reactive supply chain resilience is largely characterized by speed of response and recovery (Alfarsi et al., 2019).

Building supply chain resilience begins with being quick to recognize a problem. A problem may result from external risks driven by upstream and downstream activities, such as demand, environmental, supply, business and regulatory risks, or it may be internal, such as due to personnel, manufacturing operational and process risks as well as, quality planning and control risks (Blackhurst et al., 2005). Second, companies should be able to develop an appropriate recovery plan. Third, the companies should redesign their supply chains to align to resilience needs. After strategy formulation, it is important that organizations implement them through matching their cultures and structures to their new goals.

Discussions about supply chain resilience have taken center during the period of COVID19 pandemic. Some of the new risks that came with the pandemic include changes in demand with preference for some increasing as others decrease, changes in customer behavior as the use of internet purchasing increased, creation of new customers through a reprioritization of needs, lock down initiatives that led to the need to seek for alternative suppliers and work from home requirements that changed organizational work structures, and thus their output (Ivanov & Das, 2020). These trends disrupted the supply chain activities on both upstream and downstream phases. Supply chain velocity is

recommended as a suitable strategy to remain resilient and responsive in the face of the pandemic, however, larger firms are better placed to practice risk management strategies efficiently (Konstantinou et al., 2021).

Buffers have been recognized as an important aspect of enhancing supply chain resilience (Rajesh 2018; Carvalho & Cruz-Machado, 2011). Buffering refers to the ability to maintain enough supplies or resources as a safety net within agile supply chains networks (Carvalho & Cruz-Machado, 2011). There are three main types of buffers that can be used to create sustained supply chain resilience- inventory, time and capacity buffers. Inventory buffers include the safety stocks that organizations can keep to respond to demand changes or delays in delivery and maintain customer satisfaction (Rajesh, 2018). Time buffers refer to allowing for extra time to allow for decision making and taking action to cater for any unforeseen variability. Capacity buffers refer to utilizations of operations below their maximum level to cater for changes in demand, delays or stoppages.

Multisourcing is yet another recognized indicator of supply chain resilience. Multisourcing entails the spreading of risk across various suppliers by having alternative supply sources (Hohenstein et al., 2015). Having multiple sourcing can be a shock absorber for organizations experiencing short term disruptions. Together with other strategies such as having risk mitigation inventory, relying on multiple suppliers increases the absorptive capacity of organizations allowing them to cope with the effects of disruptions along the supply chain (Hosseini, Ivanov & Dolgui, 2019).

An organization's risk management culture is also a significant indicator of supply chain resilience. Organizational culture comprises of the beliefs, attitudes and norms in a firm and as reflected in the shared objectives and goals. Essentially, culture differentiates one group of people from another. Organizational culture may either demonstrate a likelihood to be open to change or prefer stability (Kumar & Anbanandam, 2020). The occurrence of risks produces change within organizations requiring the players to depict risk-tolerant cultural behavior and attitudes that supports risk management. The different cultures towards risk affect organizational performance through influencing its ability to cope with perturbations in the supply chain (Chunsheng et al., 2020).

2.2.2 Service Delivery

Service delivery is a concept that is used in the context of public administration to describe the degree to which it is able to fulfill its duties. There are various indicators that are used to demonstrate the level of service delivery provided for citizens. One of the measures of service delivery is efficiency which focuses on the economic use of resources (Shepherd & Günter, 2010). Following the generic structure of a supply chain, measuring service delivery would then evaluate the efficiency of different activities along the value chain such as supplier, inbound, manufacturing, outbound, marketing, distribution and customer activities. In the field of healthcare, efficiency is demonstrated by comparing the inputs of the system such as cost and labor against the outputs such as health outcomes and physical visits (Mathur et al., 2018).

Public organizations rely on various ways of measuring service delivery. Some of these measures include flexibility, quality, price, technology and innovativeness and cost, among others. Shepherd and Gunter (2010) recommend that organizations distinguish between cost and non-cost aspects of supply chain service delivery since it is inadequate to solely rely on cost measures. These types of measures fall into either of two categories- quantitative or qualitative supply chain performance measurement. Additionally, measuring service delivery should be a continuous process that is embedded within an organization's operations.

Another measure of service delivery is speed. Speed addresses the time that it takes for citizens to receive services from the providers. Speed is especially important in healthcare. The ability to get healthcare services speedily following an injury or a sickness often has an impact on the likelihood and speed of recovery (Yang et al., 2015). It could be the speed of a physician's response, delivery of drugs or necessary equipment required to provide healthcare. The supply chain is an important determinant of the speed of service delivery in the healthcare context. A proper supply chain is that which is able to monitor and manage the flow of drugs, and healthcare services from the manufacturers to hospitals and patients ensuring that they receive the medical supplies at the right time and place (Mathur et al., 2018).

Accessibility is yet another measure of service delivery, especially in the health sector. Even though developed nations have established systems to increase accessibility of healthcare services, developing nations still struggle with providing their citizens with accessible healthcare. According to the Agency for Healthcare Research and Quality (2018), there are four main components of healthcare service accessibility; availability of workforce, timeliness, availability of required services and adequate coverage that gives patients access to the healthcare system. Accessibility is a key challenge for the Kenyan healthcare system evidenced by disparities between urban and rural contexts as well as people from different social classes (Otieno et al., 2020). The introduction of the devolved system

held the promise of increasing accessibility to healthcare services through transferring power, and resources closer to the people.

Like the case for other areas of public service, quality is a significant indicator of the level of service delivery that citizens receive. Quality of service refers to the difference between the expectation of customers and that which is delivered to them (Shahin & Samea, 2010). In the public sector, quality of service can be attained by identifying standards of performance and comparing actual performance to identify any issues in the operational processes that impede high quality of service delivery. Most measures of quality originated in the good sector, however, some of them are inapplicable to the services sector since the latter is a different context with intangible aspects that are difficult to measure objectively (Mugambi & Kiruthu, 2015). A framework for measuring the quality-of-service delivery was established by Parasuraman et al., (1985) which entails assessing the quality of the physical aspects of their operations such as workers and facilities, how reliable the services are, how responsive they are to customer needs, empathy that the workers show to customers and assurance. These dimensions of quality are also well applicable to the health care sector.

2.3 Empirical Literature Review

2.3.1 Influence of Supply Chain Resilience on Service Delivery

Research on supply chain resilience and service delivery also reveal conflicting findings with some reporting significant, while others reporting the insignificant relationship between the two variables. A study by Jüttner and Maklan (2011) investigates supply chain resilience from the perspective of the global financial crisis that was experienced at the beginning of the millennium. The study sought to research on supply chain resilience and draw empirical connections with key concepts in supply chain risk management and vulnerability. The researchers collected data from three global companies; a wood wholesaler, chemicals and cables suppliers and used a mixed method approach whereby the researchers conducted semi structured interviews with employees within these companies as well as analyzed internal documents. The findings of the study revealed that both supply chain risk management and supply chain vulnerability categories were significant for supply chain resilience. Supply chain resilience, in itself was also significant for supply chain performance.

The significance of supply chain resilience is also affirmed by an Indian study in the manufacturing sector intended to investigate how supply chain resilience affects performance in the manufacturing sector. Kumar and Anbanandam (2020) approach the study by focusing on supply chain risk management culture as a moderating factor that influences supply chain resilience and eventually, organizational performance. The study used data that was collected through surveys administered high-ranking professionals within Indian manufacturing firms. The findings revealed that resilience had a statistically significant relationship with firm performance.

At a regional level, there is a parallel pattern in result findings whereby scholars report mixed results about supply chain resilience and supply chain performance. In Nigeria, Olaleye et al., (2021) focus on tertiary institutions to investigate factors that build their supply chain resilience. The research seeks to demonstrate whether innovation positively influences firm resilience and agility and whether agility is a mediating factor between innovation levels and resilience of tertiary firms in Nigeria. The researchers carried out the study through administering survey questionnaires to members of top management within 5 universities in Nigeria. The findings of the study revealed a positive insignificant relationship between supply chain resilience and firm performance.

The importance of supply chain resilience is however, demonstrated through a study in Ghana by Asamoah et al. (2020). The research is contextualized in small and medium enterprises within the country. Studied alongside, customer-oriented perspectives and social network relationships, the study seeks to investigate whether supply chain resilience has a significant effect on the performance of businesses. The study relied on data which was collected through surveys that were administered to 110 small businesses in Ghana, each represented by a single respondent in a managerial position. The findings revealed that there was a positive significant relationship between supply chain resilience and customer-oriented performance. Therefore, the researchers conclude that supply chain resilience mediates the relationship between social network relationships, customer-focused services and thus, overall organizational performance.

Studies in Kenya have also documented empirical evidence regarding the influence of supply chain resilience on performance. Ndiema and Muli (2021) sought to investigate how supply chain resilience affects performance in the Kenyan retail industry. Supply chain resilience was operationalized and measured using supply chain recovery, flexibility, robustness and the use of Vendor-Managed Inventory systems. A multiple regression analysis revealed that recovery, flexibility, robustness and the use of vendor managed inventory systems, all operationalized as measures of supply chain resilience accounted for a significant change in the performance of the retail stores.



A similar study had been conducted in Kenyan sector to investigate the influence of supply chain resilience. The study by Kariuki (2018) focuses on hospitals categorized by the National Health Insurance Fund as providing inpatient and outpatient services. The main research objective was to investigate whether supply chain strategies within the selected hospitals had an influence on their performance. The researchers administered surveys to 264 supply chain officers within 770 Kenyan hospitals. A regression analysis was conducted on the collected data and the results revealed that there is a positive significant relationship between supply chain resilience and organizational performance in the health sector.

Studies have been conducted on supply chain resilience and performance and they have indicated positivity and significance (Asamoah, Agyei-Owusu & Ashun, 2020; Jüttner & Maklan, 2011; Kumar & Anbanandam, 2020; Ndiema & Muli, 2021; Kariuki, 2018). However, a Nigerian study depicted an insignificant relationship between Supply Chain Resilience and performance (Olaleye et. al., 2021) hence prompting further research on Supply Chain Resilience and Service Delivery in the Public Health Care Sector in Western Region, Kenya.

III. METHODOLOGY

The study adopted the positivism research philosophy and descriptive survey research design. The study was carried out in the Western region of Kenya. The study focused on county referral hospitals within the four counties. The target population for this study was employees with clinical roles within the four level five county hospitals - Vihiga County Referral Hospital, Busia County Referral Hospital, Kakamega County Referral Hospital and the Bungoma County Referral Hospital. For each of the strata of the study, the researchers used simple random sampling to select 284 respondents from a target population of 984. The study relied on the formula proposed by Yamane (1973) for calculating sample size since it provided an easy formula for calculating sample size. The formula is depicted as below:

$$n = \frac{N}{1 + 0.05^2 (N)}$$

Where : n= is the required sample size

N = number of people in the target population

e = allowable error term

When the values were substituted in the formula, the sample population was selected as below:

$$n = \frac{984}{1 + 0.05^2 (984)} = 284$$

The solution translated to 284 respondents. Therefore, the sample population was as follows: -

Table 1
Sample Size

Strata	Bungoma	Vihiga	Kakamega	Busia	Total
Doctors	11	12	15	9	47
Clinical Officers	11	10	10	9	40
Nurses	54	28	78	37	197
Total	76	50	103	55	284

The main source of primary data for this research was questionnaires and interview schedule developed by the researcher. The study measured the validity of the research instrument for its content and construct validity. The study used factor analysis to test for construct validity which demonstrated if the items selected adequately reflected the constructs /phenomena of the study. Cronbach Alpha was used to test reliability of the research instrument and all the coefficients of the variables were above 0.7 meaning they were good. The data was then coded and analyzed and the results presented in the form of charts, graphs and tables and done per the objective of the study. The study conducted a simple regression analysis and the model is as below:-

$$Y = \alpha + \beta X + \epsilon$$

Where:

Y = Health Service delivery

α = constant

β = Slopes of regression for the independent variables

X= Supply Chain Resilience



Before regression was carried out, the assumptions of regression were tested. They included the assumption of normality, linearity, homoscedasticity and multicollinearity.

IV. FINDINGS AND DISCUSSIONS

4.1 Response rate

This study attained a 90.8% response rate which can be deemed as very good. The high response rate was attributed to the data collection procedures.

Table 2
Response Rate

	Frequency	Percent
Returned	258	90.8
Not Returned	26	9.2
Total	284	100.0

4.2 Factor Analysis

According to Guzami (2013), factor analysis is a statistical method used in describing variability among variables observed in terms of a potential unobserved numbers called factors. This was used in measuring construct validity and the results for each variable were explained below: -

Table 3
KMO and Bartlett's Test for Supply Chain Resilience

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.762
Bartlett's Test of Sphericity	Approx. Chi-Square	1138.422
	Df	28
	Sig.	.000

The table 4.6 above shows results for Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. KMO measures sampling adequacy and checks on the appropriateness of use of factor analysis (Hair et al. 2010). A range of 0.5-1.0 indicates the appropriateness for use of factor analysis. The above results indicated a KMO value of 0.762 which was greater than 0.5. This showed that factor analysis was appropriate for this study. Bartlett's test of sphericity provided a significance value of 0.000 which was less than 0.05 at 5% significance level indicating correlation between the variables.

Table 4
Rotated Component Matrix

	Rotated Component Matrix ^a	
	Component 1	Component 2
Our institution faces high levels of Supply Chain Risks	.220	.791
Our institution responds quickly to Supply Chain Risk	-.086	.776
Our organization has a good Supply Chain Risk Management System	.242	.813
Our Institution maintains high levels of safety stocks (Extra Supplies) for emergency	.349	.735
Safety stocks (Extra Supplies) maintained by our institution takes care of urgent resource needs	.703	.547
Safety stock maintained by our institution avoids rush orders	.870	.034
Our institution practices sourcing of resource inputs from different suppliers	.861	.137
Broadened product scope attracts the company's operation cost	.775	.224

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

For this study, the statements with factor loading greater than 0.4 were deemed appropriate. From the findings of the table above, none of the variables had a factor loading less than 0.4 which meant that all of them were



considered for analysis. According to Tabachnick and Fidell (2007), factor loadings greater than 0.4 were to be retained for further statistical analysis hence no statement was dropped.

Table 5
KMO and Bartlett's test for Service Delivery

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.657
Bartlett's Test of Sphericity	Approx. Chi-Square	353.618
	Df	6
	Sig.	.000

The table above shows results for Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. KMO measures sampling adequacy and checks on the appropriateness of use of factor analysis (Hair et al., 2010). A range of 0.5-1.0 indicates the appropriateness for use of factor analysis. The above results indicated a KMO value of 0.657 which was greater than 0.5. This showed that factor analysis was appropriate for this study. Bartlett's test of sphericity provided a significance value of 0.000 which was less than 0.05 at 5% significance level indicating correlation between the variables.

Table 6
Component Matrix

Component Matrix ^a	
	Component 1
Our hospital provides treatment, diagnostic tests and other services in an acceptable time period	.872
Our hospital has up to date and well maintained equipment	.799
Our hospital has effective and efficient health care service delivery	.796
Our hospital provides speedy delivery of medical supplies to patients	.639
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

For this study, the statements with factor loading greater than 0.4 were deemed appropriate. From the findings of the table above, none of the variables had a factor loading less than 0.4 which meant that all of them were considered for analysis. According to Tabachnick and Fidell (2007), factor loadings greater than 0.4 were to be retained for further statistical analysis hence no statement was dropped.

4.3 Regression Analysis

Further, the study conducted regression analysis on the data by using linear regression models between the different independent variables and the dependent variable of the study. Regression analysis was done to predict the effect of each of the independent variables of the study on the outcome variable (service delivery). This analysis was important in determining how well supply chain agility could predict service delivery of health facilities in Western Kenya.

Table 7
Simple Regression Model Summary for Supply Chain Resilience and Service Delivery

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.357 ^a	.127	.124	.82781	.127	37.392	1	256	.000

a. Predictors: (Constant), Resilience

The findings of the study displayed in table 4.30 demonstrate that the value of R-square is 0. 127. This value implies that, 12.7% of variation of service delivery was explained by supply chain resilience.

Table 8



ANOVA Results for Supply Chain Resilience

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	25.623	1	25.623	37.392	.000 ^b
	Residual	175.427	256	.685		
	Total	201.051	257			

a. Dependent Variable: SeDel

b. Predictors: (Constant), Resilience

Table 9 above highlights the ANOVA results at 0.05 level of significance. The findings demonstrate that in the model, the independent variable of study; supply chain resilience is important in predicting of service delivery as indicated by an F value of 37.392 and significance value of .000, a value that is less than 0.05 significance level.

Table 9

Regression Coefficients for Supply Chain Resilience

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.133	.189		11.301	.000
	Resilience	.351	.057	.357	6.115	.000

a. Dependent Variable: SeDel

From Table 9 above, the study findings reveal that supply chain resilience does have a significant influence on service delivery (significance value=0.000). These findings imply that increasing supply chain resilience by a single unit or level causes a 0.351 increase in service delivery with all other factors held constant. Hence, at a 0.05 level of significance, the null hypothesis of the study is rejected since supply chain resilience positively influences service delivery ($t = 6.115, p < 0.05$).

The findings of this study are supported by Dubey et al. (2017), Alfarsi et al. (2019), Dickens et al. (2021), Ochieng (2018), and Martinez (2018). Dubey et al. (2017) draw a link between supply chain resilience and firm performance by ensuring increased information sharing, cooperation, and supply chain visibility. Corroborating findings are reported by Alfarsi et al. (2019), who highlight that supply chain resilience within the manufacturing sector is crucial to enhancing delivery of services by ensuring a robust supply chain network. Likewise, Dickens et al. (2021) focused on 15 different industries in the United States and reported that supply chain resilience positively impacts service delivery for a firm, allowing it either to bounce back to pre-disruption levels or set new performance standards following disruptions. Further, Ochieng (2018) contextualized a supply chain resilience study within the Kenyan manufacturing sector and affirmed that supply chain resilience had a positive influence on the performance of firms. Similarly, Martinez (2018) studies supply chain resilience in relation to internal and external supply chain risks and reports that supply chain resilience has a positive impact on firm performance.

CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

Supply chain resilience has a significant correlation with service delivery, evidenced through the coefficient of $r = 0.357$ (from table 4.4). This coefficient depicts that the association between the two variables is fairly strong and thus, practically significant. Even though supply chain resilience has been recognized as a key factor that determines the performance of supply chains and organizations in general, adaptation of the practice in the public sector remains slow. Perhaps this could be attributed to the rigid and bureaucratic nature of policies and systems within the public sector, specifically the health sector in Kenya.

Supply chain resilience as a predictor of service delivery explains 12.7% of the variations in service delivery. A unit change in supply chain resilience influences change in service delivery by 0.351 units, all factors held constant. The model is positive and significant and therefore fit for testing the relationship between the Independent variable and the dependent variable.



5.2 Recommendations

The results of this study demonstrate that supply chain resilience is a significant predictor of service delivery. The study recommends sufficient and timely disbursement of funds from the treasury so that they are able to recover from any mishaps in their operations. The study also recommends that Public Hospitals should have a wider range of drugs which they can purchase from local sources as this will enable them to be able to respond effectively after a disruptive event e.g. Corona. Over dependence on the Kenya Medical Supplies Agency (KEMSA) usually creates mishaps in the processes.

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Effect of Monetary Reward Strategies on National Police Service Delivery in Nairobi County, Kenya

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ABSTRACT

Despite the fact that the National Police Service (NPS) is mandated to protect the lives and properties of the people as stipulated in the Kenyan constitution, it continues to face unprecedented pressure to improve its services to the public. Despite several changes being witnessed in the recent past, including annual recruitment of personnel, increased recruit training duration, acquisition of sophisticated weapons, advancement in technology, and most recently the merger of KPS and APS officers to increase personnel, no significant changes have been witnessed when it comes to efficiency in their service delivery. According to Kenya crime rates and statistics, there has been a sharp increase in crime rates in Kenya for 2020–2021, with an 8.21 percent increase. The general objective of this study was to establish the effect of monetary reward strategies on the delivery of services for the National Police of Nairobi's devolved government. The study adopted a descriptive survey research design. The NPS staff population in Nairobi County is 9530, of which 400 were sampled with a turnout of 338. Primary data was obtained using questionnaires. Descriptive and inferential statistics were conducted. The results of this research were useful not only to the county of Nairobi but also to the government of Kenya and all stakeholders once it was undertaken. For instance, for the county of Nairobi, the research would help meet their strategic plan on sustainable security. For the government of Kenya, the research would be very important in helping it meet its 2030 vision and, hence, provide security to its citizens. The findings were that monetary reward strategies had a significant positive effect on the delivery of services by the NPS in Nairobi County. Therefore, the null hypothesis was rejected ($t=3.427, p<0.05$). The NPS should prioritize the adoption of financial changes that will improve service performance. There should be focus on the needs and desires of police officers, create individualized efforts, and create positive relationships between senior officers and their subordinates. Officers should have access to higher salaries, savings co-ops, and enhanced allowances, and be inspired by honoring the best-performing officers.

Keywords: National Police Service, Monetary Reward Strategies, Service Delivery

I. INTRODUCTION

Service delivery is an important part of job performance in any existing organization. Service delivery provides a complete end-to-end lifestyle and can be used as a reference for running projects with similar characteristics (Kumar & Kumar, 2004). According to Camilleri (2017), in today's business world, when competition is fierce and the atmosphere can be hostile, one of the most important aspects of a company's marketing strategy is the quality of the services it provides. This underlines how crucial it is for organizations to improve the quality of the services they provide in order to ensure their continued existence and growth, because doing so could assist them in addressing the issues they confront in highly competitive marketplaces. This indicates that service-based businesses are under an obligation to give superior services to their clientele in order to maintain a sustainable competitive edge in their industry. In order for these organizations to succeed in accomplishing their goals, however, it is necessary for them to have an understanding of what service quality entails.

Service delivery refers to administrative and organizational aspects of improving the organization's commitment to providing people with the programs and services offered. Service provision can be found in a wide variety of professions and organizational structures. Pursuant to the ideals of policing, services are deemed to be efficiently provided when police officers act morally and in accordance with the wishes of the people (Kingshott, Bailey, & Wolfe, 2004).

The focus of service delivery is mapping out the expected output and contrasting it with the actual output generated by the service supplier. That is the comparison between enhancing the caliber of services provided and expectations (Alix & Vallespir, 2013). Consequently, one definition of a service is “intangible utilities delivered to the public by a public organization” (Vargo & Lusch, 2008). In the police force, providing quality service is a requirement for the public's favorable perception of the administration of justice and the law. The need for the police to preserve or improve their capacity to deter crime is frequently triggered by perceptions of escalating crime issues. For the upkeep of tranquility, the provision of security, and the application of the law, a properly operational police force is essential (Murphy, 2009).

The need to transition to a service delivery-based operation is developing as the sophistication of the police job increases. The environment of law enforcement work and police arrangements has made it essential to prioritize providing exceptional customer service. Because of this, police officers who provide policing services must be highly skilled and knowledgeable about customer service-related issues. Since it entails carrying out governmental legislation and ensuring that the public abides by it, the police service's job is quite vital in all contemporary democracies. This goes beyond the police departments' conventional responsibilities for upholding law and order, detecting crime, preventing crime, and looking into all illegal activity. However, an underfunded police force and a lack of reward systems hinder the delivery of service (Fafchamps & Moser, 2003).

Ozturk and Dundar (2003) carried out Turkean-based research on reward determinants of public sector performance. Another study by Yavuz (2004) in Turkey on the use of reward strategies and their influence on public sector performance. The study explored both monetary rewards and found them to have an impact on the performance of Turkish firms. There was a significant positive impact on performance. This study analyzed the role of employee needs preference employing Maslow's needs theory, finding that in the case of physiological needs, monetary rewards were the best (Yavuz, 2004). Physiological needs are prime and most primary to guide other needs, so finances will be the first reward approach before non-financial rewards. In Turkey, employees were more focused on the monetary approach. The current study gave weight to monetary rewards.

Uzonna (2013) conducted a study on the influence of motivational factors on the performance of Credit West Bank in Cyprus City. The study found a positive relationship between motivation and performance. This was clearly managed through monetary rewards that laid the foundation for motivation. This study failed to articulate reward as an independent variable but studied reward as a measure of motivation. It failed to point out the organization factor's role in bank performance. The study examined banks and not devolved units, and it was in Cyprus and not Kenya. Furthermore, it used performance as a dependent variable and not the delivery of services. The current study therefore prioritized reward strategies and the delivery of services for the Nairobi city devolved unit.

Agwu (2013) examined the influence of monetary reward on the delivery of services in Nigeria and found monetary reward to be a spice for job performance, hence the delivery of services. The positive and significant influence makes monetary reward play a great role in service delivery. Similarly, Harunavamwe and Kanengoni (2013) examined the effect of reward-motivating attributes on the performance of South African private firms. The study found a positive influence of monetary rewards on performance and a negative influence of non-monetary rewards on performance. In Kenya, Kiangura (2012) examined the role of motivation on service delivery in the police force. The study found that rewards motivated employees, resulting in a positive impact on service delivery.

Service delivery is a process assessed through crime prevention, security enhancement, target attainment, and citizen satisfaction within the police service. If the police are able to fulfill their duties in an efficient manner, the community as a whole is able to reap enormous benefits, and the authorities are able to improve their ratings in terms of their duty to safeguard the citizens and the property they own. On the other hand, whenever the police do a subpar job of carrying out their tasks, the legitimacy of the police and the democratic values they uphold can be irreparably damaged. On a regular basis, international attention is drawn to the service quality standards of the security agencies, and these criteria are frequently employed as a measuring stick for democratic space and freedom of speech in contemporary society (Transparency International, 2021).

1.1 Statement of the Problem

The National Police Service (NPS) has its core mandate as protection of the lives and property of the people under its jurisdiction as stipulated in the constitution of Kenya. However, it continues to face unprecedented pressure to improve its services to the public as the number of criminal cases keeps rising and the trust of citizens in the police service is low. According to Hope (2018), there has been a sharp increase in crime rates in Kenya for 2020–2021, with an 8.21 percent increase. The NPS report (2021) put the crime index at 58.12 and the safety index at 41.88 in Kenya, with Nairobi County taking the lead in crime rates. Nairobi County scored a 65.24 crime rate,

with an increase of 7.06 in the past 3 years. This is a clear indication that the police officers and women are not working as per expectations despite an increase in personnel (annual recruitment of other 10,000 police recruits), increased training durations, acquisition of sophisticated weapons, and advancement in technology, thus digital OB, IC3, and most recently the merger of the KPS and APS to increase personnel. Previous studies have brought to light the concept of reward strategy as a tool for service delivery, but with contradictory findings. Harunavamwe and Kanengoni (2013) found that monetary rewards positively affected service delivery, while Ozturk and Dundar (2013) found non-monetary rewards to have a negative effect. Furthermore, these studies do not address reward strategies as a whole in the police force. The current study also bridged the gap by utilizing organizational factors as moderators. Therefore, the study sought to examine the effect of monetary reward strategies on the National Police's delivery of services in the Nairobi devolved unit.

1.2 Objectives of the Study

To establish the effect of monetary reward strategies on delivery of Services for National Police of Nairobi devolved government.

1.3 Research Hypothesis

H₀₁: Monetary reward strategies have no significant effect on delivery of Services for National Police of Nairobi devolved government.

II. LITERATURE REVIEW

2.1 Theoretical Literature Review

Expectancy theory was proposed by Vroom in 1964. According to Cameron, Banko, and Pierce (2001), the validity of the theory is predicated on the misconception that rewards lead to improved performance. According to Savaneviciene and Stankeviciute (2010), there is a direct correlation between levels of motivation and levels of performance. According to Agbenyegah (2019), the performance of the police service can be improved by improving the delivery of services. Consequently, the power of the men and women who serve in the police force comes from the rewards they are given. Therefore, the financial and non-financial objectives serve as the foundation for the personal reward.

Ngatia (2017) applied this theory in the course of analyzing the effects of non-monetary rewards on service provision, and they found that it was significant. Mutie, Muturi, and Njeru (2019), who made use of equity theory when analyzing financial rewards, conducted a similar study in Kenya. Expectations-based rewards can be thought of as being guided by this notion. Therefore, the theory tackles all of the different reward schemes that are based on monetary considerations. As a result, this theory serves as the foundation for the entire investigation.

2.2 Conceptual Review

The level of service delivery is the dependent variable, and is measured by factors such as enhanced police public relations, increased security, reduced corruption, target attainment, decreased crimes, and citizen complements. A police officer shall be regarded as always on duty when required and shall perform the responsibilities and exercise the powers conferred to him under this Act or any law at any place in Kenya where he or she may be deployed (Government of Kenya, 2012). Jääskeläinen, Laihonen, and Lönnqvist (2014) argue that the provision of services is an indicator of performance. Accordingly, there is a positive correlation between employee engagement and the delivery of service, which ultimately results in improved commitment. This is because engaged employees are more positive about their performance, which in turn leads to an increase in service delivery. As a result, a police officer was considered to be always on duty when required.

Monetary or extrinsic rewards are usually financial and tangible in nature (Agwu, 2013). The monetary reward strategies were measured through salary, paid leave, retirement benefits, wage incentives, and risk allowances. The National Police Service provides for the payment of allowances to police officers (NPS, 2012).

2.3 Empirical Review

A study by Yavuz (2004) in Turkey on the use of reward strategies and their influence on public sector performance. The study explored both monetary and non-monetary rewards, finding them to have an impact on the performance of Turkish firms. There was a significant positive impact on performance. This study analyzed the role of employee needs preference employing Maslow's needs theory, and in the case of physiological needs, monetary rewards were the best (Yavuz, 2004). Physiological needs are prime and most primary to guide other needs, so

finances will be the first reward approach before non-financial rewards. In Turkey, employees were more focused on the monetary approach. The current study gave weight to both monetary and non-monetary factors. The moderating role of organizational factors, specifically culture and management style, gives weight to the matter.

A study in Tanzania, Imbahale (2016), carried out research on monetary and non-monetary rewards toward service delivery. The main objective was to analyze and examine the monetary and non-monetary rewards of service delivery. A positive influence of both monetary and non-monetary rewards affected the delivery of services for Tanzanian firms. Training was proposed as the guide to the best non-monetary reward strategy. The above study failed to cross-examine the impact of leadership styles and culture on firm performance. Imbahale (2016)'s research dwells on much training as non-monetary, fails to critically examine monetary factors, and fails to articulate the role of organizational factors in the delivery of services.

Uzonna (2013) conducted a study on the influence of motivational factors on the performance of Credit West Bank in Cyprus City. The study found a positive relationship between motivation and performance. This was clearly managed through monetary rewards that laid the foundation for motivation. This study failed to articulate reward as an independent variable but studied reward as a measure of motivation. It failed to point out the organization factor's role in bank performance. The study examined banks and not devolved units, and it was in Cyprus and not Kenya. Furthermore, it used performance as a dependent variable and not the delivery of services. The current study therefore prioritized reward strategies and the delivery of services for the Nairobi city devolved unit.

Mutsoli & Kiruthu (2019) conducted a Kenyan study on the influence of monetary rewards on hospitals in the Nairobi devolved unit. The study found that there was a positive influence between monetary rewards and the delivery of services in hospitals in Kenya. The cultural composition had a negative impact on the delivery of services for hospitals in Nairobi, as most cultures were archaic and backward in nature.

Agwu (2013) examined the influence of monetary reward on the delivery of services in Nigeria and found monetary reward to be a spice for job performance, hence the delivery of services. The positive and significant influence makes monetary reward play a great role in service delivery. This study failed to articulate both rewards as independent variables but studied financial rewards, exempting non-financial rewards. It failed to point out organization factor role on performance. The study examined Nigeria, not Kenya. The current study therefore prioritized reward strategies and the delivery of services for the Nairobi city devolved unit.

Harunavamwe and Kanengoni (2013) examined the reward-motivating attributes of the performance of South African private firms. The study found a positive influence of monetary rewards on performance and a negative influence of non-monetary rewards on performance. This study failed to point out the organization factor's role in performance. The study examined the private sector and not devolved units, and it was in South Africa and not Kenya. Furthermore, it used performance as a dependent variable and not the delivery of services. The current study therefore prioritized reward strategies and the delivery of services for the Nairobi city devolved unit.

Moraa (2019) examined motivating elements for the performance of Kenyan NPS and found that motivation was spiced up through monetary rewards. The study recommended a salary review for employees well-being. This study failed to point out the organization factor's role in performance. Furthermore, it used motivation as an independent variable and not rewards strategies; it used performance as a dependent variable and not delivery of services. The current study therefore prioritized reward strategies and the delivery of services for the Nairobi city devolved unit.

III. METHODOLOGY

The study employed a descriptive survey research design (Mugenda & Mugenda, 1999). The researcher aimed at collecting information from serving police officers, both senior in rank and juniors. Both genders were considered for the study. Members of the public were interviewed since they were the direct beneficiaries of the NPS. The total population of police officers in Nairobi County, according to the NPS report (2021), is 9530. Samples were obtained from these offices using the sample calculation formula put forward by Yamane Taro to generate the sample size (Yamane, 1973). The formula was:

$$n = N / (1 + N(e)^2)$$

n- Sample Unit, N- Population Unit, and e- Freedom degree.



When fitted, a sample size of 400 was obtained. The study participants were obtained using purposive and stratified sampling techniques.

Questionnaires were used to collect data from all the police officers. These questionnaires were pretested to ascertain their reliability and validity and to adjust them accordingly. The collected data was analyzed descriptively and inferentially. The regression model adopted in the study was:

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Where:

Y = Service delivery; X= Monetary reward strategies; β_0, β_1 = Regression Coefficients; ϵ = error term

IV. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

4.1.1 Effect of Monetary Reward Strategies on Delivery of Services

Table 1 presents findings on the independent variable - monetary reward strategies. The nexus between the variable and the dependent variable was assessed.

Table 1

Effect of Monetary Reward Strategies on Delivery of Services

Monetary Reward Strategies	1	2	3	4	5	Mean	Std. Dev.
There is a fair Salary scale that makes me motivated to offer services at my work station	4.6 (16)	60 (203)	16.9 (57)	9.2 (31)	9.2 (31)	3.60	0.98
There is a Paid leave that makes me motivated to offer services at my work station	3.1 (10)	9.2 (31)	29.2 (99)	44.6 (151)	13.8 (47)	3.57	0.95
There is a retirement benefit that makes me motivated to offer services at my work station	1.5 (5)	6.2 (21)	6.2 (21)	21.5 (73)	64.6 (218)	4.42	0.97
Paid risk allowances make me motivated to offer services at my work station	9.2 (31)	7.7 (26)	3.1 (10)	38.5 (130)	41.5 (140)	3.95	1.27
Overall						3.89	1.04

Responding to the question of whether there was a fair salary scale that motivated police officers to offer services at workstations, the majority (60%) disagreed. This means the salaries for the police force were not motivating. The mean value of 3.60 and standard value of 0.98 showed the distribution was fairly spread from the mean value, implying the response was a representation of the actual state.

On whether there is paid leave makes police officers motivated to offer services at their workstation, the majority, 44.6%, agreed; the mean value was 3.57 and the standard value was 0.95. This showed the distribution was fairly spread from the mean value, implying the response was a representation of the actual state. Responding on whether there was a retirement benefit that makes police officers motivated to offer services at their work station, the majority (64.6% of respondents) strongly agreed, the mean value being 4.42 and the standard value being 0.97. This showed the distribution was fairly spread from the mean value, implying the response was a representation of the actual state. Responding to whether paid risk allowances motivated police officers to offer services at their workstation. The majority (41.5%) strongly agreed; the mean value was 3.95 and the standard deviation was 1.27. This showed the distribution was fairly spread from the mean value, implying the response was a representation of the actual state.

The average response for Monetary Reward Strategies effect on service delivery had a mean value of 3.89 and a standard deviation of 1.04. This showed the distribution was fairly spread from the mean value, implying the response was a representation of the actual state. This study agrees with Agwu's (2013) finding that monetary reward systems positively and significantly affect service delivery in Nigerian oil companies. This study agrees with Harunavamwe and Kanengoni (2013), who found monetary rewards to have a significant and positive impact on service delivery. This disagrees with Lumumba (2021), who found monetary and non-monetary rewards to have no impact on service delivery.

4.1.2 Delivery of Services

Table 2 presents descriptive statistics on the dependent variable delivery of services.



Table 2
Service Delivery of National Police

Service Delivery of National Police	1	2	3	4	5	Mean	Std. dev.
There is improvement of service delivery in police service	6.2 (21)	4.6 (16)	10.8 (37)	36.9 (125)	41.5 (140)	4.03	1.13
The type of rewards I get has made me more determined on improving security hence effective target attainment thus service delivery to the public	4.6 (16)	4.6 (16)	12.3 (42)	38.5 (130)	40 (135)	4.05	1.07
There are less corruption complaints about our staffs	4.6 (16)	9.2 (31)	9.2 (31)	44.6 (151)	32.3 (109)	3.91	1.10
Our customers are satisfied with our work performance hence offer complements	1.5 (5)	3.1 (10)	13.8 (47)	53.8 (181)	27.7 (94)	4.03	0.83
Average						4.00	1.03

Responding to whether there was an improvement in service delivery in police service, 41.5% strongly agreed; this response gave a mean value of 4.03 and a standard deviation of 1.13. This showed the distribution was fairly spread from the mean value, implying the response was a representation of the actual state. Responding on whether the type of rewards police officers got had made them more determined to improve security, hence effective target attainment, and thus service delivery to the public, a majority of 40% strongly agreed. This response gave a mean value of 4.05 and a standard deviation of 1.07. This showed the distribution was fairly spread from the mean value, implying the response was a representation of the actual state.

Responding to whether there were corruption complaints about police officers, a majority of 44.6% agreed; this response gave a mean value of 3.91 and a standard deviation of 1.10. This showed the distribution was fairly spread from the mean value, implying the response was a representation of the actual state.

Responding on whether their customers are satisfied with their work performance, 53.8% agreed; this response gave a mean value of 4.03 and a standard deviation of 0.83. This showed the distribution was fairly spread from the mean value, implying the response was a representation of the actual state. This study agrees with Harunavamwe and Kanengoni (2013), who found both monetary and non-monetary rewards to have a significant and positive impact on service delivery. This disagrees with Lumumba (2021), who found monetary and non-monetary rewards to have no impact on Sacco’s service delivery.

4.2 Regression Analysis

Regression analysis was carried. Table 3 presents model summary, analysis of variance and regression coefficients.

Table 3
Regression Results of Monetary Reward Strategies and Service Delivery

Summary Model						
	R value	R Sq	Adj R Sq	Std. Er Est		
1	.396 ^a	.258	.144	.57426		
a. Determinants: (Constant), Monetary Reward Strategies						
Analysis of Variance						
Model		Total of Sq	Diff	Mean Sq	F value	Signif.
1	Regression value	3.876	1	3.876	11.749	.001 ^b
	Residual value	20.777	337	.331		
	Summation	24.424	338			
a. Dependent Var: Service Delivery of NPS						
b. Independent variable: (Constant), Monetary Reward Strategies						
Coeff^c						
Model item	Coeff Unstandardized		Coeff Standardized		T value	Signif.
	B values	Std. Er	B values			
1 (Const)	2.486	.468			5.301	.000
Monetary Reward Strategies	.423	.124	.397		3.427	.001
a. Dep Variable: Service Delivery of NPS						

The coefficient of determination (R^2) was 0.258. Implying Monetary Reward Strategies explains 25.8 % of the change in Service Delivery of NPS. The F response value of =11.749, $P < 0.01$. It implies that Monetary Reward Strategies is a useful determinant of Service Delivery of NPS. The (β) value of Monetary Reward Strategies was 0.423, $p < .001$. This implies that a unit change in Monetary Reward Strategies leads to change in Service Delivery of NPS by 0.423 significantly.

The fitted regression model is as follows:

$$Y_{SD} = 2.486 + 0.423X_1$$

The first null hypothesis H_{01} : There is no significant effect of Monetary Reward Strategies on Service Delivery of NPS in Nairobi was rejected using both R and R^2 . Monetary Reward Strategies had significant positive effect on Service Delivery of NPS in Nairobi particularly on paid risk, paid leave and retirement benefits with $P < 0.01$ and it significantly led to 25.8% change on Service Delivery of NPS. The hypothesis was rejected, as there was a significant effect of monetary reward strategies on the service delivery of NPS in Nairobi. This study agrees with Agwu's (2013) finding that monetary reward systems positively and significantly affect service delivery in Nigerian oil companies. This study agrees with Harunavamwe and Kanengoni (2013), who found monetary rewards to have a significant and positive impact on service delivery. This disagrees with Lumumba (2021), who found monetary and non-monetary rewards to have no impact on Sacco's service delivery.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The purpose of this study was to investigate the influence that monetary reward strategies have on the delivery of NPSs in Nairobi County, Kenya. According to the results of the study, police officers preference for monetary incentives played an important part in the provision of services by the police. Financial incentives for the successful delivery of services, such as the suppression of criminal activity, In the NPS in Nairobi County, the monetary awards have a positive and considerable influence on the quality of service that is provided. In addition to monetary prizes, high-performing officers receive acknowledgement for their efforts. This therefore contributes to the enhancement of police work by encouraging police officers to put dedication into their jobs and to embrace ethics in the workplace, thereby contributing to the enhancement of the overall quality of police work.

The findings of this study highlight the significance of monetary rewards and the impact that these rewards have on the provision of services within the NPS. The adoption of a financial compensation system is typically a significant contributor to the organization's overall success and the quality of the services it provides. It entails making certain that all areas of the financial welfare of police officers are taken care of to the satisfaction of the officers themselves. As part of their compensation, police officers are eligible for higher salaries, enhanced allowances, and membership in savings cooperatives. In order to improve the quality of services provided by the NPS, it is important to recognize and reward the officers who do their best. This helps to encourage other officers to perform their jobs with devotion and to adhere to ethical standards while on the job. These findings are in agreement with those of Gjelsvik (2020), who contends that structural police reforms include job descriptions that reconfigure, among other things, incentives and structures that promote reforms and remunerations that help in increasing the morale and motivation of the police force.

5.2 Recommendations

The NPS should begin the process of implementing the personnel rewards program by first identifying the processes involved in personnel reforms. This will allow them to determine how the police reward plan may be improved in the most effective manner. To be successful in achieving its vision, it is necessary to link its annual goals with its main change initiatives, which focus on the implementation of necessary financial reforms. This will ensure that financial reforms become part of the plan for service delivery in the police force, which will assure the service's continued viability. It is imperative that the Kenya Police Service in Nairobi County prioritize the adoption of fiscal changes that will improve service performance. The outcomes of the study suggest that the NPS should center its attention on the needs and desires of police officers. In addition to this, they should create individualized efforts that will provide the appropriate services at the appropriate time and place, and they should place an emphasis on the development of positive relationships between senior police officers and their subordinates. It is the responsibility of the police force to guarantee that officers have access to higher salaries, savings co-ops, and enhanced allowances. Additionally, police officers should be inspired by honoring the best-performing officers. This would aid in motivating

police personnel to put dedication into their jobs and to accept ethics in the workplace, which will ultimately lead to an improvement in service delivery.

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Logistics Management in Tourism: A Literature Survey on Role of Emergency Logistics Preparedness in Adventure Tourism in the United Republic of Tanzania

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ABSTRACT

This paper aims to investigate the significance of emergency logistics preparedness in adventure tourism through a literature review. The methodology used in this study is based on reviewing published papers on logistics planning, preparedness, and emergency logistics in adventure tourism. The information gathered was analyzed to determine the contribution of emergency logistics to adventure tourism. The study is grounded in the resource-based view (RBV) theory, which provides a managerial framework for identifying the strategic resources that firms can leverage to achieve sustainable competitive advantage. The study finds that emergency logistics play a crucial role in structuring the best framework for rescue and providing relief for accidents that may occur during adventure tourism activities. The study emphasizes that emergency logistics preparedness is critical in adventure tourism since accidents are inevitable and a quick response creates confidence among tourists and encourages them to revisit. Therefore, the study concludes that it is essential for organizations in the tourism industry, both public and private, to have emergency plans that consider the likelihood of disasters and crises. Such plans should outline the necessary actions to be taken and how to rescue the situation and recover from it. Therefore, organizations in the tourism industry need to prioritize emergency logistics preparedness, including training tour guides on logistical issues for disaster operations, having plans in place relating to routes of rescue, communication of risk, and utilizing human resources in connection with logistical activities and functions aimed at emergency and relief operations.

Keywords: Emergency Logistics, Logistics Preparedness, Logistics Planning, Tourism and Adventure Tourism

I. INTRODUCTION

The logistics system guarantees efficient movement of goods and people by utilizing various activities, including transportation, distribution, order processing, warehousing, and procurement. These elements are indispensable for effective logistics management. The tourism industry is closely linked to logistics since it is a major source of revenue generation. Therefore, as Nicolaidis (2020) emphasizes, the government must give infrastructure development top priority in order to ensure seamless logistics in the tourism industry.

The success of tourism operations depends on the proper management of logistical elements, which involves investments in infrastructure by both companies and the government. To ensure the smooth movement of supplies and people in tourism, it is crucial to plan and arrange logistical activities effectively (Nicolaidis, 2014). Since the tourism product is intangible, promoting a favorable image is crucial for tourism, and organizations should develop problem-solving action plans that take into account all stakeholders' interests and activities (Raina et al., 2010). The quality of a purchased tourism product is challenging for potential tourists to assess in advance due to the distance between the purchase location and the service location, as well as its composition's complexity. Therefore, creating a favorable image is highly dependent on marketing a tourism destination (Glaesser, 2003; Salazar & Graburn, 2014). The perceived safety of a destination is a crucial decision-making factor for potential tourists (Raina et al., 2010), and tourism providers should reduce their customers' uncertainty and risk perception (Glaesser, 2003) to promote a favorable image.

The logistics functions within tourism companies play a crucial role in enhancing the involvement and satisfaction of clients, specialists, businessmen, providers, and communities where tourism activities are conducted. This constitutes a successful trade administration tool that adds value to the tourism industry. However, it is important to acknowledge that tourism operations are not free from risks and disasters, such as fires and accidents during tourism activities (Jia et al., 2012; Paraskevas & Altinay, 2013; Sawalha et al., 2013). Emergency logistics encompasses logistical activities that are initiated in response to emergencies, including the supply and demand of emergency logistics activities. The primary objective of these activities is to maximize time efficiency and minimize the impact of disasters (Xu et al., 2018). In the context of adventure tourism, there are risks associated with accidents and natural hazards, such as the theft of tourists in adventure destinations. Unfortunately, few studies have addressed these specific issues, and



most tour operators are ill-prepared to handle these risks during adventure tourism. This paper aims to survey existing literature and provide recommendations to help tour operators and authorities develop effective proactive plans and strategies to address this specific aspect. Emergency logistics planning and preparedness should be a key component of disaster operations and rescues, with a focus on timeliness in pick-up and delivery schedules (Özdamar et al., 2004).

To ensure safety and prevent potential lawsuits, effective risk management is necessary in adventure tourism. Poor risk management can result in damage to a company's reputation, loss of finances, and loss of customer trust and employees (Swarbrooke et al., 2003). Adventure tourism is based on the idea of thrills and danger. The objective is to seek excitement while risking one's life. The risk is also an attraction in hard adventure tourism (Smith & Espiner, 2007). While risk-taking has decreased in developed countries, it remains prevalent in modern society, particularly in adventure tourism. Service providers in adventure tourism must balance the risk and safety of tourists. The dangers of adventure tourism are very real and can result in tragic outcomes. Therefore, effective risk management is critical to the sustainability of adventure tourism. Risk management is a significant concern for all organizations involved in adventure tourism, such as trekking companies, adventure sports centers, and tour operators (Swarbrooke et al., 2003).

II. THEORETICAL REVIEW

This study was founded on the Resource Based View (RBV). The RBV is a managerial framework that enables firms to identify the strategic resources that can be used to attain a sustainable competitive advantage. Barney's 1991 work on "Firm Resources and Sustained Competitive Advantage" is widely regarded as a crucial contribution to the development of the RBV theory. In this perspective, firms gain competitiveness by possessing unique resources that are not available to competitors. Logistics plays a central role in the mobilization of resources during emergencies, acting as a bridge between disaster preparedness, response, procurement and distribution, headquarters, and the field. However, it can also be one of the most costly aspects of relief operations, and effective coordination is essential to minimize operating costs and maximize results. Grant (1991) has emphasized the need for coordination between people and resources in emergency response. Augier and Teece (2009) argued that dynamic capabilities can help organizations achieve coordination, benefit from complementarities, and better decision-making. In tourism disasters and crises, emergency logistics are critical for providing prompt assistance to affected communities while minimizing waste and operating within a limited budget. Risfandini et al. (2021) have shown that RBV can be used to analyze tourism destination competitiveness, emphasizing the importance of safety as a key factor in tourism competitiveness.

Drawing inspiration from the Resource Based View Theory, the emergency aid process and logistics can be seen as critical components in disaster management. In this context, logistics functions as a vital link between disaster preparedness, response, procurement, distribution, and headquarters. Its effectiveness is essential for ensuring that relief efforts are well-coordinated, resources are efficiently allocated, and relief efforts are carried out in a timely and cost-effective manner (Daud, 2016). In line with this perspective, the development of dynamic capabilities is key to establishing efficient coordination between people and resources in relief operations (Grant, 1991; Augier & Teece, 2009; Gligor et al., 2012, 2015, 2016). Such capabilities enable organizations to achieve complementarities and make better decisions, leading to improved relief efforts and outcomes (Blome et al., 2013; Gligor & Holcomb, 2014). The ultimate goal of emergency logistics is to ensure that affected communities receive prompt aid and support in the wake of natural disasters or complex emergencies. This is particularly relevant in the context of tourism disasters and crises, where swift and efficient emergency aid is crucial to minimizing the impact of such events on the industry and on affected communities (Jiang, 2019; Risfandini et al., 2021).

II. METHODOLOGY

This study seeks to explore the existing literature on tourism emergency management and preparedness and how logistics preparedness plays a role in these aspects. The methodology employed in this paper is a literature survey; the author surveyed the published papers and came up with the findings and recommendations that may be employed so that actors and stakeholders can be more prepared on this aspect. A total of 47 papers were reviewed, and analysis was done on specific issues pertaining to logistics in tourism and related emergency activities. Due to the scarcity of published papers specific to the subject, the researcher reviewed a number of papers and came up with the presented findings and discussion. This only included papers with orientation in logistics in tourism with narrated concepts in relief operations, papers with orientation in adventure tourism with relief concepts, and papers that explain the effect of disasters in the tourism industry, to include manuals and contingency plans in tourism risk management. The papers analyzed include the fit papers from 1993 to 2020, worldwide; this included mostly empirical findings papers and manuals.

IV. FINDINGS & DISCUSSIONS

4.1 Logistics in Tourism

The logistics field in tourism aims to support the industry's core operations by offering supplementary services. For instance, hotels serve as the primary accommodation for tourists; restaurants provide food; and travel agencies offer packages and transportation to various destinations (Ferreira, 2013). This means that logistics management plays a crucial role in the overall success of tourism businesses. By efficiently managing the flow of goods and services, companies can enhance their competitiveness and customer satisfaction levels.

The relationship between logistics and tourism is mainly focused on provisioning and supply activities, which include transportation, accommodation, food, and material support for tourism programs. These activities should be taken into account when planning and organizing tourism events (Munoz, Brida, & Zapata, 2020). The logistics components can be integrated into a single system that is customized for each event, ensuring the orderly supply of consumers, products, and services while taking environmental sustainability, communication, and event requirements into account. Tourism typically has three phases, namely inception, development, and conclusion, and logistics play a critical role in each of these phases (Siddiqui & Rahman, 2019).

Logistics and tourism share a common goal of fulfilling promises by providing customer satisfaction through timely and high-quality services. Tourism companies need to have a strong understanding of logistics to effectively develop their offerings. A company's organizational strategy and competitive advantage can be enhanced by a thorough understanding of logistics processes, aiming for excellence in each one. (Huang & Wu, 2019; Song & Li, 2018).

4.2 Logistics Planning in Emergency Situations and Emergency Logistics and Adventure Tourism

Many studies have focused on different aspects of logistics and risk management in tourism, including logistics planning and emergency situations. However, there is limited research on emergency logistics, specifically in adventure tourism. To effectively manage emergencies in adventure tourism, careful consideration must be given to planning and managing purchasing suppliers, internal logistics management, and working collaboratively with all marketing channel associates. It is essential to structure these aspects well with respect to emergency logistics in adventure tourism. Proper planning and acquisition of goods are crucial for maintaining a continuous flow of necessary supplies to control centers. Internal logistics involves actions related to purchasing, operations, sustenance, and physical distribution. Therefore, a well-crafted supply chain must be established among relevant tourism stakeholders to benefit tourists and local communities (Nicolaidis, 2020).

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In the tourism industry, both private companies and governments invest heavily in infrastructure to ensure smooth operations for the movement of supplies and people. Thus, proper planning and organization of logistics are necessary to facilitate tourism activities (Nicolaidis, 2014). The logistics functions within tourism companies play a critical role in managing relationships and fulfilling the needs of clients, specialists, businessmen, providers, and communities where tourism activities take place. Effective logistics management can also add value to the tourism industry (Choi et al., 2011).

Despite the benefits of tourism, there are risks and disasters that can occur, such as fires and accidents (Jia et al., 2012; Paraskevas & Altinay, 2013; Sawalha et al., 2013). Therefore, it is crucial to establish well-planned risk management strategies that incorporate proper relief logistics management to ensure the best possible relief practices (Gössling et al., 2015). By effectively managing emergency logistics, stakeholders can quickly and efficiently provide supplies and resources necessary to mitigate risks and ensure that tourism activities continue with minimal disruptions.

Adventure tourism is a form of tourism that is associated with thrills and risk, which attracts people who seek excitement and a possible threat to life. The safety of travelers is an important aspect of adventure tourism, as it helps to prevent accidents and avoid litigation that may harm the reputation, finances, customer confidence, and employees of the tourism firms (Swarbrooke et al., 2003). In the developed world, the risk involved in adventure tourism has been gradually decreasing. However, in modern society, there is an increase in risk-taking behavior, especially in adventure

tourism. Service providers in adventure tourism must maintain a balance between the risk and safety of tourists to ensure sustainability. The risk of adventure tourism is very real and can lead to tragedies. Therefore, managing risk in adventure tourism is critical to the survival of the industry. This is a major concern for all organizations involved in adventure tourism, including trekking organizations, adventure sports centers, and tour operators (Swarbrooke et al., 2003).

To attract tourists back to adventure tourism, it is essential to consider the risks associated with such activities and be adequately prepared. After the 2015 earthquake in Nepal, the Nepal Tourism Board targeted potential consumers interested in trekking and adventure tourism, as they were deemed less risk-averse due to their prior engagement in risky sports. The aim was to promote the recovery of tourism in Nepal by leveraging social media and linking to an existing travel article titled 'Adventure travelers leading the way in Nepal's tourism recovery' (Ketter, 2016). This initiative aimed to inform tourists of the proactive measures taken to manage and recover from the previous risks, ensuring that they have a new and better experience while being aware of the risks involved.

In order to effectively manage emergencies in tourism, it is important to have proper planning practices in place, such as the use of contingency plans and the training of staff involved in tourist activities. Training for emergency situations should be thorough and tailored to the level of automation. Well-planned procedures and comprehensive training for agency staff are crucial for the successful management of emergencies. It is also essential to train the agency or organization staff who engage with tourists to equip them with rescue tactics and an understanding of the importance of quick response times during relief operations, as well as fundamental relief logistical procedures during risk situations. In modern living conditions, it is imperative to transform instant reactions into controlled procedures aimed at effectively resolving the situation at hand (Shurland & Jong, 2008). To ensure meaningful reactions to emergencies in adventure tourism, quality training for guides is of utmost importance.

The prominent adventure tourism companies worldwide are developing response teams comprised of both internal staff and external associates. It is crucial for the guides to be cognizant of the potential risks in adventure tourism and be willing to take responsibility within their competencies. As adventure tourism inherently involves certain levels of risk, tour operators and all stakeholders involved in creating and delivering tourism services must implement adequate measures for managing risks (Ciriviri, 2019). Neglecting the reality of risks in adventure tourism, lack of proper training in risk management policies, or failure to take appropriate actions to mitigate risks can result in severe consequences for the safety of tourists and the quality of tourism products. Such consequences can be catastrophic for the destination and result in legal and economic ramifications for operators.

The integration of tourism and emergency management is a mutual process where emergencies affecting local residents are equally likely to impact tourists. Unlike residents, who are easy to locate and identify by local emergency agencies, tourists, due to their transient presence, may not be. Therefore, during a natural disaster, tour operators, accommodation providers, and transport providers have an essential role in identifying tourist victims and confirming those visitors who are unaffected by the calamity. In such situations, tourist facilities can provide emergency accommodation and refuge, as well as evacuation transport by land, sea, or air, in the event of natural disasters or human-caused crises.

According to UNEP (2007), effective emergency response systems should be instituted by the government or authorities for emergency rescue in tourism. This includes improving risk communication between authorities and tourists, enabling effective communication channels for tourists to communicate with authorities regarding the disaster, and having a well-planned response system. This also involves having vehicles or means of transport to help affected tourists reach safety and receive appropriate treatment.

In Ciriviri's (2019) study, it was suggested that training the rescue team for logistical rescue operations in both accessible and inaccessible areas is crucial, especially for adventure tourism activities like mountain hiking that present safety challenges. The study highlights the need for authorities to have effective mechanisms in place to ensure efficient logistical activities during rescue operations, as adventure tourists expect a reliable and prompt rescue system. UNEP data reveals that adventure tourism contributes at least 65% of its turnover to the destination space, making it a significant contributor to economic growth in destinations with a weak economy but a strong potential for adventure tourism. Therefore, having a well-defined emergency logistics plan and preparedness is essential when dealing with adventure tourists in a particular country of operation. The safety of tourists and the outcome of accidents depend on well-prepared reactions to possible difficulties. Furthermore, it is worth emphasizing that this group of tourists has a substantial impact on the location's image. Thus, effective risk management equates to effective destination promotion.

When planning for an emergency, internal factors such as teamwork, communication, and control should all be taken into account. However, the most significant internal factor is the management's commitment to adopting and building an emergency management plan that provides clear instructions and updates to be communicated before, during, and after a crisis (Faulkner, 2001). In terms of having an emergency plan, large companies are more likely than small ones to have one due to their size and financial status (Caponigro, 2000). Small businesses may not consider crisis



preparedness as important due to their limited resources and the belief that a crisis will not affect them or that they can operate their business without a plan. According to some experts (Guth, 1995; Pearson & Mitroff, 1993), organizations that have experienced a disaster in the past are more willing to invest in and establish their own emergency plan because they have learned from the effects of previous risks on property and human life.

The growth of tourism globally has led to the need for effective logistical management during times of crisis and disaster (Ghimire, 2016). Logistics is crucial for providing fast services, delivering supplies, and carrying out rescues. Storms, tsunamis, earthquakes, political unrest, and economic downturns are just a few crises that have had an impact on the tourism industry (Ghimire, 2014). Even adventure tourism is not immune to such crises, making it a vulnerable sector that requires proactive measures and preparedness to minimize risks to tourists in tourist destinations. The Nepal Disaster Management Reference Handbook (NDRH, 2015) stipulates that it is essential to establish plans for rescue logistics and reduce the likelihood of dangers by training tour guides and having mechanisms in place in advance to assist those affected by crises. Furthermore, stakeholders need to work together and share resources to effectively address these challenges (Faulkner, 2001).

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The tourism industry is rapidly growing globally, and it is crucial to have effective logistical management in crisis and disaster situations. Logistics plays a critical role in providing quick services, delivering supplies, and conducting rescues. Despite experiencing various crises such as storms, tsunamis, earthquakes, political instability, and economic recessions, the adventure tourism sector is still vulnerable to such crises. Therefore, it is essential to take proactive measures and be prepared to minimize risks and reduce dangers to tourists in tourist destinations. Emergency plans should be put in place for rescue logistics, and tour guides need to be trained and equipped with pre-planned mechanisms to prevent potential dangers and assist those affected in crisis situations. To achieve this, stakeholders should collaborate and pool resources to ensure joint efforts towards crisis management.

The impact of crises in the tourism industry is significant, with a single unfortunate incident capable of tarnishing the image of both the destination and the organization. Unlike tangible products, the tourism industry relies heavily on the promotion of intangible products, such as a destination's image. To address this, organizations must develop problem-solving action plans that take into account the interests and activities of all stakeholders. The complexity of the tourism product and the distance between where it is purchased and where it is provided make it challenging for potential tourists to evaluate its quality beforehand. Thus, creating a favorable image of a tourism destination is critical to marketing. One key factor that influences a tourist's decision-making process is their perception of safety. Therefore, tourism providers must reduce their customers' uncertainty and risk perception by emphasizing safety measures.

6.0 Recommendations

Tourism organizations, whether public or private, should prioritize the development of emergency plans that take into account the potential for disasters and crises. By doing so, they can prepare for and respond to emergencies in a way that minimizes damage and facilitates recovery. While some disasters are unpredictable, organizations can use historical data and situational analysis to predict and plan for potential crises. It is also important to train tour guides on logistical issues related to disaster operations and emphasize the importance of quick response and efficient transportation of affected tourists out of the crisis area. Organizations should establish clear plans for rescue routes, task assignments, and communication channels with tourists, utilizing modern communication tools as appropriate. Authorities must allocate adequate funding to prepare for and execute rescue operations, including the procurement of necessary materials and equipment. Logistics planning should consider the flow and control of materials and the use of human resources in emergency and relief operations.

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Influence of Teacher's Self-Worth on Secondary School Learners' Academic Performance in Kakamega County, Kenya

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ABSTRACT

Teachers are charged with the responsibilities of leadership management in schools in Kenya. Teachers, as decision-makers, are continually faced with problems managing school resources and funds. Since principals have a lot of responsibilities, it is necessary that they be well informed on aspects of good leadership. Despite the government's efforts to ensure that there is effective management of schools, several cases of uninformed decision-making, poor leadership approaches, and dishonesty have been reported in several learning institutions, which may influence the final academic performance of the learners. Some of the substandard academic students' performance has been linked to the lack of self-efficacy of teachers in their profession. Self-efficacy is one of the eight core competencies in the Competency-Based Curriculum (CBC). Other studies have addressed the issue of teacher leadership approaches in schools, however. The purpose of this study was to ascertain the level to which teachers' self-efficacy affects learners' academic performance. The study adapted the non-experimental research design, which is the ex-post-facto survey research design and correlation research design. Data was collected through questionnaires, interview schedules, document analysis, and focus group discussion. Qualitative data was received in verbatim, transcribed, and reported in themes and sub-themes. Quantitative data was analysed using descriptive statistics such as frequencies and percentages, while inferential statistics involved Pearson correlation. The study revealed a statistically significant result between components of teachers' self-worth and secondary school learners' academic performance ($r=.68, p<.05$). The study recommends that school leaders, especially principals, should cooperate with teachers to create and reform the school environment so that it can foster students' interest in learning and improve their academic performance. In addition, school heads need to adopt a transformational leadership style—a kind of leadership that inspires people to attain greater or amazing outcomes.

Keywords: Teacher's Self-Worth, Secondary School Learners, Academic Performance

I. INTRODUCTION

Self-worth is an individual's subjective evaluation of their own worth. According to Murphy et al. (2013), self-worth entails the trust a person has in himself or herself to properly and effectively manage given tasks or responsibilities. Self-worth affects how students perform academically. Students can assess themselves based on their own ability to organise and implement learning behaviours to achieve the chosen level of academic achievement (Vilas and Lakhani, 2019).

According to a US study, Hallinger and Murphy (2016) discovered that academic self-worth causes students to constantly consider the most efficient ways to complete each job. In China, Grayson et al. (2015) showed that students' sense of self-worth can have a positive influence on their academic success. High self-worth, according to Halawah (2015), permits youngsters to behave well with fewer personality problems.

In Uganda, Cherian and Gaikar (2020) discovered that students who had teachers with a strong sense of worth scored higher on tests than students who had teachers with lower efficacy. He also discovered that students tend to be more conservative and careful in exams the more successful they are in extracurricular activities like performance art. In contrast to children with low self-worth, Kenyan students with high levels of self-worth have a favourable and significant association with vocabulary learning and memorization strategies, according to Kelley et al. (2015). These results showed how crucial it is to boost students' self-confidence in order to maximise their learning and success.

Bush (2020) found that self-worth is an assessment of one's ability to accomplish a specific activity under given conditions. Vilas and Lakhani (2019), on the other hand, stated that academic self-worth causes students to always consider the most effective approaches to complete any work that was not mentioned. Gaikar and Sameer (2020) posit

that self-efficacy boosts a student's level of confidence and self-belief in completing a task. Halawah (2015) observes that teenagers with high self-esteem will always have good behaviour and will not exhibit any undesirable personality traits.

Despite the many attempts at leadership outlined above, student performance has not improved to competitive levels (Gyasi, Xi, & Ampomah 2016). Therefore, the goal of this study was to determine the extent to which instructor self-efficacy affects learner academic achievement.

II. LITERATURE REVIEW

Self-worth, often known as self-esteem, refers to a belief that a person has in their ability to accomplish specific activities or obligations accurately and efficiently (Abdel-Khalek, 2016). Self-worth is an evaluation of the ability to perform a certain behaviour in certain circumstances. Academic self-worth refers to students' ratings of their own academic ability to organise and implement learning behaviours to achieve the chosen level of academic achievement, for example, passing the exam (Bush, 2020). Vilas and Lakhani (2019), on the other hand, argue that academic self-worth makes students always think about the most effective ways to accomplish each task. It refers to the level of confidence and self-belief of a student to complete a task and produce something at its best according to their respective capabilities. Self-worth is also an important aspect of achieving outstanding achievement in all areas explored by students, including academics. Many studies have proved that self-worth or optimism (self-confidence) can have a positive impact in many aspects, including students' academic achievement (Gaikar & Sameer, 2020). High self-worth will cause teenagers to always have good behaviour and not show any problematic personalities.

Individuals with a high sense of self-worth are more likely to choose the proper job route (Yap et al., 2015). In this light, the findings of a study done by Wahab et al. (2015) on self-worth in preaching revealed that the level of respect for Islam and self-worth in preaching is quite high among the Orang Asli movement in Negeri Sembilan. Their zeal and desire to affect the target groups depend not only on the methods used but also on a certain amount of self-esteem to deal with these groups. To attain this goal, every preacher should be satisfied with his or her chosen profession. They are always upbeat about their involvement in their preaching vocation. Due to the unfavourable attitude displayed by society, there is little influence or even discouragement to continue preaching (Deal & Peterson, 2015).

Students with high self-worth view failure in the context of the classroom as simply not trying hard enough, while students with low self-worth view it as evidence of an innate inability to succeed in certain areas. According to Vilas et al. (2019), children whose teachers had low self-efficacy had lower test results than students whose teachers had high self-worth. The student who is more reserved and cautious in their approach to exams is the one who ends up with a better cumulative grade point average. Students who are less optimistic about their academic success are those who devote less time to studying. Students who have a solid sense of who they are are more likely to succeed, say Van de Grift and Houtveen (2016).

The self-worth hypothesis plays a pivotal role in boosting pupils' self-esteem (Avolio & Bass, 2015). Students will be easily rattled by stressful conditions if they lack a solid foundation of self-confidence. The intrinsic strengths of students are crucial to their learning motivation. Those who maintain faith in the future despite setbacks or disappointments are more likely to take action. Conversely, pupils with a low opinion of themselves are more likely to give up, remain mute, and do nothing to raise their grades. Academic optimism and encouragement from professors are crucial components that need to be present among students as the building blocks for high self-confidence in order to increase the students' efficacy. Students' natural curiosity about their coursework is an example of intrinsic motivation, whereas positive feedback from a teacher is an example of extrinsic motivation that can boost results.

Although research has established that transformational leadership is the key to motivating followers to accomplish extraordinary goals, there is still room for improvement. However, most schools in Kakamega County that employ transformational leadership have not achieved these results. Nationally, student achievement remains low despite these efforts (Hite et al., 2016). This is because, ever since Kenya gained its independence, the government has placed a great priority on educational initiatives, resulting in increased demand for higher education. This means that students with higher grades and test scores are given more attention (Hallinger & Murphy, 2016). As a result, the heads of schools are tasked with creating a productive atmosphere for their students.

These research findings indicate that transformational leadership styles have been proven to have a significant factor in increasing students' academic achievement when implemented in different participants, places, and situations. Thus, it is recommended for school principals and others to implement and maintain transformational leadership styles in return for the improvement of students' academic achievement as well as school qualities.

These research findings indicate that transformational leadership styles have been proved to have a significant factor in increasing students' academic achievement when implemented in different participants, places, and situations. Thus, it is recommended for school principals and others to implement and maintain transformational leadership styles in return for the improvement of students' academic achievement as well as school qualities. Having high expectations without a strategic plan in place will be like building castles in the air. One of the teachers stated that the school leader has high expectations, which at certain times worries them if they cannot achieve the target. Having high expectations without a strategic plan in place will be like building castles in the air. One of the teachers stated that the school leader has high expectations, which at certain times they cannot achieve.

2.1 Theoretical Review

The study adopted self-determination theory. This theory refers to a person's ability to make choices and manage their own life (Legault, 2017). Self-determination theory seeks to explain how being self-determined impacts motivation. People feel more motivated to take action when they think that what they do will have an effect on the outcome. According to Haque et al. (2014), scholars have created a variety of methodologies in order to understand and foster employee motivation in organisations. Locke, Bentham, and others who developed early theories of motivation based their ideas on hedonism (Danchev, 2016). According to this school of thought, individuals act in a way that is designed to maximise pleasure and minimise discomfort. Both Frederick Taylor and Douglas McGregor, with their respective approaches to scientific management and the human relations movement, had an impact on the ideas of motivation in management that were prevalent from the 1910s through the 1960s (Adebayo, 2020). The strategy put forth by Taylor is designed to maximise the labour efficiency of employees, who are motivated by factors in addition to monetary compensation. Recent research indicates that employees require a number of things from their jobs, including a sense of security, social fulfilment, and less strenuous working conditions (Martela et al., 2018).

III. METHODOLOGY

The study adopted the non-experimental research design, which is the ex-post-facto survey design with correlation. The study was conducted in Kakamega County, which is part of western Kenya. The number of secondary schools in Kakamega County is 385, with 385 principals. The number of class teachers is 770, while the number of Form 3 students is 23,100. A simple random sampling was used to sample 4 out of 12 sub-counties in Kakamega County. Thirty percent (30%) of the schools were used in the study, which was deemed an adequate sample size according to Joshua (2017). This percentage was sampled by stratified simple random sampling from the four sub-counties as the main stratus; this made a total of 115 schools with 115 principals.

The sample size of class teachers was randomly sampled from the 385 schools; this was 231 (30% of 770) class teachers. All school principals were purposively sampled out by census, while students were sampled by using the following formula: $n = Z^2 pq / d^2$ (Mengesha et al., 2019), which resulted in 384 students. The researcher used the questionnaire, document analysis, interview guides, and focus group discussion (FGD). A questionnaire was administered to both class teachers and students. An interview was conducted with the school principals, while a focus group discussion (FGD) was done by the students.

The collected raw quantitative data was sorted, edited, coded, and tabulated for analysis using Statistical Package for Social Sciences (SPSS) software. This involved descriptive statistics such as mean, percentages, and frequencies. Qualitative data from interview schedules and focus group discussions was analysed by content analysis to identify emerging themes.

IV. FINDINGS AND DISCUSSION

The purpose of this study was to examine the effect of a teacher's self-worth on secondary school learners' performance academically.

4.1 Descriptive Statistics

Data from selected likert-scale type statements was analyzed descriptively and the findings presented in Table 1 below.

Table 1
Teachers Self-Worth and Learners' Academic performance

	SA	%	A	%	U	%	D	%	SD	%
1 We are always being appreciated for our efforts made towards achievement of set academic goals and objective.	68	29.4	95	41.1	38	16.5	19	8.2	11	4.8
2 In our school, the principal's decision is the final.	46	19.9	60	26.0	34	14.7	51	22.1	40	17.3
3 Our school principal is always patient, tolerant and accommodates all staff members and students from different backgrounds.	95	41.1	85	36.8	23	10.0	13	5.6	15	6.5
4 Our staff consists of members from different ethnic background.	129	55.8	93	40.3	6	2.6	3	1.3	0	0.0
5 Promotion of our staff members is balanced considering departmental balance, gender, experience, religion, age, disability and experiences.	51	22.1	105	45.5	42	18.2	29	12.6	4	1.7
6 Admissions of student governing council members is done by balancing class/stream, gender, religion, age and disability.	64	27.7	114	49.4	20	8.7	20	8.7	13	5.6
7 Election, nomination and appointment of student governing council members is done by balancing class/stream, gender, religion, age and disability	50	21.6	120	51.9	21	9.1	17	7.4	23	10.0
8 The way a teacher presents himself has nothing to do with learners results	18	7.8	28	12.1	17	7.4	88	38.1	80	34.6
9 There is no need to report cases of indiscipline to the school leader, I can deal with them	13	5.6	10	4.3	27	11.7	93	40.3	88	38.1
10 As a teacher I can invest my money and time on my looks than any other project	6	2.6	15	6.5	21	9.1	57	24.7	132	57.1
11 As a teacher, I can exercise substantial influence on school practice in matters of curriculum, Instruction and assessment	61	26.4	133	57.6	23	10.0	6	2.6	8	3.5
12 My image is positive towards learners and I would desire them be like me.	122	52.8	90	39.0	13	5.6	4	1.7	2	0.9

N=231, 100%

According to Table 1, 68 (29.4%) believed that their efforts towards achieving defined academic goals and objectives were acknowledged. 11 (4.8%) teachers had a different opinion, strongly disagreeing with the notion that their efforts towards the accomplishment of established academic goals and objectives could ever be appreciated. Another 19 (8.2%) respondents expressed a similar sentiment. In certain schools, the principal's choice is final. This was affirmed by 46 (19.9%) of the instructors who strongly agreed that this was the case in their schools. Sixty (26.0%) educators gave their full approval, meaning that this decision cannot be overturned. Forty (17.3%) educators strongly objected and reported never having their school principals make such final choices. There were also 51 teachers (22.1%) who said no, while 34 instructors (14.7%) were on the fence.

About 95 teachers, or 41.1%, agreed that some principals were consistently patient, tolerant, and welcoming to children and staff from all walks of life and cultural backgrounds. But 15 (6.5%) educators strongly disagreed with the statement. Among the teachers polled, 129 (55.7%) strongly confirmed that their staff consists of members from different ethnic backgrounds. However, some of the teachers acknowledged the presence of students from varied cultural backgrounds and were surprised by the extent of the diversity among their colleagues. Only 3 (1.3% of all instructors) made some sort of comment on the topic, while 6 (2.6% of all teachers) said nothing at all.

Promotion of employees may take into account departments, gender, experience, age, disability, and religious preferences. 51 (22.1%) teachers strongly agreed, confirming this. However, four (1.7%) of the teachers were adamantly opposed. The admittance of students to the governing councils is balanced in terms of class/stream, gender, religion, age, and handicap; 64 (27.7%) teachers agreed. According to 21.6% of teachers, this was accomplished at some schools by electing, nominating, and appointing members of the student governing council. In some schools, 13 (5.6%) teachers



strongly agreed that there is no need to report cases of indiscipline to the school leader because they can deal with the victim students.

According to the findings shown in Table 1, the vast majority of respondents felt that the recognition of the efforts they made to accomplish their predetermined academic goals and objectives was appropriate. The findings corroborate the findings of a study conducted by Hurren (2016), who discovered that school leaders, particularly administrators, have a tendency to recognise the work that instructors put forth in order to cultivate students' enthusiasm for learning and increase the students' academic performance.

The study noted that the choice made by the principal at certain schools is irrevocable, which means that the decision cannot be reversed under any circumstances. The findings of this study contrast with those of Hite et al. (2016), who defined transformational leadership as a kind of leadership that motivates followers to achieve larger or more astounding results. This study's findings support the latter definition. As a consequence of this, school leaders need to practise democratic leadership in order to make teachers feel as though they are an integral part of the school's mission to achieve academic achievement.

The vast majority of respondents mentioned that certain principals were consistently patient, tolerant, and friendly to students and staff members from various walks of life and cultural backgrounds. Because the majority of schools have students and staff members from a diverse range of ethnic backgrounds, teachers gave this gesture their full and enthusiastic support. These findings are in agreement with those obtained by Hallinger et al. (2016), who showed that recognising diversity promotes a climate that is favourable to learning, generates a sense of self-worth in students, and allows schools to function more efficiently.

Finally, the findings of the study show that advancement opportunities for workers may take into account factors such as departments, gender, experience, age, disability, and religious preferences. In addition, according to the respondents, the admission of students to the governing councils is balanced in terms of class or stream, gender, religion, age, and the presence or absence of a disability. According to Hooper et al. (2015), who suggest that the absence of gender discrimination in schools has a tendency to have an impact on the teachers' abilities by inspiring and boosting the effectiveness of their job performance, the findings support these arguments. In addition, the promotion of gender equality inspires students to increase their self-assurance so that they can achieve greater academic achievement.

4.2 Focus Group Discussion

In the focus group discussion, students responded to the question of how their school principal recognises other instructors for helping the school achieve its academic goals. They emphasised that the principals typically accomplish this by rewarding the teachers of successful subjects, elevating them to departmental leadership positions, providing classroom space for teachers, planning academic field trips for teachers, and awarding diplomas to them. These results are consistent with those found by Bush (2020), who argues that rewards for teachers raise their morale. Because of the relaxed environment fostered by the teacher's confidence, the students may learn more effectively. The results are consistent with those of Cherian and Gaikar (2020), who also found that teachers who establish positive relationships with their students are more likely to be consulted by their students when they have difficulties in the classroom.

4.3 Inferential statistics

Pearson correlation was used to test the interrelations between the study variables. The findings were presented in Table 3.

Table 3

Correlation Output between Components of Teachers' Self-Worth and School Academic Mean Grades.

	Practical Report Scores
Pearson Correlation	0.68
Sig. (1-tailed)	0.034

According to Table 3, the correlation between components of teachers' self-worth and school academic mean grades was found to be positive having the values of .68. The study also revealed a statistical significant result between components of teachers' self-worth and school academic mean grades with p-value being below significance level of .05 ($r=0.68$, $p<.05$). This finding thus tends to agree that teachers' self-worth can lead to better academic performance in secondary schools.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The study finally ascertained that teachers' self-worth has an influence on secondary school learners' academic performance. The majority of teachers confirmed that they are always appreciated for their efforts towards the achievement of set academic goals and objectives. They termed their school principals as being patient, tolerant, and accommodating to all staff members and students from different backgrounds, as they confirmed that their staff members also come from different ethnic backgrounds. Teachers also gave their feedback on their promotions, where they noted that promotion of staff members is balanced considering departments, gender, experience, religion, age, disability, and experiences.

5.2 Recommendation

Teachers play an important role and contribute significantly to providing academic confidence and motivation to students, which will affect their academic performance. A teacher's role can actually be translated into different contexts. The role played by teachers will be able to produce a feeling of self-efficiency and a sense of security among teenagers in a classroom setting. This allows teenagers to use a strategy that will lead them to their cognitive relationship. Therefore, the study recommends that school leaders, especially principals, should cooperate with teachers to create and reform the school environment so that it can foster students' interest in learning and improve their academic performance. School heads need to adopt a transformational leadership style—a kind of leadership that inspires people to attain greater or amazing outcomes. Furthermore, school heads should encourage collective community involvement and integrated cooperation by the local community, teachers, and students so as to create a conducive environment for learning and academic excellence.

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Coping With Midlife Crisis: A Cross-Sectional Study of Ondo City, Southwestern Nigeria

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ABSTRACT

Midlife crisis occurs when people begin to lose confidence and have feelings of anxiety or disappointment about life in middle age. It is a transition that takes place as people grow older while struggling with the passing of their youth. This study examines the psychological and emotional impacts of midlife crises and the coping strategies employed by participants. The study was conducted among 348 participants from a city in south western Nigeria. Primary data was retrieved through questionnaire administration, while the study was explained using the retrospective denial theory. Stress topped the psychological and emotional impacts of midlife crisis among the participants (61.2%), followed by anxiety (59.9%), and low self-esteem was the least (3.4%). In order to cope with a midlife crisis, the majority of study participants (86.1%) used prayer as the most effective coping strategy, followed by forgetting the past and moving on (79.2%), and accepting their fate (47.5%) as the least effective. The study concludes that almost all the participants in the study have experienced midlife crisis. The feeling that life has not turned out to be topped as the cause of midlife crisis, with excessive thoughts about childhood being the least. With regards to the psychological and emotional impacts of midlife crisis on participants, stress was the highest, followed by anxiety, and low self-esteem was the least, while prayer topped the list of coping strategies employed by participants in the study. We recommend that people who experience midlife crises seek the help of therapists who can help them sort out feelings about past events, manage current stress, and plan their future.

Keywords: Middle Aged, Humans, Anxiety, Emotions, Psychological, Ondo City, Southwestern Nigeria.

I. INTRODUCTION

Midlife crisis was first introduced by Elliot Jacques in 1965 in his article *Death and the midlife crisis* (Jacques, 1965). Ever since then its existence has generated various debates among many scholars. Coming to term with the term *middle age* has made it difficult to determine the bench mark period or time when midlife crisis actually occurs. For example, while Raypole (2021), define midlife as the years between ages 40 and 60 with a margin of ten years scholars like, Staudinger and Bluck (2001) conclude that middle age starts at the age of 40 and extend to age 60 with vague and fuzzy boundaries regarding beginning and end hence, finding a suitable definition for midlife crisis has become a herculean task for many.

Even though this wide definition allows one to see the whole body of research on the topic, however, it does not in actual fact help to solve the problem of definition meaning that chronological age might not be the best definitional criterion for middle age. But according to Staudinger and Bluck (2001), midlife crisis is best described in terms of main developmental events or tasks that occur in the life of an individual such as a time of increased financial responsibility, a time of decrease in physical stamina and health, a change in work responsibilities accompanied by boredom, dissatisfaction and frustration, a time of emotional loss as children grow older and leave home or loss of loved one, a stage of married life that lacks excitement and many more.

Midlife has widely been linked with stress and regarded as a stage marked by crisis (Lachman, 2004). For example, instances of stresses occasioned by role conflicts or financial pressures have been found to surface in midlife or take or occur in greater dimension in middle age (Almeida & Horn, 2004). Even though it can be said that losing one's job or going through divorce in marriage may occur during other age periods in life, there are possibilities that those in midlife may experience greater stress as a result of age discrimination by employers and limited opportunities for remarriage at that stage in life. Whatever the event or task may be that describe midlife crisis in the life course of a person, there is no doubt that midlife crisis is the most available concept that describe middle age.

But, in spite the fact that midlife is attributed to a negative and undesirable period in life, little attention is paid to the huge consequences of poor functioning in midlife (Lachman et al., 2015). According to Lang et al. (2010) depression and stress are at their peak in the middle years especially for those with financial strain while suicide rates are higher in the middle years when compared to other age periods (Brown, 2017). In Nigeria studies into midlife crisis is dearth and unresearched. Either it exists or not, it is evident that the effects of midlife crisis are felt among many.

For example, Nigeria is one of the epicenters of suicide in the world with a suicide estimate of 17.3 per 100 000, which is higher than the global (10.5 per 100 000) and Africa (12.0 per 100 000) estimates according to the World Health Organization (WHO, 2019). According to global statistics, since 2012 there has been an increase in suicide Nigeria, WHO (2018) many of which are impulsive responses to psychological stressors (WHO, 2014). Some of these psychological stressors might however have resulted from personal risk factors such as financial constraints, loss of loved ones, mental illness, physical illness, substance abuse and so on Uwakwe and Gureje (2011) which are symptoms of midlife crisis as argued by (Staudinger & Bluck, 2001). It is against this background that this study is being conducted.

II. METHODS

2.1 Study Design

The study adopted a descriptive research design in which a cross-sectional survey on midlife crisis was conducted among residents of Ondo city in Southwestern Nigeria.

2.2 Study Setting

The study was conducted in Ondo City in South-western Nigeria. It is home to a number of educational, health and financial institutions, and has ample commercial and trading activities. With an estimated population of about 445,442 (World Population Review, 2021), Ondo city is largely inhabited by the Yoruba' while cohabiting with other minority groups such as the Igbo', the Hausa' Edo, Ijaw, Uhrobo, Tiv among others. Majority of the inhabitants are traders and farmers while others are public servants, artisans, students among others.

2.3 Participants, Sample Size & Sampling Procedure

Participants of the study comprised of residents of Ondo city at least eighteen (18) years and above. The sample size for the study was calculated using Fischer's' formula for population greater than 10,000 (Jung, 2014).

$$N = \frac{Z^2Pq}{d^2}$$

Where: n=minimum sample size when the population is greater than 10,000; Z= the standard normal deviation set at 1.96 for 95% confidence interval; P= the proportion in the target population estimated to have a particular characteristic. q = 1-p; d= degree of accuracy desired (0.05).

However, in order to accommodate for a non-responsive rate of 10%, the sample size was rounded off to 348. These were recruited through two staged sampling methods of cluster and convenience sampling methods. Participants were recruited from clusters in the Centre Business District (CBD), motor garages and market places where they were conveniently selected.

2.4 Study Instrument

A constructed questionnaire was prepared and modified after a thorough review of the relevant literature. This questionnaire covers two parts: **Section one:** Socio- demographic characteristics including gender, age, marital Status, religion, educational and employment status of participants; **Section two:** Question on midlife crisis which included (13) items, psychological and emotional effects of midlife crisis (10) items on coping strategies (8) items

2.5 Validity and Reliability

The content validity of the instrument was established through a retest and retest method; the reliability of the items was based on the internal consistency by calculating Cronbach Alpha which was= 0.765

2.6 Data Collection and Data Analysis

A structured questionnaire used to collect data by direct interview. The approximate interview time of 25-30 minutes was provided for the questionnaire completion. Data collection is performed from July and September 2021.

2.7 Statistical Analysis

Data collected was analyzed with the aid of Statistical Package for Social Sciences (SPSS) version 21.0. Descriptive statistics such as frequency, percentages and chart were used to present results.

2.8 Ethical Consideration

Informed consent was also given by the participants after they were duly briefed of the purpose and significance of the study.

III. RESULTS

Table 1 contained socio-demographic variables of the participants. Male participants in were a little above half (52.6%) while the age category with the highest number of participants is (35-39) years with (42.2%). A total of 309(88.8%) are married while 285(81.9%) are Christian and 48(13.8%). Yoruba ethnic group were the most represented with 186(70.7%) while 162(46.6%) had tertiary education. However, about 285 (81.9%) are gainfully employed.

Table 1

Socio-demographic Characteristics of Participants

Socio-demographic characteristics	Frequency	Percentage
Gender		
Male	183	52.6
Female	165	47.4
Age		
35-39	147	42.2
40-44	123	35.3
45-49	24	6.9
50-54	54	15.5
55-60	21	6.0
Marital Status		
Unmarried	39	11.2
Married	309	88.8
Religion:		
Christianity	285	81.9
Islam	48	13.8
Traditional	15	4.3
Ethnicity		
Yoruba	186	70.7
Igbo	54	15.5
Hausa	6	1.7
Others	102	12.1
Educational status		
None	12	3.4
Primary	45	12.9
Secondary	129	37.1
Tertiary	162	46.6
Employment status		
Employed	285	81.9
Unemployed	63	18.1
n=348		

Source: Researchers' Fieldwork (2021)

Table 2 contained questions relating to midlife crisis. Most of the participants in the study 303(87.1%) have experienced midlife crisis. The feeling that life has not turned out the way it should be topped the list of perceived causes with 234 (67.4%) followed by regrets about past decisions and choices 198 (56.9%) while excessive thoughts about one's childhood 93(267%) was the least cause of midlife crisis among the participants.



Table 2

Questions on Midlife crisis

Questions on Midlife crisis	Frequency	Percentage
Have you ever experienced midlife crisis before?		
Yes	303	87.1
No	45	12.9
What are the perceived causes		
The feeling that life hasn't turned out the way you wanted it	234	67.2
Regrets about past decisions and choices	198	56.9
Career problem	168	48.3
Work problem	159	45.7
Academic problems	153	44.0
Family problems	147	42.2
Business problems	141	40.5
Thoughts of aging	126	36.2
Relationship problems	114	32.8
Changes in the body, such as weight gain, or less energy	114	32.8
Thoughts of wasted years	120	34.5
Thoughts of death	111	31.9
Excessive thought of your childhood	93	26.7
n=348		

Source: Researchers' Fieldwork (2021)

Table 3 contained the psychological and emotional impact of midlife crisis on participants. The highest was stress with 213(61.2%) followed by, anxiety (59.5%), fear 192 (55.2%), unhappiness 171 (49.1%) anger 159 (45.7%), frustration 153(44.0%), restlessness 150 (43.1%) depression 138 (39.7%), suicidal thoughts 111 (31.9%), boredom 99(28.4%) and others including low self-esteem, metabolic disorder etc. 12 (3.4%).

Table 3

Psychological and Emotional Impact of Midlife Crisis

Psychological and emotional effects	Frequency	Percentage
Stress	213	61.2
Anxiety	207	59.5
Fear	192	55.2
Unhappiness	171	49.1
Anger	159	45.7
Frustration	153	44.0
Restlessness	150	43.1
Depression	138	39.7
Suicidal thoughts	111	31.9
Boredom	99	28.4
Others (Low self-esteem, metabolic disorder)	12	3.4
n=348		

Source: Researchers' Fieldwork (2021)

Table 4 contained the coping strategies of participants to midlife crisis. A total of 261 (86.1%) said they pray about it, 240 (79.2%) said they try to forget the past and move on, while 144(47.5%) accept their fate

Table 4*Coping strategies among Participants*

Coping strategies	Frequency (n=)	Percentage
Prayer	261	86.1
forgetting the past and move on	240	79.2
I try to find meaning in life's changes	231	76.2
I try to regain a sense of control over my life	228	75.2
I try to identify new goals	219	72.3
I try to decide how I want the future to look like	207	68.3
I share my problems with someone	201	66.3
I accept my fate	144	47.5
(n=348)		

Source: Researchers' Fieldwork (2021)

IV. DISCUSSIONS

Almost four-fifth of the participants has experienced midlife crisis before. This result contradicts the study conducted by Wethington (2000) in the United States as well as a study by Robinson and Wright (2013) in the United Kingdom in which 26% and 40-60% of the participants in the study have experienced midlife crisis respectively.

On the perceived causes of midlife crisis among participants, the feeling that life hasn't turned out the way participants wanted it to be top the list with a little above two-thirds of the participants' opinion. This was followed by regrets in past decisions and choices with just a little above half and career problems with less than half of the participants. This result is not in tandem with the findings from a previous study conducted by Stumpf (2012) in which awareness for aging, life review or evaluation and changes in personal approach to life in that order topped the list of perceived causes of midlife crisis among participants.

This result also validates the theory of Retrospective Denial proposed in this study to explain how participants in the study might cope with midlife crisis. According to the authors, human mind is likened to a tape recorder which can either be forwarded or rewind. In other words the human mind can either be rewind to recall past events or fast forwarded to forget previous life events based on three basic assumptions: (i) Humans are driven by what goes on in their mind. (ii) They can either decide to put their past behind them by fast forwarding the mind or can decide to be hold onto the past by rewinding their mind. (iii) In forgetting the past, people tend to replace past events with an alternative future event which tend to erase the memories of past events which validates the relevance of the theory to the current study.

With regards to the psychological and emotional impact of midlife crisis among participants, stress topped the list with almost two-third of the participants followed closely by anxiety and fear in that order. This result however confirmed that which was conducted by Lachman (2004) in which midlife crisis is linked with stress. It also validates the result of the findings conducted by Aldwin and Levenson (2001) and Almeida and Horn (2004) which suggests that stresses involving multiple roles demands, or financial pressures may flock in midlife or even take a greater dimension in middle age. This may also have resulted from the fact that majority of the midlife crisis experienced by participants in the study centers on the feeling that life hasn't turned out the way they wanted it or hoped it would be hence, possibilities of many of participants running into crisis trying to meet their expected goals. On the coping strategies, prayer topped the list with more than four-fifth of the participants in the study followed closely by forgetting the past and moving on as well as trying to find meaning in life changes. This may not be far from the fact that the claim that Nigerians are generally a religious people (Adamo, 2018).

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

This study investigated the perceived causes of midlife crisis on participants, its psychological and emotional impacts as well as the coping strategies. The study concludes that, almost all the participants in the study have experienced midlife crisis in which the feeling that life has not turned out to be how participants wanted topped the list while, the least was excessive thoughts about childhood. Stress topped the psychological and emotional impacts of midlife crisis on participants followed by anxiety and low self-esteem being the least while prayer topped the coping strategies employed by participants in the study.



5.2 Recommendations

The study recommends that people who experience midlife crises should seek the help of therapists who can help them to sort out feelings about past events, manage current stress and plan their future.

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Effect of Physical Resource Allocation Strategies on Public Service Delivery: A Case of Vihiga County Government, Kenya

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ABSTRACT

Resource allocation strategies are important components of the strategic management process. They are applied by organizations during the implementation of a formulated strategy so as to achieve competitive advantage in markets. The purpose of this study was to determine how strategies for allocating physical resources affect the delivery of public services in Vihiga County. Asset-based views and systems theories were embraced to help the review. During the course of the investigation, a descriptive survey research design was used. A target population of 593 individuals was used, and a sample size of 234 respondents was picked in view of Krecjic and Morgan's recipe. The respondents were distributed among the participating institutions, and each participant was selected at random. Respondents were selected from health and Early Childhood Development (ECD) facilities, primary and secondary schools, trade, infrastructure, and public service departments to fill out questionnaires. The researcher conducted in-person interviews with selected administrators as well as document analysis within the finance department. Descriptive statistics like frequencies, percentages, and means were used to collect and analyze the data using both qualitative and quantitative methods. Using SPSS, quantitative data were analyzed to determine how strong the relationship was between the variables and the results shown in tables, graphs, and charts. The regression model's estimates of the regression show that strategies for allocating physical resources have a significant impact on the delivery of public services. The estimates of the significant regression coefficient are $r = 0.649$, $t = 7.819$, and the p -value is 0.01. The coefficient estimate's P -value is less than 0.05, indicating significance at the 95% confidence level. According to this significant estimate, the levels of the public service delivery index would rise by 0.649 units if physical resource allocation strategies were increased by one unit in county government. The findings made it possible to draw the conclusion that the Vihiga County government's resource allocation strategies and public service delivery have a positive and significant relationship, and that government regulation has a positive and significant effect on moderating the relationship. The study recommends that adequate financing of technological resources should be done at all times to enable efficient monitoring of service provision. The study becomes reference material for all county government staff, policymakers, and other institutions in Kenya.

Keywords: Resource Allocation, Public Service Delivery, Financial Resource Allocation, Vihiga County Government, Kenya

I. INTRODUCTION

David (2013) defined strategic management as the art and science of making, putting into action, and evaluating cross-functional decisions that help organizations achieve their goals. According to Smith et al. (2015), strategic planning is a process that focuses on examining the current and future environments, establishing the organization's goals, and implementing and controlling decisions aimed at achieving those goals in the current and future environments. Thompson et al. (2008) record that execution is a fundamental part of the vital administration process and might be characterized as correspondence, understanding, reception, and establishment of smart courses of action.

Strategic plans comprise a careful allocation of resources, which are assets available for use by the business entity in order to achieve desired goals. These assets are usually in the form of finance, which is made up of capital employed in the business, while people manage the finances through processes by way of skills, talents, and training. Physical resources comprise materials or goods, working tools, infrastructure, and information technology.

Resource allocation is therefore the process of distributing the available resources to strategic activities aligned with organizational goals (Mohamed, 2015). The distribution is part of the strategy implementation process, which involves designing and managing related frameworks to accomplish the best combination of individuals, design, cycles,

and assets while aiming at realizing organizational goals as stated in a formulated strategy and achieved through the strategic planning process.

In Kenya, several studies have been conducted, but the researcher has specifically picked two because of their relevance. In their focus on the impacts of asset assignment on system execution at the Kenya Police Administration in Nairobi District, Lemarleni et al. (2017) concluded that the Kenya Police Service's allocation of financial resources is significantly inadequate for strategy implementation. The bureaucracy involved in receiving financial resources within the police system was blamed for the flaws. Inadequate and incorrect distribution of these resources hinders strategy implementation efforts, resulting in inadequate service delivery. Kolil et al. (2019) found that resource allocation has a significant impact on service delivery in county governments in the North Rift region of Kenya, since service delivery as a resource contributed up to 35% of service delivery results.

Effective strategy implementation can only be realized through an established environment with adequate infrastructure that will propel the implementation process (Hrebiniak, 2006). This environment comprises physical resources, which include machinery, computer equipment, materials, and tools of trade. Machinery is characterized by high costs, while computer equipment is associated with service-based activities for clients. Materials refer to goods used in the production of new items for sale, while tools of the trade include skills, talents, and office implements that facilitate workflows and tasks. Firms with updated technology will have an upper hand over their equal competitors.

According to Kaaria et al. (2018), technology gives organizations valuable assistance in implementing new policies, procedures, and initiatives, in addition to monitoring and evaluating the strategic processes being undertaken. Adopting technology in public sector organizations will therefore facilitate an efficient strategy implementation process that will yield desirable high-end achievements.

Service delivery is an outcome of customer service, which includes account management, customer intelligence, and continuous improvement of processes that are reviewed regularly to ensure improved perception by the clientele towards the organization's delivery channels. County governments in Kenya form a major part of the public sector, whose major role is to bring services closer to the people. These counties were born out of the 2010 constitution, which introduced a devolution system of governance in Kenya. The World Bank (2012) asserts that devolution enhances protection of citizens' rights through the capacity building of units of the local government that were anticipated to provide faster and better services. Moindi (2014) defines devolution as the process of decentralizing services with the aim of improving governance by listening to the voices of the masses and improving performance in their economic environment.

Globally, the United States of America remains the most successful devolution government, lasting over two centuries, while India is the next, with an experience of over sixty years (Awour, 2020). Bigambo (2013) confirms that devolution came to Africa through Ethiopia in 1994 and was extended to Uganda (1995), South Africa (1996), and Nigeria (1999). Kenya adopted this system of governance in March 2013 and established forty-seven county governments, including Vihiga County, whose infrastructure and human capital are sourced locally. Financial resources are realized from revenue collections, conditional grants procured from like-minded partners, and the disbursement of a 15% equitable share by the central government.

In their 2nd County Integrated Development Plan (CIDP) 2018–2022 report, Vihiga County recorded challenges of unique infrastructure development, inadequate funding and public involvement, procurement delays, and disbursement shortfalls. In October 2019, Transparency International, through a social audit survey on the health sector, confirmed similar shortfalls resulting in poor public service delivery in the county. It is against this background that the researcher undertook to establish the “effect of resource allocation strategies on public service delivery in Vihiga County Government, Kenya.”

1.1 Statement of the Problem

Strategy implementation is the process of taking action to ensure the adoption of decisions emerging from the process of strategic planning. The plan plays a major role in the implementation since it is used as a guide for the proper utilization of available resources. Rogers and Garrick (2006), in their study, advised that resource allocation should be provided in an open and consistent framework for comparative efficiency in budgetary allocation decisions that enhances accountability while maintaining service targets. Policy regulations, managerial competencies, and resource allocations are the critical factors that affect strategy implementation. According to Mutisya and Makokha (2016), many organizations formulate good strategies for their desired future operations, but a challenge during implementation makes it difficult to realize the ambitions. The best strategies may therefore fail if not properly implemented.

Moindi (2014) confirms that counties in Kenya face a challenge in resource mobilization and do not have a resource allocation policy in place. Vihiga County is one of the counties where poor public service delivery has been reported through their 2nd CIDP review, covering the period 2018–2022. The report exposed the challenges of unique

infrastructure development, procurement delays, and disbursement shortfalls that adversely affected service delivery in the county. Transparency International, Kenya (2019), reviewed a social audit survey done by Clarion (2018) on the health sector in Vihiga County and confirmed that no public participation is undertaken in the county's financial resource allocations. In addition, the review confirmed that capacity building was lacking and that there was a serious staff shortage that adversely affected public service delivery. The researcher undertook this study to establish the causes of these shortcomings by investigating the impact of strategies for allocating resources on the provision of public services in the Kenyan county government of Vihiga.

1.2 Objectives of the Study

To examine the effect of physical resource allocation strategies on public service delivery in Vihiga County government, Kenya.

1.3 Hypothesis of the Study

H₀₁: Physical resource allocation strategies have no significant impact on the delivery of public services by the government of Vihiga County.

II. LITERATURE REVIEW

2.1 Concept of Resource Allocation

Resource-Based View Theory (Barney, 1991) defines resource allocation as the process of assigning finances and managing physical assets together with human capital in a manner that supports an organization's strategic goals. He then opines that organizations' resources are thought to be very important for maintaining a company's competitive advantage and superior performance. In order to determine the most efficient course of action that maximizes the use of limited resources to achieve the best return on investments, the resource allocation process involves balancing competing needs and priorities. Assets are either substantial or theoretical in nature, with extraordinary capacities that drive authoritative execution. A set of resources' capability is their ability to interact with one another during a stretch task. According to Barney (1991), organizations' management should reserve sufficient financial, human, and physical resources for their operations and processes to generate above-average returns.

Devolved governance is becoming a popular mode of public administration around the world (World Bank, 2012). The United States of America has the oldest decentralized system of governance, having been in place for more than two centuries. India is the next-oldest devolution system of governance, with an experience of over sixty years. According to Bigambo (2013), devolution came to Africa through Ethiopia in 1994 and was adopted by Uganda, South Africa, and Nigeria in 1995, 1996, and 1999, respectively. Be-ere (2022) records that many countries across Africa are progressively turning towards devolution on account of its advantages of accommodating variety, working on fundamental administrations, inspiring higher development, and ensuring good governance. Kenya implemented this system in 2013, in line with the promulgated 2010 constitution.

Moindi (2014) confirmed that the allocation of resources in devolved units is based on individual county needs, and therefore maximum efficiency was achieved. Resource allocation strategies applied in the counties included an objective-based allocation strategy, which is used when selecting utility resources based on high, medium, or low expectation levels, taking into consideration response time, targets, and achievable profits. The next strategy is a results-based approach, where a decision is made to allocate resources based on current performance and results. Policy-based allocation is the next strategy, which relates to a multi-cluster environment where appraisal provides a framework for evaluating the trade-offs between the programs that are available and accommodating viewpoints from the various user departments. Priority-based allocation is a strategy in which high-priority activities are taken into consideration when allocating resources to achieve goals. Eminently absent is the hierarchical approach to controlling the conceivable mistake of whimsical human instinct while applying these methodologies. On his part, Mohammed (2018) concentrated on the asset distribution challenges confronting these province states and noticed significant deficiencies such as postponements in the arrival of assets by the public depository and the inability of the resources provided or received to meet the citizens' identified requirements and needs.

Every county was able to apply the strategy in a variety of ways because there was no policy in place for how to allocate resources. Biwot (2017) looked at the effects of revenue mobilization infrastructure and the challenges county governments face in revenue mobilization. The conclusion was that a positive unit increase in resource allocation led to an increase in service delivery, proving that good services require adequate resource allocation. The World Bank, in their warning on Making Devolution Work for Administration Conveyance in Kenya (World Bank, 2022), affirmed that a financial structure was laid out for dividing incomes among the public government and the district states. However,

the performance of these counties in planning and budgeting undermines the quality and sustainability of services. Counties' budget execution rates are also very low, especially for development. While citizens within the counties are legally bound to participate in planning and budgeting activities, counties rarely consult with them before resources are allocated.

Vihiga County, as a devolved unit, receives the bulk of its financial resources from the central government. Local collection of revenue by most counties has in the past experienced challenges as realized revenue has always been below the expected levels (Biwott, 2017). Counties are therefore dependent upon the equitable share of funding from the national government, which is considered inadequate to meet citizens' expectations of infrastructure development and, by extension, service delivery. In their CIDP report for 2018–2022, Vihiga County recorded shortcomings such as inadequate public participation and funding, delays in receiving funds from the national government, and incomplete infrastructure development. It is for these reasons that the researcher was prompted to investigate the impact of strategies for allocating resources on the provision of services in the Kenyan government of Vihiga County.

2.1 Physical Resource Allocation Strategies and Public Service Delivery

Physical resources are the necessary and tangible infrastructural items that enable a business to function (Barney, 1991). They refer to all the tangible resources useful in the operations of a business and necessary for the firm's production and service-based requirements. Obvious and dispensed assets emphatically add to the viable running of the association and straightforwardly affect the degree of efficiency and execution (Stacey, 2011). Resources include machinery, which is characterized by high purchase costs; materials, which are used in the production of new items for sale; and computer equipment, along with well-trained customer care staff to facilitate service delivery.

Njagi et al. (2018) reported that a large portion of the wellbeing offices in the Chittoor region of Andhra Pradesh in India needed drug supplies, symptomatic gear, and other clinical gadgets, prompting a horrible showing of public medical clinics. The hospitals' poor performance was caused by inadequate funding for supplies, physical resources, and equipment maintenance. According to Chatterjee and Wernerfelt (1991), the significance of effective resource management lies in ensuring that the organization has the appropriate resources in the appropriate location at the appropriate time so that its project can proceed as planned.

Sadiq (2019), in his study, affirmed that reasonable correspondence diverts are expected to improve and keep up with responsibility for every single pertinent administrator and functional worker. Those organizations that embrace data and innovation allot their assets fittingly admirable, which subsequently greatly improves correspondence. The relevant managers and operational employees can easily account for changes that occur during the processes. Employees can track implementation, performance goals, and accomplishments courtesy of technology. Framework runs the applications for interaction exchanges and client information that yield market bits of knowledge and upholds the insightful apparatuses that assist leaders with pursuing and conveying opportune choices. In his study, Maitho (2017) sought to determine the connection between the quality of customer service and the level of ICT adoption. He confirmed that client satisfaction increased and staff procurement became faster as a result of ICT adoption. Ougo (2010) investigated ICT as a strategic approach to service delivery in the Ministry of Home Affairs and the Office of the Vice President. He confirmed from respondents that, in comparison to the days of manual processes, ICT had improved service delivery to both internal and external customers.

Some functions that were previously managed by the national government are now overseen by county governments, including the provision of health care, pre-primary education, and road maintenance. They get a portion of public income, which is used to further develop foundations in their regions. A review led by Clarion in Vihiga District under the GIZ Wellbeing Area Program was delivered by Straightforwardness Worldwide (Transparency International, Kenya, 2019). The results of the survey showed that poor service delivery in the health sector was caused by the county's lack of public participation, inadequate infrastructure, and insufficient staffing. By examining the effect of physical resource allocation strategies on the delivery of public services in the Vihiga County government in Kenya, the researcher set out to investigate the beneficial output of the county's physical resources.

IV. RESULTS & DISCUSSION

2.1 Physical Resource Allocation Strategy and Public Service Delivery

In our literature review, Barney (1991) confirmed that physical resources refer to all the tangible resources useful in the operations of a business and necessary for the firm's production and service-based requirements. Chatterjee and Wernerfelt (1991) advised that the significance of effective resource management lies in ensuring that the organization has the right resources in the right place at the right time so that the project can proceed as planned. It was on this understanding that the results in Table 1 were obtained from respondents to represent their varied opinions

against each indicator based on a 5-point likert scale where: S/D = Strongly Disagree, DIS = Disagree, NUE = Neutral, AG = Agree, S/A = Strongly Agree.

Table 1
Physical Resource Allocation Strategy and Public Service Delivery

	Indicator	S/D	DIS	NEU	AG	S/A
		%	%	%	%	%
1	Government and other development partners allocate adequate resources to the county	14.7	34.1	10.1	18.9	22.1
2	County Government has adequate Machines and Equipment	16.1	31.3	12.0	19.4	21.2
3	Adequate technological infrastructure is in place	9.7	14.3	17.1	30.9	28.1
4	Adequate resource allocation enhances public service delivery	17.5	16.1	9.2	27.2	30.0
5	Appropriate technological infrastructure improves public service delivery.	6.9	9.2	13.8	35.5	34.6
6	Physical resource allocation is always based on priority	18.9	14.3	20.3	25.8	20.7
7	Efficient use of public resources adhered to when implementing projects.	29.0	30.0	7.8	19.4	13.8
8	Principles of public expenditure are adhered to during project implementation.	25.3	28.1	18.4	15.2	12.9
9	Adherence to principles of public expenditure enhances public service delivery.	8.8	12.0	13.8	34.1	31.3
10	Use of physical resources is strategically managed and monitored	14.7	34.1	10.6	18.4	22.1

The purpose of the first indicator was to ascertain respondents' perceptions regarding the extent to which the government and other partners in development finance infrastructure development. The majority of respondents, 48.8%, were not in agreement or strongly disagreed that the government and other partners in development allocate sufficient funds to finance infrastructure development. However, 41% agreed or strongly agreed, while 10.1% were neutral. This is an obvious sign that in the Vihiga region government, assets are not satisfactory, which adversely influences successful help conveyance. This confirms the observations by Mohammed (2018) that there was an inadequacy of allocated resources to meet citizens' requirements in the counties.

The majority of respondents (47.4%) disagreed or strongly disagreed with the claim that the county government has sufficient machinery and equipment to provide citizens with effective service. Nonetheless, 12% of the respondents were nonpartisan, while 40.6% concurred or unequivocally concurred. This indicates that the government of Vihiga County lacks adequate machinery and equipment, which may significantly hinder efficient service delivery. This confirms Clarion's (2018) findings in his study under the GIZ Health Sector in Vihiga County, where he advised of the lack of machines and hospital equipment as a serious shortcoming.

The concentrate likewise looked to understand what the respondents saw in the inquiry: that sufficient mechanical foundation is set up for the execution of provincial administrations. The majority of respondents (59%) agreed or strongly agreed that the technological infrastructure for implementing county services is adequate. However, 24% disagreed or strongly disagreed, while 17.1% were neutral. According to Sadiq (2019), technological infrastructure runs the applications that process transactions and supports analytical tools that help in making timely decisions. The results herein suggest that the county government has, to a large extent, established the technological infrastructure necessary for efficient service delivery. However, the 24% who disagreed pointed out that the infrastructure is still insufficient and requires additional resources.

The respondents were also asked if proper allocation of physical resources improves the delivery of public services. The majority of respondents, 57.2%, agreed or strongly agreed that proper allocation of physical resources improves service delivery to the public. While 33.6% of respondents disagreed or strongly disagreed, 9.2% were neutral. This suggests that service delivery would improve if the county were given sufficient physical resources. The World Bank (2013) opines that devolution was set up to improve services to the citizens in the counties, and therefore 57.2% leaves a lot of room for improvement. Additional funding and, by extension, an increase in service delivery equipment may satisfy the 33.6% who disagreed with this indicator.

The study also wanted to know if the availability of appropriate technological infrastructure improves the delivery of public services. The greater part (70.1%) of the respondents concurred or firmly concurred that the accessibility of suitable innovative foundations further develops public help conveyance. Nonetheless, 13.8% were impartial, while 16.1% differed or emphatically disagreed. This suggests that county governments' service delivery would greatly improve if the government provided sufficient funding for technological infrastructure. This confirms findings by Ougo (2010) that ICT infrastructure improved service delivery in the Office of the Vice President and Ministry of Home Affairs.



The distribution of the indicator that physical resource allocation is always based on priority was also determined by the results. The greater part (46.5%) of the respondents concurred or firmly concurred that actual asset allotment is constantly founded on need. However, 33.2% disagreed or strongly disagreed, while 20.3% were neutral. This means that, generally, actual asset allotment does not depend on need. This may indicate that resources are misallocated to undesirable areas, necessitating poor service delivery. The county should therefore operate within the advice of Rogers and Garrick (2006), who concluded that resource allocation should be provided in an open and consistent framework of budgetary decisions that enhances accountability.

Concerning the question of whether powerful and productive utilization of public assets is tied to the execution of any undertaking, The greater part (59%) of the respondents disagree or emphatically disagree that compelling and productive utilization of public assets is stuck to in the execution of any task. However, 33.2% agreed or strongly agreed, while 7.8% were neutral. This demonstrates that, by and large, assets are not utilized proficiently, necessitating wastages that may have been seen by the individuals who dissent, prompting unfortunate help conveyance. Njagi et al. (2018) found that despite the inadequacy of funds, management may play a critical role by channeling available resources to priority areas to improve performance.

Concerning the question of whether principles of public expenditure are adhered to when county projects are implemented, the majority of respondents (53.4%) strongly disagreed or disagreed that principles of public expenditure are adhered to when all county projects are implemented. Nonetheless, 18.4% were unbiased, while 28.1% of the respondents concurred or unequivocally concurred. This suggests that numerous public use standards are spurned, and thus the consumption may not be in accordance with normal residents' prerequisites.

The outcomes likewise resolved the conveyance of the marker that adherence to standards of public use in the execution of all district projects improves public help conveyance. The majority of respondents (65.4%) agreed or strongly agreed that all county project implementations benefit from adhering to principles of public expenditure. However, 20% disagreed or strongly disagreed, while 13.8% were neutral. This suggests that assuming the area government was to stick to the standards of public use, administration conveyance would extraordinarily move along.

The outcomes additionally resolved the dispersion of the pointer that utilization of actual assets is decisively overseen and observed. The majority of respondents, 48.8%, were in agreement or strongly agreed that physical resource use is strategically managed and monitored. Nonetheless, 10.6% of the respondents were impartial, while 40.5% concurred or emphatically concurred. This means that there is close checking and key administration of actual assets. Taking into account the individuals who differ, there is a need to lessen wastage and assign assets to additional essential regions. The World Bank (2015) confirmed that devolved services faced challenges in implementation due to poor accountability frameworks that reduce transparency and public trust. The county should therefore be advised to strictly adhere to policy documents at all times when implementing their projects.

2.2 Dependent Variable - Public Service Delivery

Service delivery involves the provision of essential services that meet the needs and requirements of an organization and ensure satisfactory experiences for all clients (Prakash, 2015). Nkpurukwe et al. (2020) conducted an investigation on direct marketing strategy and effective customer service delivery in Nigeria and concluded that service delivery is evidenced by the reliability of service agents in the organization. The survey in Vihiga County relating to public service delivery reflected results as indicated in Table 2. This was also based on a 5-point likert scale where: **S/D = Strongly Disagree; DIS = Disagree; NEU = Neutral; AG = Agree; S/A = Strongly Agree.**

Table 2

Results for the Dependent Variable - Public Service Delivery

	Indicator	S/D	DIS	NEU	AG	S/A
1.	Citizens receive public services at minimal costs	22.6	26.7	8.8	23.5	18.4
2.	Services provided within the required timelines	13.8	17.1	8.8	32.3	28.1
3.	Service delivery according to expectations of consumers	15.2	27.2	9.2	30.0	18.4
4.	Service delivery is non discriminatory	13.4	12.9	8.8	30.4	34.6
5.	There has been improvement in public service delivery	18.4	21.7	9.2	23.0	27.6

The first indicator of the control activities sought to find out the perception of the respondents that the citizens within the county receive public services at minimal costs. The majority (49.3%) of the respondents disagreed or strongly disagreed that the citizens within the county receive public services at minimal costs. However, 8.8% were neutral, while 41.9% agreed or strongly agreed. The results indicate that there could be wastages that cause services not to be

provided at minimal costs. The county government should therefore look for ways of reducing such waste for the purpose of improving service delivery.

The second indicator of the variable sought to find out the respondents' perception that services to citizens within the county are provided within the required timelines. The majority (60.4%) of the respondents agreed or strongly agreed that services to citizens within the county are provided within the required timelines. However, 8.8% of the respondents were neutral, while 30.9% disagreed or strongly disagreed. This indicates that Vihiga County Government is above average in providing services within the required timelines, though some services still take longer than anticipated, which should now be improved.

The third indicator sought to establish whether service delivery was according to the expectations and needs of consumers. The majority (48.4%) of the respondents agreed or strongly agreed that service delivery is done according to the expectations and needs of consumers. However, 9.2% were neutral. 42.4% disagreed or strongly disagreed. If those who agree do not exceed 70%, it is clear that, to a large extent, service delivery is not done according to consumers' expectations, which calls for quick action in order to improve service delivery.

Respondents' opinions were sought on whether service delivery is non-discriminatory. The majority (65%) of the respondents agreed or strongly agreed that service delivery in Vihiga County is nondiscriminatory. However, 8.8% were neutral, while 26.3% disagreed or strongly disagreed. This implies that, to a greater extent, service delivery in Vihiga County is non-discriminatory. However, a low degree of discrimination is witnessed, as evidenced by those who disagree.

As to whether there has been overall growth and improvement in public service delivery in the county, the majority (50.6%) of the respondents agreed or strongly agreed that there has been overall growth and improvement in public service delivery in the county. However, 9.2% were neutral, while 40.1% disagreed or strongly disagreed. This implies that the Vihiga County government has made good efforts to improve public service delivery. Considering the 40.1% who disagreed, efforts should therefore be made to strengthen strategies in order to achieve high customer service effectiveness, as recommended in the study by Nkpurukwe (2020).

The World Bank (2012) confirmed that a devolved system of government is a way of ensuring efficient service delivery to citizens. Maina (2017) concluded in his study that budgeting, stakeholder participation practices, and regulatory practices had a positive effect on service delivery. Vihiga County should therefore strictly adhere to policy guidelines in addition to holding regular public review meetings to address issues that negatively affect their performance in service delivery.

2.3 Inferential Statistics

The study went on to perform a regression analysis to ascertain the connection between strategies for allocating physical resources and the delivery of public services. The correlation matrix showed an r of 0.621, indicating that Vihiga County government's public service delivery is significantly influenced by physical resource allocation strategies. Table 3 shows the results of the coefficients:

Table 3
Regression Coefficients

Model	Unstandardized Coefficients		t	Sig.
	β	Std. Error		
(Constant)	.492	.067	7.314	.000
Physical Resource Allocation (without government regulation)	.649	.083	7.819	.001
Physical Resource Allocation (with government regulation)	.670	.144	4.236	.010

The regression model's estimates of the regression coefficient shown in the table reflect the significance with $\beta = 0.649$, p -value = 0.01, and $t = 7.819$. The coefficient estimate's P -value is less than 0.05, indicating significance at the 95% confidence level. According to this significant estimate, the levels of the public service delivery index without government regulation would rise by 0.649 units if physical resource allocation strategies were increased by one unit in county government. However, with government regulation, the coefficient gauge of actual physical resource distribution is $\beta = 0.670$, $t = 4.236$, and p -value = 0.010. The coefficient estimate's P -value is less than 0.05, indicating significance at the 95% confidence level. According to this significant estimate, the public service delivery index would rise by 0.670 units for county governments subject to government regulation if the levels of physical resource allocation strategies increased by one unit. Therefore, the study adopted the alternative hypothesis that physical resource allocation strategies significantly influence public service delivery in Vihiga County government rather than rejecting the null hypothesis

that physical resource allocation strategies have no significant effect. Therefore, this study concurs with Kimilu (2020) that policy formulation and reviews ought to be addressed and carried out in order to achieve high-quality service delivery in this county.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The hypothesis that strategies for allocating resources positively influence the delivery of public services served as the basis for this study. The theoretical and empirical literature was examined, and a conceptualization of the connection between strategies for allocating resources and the provision of public services was carried out. The specific objectives provided direction for the empirical testing of the hypothesized relationship. The effect of physical resource allocation strategies on public service delivery in Vihiga County, Kenya, was the study's primary objective. Results for the relapse model show a R-square of 0.649 with unofficial laws and 0.670 with official laws, suggesting that 64.9% of the variety of openly administered conveyance is made sense of by the model assuming there are no administration guidelines and 67% of the variety of openly administered conveyance is made sense of by the model assuming that there are official laws. These results confirm that when physical resource allocation strategies improve, public service delivery also improves. Physical resource allocation strategies improve when the government and other development partners allocate adequate resources to finance infrastructural development, including the supply of adequate machines and equipment, adequate technological infrastructure, and adherence to principles of public expenditure when implementing all projects. Through these results, the researcher has established and therefore concluded that there exists a positive and significant relationship between physical resource allocation strategies and public service delivery in Vihiga County Government.

5.2 Recommendations

In light of the study findings, the government and other development partners should ensure adequate allocation of resources to finance infrastructure development, machines, and equipment. In addition, there should be adequate technological resources for monitoring the provision of services and financial management, and county governments should strictly adhere to principles of public expenditure when implementing projects so that funds allocated to counties may offer maximum social benefit.

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Product Innovation and Competitiveness of Commercial Banks in Kenya

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ABSTRACT

The dynamics of change in the business environment catalysed by globalization, changing consumer preferences, and a whirlwind of technological development have exerted immense pressure on commercial banks to introduce up-to-date products and services for sustainability. Product innovation has thus become a vital tool for survival and development. This study examined the influence of product innovation on the competitiveness of commercial banks in Kenya. The theory of creative destruction served as the study's guide. The study utilized a positivist research philosophy. Descriptive and correlational research designs were used. The target population consisted of 175 directors and general managers of Tier 1 commercial banks. Stratified and simple random sampling was then employed to select 122 respondents. Primary data was collected using closed and open-ended questionnaires. A pilot study was done on Equity Bank. To test validity, the study used content and construct validity. The study utilized descriptive and inferential analysis. Descriptive analysis included the use of frequencies, percentages, mean, and standard deviation, while inferential statistics employed correlation and simple linear regression analysis. Data collected from open-ended questionnaires was analysed using content analysis. The results were presented in tables. The study found that product innovation had a positive and significant influence on the competitiveness of commercial banks in Kenya ($t = 0.6438$, $P = 0.000$). The study thus recommends that commercial banks embrace product innovation as a tool to achieve competitiveness. Product innovation should be enhanced by carrying out regular surveys, seeking client views in the development of mobile and internet product innovations, and training clients on the usage of mobile and internet banking products before onboarding.

Keywords: Commercial Banks, Competitiveness, Product Innovation, Kenya

I. INTRODUCTION

The global practice of banks is to stimulate the economic growth of nations by increasing operating revenues, deposits, and credit facilities (Sarji, 2017). Across the world, however, banking institutions continue to face stiff competition due to changing market dynamics, consumers' socioeconomic conditions, and constant technological developments (McKinsey Global Banking Annual Review, 2022). The resurgence of geopolitical instability and the lasting long-term disruptive impacts of the COVID-19 pandemic are also cited as reasons for the challenges being experienced by the global financial industry in the research. According to the report, even though revenue and margins increased as a result of higher interest rates, margin expansion only resulted in returns above the cost of equity for 35% of banks globally, while the remaining 50% will continue to do so in 2022. This puts banks' performance last when compared to market valuations for various industry sectors. According to the McKinsey Global Banking Annual Review (2022), banks need to be innovative to improve their short-term resilience and longer-term opportunities in order to be competitive.

Locally, the Kenya Bankers Association (KBA) report of 2021 indicates that the cost-to-income ratio, a measure of a bank's efficiency, substantially edged upwards to 74.1 percent in 2020 from 60.2 percent in 2019. According to Central Bank of Kenya reports, this pushed some banks into mergers and acquisitions in a bid to achieve economies of scale, while others were edged out (CBK, 2016; CBK, 2022). CBK's financial stability report for July 2022 notes that just as banks had begun to post double-digit profit growth in the six months prior to June 30, with the majority announcing the resumption of dividend payments to shareholders following the COVID-19 pandemic, the lenders are

confronted with a new crisis precipitated by the deteriorating economic climate and the ongoing Russia-Ukraine military conflict. The industry is nevertheless struggling in the face of a slowing economy (growth in the second quarter was 5.2%, down from 11.0% in the same period last year), rising prices, and a depreciating currency (the shilling) compared to the US dollar (CBK, 2022).

The report further indicates deteriorating asset quality, with gross nonperforming loans (NPLs) increasing from 14.0 percent in June 2021 to 14.7 percent in June 2022, much weaker than the regional average. This means a slash in revenues, as interest income forms the largest portion of bank revenues. Amidst the increasing sophistication of customer expectations, the dynamism in the regulatory environment, and the uncertainty in the business environment, the overarching challenge to the industry is the need to build successful innovative strategies that will enhance competitiveness (The Lab, 2017; Global Banking Annual Review, 2022). When comparing an organization's abilities and performance to those of others in its industry, both domestically and abroad, a measure of its competitiveness is its ability to provide products and services that meet high quality standards at competitive prices (Nuryakin, 2018).

It details the resources the organization has on hand that will give it an edge over rivals (Emad et al., 2017; Global Banking Annual Review, 2022). Biemans et al. (2016) concluded that product innovation is an important factor in formulating strategies for penetrating untapped markets and increasing overall competitiveness. Daneels and Kleinsmith (2016) note that product innovation is an indicator of originality. Product innovation in the banking industry entails offering new features with the intention of increasing customer happiness. These new features should be well-designed and offer improved usefulness and value. The competitiveness of batik SMEs in Indonesia was found to be highly impacted by product innovation by Nuryakin (2018). Businesses can improve their cost-cutting, value-adding, customer service, agility, and speed by investing in product innovations (Abdallah et al., 2016; Ejike, 2018; Ngango, 2015; M'kuma, 2015).

1.1 Statement of the Research Problem

Banks constantly strive to outpace their competitors by expanding their market share, earnings, efficiencies, and asset bases (Ejike, 2018). However, stiff competition brought by rapid technological advancements and increased financial legislation has reduced the revenue sources for banks, hence their competitiveness (Sarji, 2017; KBA, 2021; CBK, 2018; McKinsey Global Banking Annual Review, 2021). The sector thus needs to take on the dynamism of the environment through strategic innovation (Osano & Koine, 2016). Companies that have embraced product innovation load themselves with competitive benefits as they are more efficient, tend to respond to customer needs quickly, and are likely to achieve larger market shares (Ngango, 2015; Sarji, 2017; Ejike, 2018).

Even though commercial banks have explored product innovation as a strategy to boost competitiveness, the focus has been on price and quality. These traditional methods of gaining competitiveness, however, seem not to yield much (Sarji, 2017). With the dynamism in the industry, banks should seize the opportunities granted by current technologies to provide mobile and internet solutions that offer convenience (Guerra & Camargo, 2016). Additionally, although commercial banks are actively engaged in evaluating their competitiveness, the focus has been on financial indicators. Financial indicators, however, mostly assess the firm in the short term (Mashovic, 2018, Ahmad & Zabri, 2016). To reduce the shortcomings of financial measurement, the study utilized non-financial indicators to evaluate the competitiveness of commercial banks in Kenya. These are gaps that this study sought to fill as it examined the influence of product innovation on the competitiveness of commercial banks in Kenya.

1.2 Research Objective

The purpose of this study was to examine the influence of product innovation on competitiveness of Commercial Banks in Kenya.

1.3 Research Hypothesis

Ho₁: Product innovation has no significant influence on competitiveness of Commercial Banks in Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Literature Review

2.1.1 Creative Destruction Theory

The Austrian economist Joseph Schumpeter was the first to coin the term creative destruction. According to Schumpeter, creative destruction referred to innovations in the manufacturing process that increased productivity. Schumpeter (1942) defined innovations as the process of industrial mutation that perpetually revolutionizes the economic structure from the inside, perpetually destroying the old one and perpetually establishing a new one. Products, processes, markets, supply chains, and even entire industry structures are all examples of innovations that direct money

and other assets toward meeting customers' demands. Schumpeter (1942) maintains that when a profitable opportunity presents itself and an innovative firm seizes it, other firms will follow suit (Schumpeter, 1942).

As a result, the market responds by imitating the pioneers, making it difficult for them to maintain profitability and remain competitive (Mulatu, 2016). As established companies lose their competitive edge and profit margins fall, the value of the new product or service is diminished. The business cycle reaches equilibrium as imitation increases and market growth slows, and it remains there until another innovation comes along and displaces it (Schumpeter, 1942). Therefore, successful businesses must constantly innovate in order to stay competitive and weather the inevitable winds of creative destruction. Schumpeter's contribution to creative destruction economics has been anchored on the notion of building human innovative and entrepreneurial intellectual capacity, requiring novel ways of doing things in tandem with emerging innovations to sustain competitiveness (Kao et al., 2015; Lestari & Ardianti, 2019; Liao et al., 2019).

The notion of creative destruction is applicable to this investigation because new technologies and methods of production cause the old ones to become obsolete thanks to the relentless pursuit of improvement in R&D by enterprising individuals. Newer and better items eventually replace the older ones. The key to being competitive in today's market is, therefore, to encourage product innovation in the face of rapidly evolving technologies (Ardolino et al., 2018; Bhatnagar & Kumar, 2017; Tuan et al., 2016). Most banks are no longer relying on the ancient traditional banking medium where transactions and products used to happen in the brick-and-mortar space, but today, because of technological advancements, transactions and products have gone online (Central Bank of Kenya, 2018). For instance, the advent of 24/7 banking services like ATMs, mobile banking apps, and online banking has increased the volume of transactions processed daily and hence the revenue generated from transaction fees.

Additionally, ATMs, mobile banking, internet banking, and loan service automation, among others, have enhanced the efficiency of banks by reducing administrative costs and improving service delivery to customers (Central Bank of Kenya, 2018). Several writings have underscored the role of creative destruction in sustained competition (Cozzi et al., 2017; Jackson, 2020; Kopp, 2019; Langroodi, 2017). Mohammad (2018) further suggests that product innovation ventures that integrate Information Technology (IT) intensify competitiveness, and those immense outlays in market innovation grow market share. Besides, innovation in Information Communication and Technology (ICT) offers strategic benefits to banks through improvements in market capability (through the discovery of untapped markets), resource allocation capability, learning capability, and strategic planning capability (Gathu, 2017).

2.2 Conceptual Review of Variables

2.2.1 Product Innovation

Introducing new services and products to the market that improve upon their previous iterations in terms of performance and utility is an example of product innovation (Nuryakin, 2018). Su and Tang (2016) defined product innovation as "the presence of originality or a degree of invention". Product innovation, according to the Oslo Manual (Organization for Economic Cooperation and Development/OECD, 2005), is the introduction of a good or service that is new or significantly better in terms of its characteristics or planned functions. Evidence suggests that businesses that have a product-based competitive advantage over their rivals—whether through innovation, quality, packaging, or design—perform better than their peers (Batiz-Lazo & Woldesenbet, 2019; Dong et al., 2016). In a similar vein, Nuryakin (2018) argues that productivity increases along with product innovation.

Biemans et al. (2016) affirm that product innovation is one of the most important instruments for designing strategies to break into new markets, break into the existing profit-enhancing market, and provide enterprises with a competitive edge. Businesses respond to customers' ever-evolving wants and demands by innovating new products (Gast, 2018). New technologies (Filho & Moori, 2017) or improved material components (Nataya, 2018) can be used to innovate products by significantly altering their characteristics and use. The goal of product innovation in the banking industry is to increase customer satisfaction by providing new, high-quality services with more features and benefits (Kong & Masud, 2019). Current examples of electronic product advances in the banking sector include internet banking and mobile banking (Chong et al., 2016).

2.2.2 Competitiveness

Competitiveness is a complex concept that describes a company's ability to survive in a competitive environment by offering high-quality products and services at competitive prices, both nationally and internationally, relative to the capabilities and performance of other companies in their industry (Murphy, 2016). It focuses on the stock on hand that will give the company an edge in the market (Emad et al., 2017). In order to stay ahead of the competition and secure their market position, successful businesses are increasingly investing in innovation (Pedraza, 2014). Internal firm variables like strategy, structure, skills, innovation capacity, and other tangible and intangible resources are highlighted as crucial to a company's competitive performance (Kamasak, 2017).

A company can only remain competitive by continuously innovating when it uses its own resources and seizes chances from the outside to provide higher value for clients and unmatched revenues for itself (Anning-Dorson, 2018). Non-financial performance measures have been used to suggest competitiveness (Ahmad & Zabri, 2016). These indicators include market share, productivity and efficiency, customer happiness, customer retention, and customer response. According to Porter's (1985) theory of competitive advantage, there are two main factors that contribute to a company's ability to perform at a high level: (1) a low-cost advantage, which boosts efficiency; and (2) a differentiation advantage, which can increase customer responsiveness and market share. Efficiency, market share, and customer responsiveness were examined as facets of competition.

2.3 Empirical Literature Review on Influence of product Innovation on Competitiveness of Firms

Nuryakin (2018) explored the role of product innovation in the competitive advantage of batik SMEs in Indonesia. The sample was drawn from batik SMEs in Central Java province. The respondents were managers or owners of Batik SMEs totaling 200. Data was gathered using the purposive sampling technique. The study relied on primary data acquired from 539 respondents. Purposive sampling was used to choose the middle and top managers of shoe and garment enterprises. The results indicated that product innovation significantly affected the competitive advantage of Batik SMEs. The study utilized a nonprobability technique (purposive sampling) for data collection. The present study used probability sampling techniques that allow populations with equal chances to be selected, resulting in better generalizability due to its objective choice of respondents.

Onafadeji and Adeniran (2021) investigated the relationship between product innovation and sales growth of selected shoe and clothing enterprises in Ibadan, Nigeria, utilizing a sample of shoe and clothing businesses. Six hundred and fifty-seven (657) managers from various shoe and clothing companies were chosen using a purposive sampling method. There were a total of 539 participants in the study, and their responses served as the major data source. Data was coded, calculated, and processed using SPSS version 20 to produce descriptive and inferential findings. The analysis of the correlation between product innovation and sales growth showed a strong positive cause-and-effect relationship. The research design was a case study. Findings from a case study are usually hard to generalize. The present study, on the other hand, involved all commercial banks in Tier 1 in Kenya, as such findings can easily be generalized.

Moses and Osunsan (2018) investigated the impact of product innovation and price on the competitive advantage of beer products in Kabale, Uganda. The study collected primary data by distributing and collecting self-administered questionnaires from 1,783 producers, wholesalers, retailers, and consumers of alcoholic beverages from 84 hotels, restaurants, and taverns in Kabale District, Uganda. The study collected data from a sample of 324 respondents using basic random and purposive sampling techniques. Analysis using multiple regression revealed that product innovation had a significant impact on the competitive advantage of beer products and producers in Kabale. Purposive sampling, a non-probability sampling method, was used to select respondents for the study. This investigation employed probability sampling techniques such as stratified sampling and simple random sampling. Probability sampling reduces the likelihood of sampling bias that can affect a research population by utilizing random selection.

Owiti (2019) investigated the impact of product innovation on Safaricom PLC's competitive advantage in Kenya's telecoms market. The research method used in this study was a descriptive survey, and the participants were a random sample of Safaricom's Nairobi clientele. A total of 380 Safaricom subscribers living in the Westlands, Kilimani, Kileleshwa, Langata, Pipeline, Embakasi, Roysambu, and Imara Daima areas of Nairobi were polled. Participants were selected using cluster and stratified random sampling methods of probability sampling. Primary data was gathered through the use of questionnaires, and descriptive and inferential statistics were utilized to examine the results. The study's results showed a positive correlation between product innovation and market share, therefore, boosting product innovation should boost market share as well. In contrast to the present study's focus on employees, the first study's participants were consumers. Management staff members, by virtue of their positions, comprehend the impact of innovation tactics adopted by their companies more thoroughly than customers.

Unlike Owiti (2019), who focused on the telecommunications sector, the present study focused on banks. Contrary to the above reviewed literature indicating a significant and positive relationship between product innovation and competitiveness, other studies found different results. Issau et al. (2021) analysed the effect of product innovation on performance in Ghana. The population consisted of 3,485 SMEs (small and medium-sized enterprises) owners or administrators. For the purpose of the investigation, a cross-sectional design and a quantitative methodology were employed. Using simple random sampling, 346 respondents were chosen. The results indicated a weak positive correlation between product innovation and the performance of SMEs. While Issau et al. (2002) focused on small and medium-sized enterprises, this study involved large commercial banks. Major strategic innovations occur in large banks as their capital base is huge and thus adequate to support innovation activities as compared to SMEs.



III. METHODOLOGY

The study finds positivism relevant because it is concerned with assumptions made about what constitutes acceptable, valid, and legitimate knowledge, as well as how we can communicate such knowledge. The research employed descriptive and correlational approaches. The goal of descriptive research is to understand the emotions and preferences of a large population. The correlational design was helpful for establishing the relationship between the independent variables. In addition, 175 middle management employees (directors and general managers) in the finance industry were the focus of the study. The research focused on eight tier I banks, namely Kenya Commercial Bank (KCB), Cooperative Bank, National Commercial Bank of Africa (NCBA), Standard Chartered (Stanchart), Amalgamated Banks of South Africa (Absa), Stanbic Bank (SBK), Diamond Trust Bank (DTB), and Investments and Mortgages (I&M). The population was stratified using stratified sampling, a probability sampling method (Saunders et al., 2016).

The population in this investigation was divided into two strata: directors and general managers. Totalling 175 respondents, the study targeted 74 directors and 101 general managers. Further, a simple random sampling technique was used to ensure that each member of the sampled department had an equal chance of being chosen (Zikmund et al., 2013). The sample size, calculated using the Yamane (1967) formula, was 122 respondents. The primary source of primary data for this study was questionnaires with closed and open-ended questions. The content and construct validity of the research instrument were evaluated in this study. At Equity Bank, a pilot study was conducted, and Cronbach's alpha was used to assess the instrument's reliability. The data were then codified and analysed, and the results were presented in tables. Both descriptive and inferential statistics were utilized to analyse the data. Descriptively, the study used frequency, percentage, mean, and standard deviation, while inferentially, it used Pearson correlation and simple linear regression. The simple regression analysis model used is as below:

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Where;
 Y= Competitiveness
 β_0Constant
 β_1 = Slopes of regression for the independent variables
 X_1 = Product innovation
 ϵ =Error term

Content analysis was used to analyze the data collected from the open-ended questionnaire, where the data was arranged into themes.

IV. FINDINGS AND DISCUSSIONS

4.1 Response Rate

This study had a very good response rate of 94.3%. The efficient data collection methods were given credit for the high response rate.

Table 1
Response Rate

	Count	Percentage
Administered	122	100
Returned	115	94.3
Not Returned	7	5.7

4.2 Reliability Results

Cronbach's alpha was used to determine the reliability of each variable, finding that product innovation was within a range of 0.722 and that competitiveness within a range of 0.756. All variables depicted that the value of Cronbach alpha are above the value of 0.7 after improving on the instrument for product innovation, thus the data collection instrument is reliable (Mugenda & Mugenda, 2013).

4.3 Descriptive Statistics Results

The presentation of descriptive statistics is founded on the frequencies, percentages, means, and standard deviations of the variables under consideration.

4.3.1 Product Innovation

Respondents were asked to indicate their level of agreement by ticking the given statements on product innovation. The results are as shown in Table 2 below.

Table 2
Product Innovation

No.	Product Innovation	Percentage (Frequency)					Mean	SD
		5	4	3	2	1		
1	The bank regularly carries out surveys on internet and mobile banking products consumed by its clients	32.2% (37)	54.8% (63)	10.4% (12)	2.6% (3)	0% (0)	4.2	0.7
2	Internet and mobile banking has improved service delivery for our clients	43.5% (50)	53% (61)	0.9% (1)	2.6% (3)	0% (0)	4.4	0.6
3	Clients are trained on how to use mobile and internet banking before they are on boarded on the platforms	24.3% (28)	60.9% (70)	13% (15)	1.7% (2)	0% (0)	4.1	0.7
4	Employees suggestions are sought for before new products are designed	22.6% (26)	53.9% (62)	14.8% (17)	7.8% (9)	0.9% (1)	3.9	0.9
5	Employees undergo training for the new or significantly improved products before they are launched	26.1% (30)	60.9% (70)	9.6% (11)	3.5% (4)	0% (0)	4.1	0.7
6	Mobile and internet banking have stable network	13.9% (16)	70.4% (81)	14.8% (17)	0.9% (1)	0% (0)	4.0	0.6
7	Mobile banking and internet product innovations were developed by my bank and other institutions/partners.	39.1% (45)	46.1% (53)	13.9% (16)	0% (0)	0.9% (1)	4.2	0.7
8	Clients' views are sought before new mobile and internet products are developed	20.9% (24)	58.3% (67)	13.9% (16)	5.2% (6)	1.7% (2)	3.9	0.8
	Aggregate Scores						4.1	0.71

Note: 1=Strongly Disagree, 2=Disagree, 3=Fairly Agree, 4=Agree, 5=Strongly Agree

The aggregate mean and standard deviation ($M=4.1$, $SD=0.71$) indicated that responses were concentrated around the mean and that respondents agreed to most of the statements in regard to product innovation of commercial banks in Kenya. The outcome shows that responses did not deviate far from the mean as it was characterized by small standard deviation. This implied that majority of respondents were of the same observation about the product innovation of commercial banks. The responses from the open-ended questions further indicated that there is proof of product innovation in different other forms which is instrumental for commercial banks to gain competitiveness in Kenya.

This was evident by several strategies employed by banks like offering variety of financial services to their customers by way of internet and mobile banking. Financial services included saving accounts, loan facilities, cash and cheque deposits among others. The responses also indicated that banks sought employee suggestions in product development. Companies with superior products over their rivals in terms of innovation, quality, packaging and product design are more competitive (Batiz-Lazo & Woldesenbet, 2019). These results confirm that product innovation influences competitiveness of banks. Onafadeji and Adeniran (2021) similarly found a strong positive and significant link between product innovation and sales growth of Shoes and Garment Enterprises in Ibadan, Nigeria.

4.3.2 Firm competitiveness

Respondents were asked to indicate their level of agreement for statements on bank competitiveness. The results are as shown in Table 3 below.

Table 3
Competitiveness

No.	Competitiveness	Percentage (Frequency)					Mean	STD
		5	4	3	2	1		
1	My organization has enjoyed reduced labor costs due to digitization	62.6% (72)	30.4% (35)	6.1% (7)	0.9% (1)	0% (0)	4.5	0.7
2	My company enjoys reduced production costs due to innovation	47% (54)	47% (54)	4.3% (5)	1.7% (2)	0% (0)	4.4	0.7
3	Innovation has greatly improved turnaround time for rendering services to customers	58.3% (67)	40.9% (47)	0.9% (1)	0% (0)	0% (0)	4.6	0.5
4	The organization customer base has continued to increase in the last 3 years	49.6% (57)	40% (46)	10.4% (12)	0% (0)	0% (0)	4.4	0.7
5	My bank's branch network has grown for the past 3 years	47% (54)	44.3% (51)	5.2% (6)	0.9% (1)	2.6% (3)	4.3	0.8
6	The use of artificial intelligence in gathering customer purchasing behavior has brought more clients to my organization	33% (38)	46.1% (53)	19.1% (22)	1.7% (2)	0% (0)	4.1	0.8
7	New products are designed from customer suggestions	41.7% (48)	37.4% (43)	18.3% (21)	2.6% (3)	0% (0)	4.2	0.8
	Aggregate Scores						4.38	0.7

Note: 1=Strongly Disagree, 2=Disagree, 3=Fairly Agree, 4=Agree, 5=Strongly Agree

The aggregate mean and standard deviation ($M = 4.38$, $SD = 0.7$) indicated that responses were concentrated around the mean and that respondents agreed to most of the statements regarding the competitiveness of commercial banks in Kenya. Results show that responses were not scattered far from the mean, as they were characterized by an insignificant standard deviation. This ordinarily means that the majority of respondents agreed that their organizations were enjoying elements of competitiveness resulting from product innovation, as shown by the following: reduced labour costs due to digitization, reduced production costs due to innovation, improved turnaround time for rendering services to customers, increased customer base in the last 3 years, growth in branch network for the past 3 years, more clients on boarded through AI, products designed from customer suggestions, and the presence of a knowledgeable customer representative, meaning banks are responsive to customer needs. These findings concur with those of Nuryakin (2018), Onafadeji and Adeniran (2021), Moses and Osunsan (2018), and Owiti (2019), who found that product innovation influenced the competitive advantage of the firms they investigated. While answering the open-ended questionnaire, some managers suggested that strategic innovations like product innovation, improved efficiency, increased market share, and customer responsiveness are therefore highly likely to boost the competitiveness of banks.

4.4 Inferential Statistics Results

4.4.1 Regression Analysis Results

Simple linear regression analysis was done to predict the effect of the independent variable on the outcome variable (competitiveness). This analysis was important in determining how well product innovation could predict competitiveness of commercial banks in Kenya.

Table 4*Regression Analysis Results for Product Innovation and Competitiveness*

Model Summary ^b							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	.705 ^a	.498	.493	.301414			
ANOVA ^a							
Model		Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	10.171	1	10.171	111.951	.000 ^b	
	Residual	10.266	113	.091			
	Total	20.437	114				
Coefficients ^a							
Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	1.662	.258			6.438	.000
	Product Innovation	.664	.063	.705		10.581	.000

a. Dependent Variable: Competitiveness

Based on the regression coefficient results, simple linear regression model equation was written as:
 Competitiveness = 1.662+0.664*Product Innovation + ϵ

From simple linear regression, model summary findings on product innovation indicated that 49.8% ($R^2=0.498$) of the variation in competitiveness of commercial banks in Kenya is significantly accounted for by product innovation ($P = 0.000$). When other variables in the model are controlled, a unit change in product innovation would result in a significant increase in the competitiveness of commercial banks in Kenya by 0.664 units ($\beta_1=0.664$, $P = 0.000$). Thus, the null hypothesis that product innovation has no significant influence on the competitiveness of commercial banks in Kenya is rejected, as product innovation positively and significantly impacts competitiveness. These findings are consistent with Emenike et al. (2018), who established that product innovation had a significant effect on competitive advantage among beer products and producers in Kabale, Uganda. These results are also supported by Nuryakin (2018) and Agaba et al. (2018), who revealed that product innovation had a positive and significant effect on competitive advantage. However, Issau et al. (2021) found a non-significant relationship between product innovation and the competitiveness of SMEs' in the manufacturing sector in Ghana.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The study found that product innovation has significant positive influence on competitiveness of commercial banks in Kenya ($\beta = 0.664$, $t = 0.6.438$, $P = 0.000$). This implies that increase in product innovation would result to increase in competitiveness of Commercial Banks in Kenya. Product innovation practices were mainly characterized by regular surveys on internet and mobile banking products consumed by clients, training of clients on how to use mobile and internet banking products before on boarding, seeking employee suggestions on new products designed, training employees on new or significantly improved products before they are launched, seeking client views in the development of mobile and internet product innovations.

5.2 Recommendations

The study recommends that firms offering banking services apply practices associated with product innovation, which include regular surveys on internet and mobile banking products, training clients on the usage of mobile and internet banking before onboarding, seeking employee suggestions before new products are designed, training employees on new products before they are launched, and seeking client views before new products are designed.

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The Moderating Role of Fund Size on the Relationship between Disposition Effect and Portfolio Financial Performance of Mutual Funds in Kenya

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ABSTRACT

Several Kenyan mutual funds' financial performance has recently been on the downturn. Overall, variations in critical criteria reveal variable economic performance over time among Kenya's mutual funds. It was crucial to assess whether the portfolio performance pattern may be attributed to behavioral investing traps. The objective of this study was to determine how the disposition effect affected the financial performance, and how closely the fund size affected the relationship between behavioral investment traps and mutual funds' performance. The research method used was a causal research design. Data from a study panel were gathered. Over an eleven-year period, from 2011 to 2021, secondary data was obtained from mutual funds' previously published financial statements. Secondary data was acquired using the data collection tool. Data analysis was done with Stata software, version 15. The unit root test, a stationarity test, was carried out. Panel data regression was applied. The use of regression analysis with fixed and random effects was also carried out. The Levin-Lin-Chu test, the Augmented Dickey-Fuller test, the Im-Pesaran and Shin tests, the Philips-Peron test, and the Hadri 2000 test were all used to evaluate the validity and reliability of the data. Jarque-Bera test was employed to evaluate normality. In the panel analysis, the random effects model and the fixed effects model were separated using the Hausman test. The variables were distributed properly, as shown by the skewedness and kurtosis tests. There was no approaching multicollinearity among the variables, according to the pairwise correlation study. The results of this study revealed that disposition effect had a negative but substantial influence on financial performance of mutual funds in Kenya with a regression coefficient of -0.5455628. The study additionally found that fund size with a probability value of 0.1560 which was not significant. This therefore shows that fund size does not have a significant effect on the relationship between disposition effect and mutual funds financial performance. The results of this study demonstrated that the disposition effect had a negative but considerable impact on the financial performance of the Kenyan mutual fund. This suggested that the financial performance of mutual funds in Kenya is subject to a sizeable yet adverse disposition effect. According to the results of the multiple regression study, the financial performance of mutual funds in Kenya was negatively but significantly impacted by the disposition effect. But when institutional investors and fund managers are dissecting financial investing decisions, they should not use behavioral investment traps in isolation. Based on the findings, stakeholders should be aware of the information that fund managers in institutional investors are not insusceptible from behavioral biases arising from behavioral finance in the financial investment decision making processes.

Keywords: Disposition effect; Mutual Funds' Portfolio Financial Performance; Fund Size; Mutual Funds; Kenya

I. INTRODUCTION

Stockholders are seen to be balanced wealth builders who also cast a shadow over theories of current financial regulations in the theory of conventional finance. The Capital Asset Pricing Theory and the Modern Portfolio Theory are the two most important concepts in security investment and decision-making processes. The results of numerous empirical studies in countless financial markets have shown that financial investment decision-making is not always based on the fundamentals of theories of modern finance, and as a result, behavioral finance studies has recently emerged as a significant model in security investment and decision-making (Ogunlusi & Obadeni, 2019; Bakar & Yi, 2016; Raut et al., 2018). In cases where there are no satisfactory answers provided by contemporary financial principles, behavioral finance attempts to explain investor behavior (Areiqat et al., 2019).



1.1 Research objectives

1.2.1 General objective

The broad objective of this research was to find out the influence of disposition effect on the mutual funds' portfolio financial performance in Kenya using fund size as the moderating role.

1.2.2 Specific objectives

- i) To explore the effect of disposition effect on portfolio financial performance of mutual funds in Kenya.
- ii) To examine the moderating effect of fund size on the relationship between disposition effect and portfolio financial performance of mutual funds in Kenya.

1.3 Research hypotheses

The research was guided by the following hypotheses.

H₀₁: disposition effect does not significantly affect portfolio financial performance of mutual funds in Kenya.

H₀₂: Fund size does not significantly moderate the correlation between disposition effect and portfolio financial performance of Kenyan mutual funds.

II. LITERATURE REVIEW

A relatively recent development in asset investment decision-making is behavioral finance. For an extended period of time, many investors, mostly seasoned investors, have repeated on the idea that psychological factors can significantly explain market behavior. According to Karanja (2017), this arrangement appears to increase knowledge and understanding of investor behavior, including decision-making processes for asset investments in securities.

The fictitious literature review provided some ideas related to the financial investing performance of mutual funds. The Modern Portfolio Theory (MPT), Prospect theory, the Efficient Market Hypothesis (EMH), and the Capital Asset Pricing Model (CAPM) were some of the advanced theories.

2.1 Theoretical Literature Review

2.1.1 Prospect Theory

According to Tversky and Kahneman's prospect hypothesis, which they proposed in 1979, investors interpret gains and losses differently, giving apparent gains more weight than perceived losses. According to prospect theory, if given an equal choice, an investor will pick the option that offers the potential for gains over the option that offers the potential for loss. These theories assert that the best risky prospects exhibit a wealth of distinct characteristics that contradict the predictions made by modern portfolio theory; stockholders frequently undervalue issues that are most likely in conflict with conclusions that are realized with great confidence, leading to risk aversion in decisions involving unquestionable successes and risk undertaking in decisions involving certain losses. According to Rossi (2018), prospect theory summarizes distinct situations of information that are anticipated to influence institutional and individual investment decision-making processes. Investors' behavioral characteristics are interpreted according to their mental states while they consider making investments and modifying the securities in their portfolio (Kahneman & Tversky, 1979).

One criticism of the prospect theory is that its psychological reasons for the development it discusses are lacking. The criticism comes from other psychologists who note that the model is deficient in features like sentimental retorts and human emotional characteristics, which are crucial in the decision-making processes for financial investments. The bordering hypothesis, which explains why players create the frames they do, is another aspect of the theory that has drawn criticism. In the current climate of supreme consumer behavior, framing that is based on an unbalanced arrangement of information is unethical. Decision-makers frequently have to compromise between opposing points of view while considering multiple issues. Prospect theory is criticized for being taken out of psychology without giving it proper credit for requiring complex mathematical calculations that are beyond the capabilities of the average person, for failing to examine information processing during prospect theory decisions, and for failing to account for real-world decisions like significant product and service decisions made by customers.

2.2 Conceptual Literature Review

2.2.1. Disposition Effect

The disposition effect advises investors to develop strategies to anticipate paper gains and avoid realizing paper losses. From this point on, stockholders tend to sell investments whose value has increased while retaining investments whose value has decreased, holding losers for a longer period of time and selling investments in addition



to winners virtually immediately. Budhiraja et al. (2018) advise stockholders in developing markets, such as China, to create a practice of suffering on or after exercising disposition impact by selling stocks that have valued.

2.2.2 Fund Size

A mutual fund's fund size is carefully considered to be a crucial component that affects the yields that mutual funds obtain (Ciccotello & Grant, 1996; Yan, 2008). The size of a mutual fund refers to the total amount of the trust that the investment fund manager will be responsible for managing. The assets included in the portfolio display a strong performance or there is a spike in the introduction of investors' resources, depending on how the entire securities under management of the joint fund spread (Ciccotello & Grant, 2008). Fund size tend to increase depending on the situation. The mutual fund's prior success is what led to the invasion of stockholder funds (Bouteska & Boutheina, 2017).

2.3 Review of the Empirical Literature

This section examined a variety of studies that were connected to the subject matter. There are a lot of studies about mutual funds available in general. However, the number of experimental studies on the financial performance of empirical mutual funds is only marginally significant. This study's analysis aimed to review a number of researchers' conclusions.

2.3.1 Disposition Effect and Portfolio Performance

In a developing stock market, Aftab et al. (2016) conducted study on disposition effect and stock pricing. This study examined the Karachi Stock Exchange's (KSE) disposal effect and its impact on asset price in a comparable market. Data analysis for experimental conclusions was done using regression analysis. The findings indicated a disposition impact in the Karachi Stock Exchange and, somewhat surprisingly, showed that the disposition effect lowers anticipated returns. In this study, the disposal effect was integrated into the conventional asset price model. The study made use of a sample of KSE-100 index businesses during the years of 2003 and 2007. The findings demonstrated that the disposition impact is absent after just one year. As a result, the disposition effect is dominant in the KSE and the beta of additional market returns is favorably associated with expected returns, whereas the disposition effect is inversely correlated with the return of the stock. As a result, the disposition impact lowers actual incomes.

Disposition spread is not a pervasive bias, but it does exist across funds. During times of crisis, this influence is particularly strong, although it is lessened in large management businesses or those that are a part of bank holding groups. The disposition impact depends primarily on the type of transactions, rather than just being a cognitive bias that is inherent to the individual. Stocks with poorer past returns, domestic stocks, low portfolio weights, and partial sales are disposition-prone. It is established that there is a disposition effect, although investors are not affected in terms of fund performance (Andreu et al., 2020). On average, American equities funds favor realizing capital losses over gains. However, a sizeable portion displays the disposition effect, which results in realizing benefits more quickly than losses. The characteristics of value-oriented and contrarian investment strategies are affected by disposition-driven behavior, which lowers market betas, but it has no discernible impact on fund performance (Cici, 2012). Investors in mutual funds display a high disposition impact. The propensity to hold on to loser assets is reduced in part by literacy: in addition to having a university degree, more financial understanding and stronger math skills also lessen the disposition impact. The way that experience shapes this bias depends in part on literacy. Even after taking into consideration redemption costs, negative feelings, irrational beliefs, market mood, and the existence of a scapegoat, there is still evidence of the disposition effect (Silva et al., 2020).

2.3.2 Fund Size and Portfolio Performance

Ramesh and Dhume (2014) conducted study on fund size and its impact on the financial performance of mutual funds, looking at practical advice from specific Indian mutual fund companies. The primary goal of this study was to evaluate the impact of mutual fund characteristics on the financial investing performance of mutual funds in India. Fund Size, Flow of the Fund, Age of the Fund, Expense Ratio, and Turnover Rate of the Portfolio were all taken into consideration when doing the research. The findings show that an increase in mutual fund inflow wears down the financial performance of those funds. Increased portfolio turnover rates cause the expenditure ratio to rise, showing that sophisticated trading activities incur higher expenses. Mutual fund investing has increased dramatically over the past few decades, as has its importance to many economies. A number of variables, including fund size, have an impact on the success of mutual funds (Farid & Wahba, 2022). Gaining more money is the main objective of all investments made by investors. This becomes apparent as share prices increase. However, Kenyan unit trusts have

performed badly when compared to their international counterparts. The bad performance has an effect on the accomplishment of financial stability in line with Kenya Vision 2030 in addition to scaring away individual and corporate investment. In empirical literature from developed and developing nations, the idea of fund size is put out as an explanation for the success of unit trust funds (Nthimba et al., 2021).

2.4 Conceptual Framework

The financial performance of Kenyan mutual funds' financial investments served as the study's dependent variable. Disposition effect was used as the independent variable. Fund size was also a moderating element in the study. The conceptual framework is summarized by Figure 1 below.

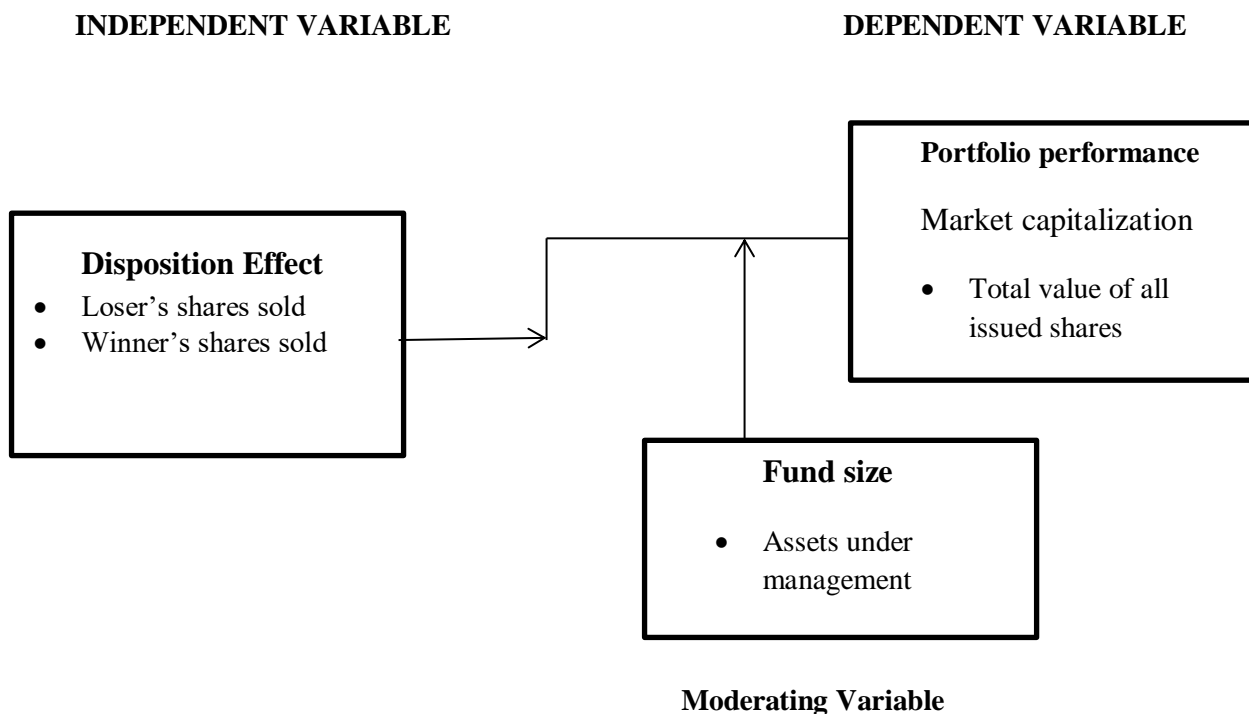


Figure 1
Conceptual Framework

III. RESEARCH METHODOLOGY

3.1 Research Design

A causal research strategy was adopted in this study. This required determining the impact disposition effect has on Kenya's mutual fund portfolio performance. In Kenya, disposition effect was exploited in order to track changes in the performance of mutual funds' portfolios. Using panel data regression analysis, this study assessed, described, and investigated the effects of disposition effect on the financial performance of mutual funds in Kenya from 2011 through 2021. To choose the most recent data, this was done.

3.2 Data collection instruments

This study examined how disposition effect affected the financial performance of mutual funds in Kenya using secondary data. The secondary data covers an eleven-year period beginning in 2011 and ending in 2021 and was derived from previously published mutual fund financial statements. The retirement benefits authority databank, the World Bank's online database, and the capital markets authority were some of the secondary data sources.

3.3 Data analysis

Stata software version 15 was used to conduct the data analysis. The Panel data regression model was used since it allowed for individual specific variables and protected against the heterogeneity associated with mutual funds in Kenya.



A fixed and random effect regression analysis model was used to investigate the association between the financial performance of mutual funds as a dependent variable and disposition effect as an independent variable. The following relationship was created using the model:

$$Y_t = \beta_0 + \beta_1 OC_t + \epsilon \text{ where;}$$

Y_t = Mutual fund financial performance at time t. β_0 = Intercept term which is the mutual fund financial performance when all other factors remain constant i.e. t=0

DE = Disposition Effect at time t and ϵ = Statistical error term.

By including fund size in the regression equation and taking its influence into account, the moderating effect of fund size on the effect of disposition on the financial performance of mutual funds in Kenya was also investigated. The following was determined about the correlation:

$$Y = \beta_0 + \beta_1 DEFS + \epsilon \text{ where FS= Fund size as a moderating variable.}$$

3.4 Measurement of Study Variables

The subsequent research variables were assessed in a similar manner:

Market capitalization, was calculated using the Oluwatoyin and Gbadebo (2009) methodology which was used to measure portfolio performance. This model is described as: $MKTCAP = \beta_0 + \beta_1 TNO + \beta_2 PAT + \beta_3 DIV + e$. where: e = error term, PAT: Profit after Tax, TNO: Turnover, DIV: Dividends and MKTCAP: Market Capitalization.

3.4.1 Disposition Effect

The Weber and Camerer (1998) model, which measured the disposition effect, suggested the following representation: $DE = \frac{S_+ - S_-}{S_+ + S_-}$

This proxy lists a coefficient of disposition for each subject that is determined as the difference between shares sold that were winners S_+ (the stock has winners S_+ or stock that has enhanced value) and shares sold that were losers S_- (the stock has dropped in value).

IV. DATA ANALYSIS & DISCUSSION

Results from the research design mentioned earlier are granted in this section, along with a discussion of them.

4.1 Descriptive Statistics

In this section, descriptive details are given for each parameter used in the study. Several important statistical indices or measures that are used to summarize data, such as measures of spread, measures of location, measures of correlation, statistical averages, and measures of skewness, as well as additional raw data measures, are of interest to descriptive statistics (Kothari, 2004). A summary of the descriptive statistics for each parameter used in the study, including the dependent variable, market capitalization, and the independent variable, disposition effect, is presented in Table 1 below.

Table 1
Descriptive Statistics

Statistic	Market Capitalization	Fund Size	Disposition Effect
Mean	20.50923	20.50923	-0.0471938
Se(Mean)	0.060926	0.192289	0.0024062
Maximum	22.38728	25.70594	0.0000000
Minimum	18.23680	16.24238	-0.1259354
Std Dev	0.808280	2.551005	0.0319214
CV	0.039410	0.124383	-0.6763891
Obs(N)	176	176	176

The Market capitalization, Fund size, disposition effect log and statistics: (Mean, Se (mean), Max, Min, Std Dev, CV, Obs (N) by categories of year summary.

From Table 1 above the disposition effect mean was -0.0471938. The maximum for disposition effect was 0.000000 while the smallest for disposition effect was -0.1259354 and the spread or standard deviation stood at 0.0319214. The standard error for the mean was 0.0024062. This was explained by the fact that the variables' data was normally distributed. This demonstrated the erratic reliability and similarly demonstrated that the traditional presumptions were upheld. The inference was that the disposition effect variable did not significantly deviate from the likely mean. The disposition effect was presented in Figure 1.

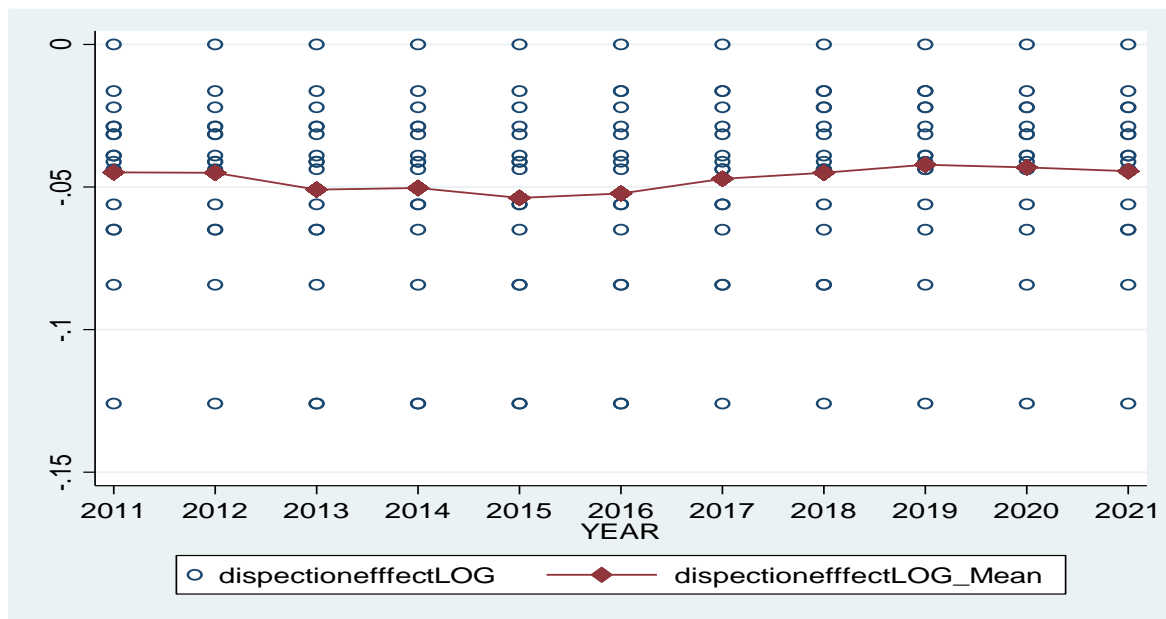


Figure 1
Descriptive Statistics Analysis –Disposition Effect

4.1.1 Normal Distribution Analysis

Table 2

Normal Distribution Analysis

Statistic	Market Capitalization	Fund Size	Disposition Effect
Skewness	0.319224	0.638237	-1.089272
Kurtosis	2.836192	2.210537	3.782764
Jarque-Bera	3.186000	16.52	39.3
Probability	0.000000	0.000000	0.000000
CV	0.039410	0.124383	-0.6763891
Observations	176	176	176

The homogeneous skewness and kurtosis moments were established in this study. In this investigation, the Jarque-Bera test, which was generated from the kurtosis and skewness estimations, was also enhanced. According to Table 2 above, the market capitalization, which is the dependent variable, had a skewness value of 0.319224. The fund size, the moderating variable, has a skewness value of 0.638237. The skewness value for the independent variable disposition effect was recorded as -1.089272.

The recorded figures for kurtosis are 2.836192, 2.210537, 3.782764, respectively, for market capitalization, fund size and disposition effect. The probability values obtained as a result of the Jarque-Bera test statistic results implied that, at a 5% level of significance, all of the variables passed the normality test. The study refuted the null hypothesis H_0 that the distribution of the data in this investigation's interpretation was not equal.

4.2 Model Specification Tests

Alongside the panel data, a number of model specification tests were run to see if the models could be used for mathematical study. The Pearson test for correlation, the multicollinearity test, the autocorrelation test, the unit root tests, and the heteroscedasticity test were among the model specification tests that were used to determine



whether or not the panel data met the requirements for basic multiple linear regression analysis. This section provided the findings of numerous pinpointing tests supported by organized data, along with considerable remedial action undertaken to ensure the accuracy of the data.

4.2.1 Pearson Correlation Test

Table 3

Pearson correlation test for Market capitalization, Fund Size and Disposition effect log Observations

Variable	Market Capitalization	Fund size	Disposition effect log
Market Capitalization	1.0000		
	176		
Fund size	0.3168	1.0000	
	0.000	176	
Disposition effect log	-0.0484	0.0936	1.0000
	0.5236	0.2164	
	176	176	176

The results of pairwise correlation show that there was no multicollinearity issue. The slight correlation between the independent and dependent variables was an excellent sign and, as a result, a key indicator of orthogonality. This suggested that someone could fit a regression equation without running into managing collinearity concerns. Currently, it was common practice to perform a correlation analysis first and a regression analysis thereafter. As a result, the entire independent variable was set aside for further research.

4.3 Unit Root Test

Table 4

Unit Root Test at 5% Significance Level

Market Capitalization	Method	Statistic	Prob.	Interpretation
	Null:Unit root(assumes common unit root process)			
	Levin,Lin& Chut*	-11.6234	0.0000*	Stationary
	Hadriz-stat	11.7875	0.0000*	Stationary
	Null:Unit root(assumes individual unit root process)			
	Im,Pesaran& ShinW-stat	-3.7078	0.0001*	Stationary
	ADF–Fisher Chi-squared pm	8.9956	0.0000*	Stationary
	PP – Fisher Chi-squared pm	8.9956	0.0000*	Stationary
Fund size	Method	Statistic	Probability	Interpretation
	Null:Unit root(assumes common unit root process)			
	Levin,Lin& Chut*	-2.8548	0.0022*	Stationary
	Hadriz-stat	2.3891	0.0084	Stationary
	Null:Unit root(assumes individual unit root process)			
	Im,Pesaran& ShinW-stat	-0.9955	0.0015*	Stationary
	ADF– Fisher Chi-squared pm	3.5095	0.0002*	Stationary
	PP – Fisher Chi-squared pm	3.5095	0.0002*	Stationary
Disposition Effect	Method	Statistic	Probability	Interpretation
	Null:Unit root(assumes common unit root process)			
	Levin,Lin& Chut*	-4.4082	0.0000*	Stationary
	Hadriz-stat	10.8767	0.0000*	Stationary
	Null:Unit root(assumes individual unit root process)			
	Im,Pesaran &ShinW-stat	-2.0200	0.0001*	Stationary
	ADF– Fisher Chi-squared pm	8.2770	0.0000*	Stationary
	PP – Fisher Chi-squared pm	8.2770	0.0000*	Stationary



Each and every variable used in the investigation was subjected to panel unit root tests to ascertain whether or not panel data were stationary. Table 4 above showed that all 16 cross sections were stationary. The results for the cross-sections of the parameters, including fund size, market capitalization, loss aversion, herd behavior, disposition effect, as well as overconfidence, were discussed. The experiments showed that all variables displayed stationarity for all cross-sections when assessed concurrently. Additionally, there was no unit root issue, as shown by the high probability of 0.0000 and the fact that the unit root's null hypothesis H_0 was rejected.

4.4 Heteroscedasticity Test

Table 5

Heteroscedasticity Test

Breusch and Pagan Lagrangian multiplier test for random effects

MARKET CAPITALIZATION

Estimated results:

Variable	Variance	Std Dev =sqrt(variance)
Market Capitalization	0.6533170	0.8082803
e	0.5050168	0.7106454
u	0.1207800	0.3475342

Test statistics

F-Statistic	1.73924	Obs* R-squared	2.976238
ProbabilityF(1, 15)	0.27650	Probability Chi-square	0.146500
Var(u)	0.00000	Chibar2(01)	28.27000
Probability>Chibar2	0.00000		

In order to refute the statistical hypothesis that the error relations had a permanent adjustment, the test for heteroscedasticity intended that previous error terms predisposed other error relations. However, the financial performance of mutual funds, which is the dependent variable, has an equivalent level of inconsistency for any value of the independent variables, according to the homoscedasticity hypothesis (Garson, 2012). A homoscedasticity test was used to look for consistency in the residuals from the regression equation. The distribution of the data was normal if the discrepancy of the error terms at hand was identical. Heteroscedasticity was defined as the absence of an analogous inconsistency level for each value of an independent variable.

4.5 Hausman Test

Table 6

Hausman Test

Hausman fixed random Coefficients

Variable	Fixed (b)	Random (B)	Difference (b-B)	S.E Sqrt(dia(gV_b-V-B))
Disposition Effect log	0.7309071	-0.5455628	1.2764700	1.2331040

b = consistent under H_0 and H_a ; obtained from xtreg

B = inconsistent under H_a , efficient under H_0 ; obtained from xtreg

Test: H_0 : difference in coefficients not systematic

$$\text{chi2 (4)} = (b-B)'[(V_b - V_B)^{-1}](b-B) = 8.81$$

$$\text{Prob} > \text{chi2} = 0.0061$$

The Hausman test was still regarded as valid for the definite panel data regression in order to establish the approximate influences between random and fixed effects and to produce improved research outcomes. The test was carried out in defiance of the null hypothesis H_0 , which claimed that the random effects ideal was the favored one. The test findings rejected the null hypothesis H_0 if the panel data's chi square statistic was significant at the 5% level of significance; otherwise, the null hypothesis H_0 was acknowledged.



4.6 Panel EGLS Random Effect-Model

Table 7

Panel EGLS Random Effect-Model

Dependent Variable: Market Capitalization; Method: Panel EGLS Random Effect Model

Variable	Coefficient	Std. Error	t statistic	probability
Disposition effect	-0.5455628	0.1913090	-1.08	0.0020
Constant	0.9130920	0.0655430	29.18	0.0000

Test Statistics

R-squared	0.68900	Adjusted R-squared	0.68610
Mean Dependent variable	0.257156	S.D. Dependent variable	4.067320
S.E. of Regression	0.795340	F-statistic	243.5647
Prob(F-statistic)	0.000100	Sum squared residuals	114.3304

5% level of significance

Using the linear regression model, the relationship between the dependent variable and the independent variable can be summed up as follows:

$$Y_t = 0.9130920 - 0.5455628D_t + \varepsilon \text{ where;}$$

Y_t = Mutual fund financial performance at time t. (0.9130920) β_0 = Intercept term which is the mutual fund financial performance when all other factors remain constant i.e. $t=0$, β_i is the regression coefficient for the independent variables at time t and D = Disposition effect at time t. ε = Statistical error term.

4.6.1 Influence of disposition effect on mutual funds' financial performance in Kenya

The coefficient of disposition effect variable was determined to be -0.5455627 from the results of the multiple linear regressions shown in Table 7. When all other factors impacting the financial performance of mutual funds are held constant, this constant revealed that a rise in the disposition effect by one unit caused a decrease in the financial performance of mutual funds in Kenya to fall by a value of 0.5455628 units. The finding of this research showed that disposition effect had a negative substantial influence on mutual funds financial performance in Kenya. This Outcome consequently discloses that the null hypothesis H_0 of the variable of disposition effect had a noteworthy influence and was disallowed.

4.7 Moderating effect of fund size

Table 8

Moderating Effect of Fund Size

Variable	Coefficient	Std. Error	t statistic	probability
Disposition effect Fund size	1.056512	0.7409770	29.18	0.1560
Constant	0.913092	0.0655430	29.18	0.0000

Dependent Variable: Market Capitalization; Method: Moderation hierarchical-moderating effect of fund size

Test Statistics

R-squared	0.583197	Adjusted R-squared	0.582364
Mean Dependent variable	0.653317	S.D. Dependent variable	3.198300
S.E. of Regression	0.743100	F-statistic	456.9547
Prob(F-statistic)	0.000000	Sum squared residuals	114.3304

5% level of significance

From table 8 above, it was determined that fund size with a probability value of 0.1560 which was not significant. This therefore shows that fund size does not have a significant effect on the relationship between disposition effect and mutual funds financial performance.

The correlation between the independent variable and the dependent variable can be summarized by use of the linear regression model as follows:



$Y_t = 0.913092 + 1.056512DEFS_t + \varepsilon$ where FS= Fund size as a moderating variable;

Y_t = Mutual fund financial performance at time t. (0.9130920) β_0 = Intercept term which is the mutual fund financial performance when all other factors remain constant i.e. $t=0$, β_i is the regression coefficients for independent variable at time t and D = Disposition effect at time t. ε is the Statistical error term.

Table 9

Hypothesis Rejected Founded on the Implication of Outcomes

Hypothesis	Sign	Significance	Decision
H ₀₁ : disposition effect does not significantly affect portfolio performance of mutual funds in Kenya.	Negative	Significant	H ₀₁ Rejected
H ₀₂ : Fund size does not significantly moderate the correlation between disposition effect and portfolio financial performance of Kenyan mutual funds	Positive	Insignificant	H ₀₂ Accepted

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

In this study, the disposition impact was investigated in relation to the financial performance of mutual funds in Kenya. Weber and Camerer (1998) used the difference between the winners' stock and stock that increased the value of the sold shares, and the losers' stock, or stock that lowered its value of the sold shares, to measure the disposal impact. The findings of this study showed that the Kenyan mutual fund industry's financial performance was negatively but significantly impacted by the disposition effect.

This implied that there is a considerable yet unfavorable disposition effect on the financial performance of mutual funds in Kenya. The null hypothesis H₀ was rejected because the disposition effect parameter had a significant negative impact on the financial performance of mutual funds in Kenya.

5.2 Recommendations

From the investigation, it is apparent that models of behavioral finance complement the standard simulations of investment investigation largely utilized for making financial investment decisions by mutual funds in Kenya. These standard investment models are not fully empirically reinforced and therefore create room for the effect of behavioral investment biases in the entire investment framework. From the findings obtained from the multiple regression analysis, disposition effect with a regression coefficient of -0.5455628 had a negative but substantial influence on the financial performance of mutual funds in Kenya. However, behavioral investment traps should not be utilized in seclusion during financial investment decision making scrutiny by fund managers in respective institutional investors. Shareholders however, should be aware of the information that fund managers in institutional investors are not unsusceptible from behavioral biases arising from behavioral finance in the financial investment decision making processes.

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The Moderating Role of Fund Size on the Relationship between Overconfidence and Portfolio Financial Performance of Mutual Funds in Kenya

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ABSTRACT

A decline in financial performance has recently been observed for a number of mutual funds in Kenya. Overall, differences in important metrics show inconsistent economic performance among Kenya's mutual funds year over year. It was critical to determine whether overconfidence bias would be to blame for the portfolio performance trend while evaluating this. The goal of this study was to ascertain the impact of overconfidence bias on mutual funds' performance in Kenya and to scrutinize the moderating effect of fund size on the relationship between overconfidence and mutual funds' portfolio performance in Kenya. The study employed a causal research design. Study panel data were gathered. Secondary information was gathered from previously released financial statements of mutual funds during a period of eleven years, from 2011 to 2021. With the use of the data gathering tool, secondary data was gathered. Stata software version 15 was used to conduct the data analysis. A test for stationarity called the unit root test was conducted. Regression using panel data was utilized. Regression analysis with fixed and random effects was utilized. The following tests were run to determine the validity and reliability of the data: the Levin-Lin-Chu test, the Augmented Dickey-Fuller test, the Im-Pesaran and Shin tests, the Philips-Peron test, and the Hadri 2000 test. The Jarque-Bera test was used to gauge normality. In the panel analysis, the random effects model and the fixed effects model were separated using the Hausman test. The variables were distributed properly, as shown by the skewedness and kurtosis tests. There was no approaching multicollinearity among the variables, according to the pairwise correlation study. The findings showed that Overconfidence had a positive substantial influence on the financial performance of mutual funds in Kenya with a regression coefficient of 2.7295960. The study additionally found that fund size influences the financial performance of mutual funds in Kenya by negatively moderating the relationship between overconfidence and mutual funds' financial performance in Kenya with a coefficient of -3.023683. Based on the results of the multiple regression analysis, it should be underlined when making financial investment decisions that overconfidence, with a regression coefficient of 2.7295960, had a favorable but significant impact on the financial performance of Kenyan mutual funds. The study, therefore, recommends that overconfidence should be emphasized during financial investment decision-making processes.

Keywords: Overconfidence; Mutual Funds' Portfolio Financial Performance; Fund Size; Mutual Funds; Kenya

I. INTRODUCTION

A stock market is advantageous for investors since it offers chances to build money. In order to mobilize savings and investments and to plan the production of products and services that create jobs, healthy stock markets can be quite important. In the end, this improves the nation's overall economic development. Long-term investors in particular boost the economy's potential for production with their riches. The preferences of individual investors for a company's stock in terms of risks, liquidity, returns, and other non-financial variables have a significant impact on the financial markets.

Hayat and Anwar (2016) carried out a study on the impact of Behavioral Biases on Security Decision making processes with the moderating role of Financial Knowledge in the Pakistan stock market. The research concentrated on the influence of behavioral factors on the financial making of investment decisions by using financial knowledge as a moderating role in Pakistan. A simple valuation questionnaire was used for data collection as of one hundred fifty eight stockholders transacting in the stock market of Pakistan. The outcomes indicated that herding behavior;

overconfidence as well as disposition effects have substantial constructive influence on financial investment decision making processes. The study established that financial literacy had an undesirable controlling influence on herding behavior and a constructive regulating role on overconfidence in the financial investment decision making. The outcomes established that energetic stockholders display additional overconfidence whereas inactive stockholders show further herding behavior. The research recommended that one of the ways of overwhelming the biases could be offering training and education opportunities to stockholders. The results in this study controverts with those of Bailey et al. (2011) which discovered that behavioral biases have a positive influence on the decision making processes conflicting the findings of Bailey et al. (2011) which revealed that behavioral aspects led to deprived investment decision making processes.

1.1 Research objectives

1.1.1 General objective

The broad objective of this research was to find out the influence of overconfidence on the mutual funds' portfolio financial performance in Kenya using fund size as the moderating role.

1.1.2 Specific Objectives

- i) To analyze the effect of overconfidence on portfolio financial performance of mutual funds in Kenya.
- ii) To explore the moderating effect of fund size on the relationship between overconfidence and portfolio financial performance of mutual funds in Kenya.

1.3 Research hypotheses

The research was guided by the following hypotheses:

H₀₁: Overconfidence does not significantly affect portfolio financial performance of mutual funds in Kenya.

H₀₂: Fund size does not significantly moderate the association between overconfidence and portfolio financial performance of Kenyan mutual funds.

II. LITERATURE REVIEW

Behavioral finance is a comparatively new area in asset investment decision making. Lots of investors and predominantly established investors for a protracted period of time have replicated on the information that market behavior can be prominently expounded by psychological underpinnings. This configuration has appeared to advance the thought and information around investor behavior, touching through to asset investment decision making processes in security investment (Karanja, 2017).

2.1 Theoretical Literature Review

2.1.1 Prospect Theory.

The prospect hypothesis, developed by Tversky and Kahneman in 1979, contends that investors evaluate gains and losses differently, giving apparent gains more weight than perceived losses. Prospect theory says that if an investor is offered a choice both equal, will choose the one presented in terms of possible gains as compared to one presented in terms of probable loss. These theory points out that the superior amongst risky prospects show abundant clear characteristics which contest the predictions as shown by the modern portfolio theory; stockholders time and over again undervalues concerns which are most probably in divergence with conclusions which are realized with a lot of assurance occasioning risk hatred in choices encompassing unquestionable accomplishments and also to risk undertaking in selections regarding certain losses. Prospect theory summaries various circumstances of the knowledge which are expected to arouse institutional as well as the individual investment decision making processes (Rossi, 2018). Behavioral features depicted by investors are perceived by the states of mind while bearing in mind making investments as well as readjusting their portfolio securities (Kahneman & Tversky, 1979).

2.2 Conceptual Literature Review

The documentation and study of literature from the perspective of conceptions was required for conceptual literature evaluation. Based on studies conducted by different institutions, it entailed the documenting and definition of overconfidence as an independent variable, mutual fund financial performance in Kenya as the dependent variable, and fund size as the moderating variable.

2.2.1. Overconfidence

Overconfidence is the predisposition for stockholders to overemphasize their projecting skills or take on more information than they have coming to bear in investment decision making processes. Disproportionate trading is recognized in innumerable studies to be one of the leading effects of overconfidence (Evans & Andersen, 2006). It is very challenging to make alterations in their philosophies; hence suggestion indicates that market analysts are hesitant to go through their preceding valuation of a company's prospective impending financial investment performance, even after there is robust indication that their prevailing valuation is inappropriate. Investors are overoptimistic in their individual capabilities; stockholders and market specialists are predominantly overoptimistic in capacities wherever they have some understanding (Cherono, 2018). Overconfidence surrounded by others has the uppermost influences on the financial investment decisions of separate stockholders at the NSE (Shikuku, 2018).

2.2.2 Fund Size

The Fund size of a mutual fund is well thought-out to be an essential feature with an influence on the yields received by mutual funds (Ciccotello & Grant, 1996; Yan, 2008). The Size of a mutual Fund denotes the aggregate amount of the trust to be accomplished by the investment fund manager. The overall securities under management of the joint fund can propagate in binary ways: one or the other there is an upsurge in the introduction of investors' resources or the assets encompassed the portfolio presentation a robust performance or (Cicotello & Grant, 2008). In individual circumstances, fund size lean towards increasing. In the first case, as the fundamental assets show resilient financial performance, it hints to an upsurge in the value of essential securities, henceforth the security size intensifies. In the subsequent position as additional stockholders are appealed to a precise mutual fund, the mutual fund manager is offered with a meaning fully huge quantity of funds. The invasion of stockholder funds is as a result of the previous performance of the mutual fund (Bouteska & Boutheina, 2017).

2.3 Empirical Literature review

This segment explored a number of researches which interrelated to the study area. There are numerous available researches about mutual fund on overall. Nevertheless, the amount of experimental researches on the empirical mutual funds' financial performance is moderately insignificant. This dissection of the study attempted to review the inferences of some collection of researches.

2.3.1 Overconfidence and portfolio performance

Eshraghi (2011) conducted a study on the impact of overconfidence on mutual fund investing financial performance. According to the cross sectional deviations, high levels of confidence, self-reference, and conviction, which were used in this study, increase overconfidence when there has been good prior financial performance. A comparable arrangement was witnessed with hubris measures which are associated with overconfidence. It was also witnessed that self-reference and over assurance were further characteristic pointers of overconfidence than conviction. In conclusion, fund manager interval gives the impression of correlation with fund manager which conveyed hubris and overconfidence in the elongated time. For the identical unit of fund managers considered all through the assortment of the sample data, the measured overconfidence inclines to increase progressively and in settlement with theoretical prospects.

Makokha (2012) conducted a study on the impact of behavioral overconfidence bias on security yields of companies listed at the NSE. The variables that were looked into included stock returns, overconfidence, firm size, and profitability. The findings indicated that overconfidence influences the security earnings of the firms listed at the Nairobi Securities Exchange. Overconfidence had a strong positive correlation with security yields. The correlation coefficient of 0.634 showed that there was a progressive association amongst profitability, security returns, overconfidence bias and the size of the firm. The research endorses that a supervisory outline that would reinforce market surveillance and oversight be established. The outcomes of this research diverge marginally from those of Eshraghi (2011). Whereas Makokha (2012) displayed a resilient positive association between overconfidence and security returns, Eshraghi (2011) disclosed that there is a comparatively weaker correlation between mutual funds financial performance and overconfidence bias.

2.3.2 Fund size and Portfolio Performance

Ramesh and Dhume (2014) carried out a research on Fund Size and its influence on mutual funds financial Performance: A Practical Suggestion from designated Indian Mutual Fund Companies was explored. The main objective of this research was to assess the influence of mutual fund features on the mutual funds financial investment performance in India. Mutual fund features incorporated in the research were Fund Size, Flow of the Fund, and Age of

the Fund, Expense Ratio and Turnover Rate of the Portfolio. The research purposes to cover a period of 5 years extending as of 1st April 2007 through to 31st March 2012. The findings disclose that intensification in the mutual fund inflow wear away the mutual funds financial performance. Upsurge in turnover rate of the portfolio escalates the expense ratio demonstrating that, advanced trading activities sustain greater costs.

Over the past few decades, mutual fund investment has grown significantly, as has its significance to different economies. The performance of mutual funds is affected by a variety of factors, one of which is fund size. The effect of fund size on mutual fund performance in Egypt was looked into by the researcher. The findings demonstrated that age had a significant negative impact on mutual fund performance, as well as a significant negative impact on log net asset value NAV (log fund size). The study came to the additional conclusion that the Fund type significantly affects the performance of mutual funds while the performance of mutual funds is significantly impacted by log total fund expense (Farid & Wahba, 2022).

The primary goal of all investments made by investors is to grow their wealth. When share prices rise, this is realized. However, compared to its counterparts around the world, Kenyan unit trusts have performed poorly. In addition to deterring individual and corporate investors, the poor performance has an impact on the achievement of financial stability in line with Kenya Vision 2030. Fund size is proposed as an explanation for the success of unit trust funds in empirical literature from established and emerging countries. Therefore, this study looked into how Kenyan unit trust fund performance is impacted by fund size (Nthimba et al., 2021)

2.4 Conceptual Framework

The financial performance of Kenyan mutual funds' financial investments served as the study's dependent variable. Overconfidence was used as the independent variable. Fund size was also a moderating element in the study. The conceptual framework is summarized by Figure 1 below.

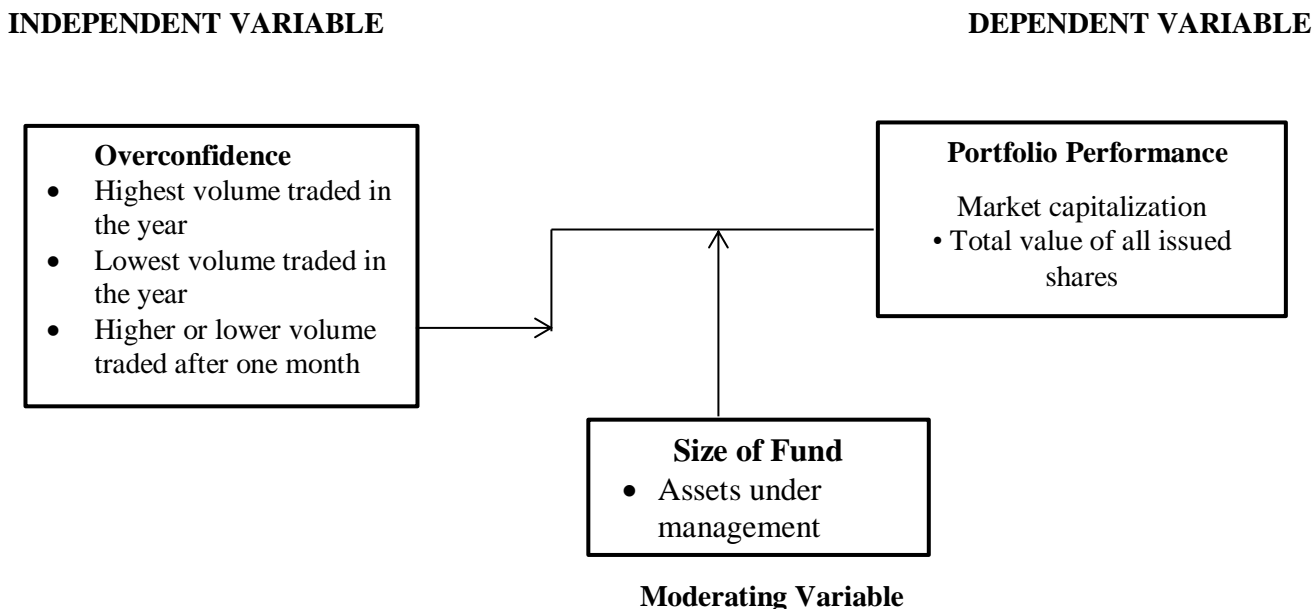


Figure 1
Conceptual Framework

III. RESEARCH METHODOLOGY

3.1 Research Design

This research used a causal research design. This entailed establishing the consequence caused by overconfidence on mutual funds portfolio performance in Kenya. Overconfidence was manipulated to monitor the change on mutual funds portfolio performance in Kenya. This study measured, described, and examined the impact of overconfidence on mutual fund financial performance in Kenya for the years 2011 through 2021 using panel data regression analysis. This was in order to select the most current data.

The Panel data regression ideal was embraced for the reason that it took care of heterogeneity accompanying mutual funds in Kenya by permitting discrete precise variables. Furthermore, by linking the cross sectional interpretations of time series, the panel data gave additional variability, more revealing data, supplementary degrees of



freedom and less collinearity amongst variables as well as more competence. This study research design was appropriate for this research as the data which was poised for the research variables was used to investigate past volume of securities traded, prices of securities and market capitalization whose analysis was quantitative.

3.2 Target Population

The population in this study comprised all 16 registered Kenya's mutual funds in the country.

3.3 Data Collection Instruments

Secondary data was used in this study to investigate the effect of overconfidence on mutual fund financial performance in Kenya. The secondary data came from previous mutual fund financial statements that were published and covered an eleven-year period starting in 2011 and ending in 2021. Sources of secondary data included the capital markets authority, the online database of the World Bank and the retirement benefits authority databank. The secondary data was acquired by the help of the data collection tool.

3.4 Data Analysis

Data analysis was carried out with the aid of Stata software version 15. The Panel data regression model was embraced since it took precaution of heterogeneity connected with mutual funds in Kenya by allowing for individual specific variables. The relationship between the financial performance of mutual funds as a dependent variable and overconfidence as an independent variable was examined using a fixed and random effect regression analysis model.

The relationship was established using the model as follows:

$$Y_t = \beta_0 + \beta_1 OC_t + \varepsilon \text{ where;}$$

Y_t = Mutual fund financial performance at time t. β_0 = Intercept term which is the mutual fund financial performance when all other factors remain constant i.e. $t=0$

OC = Overconfidence at time t and ε = Statistical error term.

The moderating effect of fund size on the effect of overconfidence on the mutual funds financial performance of in Kenya was also examined by introducing fund size in the regression equation and its influence considered. The correlation was established as follows:

$$Y = \beta_0 + \beta_1 OCFS + \varepsilon \text{ where FS= Fund size as a moderating variable.}$$

The study also considered taking natural logarithms in order to avoid effects of multi collinearity.

3.5 Measurement of Study Variables

Portfolio performance was measured by market capitalization which was measured using Oluwatoyin and Gbadebo (2009) model which is characterized as:

$MKTCAP = \beta_0 + \beta_1 TNO + \beta_2 PAT + \beta_3 DIV + e$. Where, $\beta_0 > 0$, $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$, and e = error term Where: PAT: Profit after Tax, TNO: Turnover, DIV: Dividends and MKTCAP: Market Capitalization.

3.4.1 Overconfidence

Overconfidence was measured by computing monthly average volume of trade of mutual Funds for the period under study. The quantity of overconfidence was obtained using Parkinson procedure which is quantified below:

$$\sigma_{i,t} = \sqrt{12} \frac{\sqrt{\ln\left(\frac{H_{i,t}}{L_{i,t}}\right)^2}}{4 \ln(2)}$$

Where:

H= Maximum volume traded during the year under study, L= Bottommost volume traded during the year under study, $\sigma_{i,t}$ = the overconfidence bias measure. 12= number of months in a year under study, i= low or high capacity that Mutual Funds may gain subsequently one month in the study time t, In= natural logarithm, t = the number of survey.

IV. DATA ANALYSIS & DISCUSSION

This section grants outcomes and their subsequent discussion owing to the research design described earlier.



4.1 Pilot Study

This study made use of secondary data that had been collected utilizing the pre-made data collection instrument. The data gathering tool was created with the help of financial experts, including academics in the field of finance and research field marshals at the Capital Markets Authority and Nairobi Securities Exchange. The data collection instrument was deliberated upon by the experts preceding data gathering and the essential review done in order to guarantee that the data collection instrument seized entirely all the basic information to govern the requisite historical data from CMA. No additional piloting was accompanied on the data collection instrument preceding data collection having settled on the appropriateness of the data collection instrument.

4.2 Descriptive Statistics

The section includes descriptive data for each parameter used in the study. The improvement of several important statistical indices or measures that are used to summarize data, such as measures of spread, measures of location, measures of correlation, statistical averages, and measures of skewness, as well as additional raw data measures, is the focus of descriptive statistics (Kothari, 2004). The summary of descriptive statistics for all parameters used in the study, including market capitalization as the dependent variable and overconfidence as the independent variable, was provided in Table 1 below.

Table 1
Descriptive Statistics

Statistic	Market Capitalization	Fund Size	Overconfidence
Mean	20.50923	20.50923	-0.0087145
Se(Mean)	0.060926	0.192289	0.0019833
Maximum	22.38728	25.70594	0.0606437
Minimum	18.23680	16.24238	-0.1639964
Std Dev	0.808280	2.551005	0.0263266
CV	0.039410	0.124383	-3.021004
Obs(N)	176	176	176

The Market capitalization, Fund size, Overconfidence log and statistics: (Mean, Se (mean), Max, Min, Std Dev, CV, Obs (N) by categories of year summary.

From Table 1 above, the overconfidence mean stood at -0.0087145. The maximum for overconfidence was recorded at 0.0606437; the lowest for overconfidence was -0.1639964 and the spread or standard error of the mean stood at 0.0263266. The explanation of this was that data for the variables was normal distributed. The deduction was that the variable for overconfidence had no substantial nonconformities from the probable mean. Descriptive Statistics for overconfidence was presented in Figure 2.

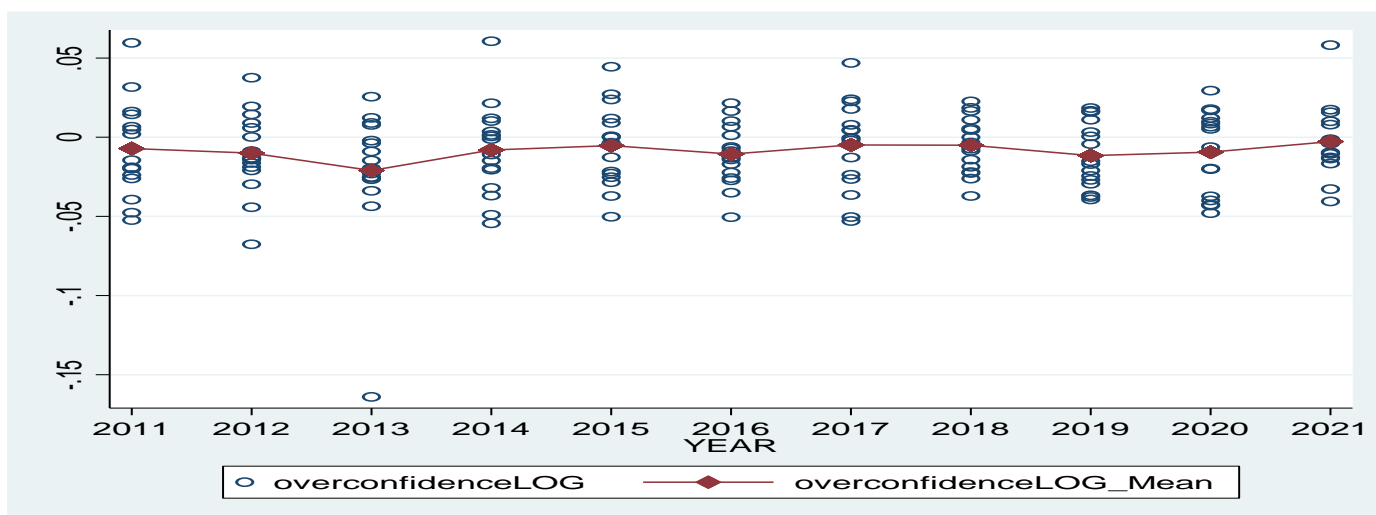


Figure 2
Descriptive Statistics Analysis –Overconfidence



4.3 Normal Distribution Analysis

Table 2

Normal Distribution Analysis

Statistic	Market Capitalization	Fund Size	Overconfidence
Skewness	0.319224	0.638237	-0.9620693
Kurtosis	2.836192	2.210537	8.964203
Jarque-Bera	3.186000	16.52	288
Probability	0.000000	0.000000	0.000000
CV	0.039410	0.124383	-3.021004
Observations	176	176	176

In this research, the homogeneous skewness as well as kurtosis moments was established. The Jarque–Bera test that was derived from the kurtosis and skewness estimations was additionally amplified in this study. From Table 4.2 above, the skewness value computed for market capitalization which is the dependent variable was 0.319224. The skewness value for fund size which is the moderating variable was recorded as 0.638237. The skewness values for overconfidence as the independent variables was recorded as -0.9620693.

The documented statistics for kurtosis as of market capitalization, fund size, overconfidence were 2.836192, 2.210537 and 8.964203 correspondingly. In inference, the probability values attained as of the Jarque-Bera test statistic outcomes recommended that at five percent significance level, entirely the variables approved the normality test. The study rejected the null hypothesis that the data for this investigation were not evenly distributed in its interpretation of this information.

4.4 Model Specification Tests

Several model specification tests were conducted alongside the panel data in order to determine whether they were suitable for mathematical research.

4.4.1 Pearson Correlation Test

Table 3

Pearson correlation Test for Market capitalization, fund size, Overconfidence log Observations.

Variable	Market Capitalization	Fund size	Overconfidence log
Market Capitalization	1.0000 176		
Fund size	0.3168 0.000 176	1.0000 176	
Overconfidence log	0.1501 0.0468 176	0.1484 0.0493 176	1.0000 176

The Table 3 above displays the background of the pair wise association of mutually independent and dependent variables. The relationship in this occasion was carried out to pretest any impending multicollinearity in the course of additional investigation. Multicollinearity was the problematic issue which transpired when the descriptive variables were precisely extremely interrelated with one another. If multicollinearity was not present, then addition or elimination of a parameter from a multiple regression equation would not alter the constant value on the other parameters (Brooks, 2002). Accordingly, independent variables altogether were reserved for additional investigation.



4.4.2 Unit Root Test

Table 4

Unit Root Test at 5% Significance Level

Market Capitalization	Method	Statistic	Prob.	Interpretation
Null:Unit root(assumes common unit root process)				
	Levin,Lin& Chut*	-11.6234	0.0000*	Stationary
	Hadriz-stat	11.7875	0.0000*	Stationary
Null:Unit root(assumes individual unit root process)				
	Im,Pesaran& ShinW-stat	-3.7078	0.0001*	Stationary
	ADF–Fisher Chi-squared pm	8.9956	0.0000*	Stationary
	PP – Fisher Chi-squared pm	8.9956	0.0000*	Stationary
Fund size	Method	Statistic	Probability	Interpretation
Null:Unit root(assumes common unit root process)				
	Levin,Lin& Chut*	-2.8548	0.0022*	Stationary
	Hadriz-stat	2.3891	0.0084	Stationary
Null:Unit root(assumes individual unit root process)				
	Im,Pesaran& ShinW-stat	-0.9955	0.0015*	Stationary
	ADF– Fisher Chi-squared pm	3.5095	0.0002*	Stationary
	PP – Fisher Chi-squared pm	3.5095	0.0002*	Stationary
Overconfidence	Method	Statistic	Probability	Interpretation
Null:Unit root(assumes common unit root process)				
	Levin,Lin& Chut*	-1.6873	0.0046*	Stationary
	Hadriz-stat	6.5893	0.0000*	Stationary
Null:Unit root(assumes individual unit root process)				
	Im,Pesaran& ShinW-stat	-1.9802	0.0238*	Stationary
	ADF– Fisher Chi-squared pm	4.2088	0.0000*	Stationary
	PP – Fisher Chi-squared pm	4.2088	0.0000*	Stationary

Panel unit root tests were applied on each and every variable which was utilized in the investigation to determine the stationarity of panel data. The unit root tests 'results for the cross-sections of the parameters altogether including fund size, market capitalization as well as overconfidence were discussed. Table 4 above disclosed that entirely 16 cross sections were stationary. The tests demonstrated that, when measured simultaneously, every single variable displayed stationarity for every cross-section. The unit root problem was also not present, as evidenced by the high probability of 0.0000 and the fact that the null hypothesis H_0 of the unit root was rejected.

4.4.3 Heteroscedasticity Test

Table 2

Heteroscedasticity Test

**Breusch and Pagan Lagrangian multiplier test for random effects
MARKET CAPITALIZATION**

Estimated results:

Variable	Variance	Std Dev =sqrt(variance)
Market Capitalization	0.6533170	0.8082803
e	0.5050168	0.7106454
u	0.1207800	0.3475342

Test statistics

F-Statistic 1.73924	Obs* R-squared 2.976238
ProbabilityF(1, 15) 0.27650	Probability Chi-square 0.146500
Var(u) 0.00000	Chibar2(01) 28.27000
Probability>Chibar2 0.00000	



The results from Table 5 above, points out the heteroscedasticity statistics test. The probability value was recorded at 0.27650 which is greater than 0.05 which is the critical value and the F-statistic was recorded at 1.73924. The test for chi-square was correspondingly statistically inconsequential with probability of 0.146500 and an Obs*R-squared of 2.976238. This inferred the absence of heteroscedasticity in the analysis ideal. The heteroscedasticity test was intended to evaluate whether the discrepancy was persistent or it was mounting. If the discrepancy was persistent then it means that the coefficients of the protected adjustment as the descriptive parameters ought not to be statistically noteworthy. Results from Table 5 above were apparent showing absence of heteroscedasticity as the chi-square as well as the F-statistic was statistically irrelevant.

4.4.4 Hausman Test

Table 6

Hausman Test

Hausman fixed random Coefficients

Variable	Fixed (b)	Random (B)	Difference (b-B)	S.E Sqrt(dia(gV_b-V-B))
Overconfidence log	1.7158590	2.7295960	-1.0137360	0.4706487

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\chi^2(4) = (b-B)'[(V_b - V_B)^{-1}](b-B) = 8.81$$

$$\text{Prob} > \chi^2 = 0.0061$$

The results of the Hausman test, which was used to determine whether there had been a change between the fixed effect model and the random effect model, were provided in Table 6 above. Hausman (1978) initially proposed an indigenous test statistic that was founded on a careful evaluation of constant values. The results of the Hausman test were shown in Table 6 above. The random effects model was initially approximated in the Hausman test. The fixed effects model was similarly predicted by the Hausman test. After assessing the fixed effect approximations, the most recent phase led to the deduction of the random effects. The conclusion on this was that if the change was statistically noteworthy, then at that point, the fixed effects model was embraced. Contrary to this, if there was no variance, literature recommended that the random effect model be approved which anticipated that there was no correlation between the unobservable effects and the explanatory variables? From the Table 6 above, the value of 8.81 for chi-square was statistically inconsequential and indicated that there was no variance in the random effect model and the fixed effect model.

4.5 Panel EGLS Random Effect-Model

Table 7

Panel EGLS Random Effect-Model

Variable	Coefficient	Std. Error	t statistic	probability
overconfidence	2.7295960	0.2297870	2.18	0.0310
Constant	0.9130920	0.0655430	29.18	0.0000

Dependent Variable: Market Capitalization; Method: Panel EGLS Random Effect Model

Test Statistics

R-squared	0.68900	Adjusted R-squared	0.68610
Mean Dependent variable	0.257156	S.D. Dependent variable	4.067320
S.E. of Regression	0.795340	F-statistic	243.5647
Prob(F-statistic)	0.000100	Sum squared residuals	114.3304

5% level of significance.

Using the linear regression model, the relationship between the dependent variable and the independent variable can be summed up as follows:

$$Y_t = 0.9130920 + 2.729596OC_t + \epsilon$$

where;



Y_t = Mutual fund financial performance at time t. (0.9130920) β_0 = Intercept term which is the mutual fund financial performance when all other factors remain constant i.e. $t=0$, β_i are the regression coefficients for independent variables at time t, OC = Overconfidence at time t and ϵ = Statistical error term.

4.5.1 Influence of overconfidence on financial performance of mutual funds in Kenya

The results of the multiple linear regressions are displayed in Table 7 above, and the overconfidence variable's regression coefficient was recorded as 2.729596. This constant disclosed that a rise in overconfidence by one unit initiated a rise in the mutual funds' financial performance in Kenya to increase by a value of 2.729596 units when all other factors affecting mutual funds financial performance are held constant. The positive influence displays that there was a positive association between mutual funds financial performance in Kenya and overconfidence. The results of this study conflict with those of Eshraghi (2011), whose research examined how overconfidence affects mutual fund financial performance. The cross sectional deviations established that good previous financial performance enhances overconfidence as measured by all substitutions that is disproportionate levels of confidence, self-reference and conviction which were used in this study.

The findings of this study are in line with a study done by Makokha (2012) on the impact of overconfidence on the security yields of companies listed on the Nairobi Securities Market. The study's findings demonstrated a strong positive correlation between overconfidence and security yields. With a correlation coefficient of 0.634, it was evident that firm size, overconfidence bias, and profitability were all positively correlated.

4.6 Moderating effect of fund size

Table 8

Moderating Effect of Fund Size

Variable	Coefficient	Std. Error	t statistic	probability
Overconfidence Fund size	-3.023683	0.9650300	-3.13	0.0020
Constant	0.913092	0.0655430	29.18	0.0000

Dependent Variable: Market Capitalization; Method: Moderation hierarchical-moderating effect of fund size

<u>Test Statistics</u>			
R-squared	0.583197	Adjusted R-squared	0.582364
Mean Dependent variable	0.653317	S.D. Dependent variable	3.198300
S.E. of Regression	0.743100	F-statistic	456.9547
Prob(F-statistic)	0.000000	Sum squared residuals	114.3304

5% level of significance

From Table 8 above, it was determined that fund size had a moderating effect on the relationship between the financial performance of mutual funds and overconfidence bias. The study found that fund size influences the financial performance of mutual funds in Kenya by negatively mediating overconfidence.

The result in test statistics above displays the general model's goodness of fit statistic. The F-statistic value was then recorded at 456.9547, and the related p-value was reported at 0.000, which was less than the benchmark value of 0.05. The updated R square value was calculated to be 0.582364. This result clearly indicated that there was a large moderation of fund size on the association between overconfidence bias and mutual funds financial performance in Kenya when the degrees of freedom are adjusted.

The correlation between the independent variable and the dependent variable can be summarized by use of the multiple linear regression models as follows:

$$Y_t = 0.913092 - 3.023683OCFS_t + \epsilon$$

where FS= Fund size as a moderating variable;

Y_t = Mutual fund financial performance at time t. (0.9130920) β_0 = Intercept term which is the mutual fund financial performance when all other factors remain constant i.e. $t=0$, β_i are the regression coefficients for independent variables at time t. OC = Overconfidence at time and ϵ = Statistical error term.

Table 9*Hypothesis Rejected Founded on the Implication of Outcomes*

Hypothesis	Sign	Significance	Decision
H ₀₁ : overconfidence does not significantly affect portfolio performance of mutual funds in Kenya.	Positive	Significant	H ₀₁ Rejected
H ₀₂ : Fund size does not significantly moderate the association between overconfidence and portfolio financial performance of Kenyan mutual funds.	Negative	Significant	H ₀₂ Rejected

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The results of this study demonstrate that overconfidence has a favorable but significant impact on the financial performance of mutual funds in Kenya. From the findings obtained from the multiple regression analysis, overconfidence with a regression coefficient of 2.7295960 had a positive but major impact on the Kenyan mutual funds' financial performance.

5.2 Recommendations

From the investigation, it is apparent that models of behavioral finance complement the standard simulations of investment investigation largely utilized for making financial investment decisions by mutual funds in Kenya. These standard investment models are not fully empirically reinforced and therefore create room for the effect of behavioral investment biases in the entire investment framework. The study therefore recommends that overconfidence variable with a coefficient of 2.7295960 had a strong influence on the mutual funds' financial performance in Kenya and consequently it should be emphasized during financial investment decision making processes.

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Effect of Stakeholder Participation in Planning on Performance of Kenyan Alcohol Manufacturing Firms

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ABSTRACT

Manufacturing companies have a direct impact on national governments and value addition at large. Manufacturing, like other sectors, has felt the effects of a variety of stakeholder engagement factors. Although many companies engage their stakeholders in day-to-day business activities, studies have reported a challenge for them in managing diverse operations in dispersed markets. An examination of the effect of stakeholder participation in planning on the performance of Kenyan alcohol manufacturing firms, namely East African Breweries Limited, Kenya Wine Agencies Limited, and Keroche, was undertaken. The study concentrated on the performance of these firms for five years (2017–2021). Guided by stakeholder theory, the study adopted the descriptive cross-sectional research design. The target population was 608 stakeholders (senior management, middle management, and lower management) working in various employment cadres. The stratified random sampling design was used to sample 241 respondents from various departments. Data was collected through questionnaires and analysed descriptively and inferentially. Descriptive statistics involved means, standard deviations, frequencies, and percentages, while inferential statistics involved Pearson correlation and simple regression analysis. The Shapiro-Wilk test of normality was conducted, and since the p-values were above 0.05, the data was normal. The study found that stakeholder participation had a significant effect on organizational performance in selected alcohol manufacturing entities ($t = -6.958, p < 0.05$). The study therefore rejected the null hypothesis formulated. The study recommends frequent engagement of stakeholders at work by firm management to enhance performance.

Keywords: Stakeholder Participation in Planning; Performance; Alcohol Manufacturing Firms; Kenya

I. INTRODUCTION

Manufacturing is an essential item for value addition in the global, regional, and local context. Manufacturing companies are institutions that process raw materials into final products for human consumption (Vogel & Lasch, 2016). This has called for stakeholder engagement to enable organizational performance (White & Fitzpatrick, 2018). Studies conducted in the education sector in the United States of America point to planning, monitoring, and feedback as key attributes of stakeholder engagement. A stakeholder is an individual who takes part in achieving a set goal (Conner, 2019).

It is evident from Poland that stakeholder involvement is a key ingredient for government projects. In assessing the involvement of a stakeholder in organizational stewardship in Poland, Keshkamat et al. (2016) showed that stakeholder engagement influences performance. Stakeholder involvement leads to a reduction in cases of industrial unrest as individuals become contented as they feel partisans in firm activities.

A study by George et al. (2019) on the impact of strategic planning on company performance gave positive and significant results, whereby stakeholder involvement in planning led to organizational performance. This study was done in the United States of America, not Kenya. It did not assess the manufacturing sector, but companies in general. This study failed to point out all the attributes of stakeholder involvement attributes as it left out stakeholder monitoring and stakeholder feedback, which were addressed by the current study. The current study further examined alcohol manufacturing entities in Kenya.

In the United States, a study by Sandada et al. (2019) reviewed the influence of organizational planning on the efficiency of small and medium enterprises (SMEs). The study was examined using Pearson correlation analysis and simple linear regression analysis. The study used primary data, employing a questionnaire as a tool for data collection. The study found a positive and significant influence of stakeholder planning on the performance of SMEs. Because it omitted stakeholder monitoring and stakeholder feedback, which the current study addressed, this study was unable to

highlight all the characteristics of stakeholder involvement. The current study further examined alcohol manufacturing entities in Kenya.

The key elements of mission, vision, and organizational goals had a significant positive effect on performance, according to a study by French et al. (2004) on the impact of strategic planning on the organizational performance of small, professional service firms in Australia. Because it omitted stakeholder monitoring and stakeholder feedback, which the current study addressed, this study was unable to highlight all the characteristics of stakeholder involvement. The current study further examined alcohol manufacturing entities in Kenya.

Organizational performance is the target for any firm, and therefore investment in personnel is a score. This begins with the firm offering participation to its staff. Apart from employees, customers feel satisfied and at ease as they easily get the required services from engaged employees (Nederhand & Klijn, 2019). Planning among stakeholders becomes the primary strategy for all engagement activities. A well-planned firm yields good results and makes the going concern a reality. Managers are encouraged to engage workers at the planning stage since they are key ingredients in an organization. Planning also happens to be a management function that gains weight in any organizational strategy and, therefore, if well managed, leads to direct achievements and hence organizational performance (Falato & Liang, 2016).

According to Sam et al. (2017), stakeholder engagement has contributed to the feedback mechanism in Nigeria. The communication must be responded to for purposes of ensuring all goes well. This leads to all avenues being pointed in the right direction. Categorically, feedback shows valuing those who made an inquiry on the area of concern. It is therefore attributed to a well-organized communication structure. Feedback shows stakeholder involvement practices influence firm performance.

In Yemen, Al-Haddad and Al-Abed (2021) state that the engagement of a stakeholder in planning, involvement, and feedback is important. According to Lloyd and Aho (2020), the functions of management form the bedrock of organizational performance. A proper feedback mechanism leads to a score. A plan shows an energized firm on growth avenues as monitoring concentrates on error minimization. The firm also shows that a committed stakeholder leads to goal attainment (Park & Lee, 2015).

Organizational performance is considered a customer satisfaction-related component (Kotler & Keller, 2016). Similarly, Saeidi et al. (2015) point out that customer satisfaction aligns an organization's growth with its performance. The efficiency of a firm based on using minimal resources to yield the highest output is realized. Furthermore, effectiveness is geared toward the highest or best output, as satisfaction with a customer is based on a stakeholder approach.

Kenyoru (2015), in a study of the effects of stakeholder engagement on firm performance in Kenya, reported that stakeholder monitoring is of great importance and has a significant positive effect. Nthuli (2020), in a study on "factors influencing strategy implementation success at East African Breweries Limited in Kenya," found that stakeholders were important to the performance of a firm. East African Breweries Limited (EABL), one of the Multi-National Companies (MNCs) operating in Kenya, is a company registered in Kenya that specializes in the manufacturing of branded beer, spirits, and non-alcoholic beverages. The entity has branches in Uganda, Tanzania, Kenya, and South Sudan, as well as distributors in Burundi, the Democratic Republic of the Congo, and Rwanda (Kanyugi & Gudda, 2019). This paper sets out to examine the effect of stakeholder participation in planning on performance of Kenyan alcohol manufacturing firms.

1.1 Statement of the Problem

Manufacturing companies contribute to the national economy. Like many sectors, the manufacturing sector has been affected by several factors, including the COVID-19 pandemic as well as stakeholder involvement in firm performance. They negatively affected manufacturing companies such as KWAL, EABL, and Keroche Breweries. There are several strands of research on the disruption of business in the manufacturing sector (Sharma & Singhal, 2018). According to the Kenya Association of Manufacturers (KAM, 2018), manufacturing firms have become a plus for economic growth. However, they face some drawbacks associated with stakeholders and their involvement in performance. Although many companies engage their stakeholders in day-to-day business activities, studies have reported a challenge for them in managing diverse operations in dispersed markets. As such, these companies have encountered the challenge of integrating dispersed units without shifting local subsidiaries while fascinating cross-border resource and information transfers. Attention has been given to non-manufacturing firms (Freudenreich et al., 2020; Ramus & Vaccaro, 2017; Alvarez & Sachs, 2021; Desai, 2018) with regard to stakeholder participation in organizational performance, prompting attention to the manufacturing sector.

A study by Suddaby (2019) showed that stakeholder planning and motivation had a positive influence on the performance of the retail sector, while Kujala and Sachs (2019) noted that they negatively affected performance.

Based on these contradicting results and the recommendation by Desai (2018) to investigate stakeholder participation in the manufacturing sector, this study examined the effect of stakeholder participation on the performance of alcohol manufacturing firms in Kenya.

1.2 Objectives of the Study

To examine the effect of stakeholder participation in planning on performance of Alcohol Manufacturing firms in Kenya.

1.3 Research Hypothesis

H_{01} : Stakeholder participation in planning has no significant effect on performance of Alcohol Manufacturing firms in Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Literature Review

This paper is anchored in stakeholder theory. Stakeholder theory, which Freeman founded in 1984, focuses on morality and important principles used to govern an institution. It talks of people who are closely linked to an institution and what ought to be put into practice to handle the situation, provided that stakeholders are individuals who take part in achieving a set goal. The focus is on service delivery as well as institutional performance. (Sturdivant, 1979) acknowledges stakeholders on the basis of firm owners, existing employees, organizational clients, those who supply goods and services, and the society surrounding the organization. Those within the organization, or stakeholders, are more vital than non-stakeholders, which leads to organizational growth (Petrenko et al., 2016). This theory extends a hand to the noble role of a firm in corporate social responsibility initiatives to benefit society as a stakeholder, though at a lesser level. This builds the firm's image, making it more attractive to investors and customers.

Stakeholder theory has been selected for this study because it brings together stakeholders within an organization, including employees, customers, suppliers, investors, and communities. The theory also aids in understanding other actors in society who produce new goods, services, and jobs that various stakeholders require and want. According to this theory, leadership has a role in stakeholder engagement. It is also argued that stakeholder engagement works in a dynamic way, and a certain stakeholder can affect the efforts of another depending on the existing relationship (Donaldson & Preston, 2019). It is the stakeholders who initiate participation in planning. This, therefore, makes stakeholder theory emerge as the mother theory for this study.

2.2 Conceptual Review



Figure 1
Conceptual Framework

Source: Self Conceptualization (2022)

2.2.1 Stakeholder Participation in Planning

Planning refers to firm members initiatives to ensure there is an organized operation that later depends on stakeholder information sharing, approval procedures, and the review of performance standards. It is a function of management (Andriof & Waddock, 2017). Planning sets structures that lead to organizational performance; it acts as a road map to see if things are attainable. There are long-term and short-term plans, which are set depending on necessity and urgency.

Planning makes tasks achievable and makes work easier (Schildt, Keil, & Maula, 2017). Planning bases the goal-setting approach on the attributes of a stakeholder; for instance, specific goals align with the specificity of

stakeholder planning, stakeholder monitoring, and stakeholder feedback. On attributes measurable, the study cross-examined the specific attributes to see their realistic approaches. The attainment of a goal depends on how realistic it is, and lastly, the time factor is important as we do generate long-term and short-term plans. Therefore, stakeholders have the noble role of ensuring they attain the goals (Locke & Latham, 2016).

2.2.2 Organizational Performance

Organizational performance refers to the results of efforts made to improve the status quo of an institution. This is basically achieved through customer satisfaction, quality of service, and efficiency. It answers organizational objectivity attainment (Singh et al., 2016).

The factor of stakeholders' engagement could have an impact on performance efficiency, which has three dimensions: cost, quality, and time. Bulgacov, Ometto, and May (2015) state that stakeholders' engagement is implemented to engage stakeholders in a significant manner during organizational assignments. He highlights stakeholders' engagement theories that could be gained from different literature on the ethics of business, social accounting, and human resources management. Related to responsibility treatment, the stakeholders' responsibility treatment is performing the interests of legitimate stakeholders (Bulgacov et al., 2015).

By conducting a brief historical review of the previous decades, Morteza and Kamyar (2019) found that enterprise success is defined by performance efficiency through meeting the variables of time, cost, and quality integrated with resources. Company performance efficiency is the ability of a company to achieve independent goals efficiently (Khalid et al., 2015).

2.3 Empirical Review

A study by George et al. (2019) on the impact of strategic planning on company performance gave positive and significant results, whereby stakeholder involvement in planning led to organizational performance. This study was done in the United States of America, not Kenya. It did not assess the manufacturing sector, but companies in general. This study failed to point out all the attributes of stakeholder involvement as it left out stakeholder monitoring and stakeholder feedback, which were addressed by the current study. The current study further examined alcohol manufacturing entities in Kenya.

Sandada et al. (2019) reviewed the influence of organizational planning on the efficiency of small and medium enterprises in the United States. The study was examined using Pearson correlation analysis and simple linear regression analysis. The study used primary data, employing a questionnaire as a tool for data collection. The study found a positive and significant influence of stakeholder planning on the performance of small and medium enterprises. Because it omitted stakeholder monitoring and stakeholder feedback, which the current study addressed, this study was unable to highlight all the characteristics of stakeholder involvement. The current study further examined alcohol manufacturing entities in Kenya.

The key components of mission, vision, and organizational goals had a significant positive impact on performance, according to a study by French et al. (2004) on the impact of strategic planning on the organizational performance of small professional service firms in Australia. Because it omitted stakeholder monitoring and stakeholder feedback, which the current study addressed, this study was unable to highlight all the characteristics of stakeholder involvement. The current study further examined alcohol manufacturing entities in Kenya.

A study by Heravi et al. (2015) on the influence of project planning on service delivery among 200 companies found planning to have a significant positive effect on the performance of an entity. Because it omitted stakeholder monitoring and stakeholder feedback, which the current study addressed, this study was unable to highlight all the characteristics of stakeholder involvement. The current study further examined alcohol manufacturing entities in Kenya.

Stakeholder planning had a significant positive impact on performance, according to a study by Skokan et al. (2013) on strategic planning and business performance of small and medium enterprises (SMEs) in the Slovak Republic. Because it omitted stakeholder monitoring and stakeholder feedback, which the current study addressed, this study was unable to highlight all the characteristics of stakeholder involvement. The current study further examined alcohol manufacturing entities in Kenya.

A study in Jordan by Aldehayyat and Twaissi (2021) on the influence of stakeholder impact on corporate governance found a strong positive and significant influence of strategic planning on corporate performance. Because it omitted stakeholder monitoring and stakeholder feedback, which the current study addressed, this study was unable to highlight all the characteristics of stakeholder involvement. The current study further examined alcohol manufacturing entities in Kenya.



III. METHODOLOGY

Conducted at East Africa Breweries Limited (EABL) head office along Thika Road, Kenya Wine Agency Limited (KWAL) head office in Industrial area Nairobi County and Keroche Breweries head office in Naivasha, Nakuru County. The three manufactures firms deal with branded beer, spirits, and non-alcoholic beverages distributed across the country. The study area is accessible to the researcher, and this facilitates easy research process mainly data collection.

A descriptive cross sectional research design was used. Orodho (2003) asserts that descriptive cross sectional research design gives a broader picture of subjects under investigation. It suited the study on basis of cross examination of study variables under descriptive approach.

Basing on population size the $n = N/1+N (e)^2$ formulae was suitable (Yamane, 1967). This yielded a sample of 241 from 608 targeted employees in departments, sections across three selected manufacturing firms.

Where:

n= sample units

N= Target units

e= Level of precision

$n = N/1+N (e)^2$

$n=280 / 1+608(0.05)^2$

$n=280 / 1+608 (0.0025)$

$n=241.26 (n=241)$

Econometric equation;

Model 1... $Y= \beta_0+\beta_1X_1+ \epsilon$

Where:

Y = Performance of Alcohol manufacturing companies

$\beta_0 = b_3$ coefficients estimates

X1 = Stakeholder participation Planning

IV. RESULTS & DISCUSSIONS

4.1 Descriptive Statistics

Stakeholder Participation on planning and Organization Performance of Alcohol Manufacturing firms were ascertained. On regard to this those who Strongly Disagree gave numerical value of 1, disagree by 2, uncertain by 3, agree by 4 and strongly agree by 5.

Table 1

Stakeholder Participation in Planning and Performance of Alcohol manufacturing firms

Response	5	4	3	2	1	Mean value	Std. Dev
(i) Our firm values knowledge sharing which has enabled us develops skills and increase value and sustain our competitive advantage credit recovery.	32 (16.0)	100 (50)	62 (31.0)	4 (2.0)	2 (1.0)	3.41	0.89
(ii) Our stakeholders often participate at the approvals stages of business leading to customer satisfaction	24 (12)	104 (52)	64 (32)	4 (2)	4 (2)	3.68	0.80
(iii) Our two-way communication system has enhanced stakeholder's participation in planning leading to increase in quality of service	36 (18)	118 (59)	32 (16)	10 (5)	4 (2)	3.85	0.83
N=200							

Results show that 50% of stakeholders agreed that alcohol firms valued knowledge sharing, which has enabled them to develop skills, increase value, and sustain their competitive advantage, while 31% were uncertain. Implication: knowledge sharing has assisted effective organization performance (3.41 as a mean value). A total of (52% agree) and (12%) strongly agree that stakeholders often participate at the approval stages of business, leading to



customer satisfaction. A total of 32% of stakeholders were undecided on stakeholder participation. When asked whether a two-way communication system had enhanced stakeholder participation in planning, leading to an increase in quality of service, 59% agreed, 18% were uncertain, 5% disagreed, and 16% strongly agreed. The average mean for stakeholder participation was 3.68. The findings agree with George et al. (2019), who gave positive and significant results whereby stakeholder involvement in planning led to organizational performance. It further agrees with Sandada et al. (2019), who found a positive and significant influence of stakeholder planning on the performance of small and medium enterprises. Kelly and Harrison (2018), who found that mission, vision, and organizational goals had a significant positive effect on performance. This study's agreement was attributed to the use of similar variables and respondents. The study aligns with stakeholder theory, which shows that within an organization, stakeholders contribute to organizational growth (Petrenko et al., 2016).

Furthermore, responses on organization Performance of alcohol manufacturing firms were ascertained. On regard to this those who Strongly Disagree gave numerical value of 1, disagree by 2, uncertain by 3, agree by 4 and strongly agree by 5.

Table 2
Performance of Alcohol Manufacturing Firms

Statement	5	4	3	2	1	Mean	Std. Dev.
1 Increase in customer satisfaction was observed in our company	64 (32)	94 (47)	62 (13)	8 (4)	8 (4)	3.96	1.01
2 We have maintained quality of service	96 (48)	74 (37)	16 (8)	6 (3)	8 (4)	4.22	1.02
3 Our company has been able to increase efficiency	40 (20)	74 (37)	40 (20)	14 (12)	22 (11)	3.40	1.26
Average Mean	200					3.86	

N=200

As shown in Table 2, 47% of stakeholders agreed and 32% strongly agreed that there is an increase in customer satisfaction in their companies, while 37% agreed and 48% strongly agreed that they have maintained quality of service. A mean of 4.22 indicated that they had maintained quality service. These findings agree with a study by Kotler and Keller (2016), who point out that customer satisfaction is an indicator of organizational performance.

Further, 37% of stakeholders were in agreement, and 20% gave strong agreement that the company had been able to increase efficiency. Furthermore, 20% were uncertain whether companies had increased efficiency. The average mean for organization performance was 3.86. The findings further align with the study by Saeidi et al. (2015), which points out that some of the indicators of organizational performance are efficiency and effectiveness. The findings also agree with Singh et al. (2016), who show that quality of service affects organizational performance. These findings show that there was a high level of performance among alcohol manufacturing firms.

4.2 Inferential Statistics

4.2.1 Correlation Matrix

The results in Table 3 below showed non multicollinearity capital adequacy requirement as value were less than 0.9 thus 0.651. It implies that there was no multi-collinearity among independent variables. The significance level for stakeholder participation in planning and Organization Performance was (0.000).

Table 3
Correlation Matrix

		SPP	OP
SPP: Stakeholder participation in planning	Corr Pearson	1	0.651**
	Significance. (2-t)		.000
	N value	200	200
OP: Organization Performance	Corr Pearson	0.651**	1
	Significance. (2-t)	.000	
	N value	200	200



4.2.2 Regression Analysis

Linear regression results in Table 4 show that stakeholder participation significantly influences organizational performance in alcohol manufacturing companies; $R^2 = 0.423$, $F = 42.3$, $p < 0.05$ significant level. This implies that stakeholder participation accounts for 42.3% of the change in organizational performance. The unstandardized coefficient for stakeholder participation was $\beta = -0.766$. This indicates a unit increase in stakeholder participation led to a 0.766 unit decrease in organization performance in alcohol manufacturing companies. The fitted regression model was:

$$Y = 0.852 - 0.766 X_1,$$

Where: Y = Performance of Alcohol manufacturing companies

X_1 = Stakeholder Participation

Table 4

Linear Regression Results; Stakeholder Participation and Performance of Alcohol manufacturing firms

Summary Model						
Model	R value	R Sq value	AdjR Sq	Std. Err		
1	.651 ^a	.423	.414	.4811609		
a. Independent variable: (Cons), Stakeholder Participation						
Analysis of Variance ^a						
Model		Sum Squares	Dif	Sq Mean	F value	Signif
1	Value for Regression	11.209	1	11.209	48.415	.000 ^b
	Value for Residual	15.280	298	.232		
	Total	26.489	299			
a. Dependent Variable: Organization Performance						
b. Independent variable: (Const), Stakeholder Participation						
Coeff ^a						
Model		Coeff Unstandardized		Coeff Standardized	T value	Signif.
		B	Std. Error	Beta		
1	(Const)	.852	.368		2.317	.024
	Stakeholder Participation	-.766	.110	-.651	-6.958	.000
a. Dependent Variable: Organization Performance						

Based on the findings as presented in Table 4, hypothesis one (H01) stated that stakeholder participation in planning had no significant effect on organizational performance in Kenya. It was rejected because the results show stakeholder participation is significantly related to the performance of Kenyan alcohol manufacturing entities ($t = -6.958$, $p < 0.005$). The findings agree with George, Walker, and Monster (2019), who show that stakeholder involvement in planning has significant effects on organizational performance. It further agrees with Sandada et al. (2019), who found a significant influence of stakeholder planning on the performance of SMEs. This study is in line with Kelly and Harrison (2018) who found that mission, vision, and organizational goals had a significant positive effect on performance.

CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The findings show that stakeholder participation had a statistically significant effect on organizational performance in selected alcohol manufacturing companies ($t = -6.958$, $p < 0.005$). Frequent engagement in the work activities of selected alcohol manufacturing companies has improved performance. Based on these findings, the study concludes that stakeholder participation in company affairs leads to improved performance in an entity.

5.2 Recommendations

The study findings have shown that stakeholder participation enhances the performance of manufacturing firms, and hence there is a need for frequent engagement at work by the firm management to enhance performance. The study



findings highlight the importance of stakeholder feedback, and hence it is important for firms to communicate back their issues for easier problem solving.

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